

Technical Hoses & Connection Systems





Masterflex

- your partner for High-Tech Hose Systems

Five good reasons for choosing Masterflex

About MASTERFLEX

As a globally operating corporate group, Masterflex specialises in solving complex connection challenges. We can now boast over 25 years worth of experience in the development, manufacturing and processing of high-tech spiral hoses. Our in-depth material and technological expertise helps us turn the most sophisticated high performance plastics into real products, which set international standards. Our core values determine our work philosophy and connect us directly with the whole group.

Masterflex Group - Connecting Values

1

What makes us special

Customized hose solutions or products from stock? Whatever you require, we have the right products for your application. We solve connection tasks using high-tech plastics and technically sophisticated fabrics. Here lies our expertise and our passion. We offer added value for our customers with our many years of experience in the field of polymer materials, technically sophisticated fabrics and their processing. From the first on-site consultation and the status analysis through to the development and production of the suitable products - we're there to support you throughout the whole process with our innovative complete solutions.

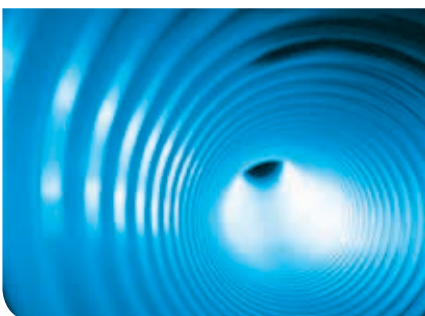
Custom-made and all from one supplier.

2

Why you can always count on us

You can always rely on the constantly high quality of our products. Our products meet even the most stringent of national and international standards. This is a basic demand we place on ourselves. Whether heat, cold, extreme conditions or exposure to chemicals, our products prove themselves through their incredible durability and the long-lasting safety they bring. No matter how good our products are now, we are always working on newer and better ones for the future.

Your satisfaction is our greatest success.





3

We make it possible for you

We are as flexible as the very materials we use. We tackle any challenge, because extraordinary tasks require extraordinary solutions. And that's exactly what we offer. With our in-depth specialist know-how, we develop customized product solutions for your specific application situation. You need a product quickly, require an unusual combination of materials or a delivery "just in time"? With our quick reactions and delivery times, we're the perfect partner for you:

Because in our business, reliable connections mean much more.

4

We're there where you need us

We develop sophisticated and customized products with greater customer benefits. For this reason, our highly experienced sales team is spread worldwide, nearer to wherever you need us. As a fundamentally strong development partner, we have our eye on the market and develop cutting-edge solutions for your specific tasks. At all of our locations throughout the world, our products are manufactured with our renowned German Engineering. This guarantees high quality, short distances, quick reaction times and the direct connection to you, the customer.

Consultation-oriented, individual, fast and with great expertise
- that makes the difference!

5

Quality, which speaks for itself

Visionary ideas drive us forwards and are the source of our own product developments and innovations. Our creations are produced with renowned German Engineering expertise. Our Engineering, Sales and Production Teams work seamlessly to provide you with the best results. This guarantees international quality standards, worldwide. Whatever we do, we always take great care of the environment. Resource-conserving processes and sustainability are our contribution to the environment.

Products & Services from Masterflex
- we create values ... and connect them!

Definition: Hoses

Flexible, pipe-shaped connections for transporting solid, liquid or gaseous media.

Hose Construction Designs

Hoses/Ducting with Clip Profile Spiral

All Master-Clip hoses belong in this category, as well as the hose types Carflex 200 and Carflex 300.

Construction

Robust, tension-resistant connection of the inner hose material and the outer profile helix using the special "Clip" method.

Advantages

This method offers an extremely wide range of options for the universal processing and combination of almost any hose materials.

- External wear protection via outer clip-profile helix (Clip)
- Excellent flexibility
- Smallest bending radius
- Extremely compressible (depending on size)
- Installation-friendly thanks to the patented "Clip-Grip" special hose clamps
- Almost any production diameter possible from DN 38 - DN 2000

Profile-Extruded Hoses

This construction design includes all Master-PUR, Master-PVC L, Master-PVC H, Master-PE L-EL and Master-SANTO hoses, as well as the hose types Streetmaster, Cargoflex, Polderflex PUR, Inline and Flamex B se.

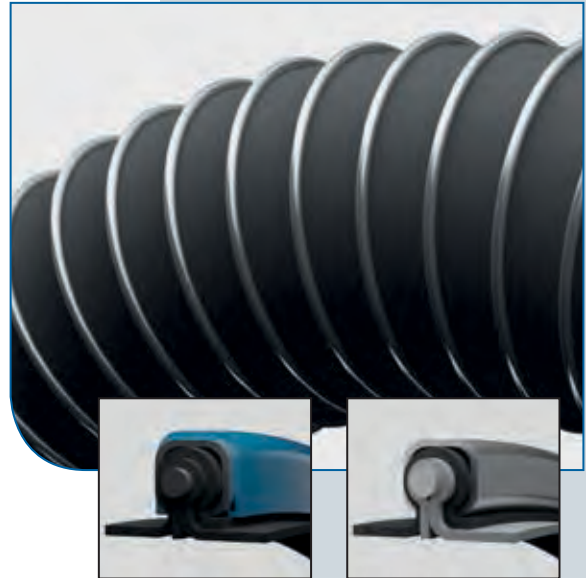
Construction

Extruded plastic profile with a moulded twist and dislocation-proof spring steel wire.

Advantages

Production variations available from lightweight and highly flexible through to heavy duty and extremely vacuum-proof.

- spiral-shaped with welded overlaps
- continuous, symmetrical folding due to robust connection between plastic and spring steel wire
- aerodynamically efficient due to smooth inner lining
- wide range of processing options available for almost all thermo-plastic materials
- production diameters available (dep. on hose type) from DN 13 - DN 500





Film/Foil/Fabric Hoses with Embedded Helix

This construction design is applied for the Flamex B-F se, Master-PUR L-F Food and Master-PE L-F EL hose types.

Construction

Strips of film, foil or fabric – spiral-shaped with welded overlaps and an embedded profile made from spring steel wire.

Advantages

Variable production options for spiral hoses made from a wide range of materials including strips of film, foil or fabric.

- highly flexible
- smallest bending radius
- cost-efficient stock management and reduced transport costs thanks to compressed size with net packaging
- production diameters available (dep. on hose type) from DN 32 - DN 450



Film/Foil/Fabric Hoses with External Helix

This method includes the hose types Carflex Super, Master-PUR STEP, Master-PUR STEP MHR and Master-SANTO SL.

Construction

Strips of film, foil or fabric – spiral-shaped with welded overlaps and an external profile made from plastic or plastic-coated spring steel wire.

Advantages

Variable production options for spiral hoses made from a wide range of materials including strips of film, foil or fabric.

- highly flexible
- smallest bending radius
- production diameters available (dep. on hose type) from DN 32 - DN 450



Spiral Hoses with Seamless Plastic Outer Coating

This method includes all Miniflex hose types.

Construction

Strips of film, foil or fabric – spiral-shaped with welded overlaps and an external profile made from plastic or plastic-coated spring steel wire.

Advantages

- seamless outer hose coating
- extremely flexible
- smallest bending radius
- production diameters available from DN 7 - DN 50

Single/Multi-Layered Spiral Hoses made from Vulcanised Fabric Strips

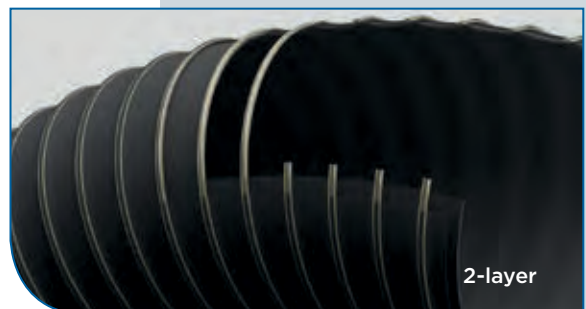
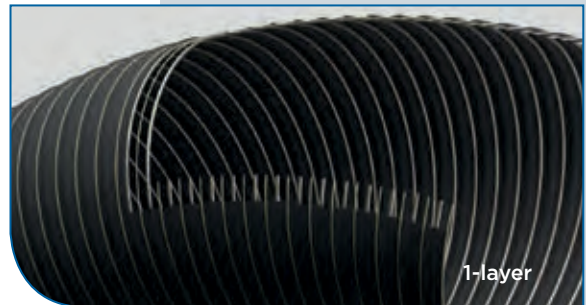
This construction design encompasses the hose types Master-NEO 1, Master-NEO 2, Master-SIL 1, Master-SIL 2, Master-SIL HD-Food and Master-SIL SD-Food.

Construction

Vulcanised fabric strips wound with overlaps onto an inner, free-floating or embedded helix made from spring steel wire and an additional external fibreglass fixation for the hose types NEO 1/2 and SIL 1/2.

Advantages

- smooth inner lining
- flexible
- small bending radius
- good pressure-resistance
- production diameters available from DN 13 bis DN 305



templine® Heated Hoses

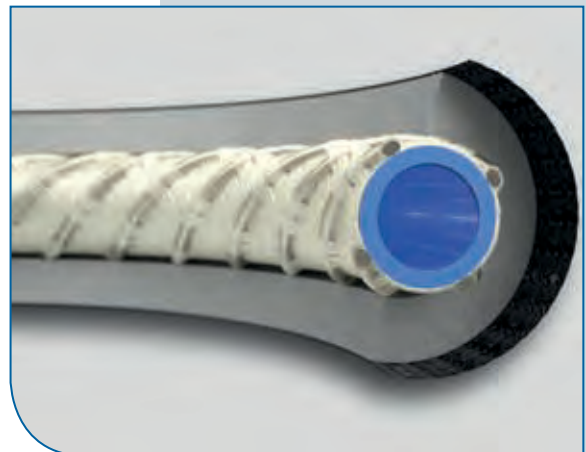
Hose with electrical heating for constant and consistent heat distribution over the entire hose surface.

Construction

Inner media hose made from polyamide or PTFE. Braided temperature-resistant material covering the entire hose surface. Four integrated (braided and set) heating cables made from different alloys with varying conductor resistances.

Advantages

- consistent heat supply to the transport media with minimal temperature deviation
- optimum protection of temperature-sensitive liquids, dusts, gases and granules
- greater energy efficiency – significantly reduced power consumption in comparison to conventional systems (up to 30 %)
- highly flexible and permanently twistable in all directions (360°) without any reduction in heat distribution



Contents

		Page
1	Abrasion-Resistant Suction & Transport PU Hoses / Hardly Inflammable Hoses	12
2	Suction & Transport Hoses made from PVC/EVA	48
3	Microbe & Hydrolysis-Resistant Hoses	64
4	Food & Pharmaceutical Hoses	80
5	Permanently antistatic & Electroconductive Hoses	112
6	Klimaschläuche, Lüftungsschläuche und Schweißbrauchschläuche	144
7	Exhaust Gas Hoses	162
8	Temperature-Resistant Hoses up to 1.100 °C	182
9	Chemical-Resistant Hoses	228
10	Pneumatic Tubing	258
11	Electrically Heated Hoses (templine®)	266
12	PU-Lined Pipes & Pipe-Bends	280
13	Installation & Connections Clamps	288
14	Installation & Connections Plastic Connectors	312
15	Installation & Connections Metal Connectors	354
16	Technical Appendix	390

Product Overview

Page

1	Abrasion-Resistant Suction & Transport PU Hoses / Hardly Inflammable Hoses	12
	Flamex B-F se	14
	Flamex B-F se for machining centers	16
	Flamex B se	18
	Master-PUR L-F Trivolution	20
	Master-PUR L Trivolution	22
	Master-PUR H Trivolution	24
	Master-PUR HÜ Trivolution	26
	Master-PUR HÜ-S Trivolution	28
	Master-PUR HX Trivolution	30
	Master-PUR HX-S	32
	Master-PUR Performance	34
	Cargoflex	36
	Master-PUR Inline	38
	Polderflex PUR	40
	Master-PUR Flat H Food	42
	Master-PUR STEP	44
Miniflex PU	46	
2	Suction & Transport Hoses made from PVC/EVA	48
	Master-PVC L-F	50
	Master PVC-L	52
	Master-PVC H-F	54
	Master-PVC H	56
	Master-PVC Flex	58
	Master-VAC	60
	Polderflex	62
3	Microbe & Hydrolysis-Resistant Hoses	64
	Master-PUR L Trivolution	66
	Master-PUR STEP MHR	68
	Master-PUR L-MHR	70
	Master-PUR H-MHR	72
	Streetmaster GKS	74
	Streetmaster KKS	76
	Streetmaster GLG	78
4	Food & Pharmaceutical Hoses	80
	Master-PUR L-F Food	82
	Master-PUR L-F Food A	84
	Master-PUR L Food	86
	Master-PUR L Food A	88
	Master-PUR L Food A Multi	90
	Master-PUR H Food	92
	Master-PUR H Food A	94
	Master-PUR H Food A Multi	96
	Master-PUR HX Food	98
	Master-PUR HX Food A	100
	Master-PUR HX Food A Multi	102
	Polderflex PUR Food	104
	Polderflex PUR Food A	106
	Master-PUR Flat H Food	108
Master-SIL SD Food	110	

Product Overview

Page

5	Permanently antistatic & Electroconductive Hoses	1112
	Master-PUR L-MHR A	114
	Master-PUR H-MHR A	116
	Master-PUR L-EL	118
	Master-PUR H-EL	120
	Master-PUR HX-EL	122
	Master-PE L-F EL	124
	Master-PE L-EL	126
	Master-PVC L-F EL	128
	Master-Clip VINYL EL	130
	Master-Clip VITON EL	132
	Master-Clip PTFE EL	134
	Master-Clip PTFE H-EL	136
	Master-Clip PTFE S-EL	138
	Master-VAC EL	140
	Master-PUR L Trivolution	142
	6	Air-conditioning, Ventilation & Welding Fumes Hoses
Master-Clip VINYL		146
Master-Clip VINYL B		148
Master-Clip PE		150
Master-Clip PUR		152
Master-Clip PUR-S		154
Master-Clip SPARK		156
Master-Clip SPARK XL		158
Master-VENT 2		160
7	Exhaust Gas Hoses	162
	Carflex Super	164
	Carflex 200	166
	Carflex 300	168
	Master-Clip HT 300	170
	Master-Clip CAR	172
	Master-Clip ISO-CAR	174
	Master-Clip HT 450	176
	Master-Clip HT 650	178
	Master-Clip HT 1100	180
8	Temperature-Resistant Hoses up to 1.100 °C	182
	Master-Clip NEOPRENE	184
	Master-SANTO SL	186
	Master-SANTO L	188
	Master-SANTO H	190
	Master-NEO 1	192
	Master-NEO 2	194
	Master-Clip HYPALON	196
	Master-Clip VITON	198
	Master-SIL 1	200
	Master-SIL 2	202
	Master-Clip SILICON	204
	Master-Clip ISO-SILICON	206
	Master-Clip HT 300	208
Master-Clip CAR	210	

Product Overview

		Page
	Master-Clip ISO-CAR	212
	Master-Clip HT 400	214
	Master-Clip KAPTON®	216
	Master-Clip HT 450	218
	Master-Clip HT 500	220
	Master-Clip HTP 500	222
	Master-Clip HT 650	224
	Master-Clip HT 1100	226
9	Chemical-Resistant Hoses	228
	Master-PE L-F EL	230
	Master-PE L-EL	232
	Master-Clip VINYL EL	234
	Master-Clip NEOPRENE	236
	Master-Clip HYPALON	238
	Master-Clip VITON	240
	Master-Clip VITON EL	242
	Master-Clip PTFE	244
	Master-Clip PTFE EL	246
	Master-Clip PTFE H	248
	Master-Clip PTFE H-EL	250
	Master-Clip PTFE S	252
	Master-Clip PTFE S-EL	254
	Master-Clip KAPTON®	256
10	Pneumatic Tubing	258
	Polyethylene pneumatic tubing-low density	260
	Polyurethane pneumatic tubing Shore 98 A	262
	Nylon 11/12 soft pneumatic tubing	264
11	Electrically Heated Hoses (templine®)	266
	templine®-A	268
	templine®-R	270
	templine®-B	272
	templine®-F	274
	templine®-H	276
	templine®-A/-R/-B VARIO	278
12	PU-Lined Pipes & Pipe-Bends	280
	Master-PROTECT Pipe-Bend	282
	Master-PROTECT Pipe	284
	Master-PROTECT Assembly Set	286
13	Installation & Connections Clamps	288
	Clip-Grip Hose Clamp, screwable	290
	Clip-Grip Quick-Fix Clamp	292
	Master-Grip Hose Clamp, screwable	294
	Master-Grip Quick-Fix Clamp	296
	Car-Grip Hose Clamp, screwable	298
	Car-Grip Quick-Fix Clamp	300
	Hose Clamp with Worm-Gear	302
	Hose Clamp with Bolts	304
	Master-Grip Double Wire Clamp, screw-fitting	306
	Quick-Fix Clamp for Cone Flanges	308
	Combiflex Clamp Connection Hinged Clamp	310

Product Overview

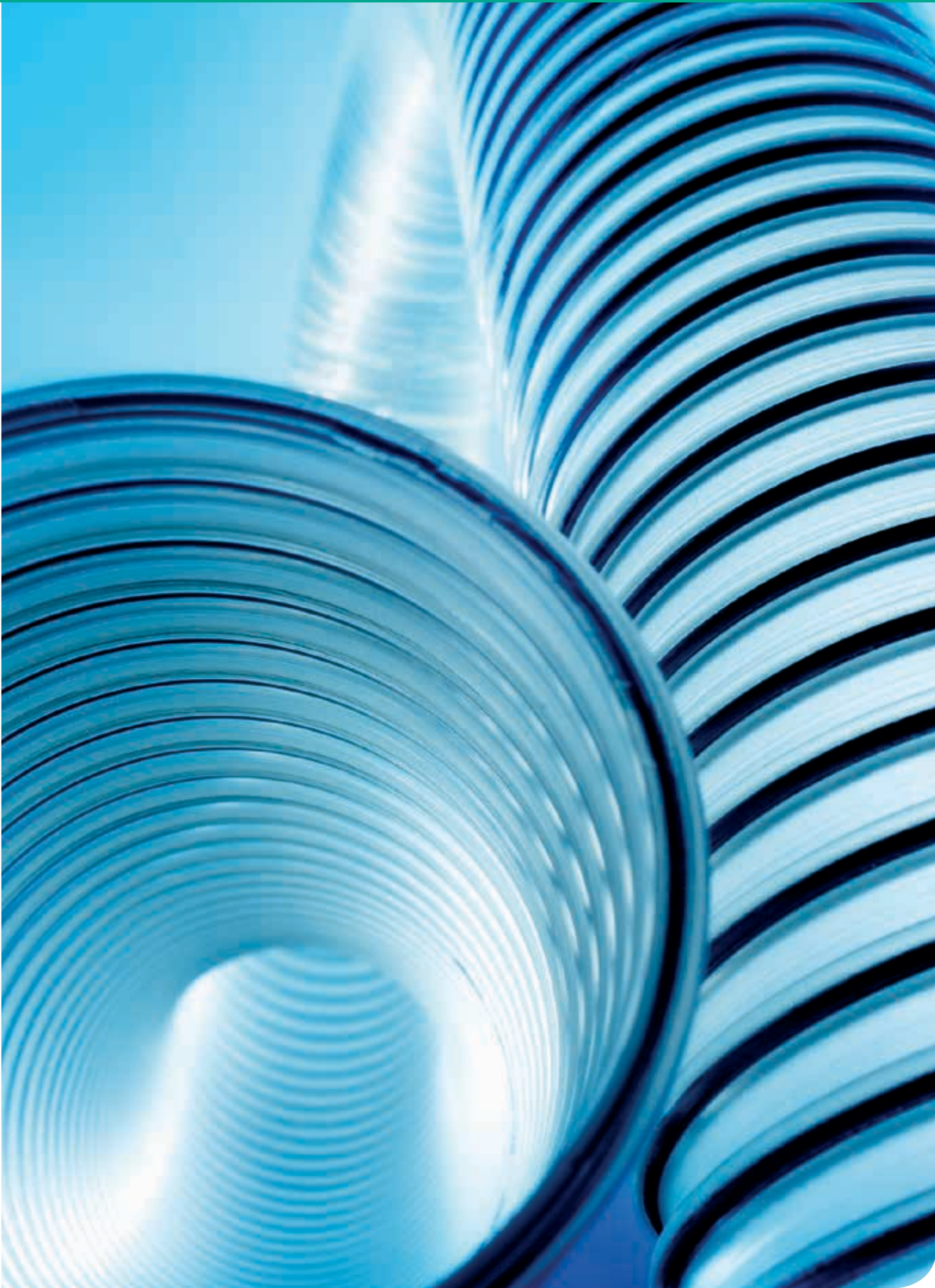
Page

14	Installation & Connections Plastic Connectors	312
	Combiflex PU Cone Flange	314
	Combiflex PU Cone Flange Food	318
	Combiflex PU Fixed Flange	320
	Combiflex Cast-on PU Fixed Flange	322
	Combiflex PU Fixed Flange Food	324
	Combiflex PU Swivel Flange	326
	Combiflex Cast-on PU Swivel Flange	328
	Combiflex PU Swivel Flange Food	330
	Combiflex PU Threaded Sockets	332
	Combiflex PU Threaded Sockets Food	334
	Streetmaster Cuff	336
	PU Screw Cuff EL	338
	Combiflex PU Cuff	340
	Combiflex PU Cuff V	342
	Combiflex PU Hose Connector	344
	Cuff for Master-PVC-Flex	346
	Cuff for Master-VAC	348
	PU Hose Sleeve	350
	Heat Shrink Cuff	352
15	Installation & Connections Metal Connectors	352
	Cone Flange with Metal Sockets	356
	Cone Flange with Metal Sockets	358
	Cast-on Cone Flange	360
	Cast-on Cone Flange	362
	Quick-Fix Clamp for Cone Flanges	364
	Combiflex Metal Threaded Sockets	366
	Combiflex Clamp Connection Clamps	368
	Combiflex Clamp Connection Hinged Clamp	370
	Combiflex Clamp Ring Seal	372
	Combiflex VA Threaded Sockets Food	374
	Combiflex Dairy Fitting Threaded Hose Sockets	376
	Combiflex Dairy Fitting Cone Sockets	378
	Combiflex Dairy Fitting Ring Seal	380
	Clamp Collars, screwed	382
	PU Hose Sleeve	384
	Hose Connector	386
	Hose Reducer, symmetrical	388



Abrasion-Resistant Suction & Transport Hoses made from PU / Hardly Inflammable Hoses

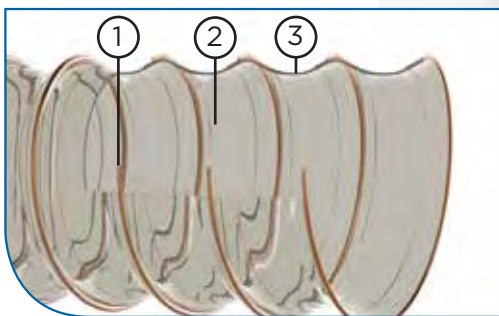
Suction and transport hoses made from polyurethane, especially suitable for transporting abrasive media and applications in the wood-working industry, excellent durability



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Flamex B-F se

PU Foil Hose, highly flexible and compressible, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- hardly inflammable transport hose for abrasive solids
- wood processing machines
- shavings extractions in wood processing
- protective hose against mechanical wear

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- acc. to requirements of the Holz-BG standard, BGI 739-2
- symmetrical fold behaviour
- extremely compressible to approx. 1:4
- highly flexible
- very light
- permanently kink resistant
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.
- acc. to DIN 26057 type I

Temperature Range

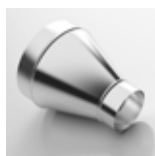
- -40°C to +90°C
- peaks to +125°C



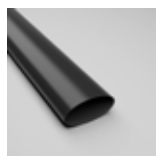
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
40	0,82	0,24	20	46	0,26	310-040-601	25
45	0,8	0,22	22	51	0,28	310-045-601	25
50	0,79	0,21	24	56	0,31	310-050-601	25
51	0,78	0,2	25	57	0,32	310-051-601	25
60	0,76	0,19	35	68	0,37	310-060-601	25
63	0,72	0,17	37	71	0,39	310-063-601	25
65	0,68	0,16	38	73	0,4	310-065-601	25
70	0,61	0,16	40	78	0,43	310-070-601	25
75	0,61	0,15	42	82	0,5	310-075-601	25
76	0,61	0,13	43	83	0,52	310-076-601	25
80	0,53	0,13	45	88	0,55	310-080-601	25
90	0,46	0,09	50	99	0,61	310-090-601	25
100	0,46	0,09	53	106	0,67	310-100-601	25
102	0,46	0,09	55	108	0,69	310-102-601	25
110	0,38	0,09	60	119	0,75	310-110-601	25
115	0,38	0,09	63	124	0,78	310-115-601	25
120	0,38	0,09	65	129	0,81	310-120-601	25
125	0,38	0,09	67	135	0,83	310-125-601	25
127	0,38	0,09	68	136	0,85	310-127-601	25
130	0,3	0,09	70	139	0,88	310-130-601	25
140	0,3	0,06	75	149	0,95	310-140-601	25
150	0,3	0,06	78	157	1,01	310-150-601	25
152	0,3	0,06	80	159	1,02	310-152-601	25
160	0,3	0,06	85	169	1,08	310-160-601	25
170	0,23	0,06	90	179	1,07	310-170-601	25
175	0,23	0,06	93	184	1,1	310-175-601	25
180	0,23	0,06	95	189	1,13	310-180-601	25
200	0,23	0,06	103	208	1,24	310-200-601	25
203	0,23	0,06	105	210	1,26	310-203-601	25
225	0,15	0,03	118	235	1,41	310-225-601	25
250	0,15	0,03	128	257	1,56	310-250-601	25
254	0,15	0,03	130	260	1,58	310-254-601	25
280	0,15	0,03	145	290	1,92	310-280-601	25
300	0,14	0,03	155	310	2,07	310-300-601	25
350	0,12	0,02	180	360	2,4	310-350-601	25
400	0,12	0,02	210	410	2,74	310-400-601	25

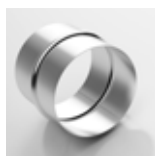
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 from DN 90 compressed and net-packed
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Heat-Shrink Cuff



Hose Connector



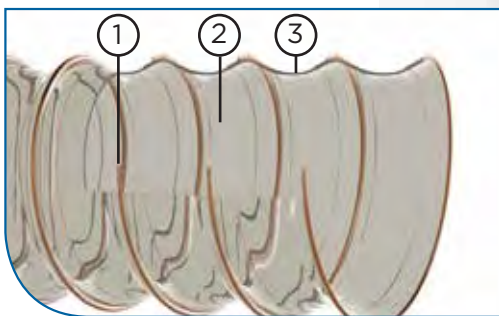
Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp

Flamex B-F se for machining centers

PU Foil Hose, highly flexible and compressible, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: reinforced spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- hardly inflammable transport hose for abrasive solids
- wood processing machines
- extractor units with greater suction performance
- protective hose against mechanical wear
- chip suction/extraction with CNC controlled processing machines

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- acc. to requirements of the Holz-BG standard, BGI 739-2
- symmetrical fold behaviour
- extremely compressible to approx. 1:4
- highly flexible
- permanently kink resistant
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

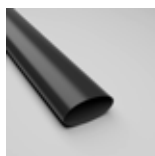
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
200	0,83	0,25	211	211	1,94	310-200-903	25
225	0,8	0,22	235	235	2,39	310-225-902	25
250	0,76	0,18	262	262	2,85	310-250-902	25
280	0,73	0,14	290	290	3,4	310-280-901	25
300	0,7	0,11	312	312	3,76	310-300-902	25
315	0,68	0,09	325	325	4,05	310-315-901	25
350	0,63	0,04	362	362	4,67	310-350-901	25
400	0,56	0,02	412	412	5,58	310-400-903	25

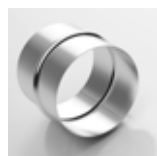
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Heat-Shrink Cuff



Hose Reducer, symmetrical



Hose Connector



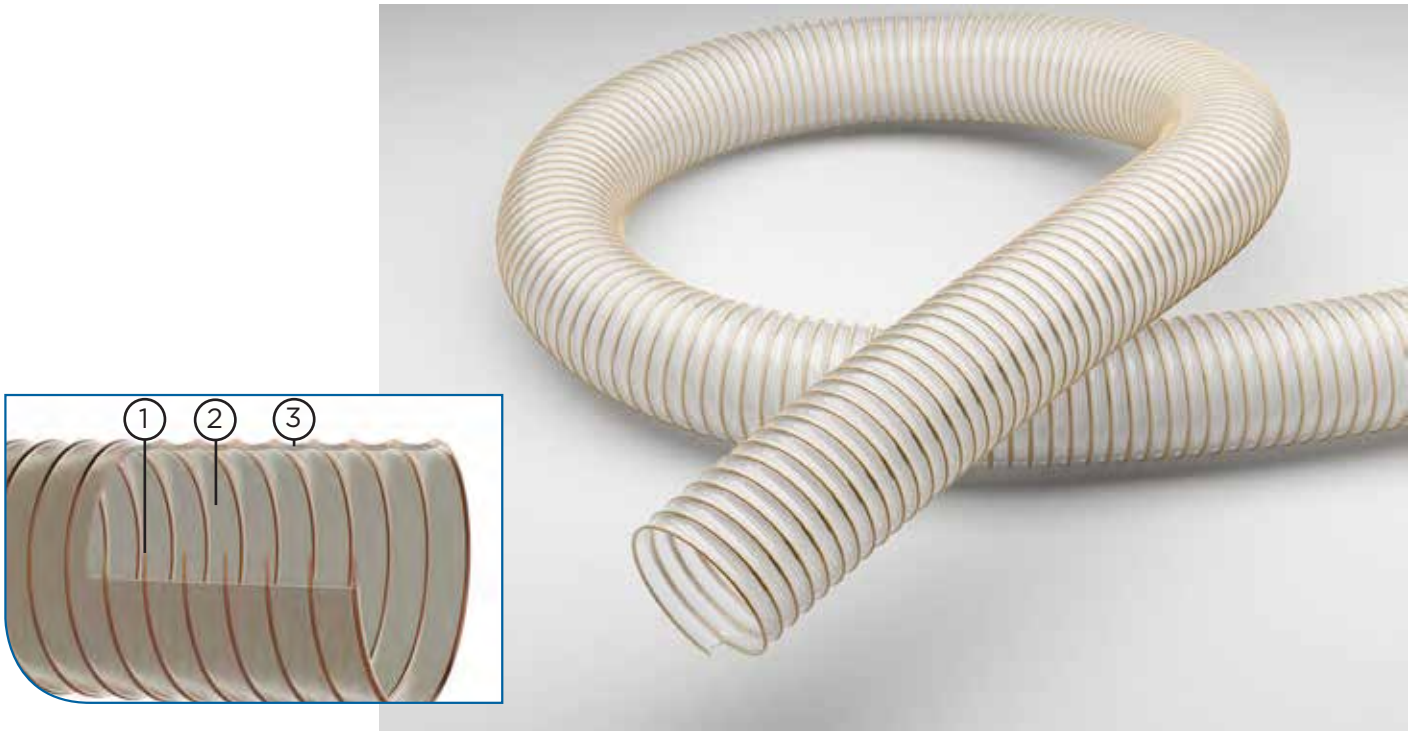
Master-Grip Quick-Fix Clamp



Master-Grip Hose Clamp, screwable

Flamex B se

PU Suction Hose & Transport Hose, lightweight and flexible, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane with flame-retardant additives (acc. to DIN ISO 4649 more abrasion-resistant than polyether polyurethane)
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- hardly inflammable transport hose for abrasive solids
- wood processing machines
- shavings extractions in wood processing
- protective hose against mechanical wear

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- acc. to requirements of the Holz-BG standard, BGI 739-2
- very light
- permanently kink resistant
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
40	1,89	0,46	48	48	0,3	120-040-601	25
50	1,59	0,39	58	57	0,37	120-050-601	25
51	1,51	0,36	58	58	0,38	120-051-601	25
60	1,26	0,31	68	68	0,5	120-060-601	25
63	1,2	0,28	71	71	0,52	120-063-601	25
65	1,13	0,26	73	73	0,54	120-065-601	25
70	1,01	0,26	78	78	0,58	120-070-601	25
75	1,01	0,21	84	83	0,61	120-075-601	25
76	0,94	0,21	85	85	0,62	120-076-601	25
80	0,88	0,21	88	88	0,65	120-080-601	25
90	0,76	0,15	99	99	0,8	120-090-601	25
100	0,76	0,15	110	108	0,94	120-100-601	25
102	0,71	0,15	111	111	0,95	120-102-601	25
110	0,63	0,15	119	119	0,97	120-110-601	25
115	0,63	0,15	124	124	0,98	120-115-601	25
120	0,63	0,15	129	129	1	120-120-601	25
125	0,63	0,15	135	134	1,07	120-125-601	25
127	0,59	0,15	137	137	1,08	120-127-601	25
130	0,5	0,15	139	139	1,14	120-130-601	25
140	0,5	0,1	149	149	1,21	120-140-601	25
150	0,5	0,1	161	159	1,27	120-150-601	25
152	0,5	0,1	162	162	1,3	120-152-601	25
160	0,5	0,1	170	169	1,42	120-160-601	25
170	0,38	0,1	180	179	1,56	120-170-601	25
175	0,38	0,1	185	184	1,63	120-175-601	25
180	0,38	0,1	190	189	1,7	120-180-601	25
200	0,38	0,1	210	210	1,98	120-200-601	25
203	0,36	0,09	213	213	2	120-203-601	25
225	0,25	0,05	235	235	2,18	120-225-601	25
250	0,25	0,05	260	260	2,33	120-250-601	25
254	0,25	0,05	264	264	2,36	120-254-601	25
275	0,25	0,05	284	285	2,47	120-275-601	25
280	0,25	0,05	290	290	2,6	120-280-601	25
300	0,23	0,05	310	310	3,2	120-300-601	20
315	0,23	0,05	325	325	3,32	120-315-601	20
325	0,23	0,05	335	335	3,4	120-325-601	20
350	0,12	0,05	360	360	3,6	120-350-601	20
400	0,12	0,05	410	411	4,45	120-400-601	20
450	0,12	0,05	460	461	5,06	120-450-601	20
500	0,12	0,04	510	511	5,7	120-500-601	20

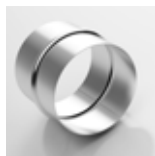
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



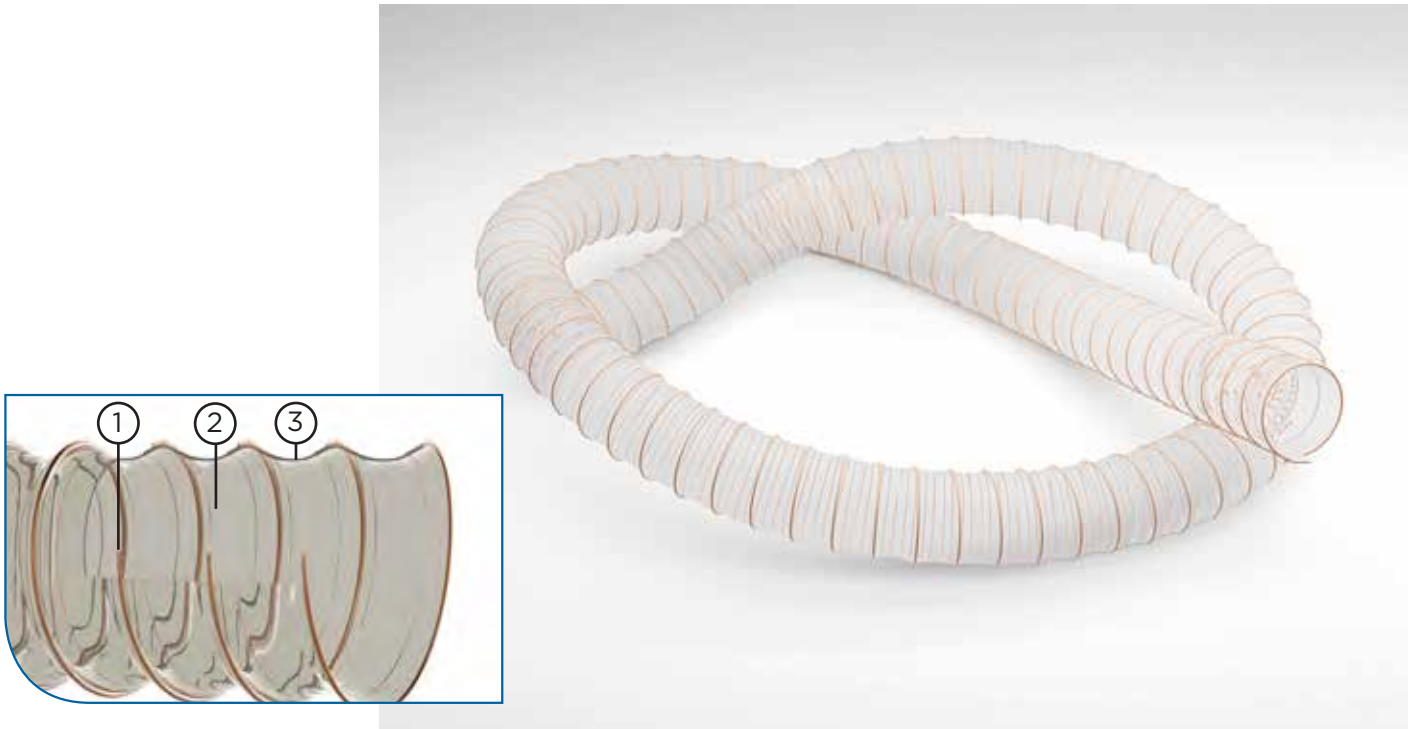
Hose Connector



Combiflex PU Threaded Socket

Master-PUR L-F Trivolution

PU Suction hose & Transport Hose, very light, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.4 - 0.5mm

Applications

- transport of fine-grained particles, such as dust and powder
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- ventilation
- oil mist extraction/suction
- wood dust extraction

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- extremely compressible to approx. 1:5
- microbe-resistant
- symmetrical fold behaviour
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- highly flexible
- very light
- permanently kink resistant
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- smallest bending radii
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type I

Temperature Range

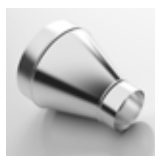
- -40°C to +90°C
- peaks to +125°C



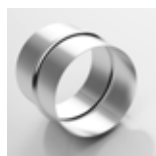
Stock lengths and technical data / www.masterflex.de/en

DN	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
40	0,19	22	45	0,15	305-040-101	25
45	0,18	24	50	0,16	305-045-101	25
50	0,16	25	55	0,18	305-050-101	25
51	0,16	26	56	0,18	305-051-101	25
60	0,15	30	65	0,21	305-060-101	25
63	0,14	32	68	0,22	305-063-101	25
65	0,13	33	70	0,23	305-065-101	25
70	0,13	35	75	0,28	305-070-101	25
75	0,11	37	80	0,3	305-075-101	25
76	0,1	38	81	0,3	305-076-101	25
80	0,1	40	85	0,32	305-080-101	25
90	0,07	45	95	0,35	305-090-101	25
100	0,07	50	105	0,4	305-100-101	25
102	0,07	51	107	0,41	305-102-101	25
110	0,07	55	115	0,44	305-110-101	25
115	0,07	57	120	0,46	305-115-101	25
120	0,07	60	125	0,48	305-120-101	25
125	0,07	63	130	0,49	305-125-101	25
127	0,07	64	132	0,5	305-127-101	25
130	0,07	65	135	0,52	305-130-101	25
140	0,05	70	145	0,55	305-140-101	25
150	0,05	75	155	0,59	305-150-101	25
152	0,05	76	157	0,6	305-152-101	25
160	0,05	80	165	0,69	305-160-101	25
170	0,05	85	175	0,73	305-170-101	25
175	0,05	87	180	0,75	305-175-101	25
180	0,05	90	185	0,77	305-180-101	25
200	0,05	100	205	0,92	305-200-101	25
203	0,05	102	208	0,94	305-203-101	25
250	0,05	125	255	1,11	305-250-101	25
254	0,02	127	259	1,12	305-254-101	25
275	0,02	138	282	1,22	305-275-101	25
280	0,02	140	285	1,22	305-280-101	25
305	0,02	153	310	1,34	305-305-101	25
315	0,02	158	320	1,38	305-315-101	/
325	0,02	163	330	1,42	305-325-101	25
350	0,02	175	355	1,53	305-350-101	25
400	0,02	200	405	1,74	305-400-101	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Hose Connector



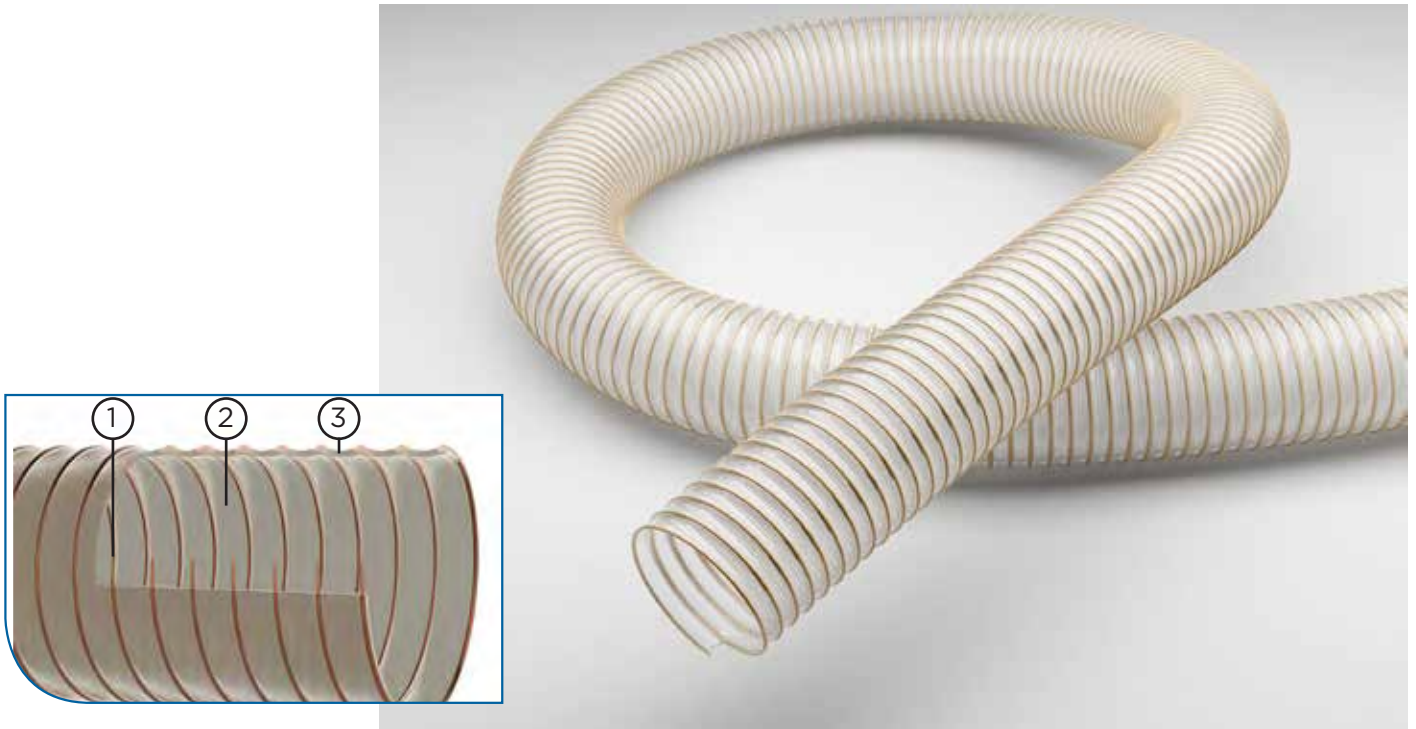
Master-Grip Quick-Fix Clamp



Master-Grip Hose Clamp, screwable

Master-PUR L Trivolution

PU Suction hose & Transport Hose, extremely flexible, light duty, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- granulate transport hose
- transport of fine-grained particles, such as dust and powder
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- microbe-resistant
- permanently antistatic, surface resistance < 10⁹ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- very good flexibility
- light
- halogen and plasticizer-free
- smallest bending radii
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
26	3,22	0,79	31	31	0,25	110-026-401	25
32	2,52	0,71	40	40	0,35	110-032-401	25
38	2,1	0,66	46	46	0,39	110-038-401	25
40	2,1	0,66	48	48	0,4	110-040-401	25
45	1,84	0,59	53	53	0,42	110-045-401	25
51	1,68	0,52	58	58	0,48	110-051-401	25
55	1,54	0,44	63	63	0,51	110-055-401	25
60	1,4	0,44	68	68	0,53	110-060-401	25
65	1,26	0,37	73	73	0,64	110-065-401	25
70	1,12	0,37	78	78	0,68	110-070-401	25
76	1,12	0,29	84	84	0,72	110-076-401	25
80	0,98	0,29	88	88	0,76	110-080-401	25
90	0,84	0,22	99	99	0,88	110-090-401	25
102	0,84	0,22	110	110	0,95	110-102-401	25
110	0,7	0,22	119	119	1,03	110-110-401	25
115	0,7	0,22	124	124	1,06	110-115-401	25
120	0,7	0,22	129	129	1,12	110-120-401	25
127	0,7	0,22	135	135	1,18	110-127-401	25
130	0,56	0,22	139	139	1,2	110-130-401	25
140	0,56	0,15	149	149	1,38	110-140-401	25
152	0,56	0,15	161	161	1,48	110-152-401	25
160	0,56	0,15	170	170	1,74	110-160-401	25
170	0,42	0,15	180	180	1,8	110-170-401	25
175	0,42	0,15	185	185	1,85	110-175-401	25
180	0,42	0,15	190	190	1,9	110-180-401	25
203	0,42	0,15	214	214	2,3	110-203-401	25
225	0,28	0,07	235	235	2,55	110-225-401	25
254	0,28	0,07	264	264	3,02	110-254-401	25
275	0,28	0,07	284	284	3,11	110-275-401	25
280	0,28	0,07	290	290	3,14	110-280-401	20
300	0,25	0,07	310	310	3,2	110-300-401	20
315	0,25	0,07	325	325	3,32	110-315-401	20
325	0,25	0,07	335	335	3,4	110-325-401	20
350	0,13	0,07	360	360	3,6	110-350-401	20
375	0,13	0,05	386	386	3,85	110-375-401	20
400	0,13	0,05	410	411	4,45	110-400-401	20
450	0,13	0,05	460	461	5,06	110-450-401	20
500	0,13	0,05	510	511	5,7	110-500-401	20

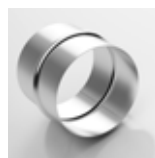
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



PU Cuff, electroconductive



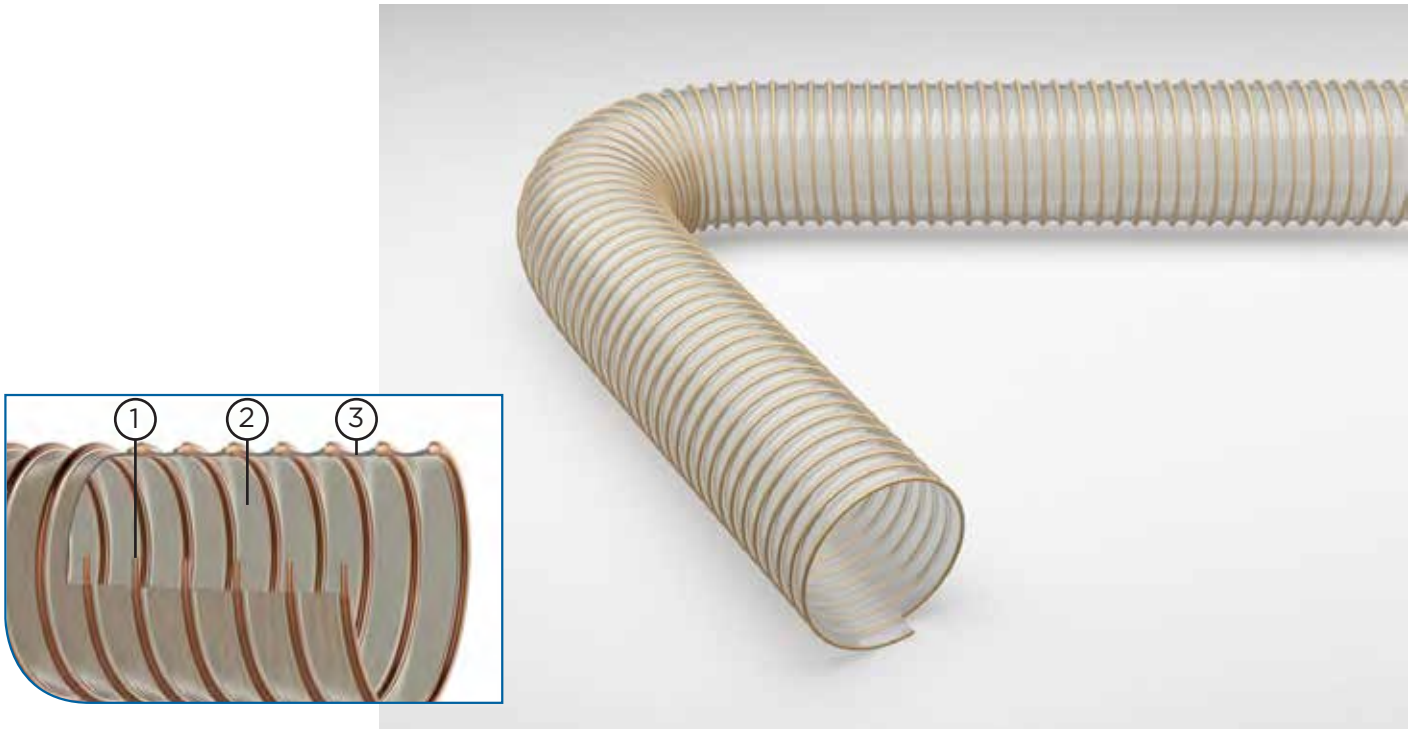
Combiflex PU Threaded Socket



Further connections available on request

Master-PUR H Trivolution

PU Suction hose & Transport Hose, very flexible, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- suction of coarse-grained media with high flow rate
- granulate transport hose
- for abrasive solids, gaseous and liquid media
- standard hose for industrial vacuum cleaners
- transport of chips/shavings
- oil mist extraction/suction
- suction and transport of paper fibres

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- small bending radii
- medium duty
- microbe-resistant
- good flexibility
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type III

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
13	4,7	0,92	38	19	0,15	111-013-401	25
16	4,5	0,92	40	22	0,2	111-016-401	25
20	4,3	0,92	43	26	0,22	111-020-401	25
26	4,16	0,92	47	33	0,29	111-026-401	25
32	3,25	0,92	60	41	0,39	111-032-401	25
38	3,12	0,82	69	47	0,46	111-038-401	25
40	3	0,82	72	49	0,49	111-040-401	25
45	2,95	0,81	80	55	0,55	111-045-401	25
51	2,9	0,82	87	61	0,71	111-051-401	25
55	2,75	0,76	95	65	0,77	111-055-401	25
60	2,55	0,74	102	70	0,84	111-060-401	25
65	2,4	0,66	112	75	0,91	111-065-401	25
70	2,25	0,66	117	80	0,97	111-070-401	25
76	2	0,59	126	87	1,06	111-076-401	25
80	2	0,59	132	91	1,11	111-080-401	25
90	1,65	0,52	149	101	1,25	111-090-401	25
102	1,5	0,44	165	112	1,48	111-102-401	25
110	1,35	0,46	179	121	1,61	111-110-401	25
115	1,35	0,31	186	126	1,68	111-115-401	25
120	1,3	0,31	194	131	1,75	111-120-401	25
127	1,3	0,31	203	138	1,91	111-127-401	25
130	1,3	0,31	209	141	1,96	111-130-401	25
140	1,05	0,26	224	151	2,11	111-140-401	25
152	1,05	0,26	242	163	2,29	111-152-401	25
160	0,9	0,25	255	171	2,51	111-160-401	25
170	0,9	0,18	270	181	2,67	111-170-401	25
175	0,9	0,18	278	186	2,74	111-175-401	25
180	0,75	0,18	285	191	2,82	111-180-401	25
203	0,75	0,18	321	215	3,5	111-203-401	25
225	0,6	0,12	353	237	3,65	111-225-401	25
254	0,58	0,12	396	267	3,91	111-254-401	25
275	0,45	0,12	426	288	4,22	111-275-401	25
280	0,45	0,12	435	293	4,3	111-280-401	25
300	0,45	0,12	465	313	4,94	111-300-401	20
315	0,45	0,12	488	328	5,19	111-315-401	20
325	0,45	0,12	503	338	5,35	111-325-401	20
350	0,45	0,12	540	363	6,96	111-350-401	20
375	0,3	0,07	580	388	7,45	111-375-401	20
400	0,3	0,07	615	413	7,95	111-400-401	20
450	0,3	0,07	690	463	8,94	111-450-401	20
500	0,3	0,07	765	513	9,93	111-500-401	20

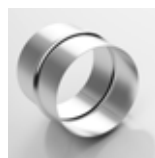
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



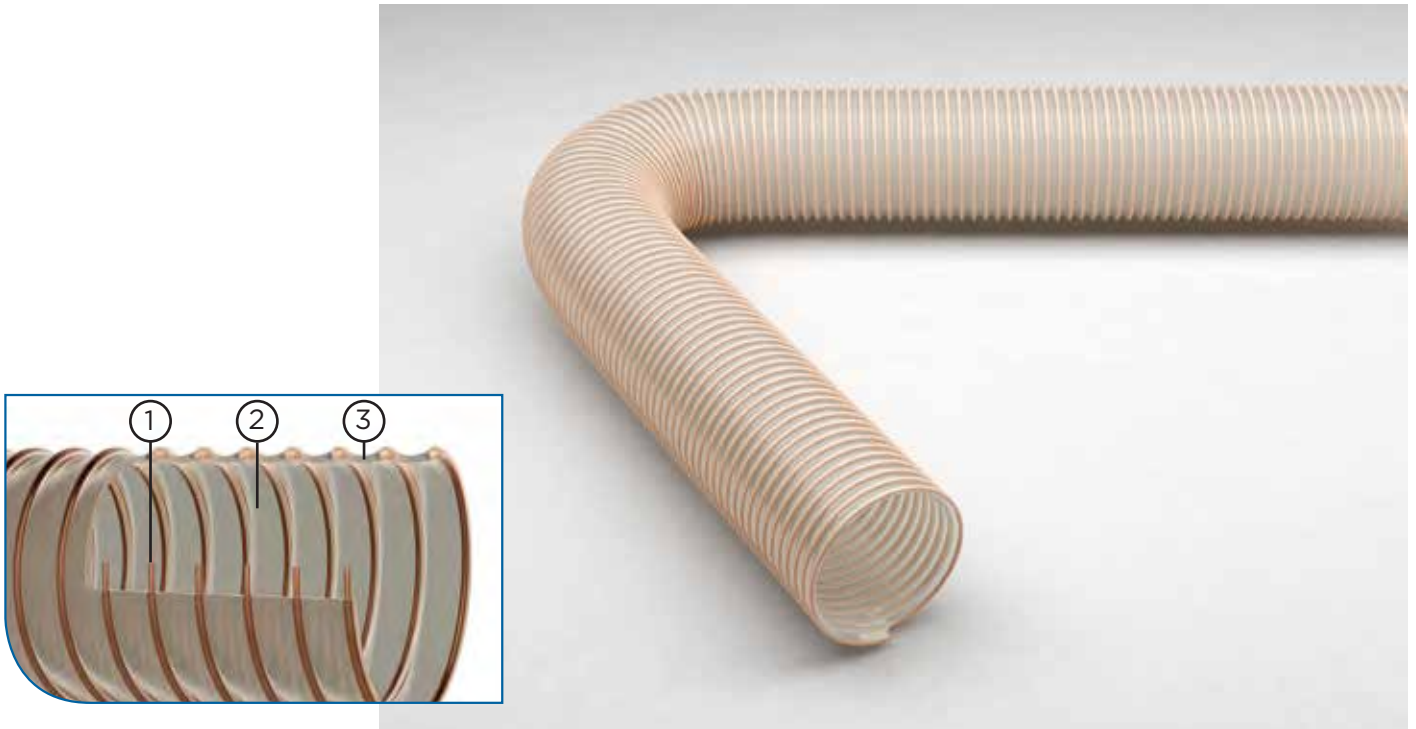
PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR HÜ Trivolution

PU Suction & Transport Hose, flexible, medium duty / reinforced, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 1.7 mm

Applications

- protective hose against mechanical wear
- special hose for dry suction vehicles
- light, flexible head hose

Available on request

- available on request in other lengths, sizes and colours, with print.
- also available in reinforced version with 2.1mm wall thickness.

Properties

- hardly inflammable acc. to DIN 4102 B1
- small bending radii
- medium duty
- microbe-resistant
- good flexibility
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- mostly smooth inner lining
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
102	1,77	0,62	187	111	1,72	112-102-101	25
127	1,54	0,43	230	137	2,18	112-127-101	25
152	1,26	0,36	275	162	2,38	112-152-101	25

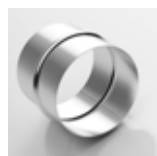
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose
Clamp, screwable



Master-Grip Quick-Fix
Clamp



Hose Connector



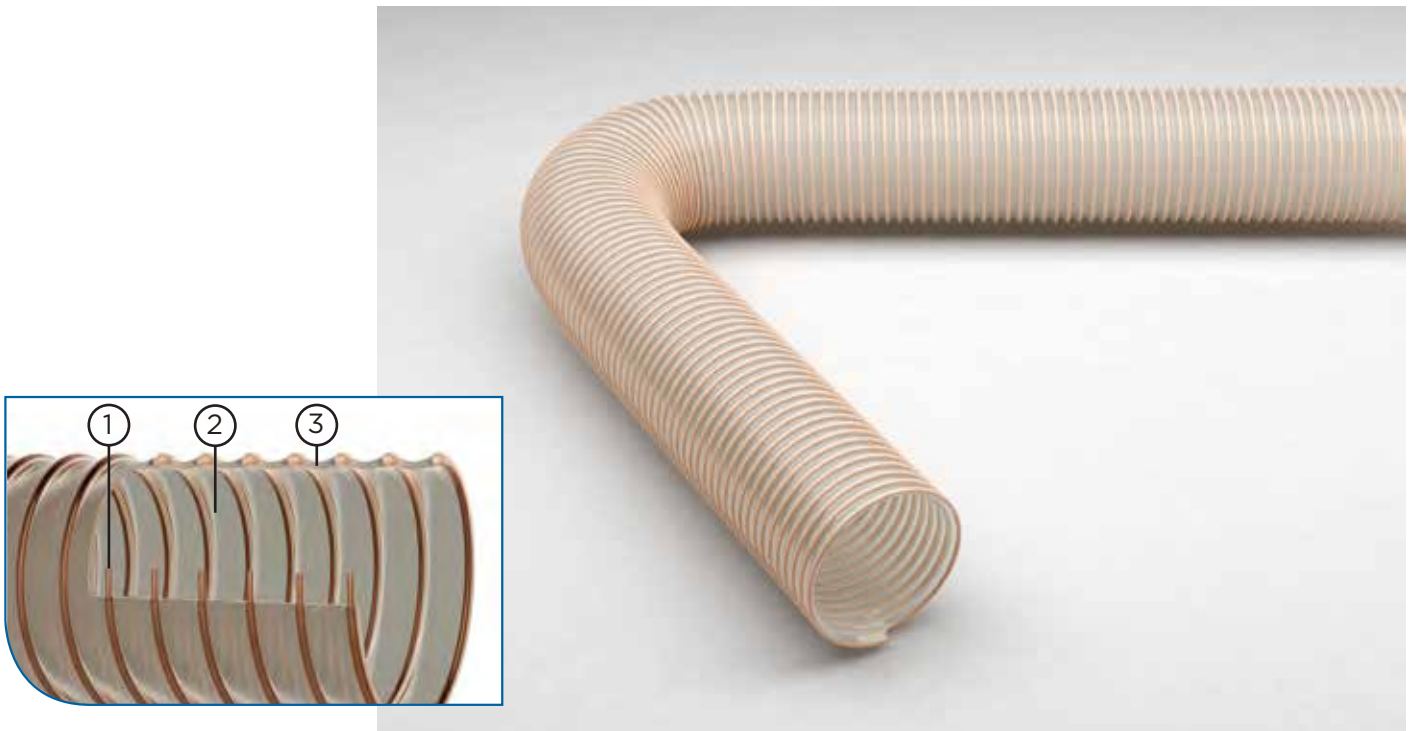
Hose Clamp with Bolts



Combiflex PU Cone
Flange

Master-PUR HÜ-S Trivolution

PU Suction hose & Transport Hose, flexible, medium duty / reinforced, very smooth inner lining, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- protective hose against mechanical wear
- special transport hose for the delivery of abrasive media
- medium duty, flexible working hose

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- small bending radii
- reinforced version of standard version Master-PUR HÜ
- microbe-resistant
- heavy
- flexible
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- mostly smooth inner lining
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

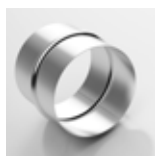
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
100	2	0,74	230	113	2,13	112-100-902	25
125	1,6	0,52	290	138	2,81	112-125-902	25
150	1,45	0,43	410	163	3,37	112-150-903	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Connector



Hose Clamp with Bolts



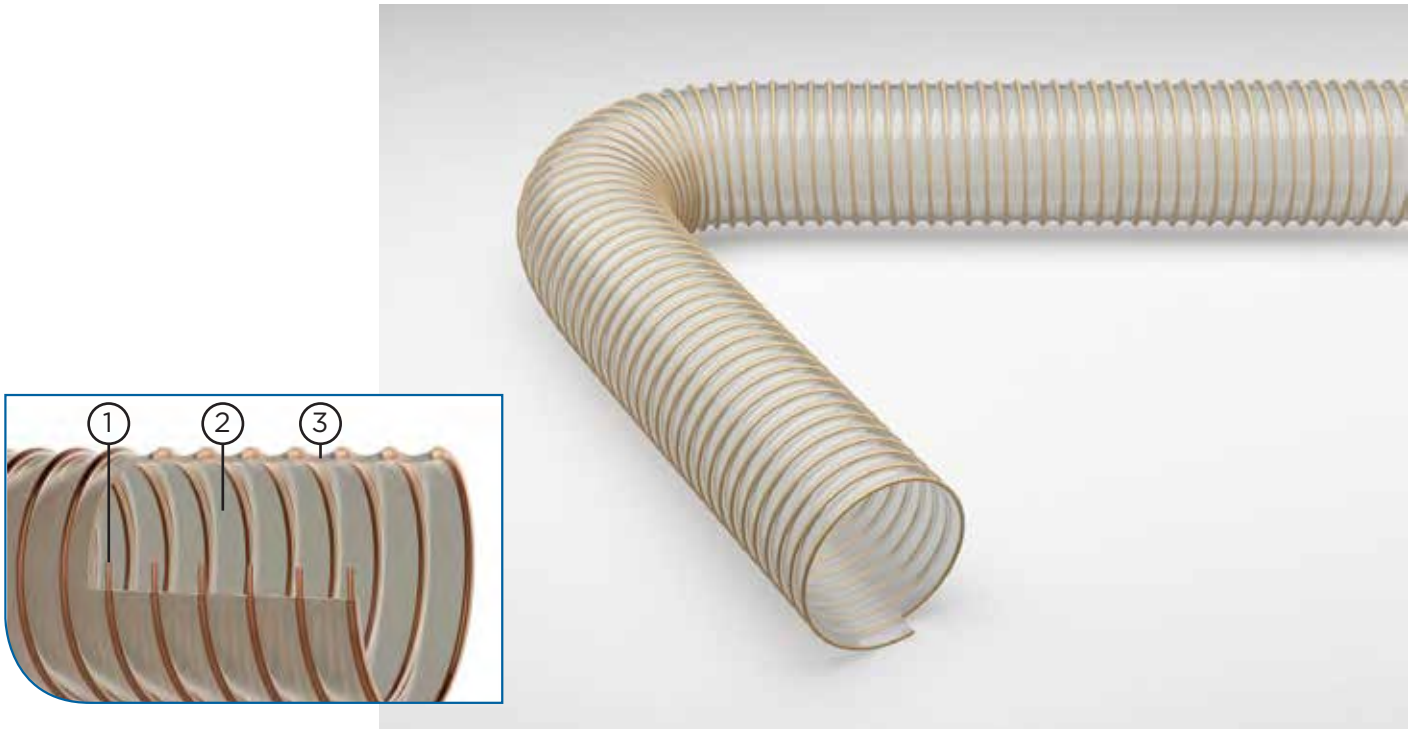
Combiflex PU Cone Flange, pre-fixed



Combiflex PU Swivel Flange, pre-fixed

Master-PUR HX Trivolution

PU Transport hose & Suction Hose, highly abrasion resistant and vacuum proof, with reinforcement underneath the spiral, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- for increased requirements of abrasion resistance and durability
- transport hose for problematic media, e.g. sand, gravel, grain, granules
- suction & transport hose for extremely abrasive media
- flat-roof gravelling
- working hose for silo vehicles and cargo depots

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- extremely abrasion resistant via specific reinforcements underneath the spiral
- microbe-resistant
- heavy
- flexible
- smooth inner lining, optimum flow characteristics
- high vacuum and apex pressure resistance
- highly durable, long service lives
- permanently antistatic, surface resistance < 10⁹ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to DIN 26057 type IV

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
32	4,85	0,94	80	42	0,66	114-032-101	20
38	4,39	0,94	95	48	0,78	114-038-101	20
40	4,27	0,94	100	50	0,83	114-040-101	20
45	4,1	0,94	115	55	0,92	114-045-101	20
50	4,02	0,94	124	60	1,02	114-050-101	20
51	4	0,94	125	61	1,04	114-051-101	20
55	3,75	0,89	140	65	1,1	114-055-101	20
60	3,6	0,89	150	70	1,2	114-060-101	20
65	3,3	0,89	165	75	1,29	114-065-101	20
70	3,15	0,89	175	80	1,38	114-070-101	20
75	2,95	0,89	188	85	1,48	114-075-101	20
76	2,92	0,89	190	87	1,5	114-076-101	20
80	2,77	0,89	200	93	1,93	114-080-101	20
90	2,4	0,89	225	103	2,16	114-090-101	20
100	2,15	0,88	238	113	2,53	114-100-101	20
102	2,1	0,87	250	115	2,6	114-102-101	20
110	1,95	0,87	275	124	2,82	114-110-101	20
115	1,8	0,87	290	129	2,94	114-115-101	20
120	1,65	0,87	300	134	3,07	114-120-101	20
125	1,65	0,87	311	138	3,34	114-125-101	20
127	1,65	0,87	315	140	3,44	114-127-101	20
130	1,65	0,84	325	143	3,54	114-130-101	20
140	1,5	0,83	350	153	3,81	114-140-101	20
150	1,5	0,82	434	165	4,08	114-150-101	20
152	1,5	0,82	450	167	4,13	114-152-101	20
160	1,35	0,81	500	175	4,81	114-160-101	20
170	1,2	0,8	600	185	5,1	114-170-101	20
175	1,2	0,79	650	190	5,25	114-175-101	20
180	1,2	0,77	700	195	5,4	114-180-101	20
200	1,07	0,68	918	217	6,3	114-200-101	15
203	1,05	0,66	950	220	6,43	114-203-101	15
225	0,9	0,58	1150	241	7,11	114-225-101	10
250	0,9	0,51	1300	267	7,91	114-250-101	10
254	0,88	0,5	1325	271	8,04	114-254-101	10
275	0,75	0,47	1450	292	8,68	114-275-101	10
300	0,6	0,42	1600	317	9,45	114-300-101	10

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cone Flange



Combiflex PU Fixed Flange, pre-fixed



Combiflex PU Threaded Socket, pre-fixed



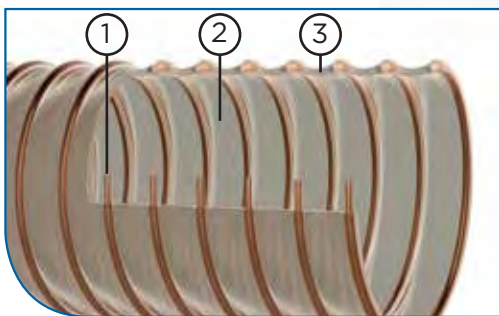
Combiflex PU Swivel Flange, screwable/ fixed



Hose Clamp with Bolts

Master-PUR HX-S

PU Suction hose & Transport Hose, highly abrasion resistant and vacuum proof, very smooth inner lining, antistatic, microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 3.5 mm

Applications

- suction & transport hose for quarries, cement works, shipyards and docks
- refurbishment of rail systems
- roof greening
- vacuum/suction vehicles
- transport of glass wool, mineral wool, slag, mill scale and sinter
- flat-roof gravelling
- working hose for silo vehicles and cargo depots

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- extremely abrasion resistant
- microbe-resistant
- extra heavyweight
- flexible
- smooth inner lining
- high vacuum and apex pressure resistance
- highly durable, long service lives
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- optimum flow characteristics
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
51	4,85	0,94	150	64	1,3	117-051-101	20
76	4,15	0,94	225	89	2,1	117-076-101	20
102	3,15	0,94	300	114	3,2	117-102-101	20
127	2,55	0,94	325	140	3,9	117-127-101	20
152	2,25	0,94	350	165	5,1	117-152-101	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Fixed Flange, pre-fixed



Combiflex PU Threaded Socket, pre-fixed



Combiflex PU Swivel Flange, pre-fixed



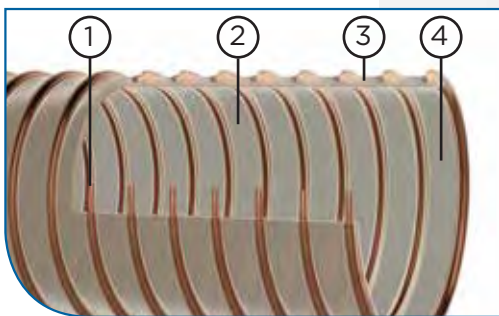
Combiflex PU Cone Flange, pre-fixed



Hose Clamp with Bolts

Master-PUR Performance

PU suction hose & transport hose, extremely abrasion-resistant & vacuum-proof, seamless smooth inner lining, antistatic and microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyurethane
- ③ wall thickness min. 2.5 mm
- ④ inner lining: application-optimised polyurethane 60° Shore A

Applications

- transport hose for problematic media, e.g. sand, gravel, grain, granules
- transport hose for handling and conveying plants
- everywhere where easy-to-clean surfaces are required
- suction and transport hose for extremely abrasive solid, liquid and gaseous media
- transport hose for feeding and cleaning of glass works, mineral processing plants, steelworks, quarries, shipyards and docks, cement works, flat roof gravelling
- other conveyer and loading plants

Available on request

- available on request in other lengths and sizes, with print.

Properties

- extremely abrasion resistant, extra strong PU lining
- completely smooth internal lining, therefore ideal flow characteristics
- microbe-resistant
- flexible
- excellent vacuum-resistance and good pressure-resistance
- heavy
- permanently antistatic, surface resistance < 10⁹ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen and plasticizer-free
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
38	4,35	0,94	130	50	0,8	123-038-101	20
40	4,25	0,94	135	52	0,8	123-040-101	20
45	4,12	0,94	155	57	1	123-045-101	20
50	4,02	0,94	168	65	1,17	123-050-101	20
51	4	0,94	170	66	1,2	123-051-101	20
55	3,8	0,94	175	72	1,3	123-055-101	20
60	3,7	0,94	185	77	1,5	123-060-101	20
65	3,5	0,94	190	82	1,6	123-065-101	20
75	3,18	0,94	245	92	1,87	123-075-101	20
76	3,15	0,94	250	93	1,9	123-076-101	20
80	2,9	0,94	270	97	2,1	123-080-101	20
90	2,7	0,94	285	107	2,4	123-090-101	20
100	2,53	0,94	297	117	2,58	123-100-101	20
102	2,5	0,94	300	119	2,6	123-102-101	20
115	2,3	0,94	325	132	3	123-115-101	15
125	2,05	0,94	345	142	3,25	123-125-101	15
127	2	0,94	350	144	3,3	123-127-101	15
150	1,54	0,94	396	167	3,67	123-150-101	15
152	1,5	0,94	400	169	3,7	123-152-101	15
175	1,1	0,7	770	190	4,6	123-175-101	10
180	1	0,68	780	195	4,7	123-180-101	10
200	0,8	0,55	840	215	5	123-200-101	10

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Bolts



Combiflex metal male threaded socket



Combiflex PU Fixed Flange, pre-fixed



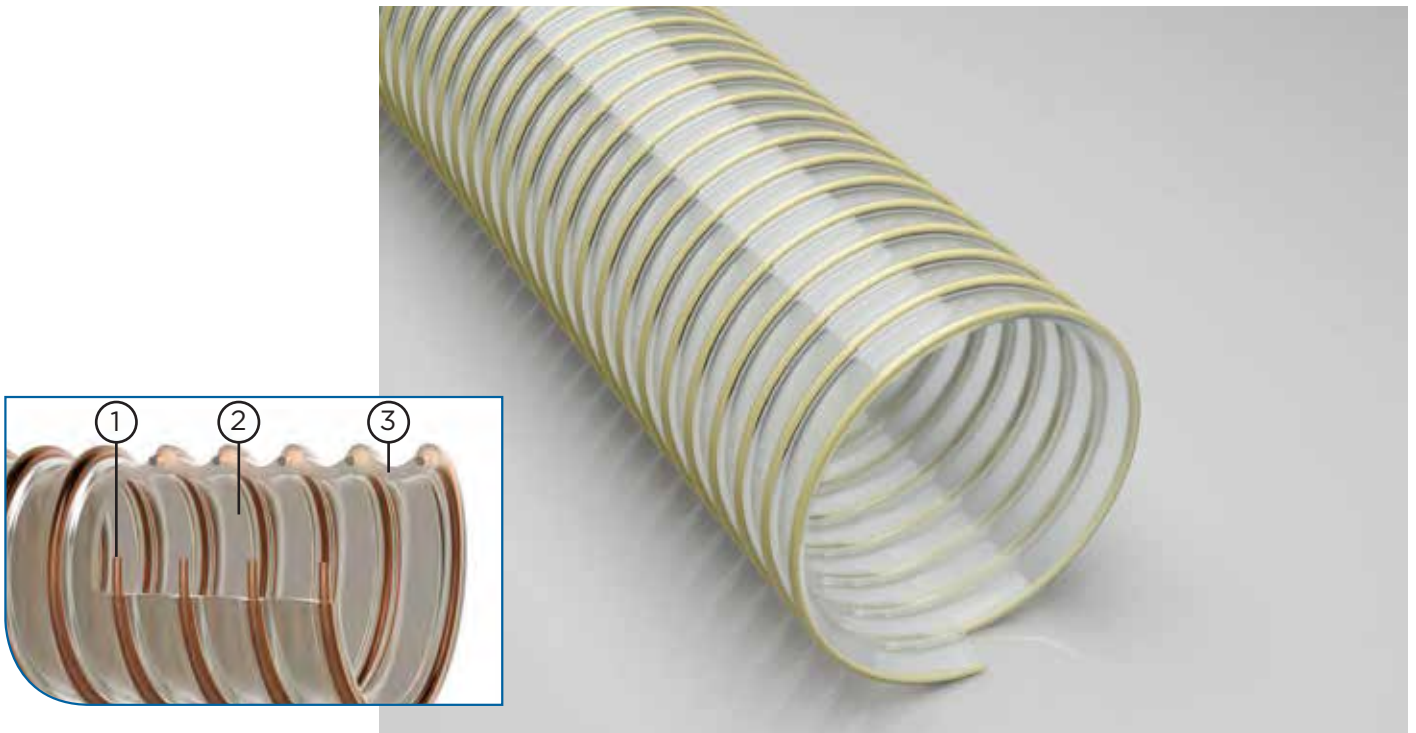
Combiflex PU Threaded Socket, pre-fixed



Combiflex PU Swivel Flange, pre-fixed

Cargoflex

PU Suction hose & Transport hose, extremely abrasion and vacuum resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 3.2 - 4.8 mm depending on DN

Applications

- suction/extraction of glass splinters, glass wool, mineral wool, slag, mill scale and sinter
- suction & transport hose for quarries, cement works, shipyards and docks
- for highest standards of abrasion resistance and durability
- refurbishment of rail systems
- transport of gravel and rocks
- suction & transport hose for the most extreme fields of application
- transport hose for handling and conveying plants
- protective hose against mechanical wear

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- extremely abrasion resistant, extra strong PU lining
- microbe-resistant
- extra heavyweight
- flexible
- excellent vacuum-resistance and good pressure-resistance
- highly durable, long service lives
- halogen and plasticizer-free
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
100	3,17	0,87	298	115	3,02	115-100-101	20
102	3,15	0,87	300	117	3,04	115-102-101	20
125	2,6	0,87	369	141	3,69	115-125-101	20
127	2,55	0,87	375	143	3,75	115-127-101	20
150	2,27	0,82	444	166	4,39	115-150-101	20
152	2,25	0,82	450	168	4,45	115-152-101	20
200	1,69	0,67	591	218	8,05	115-200-101	10
203	1,65	0,66	600	222	8,28	115-203-101	10
250	1,37	0,52	738	270	10,2	115-250-101	10
254	1,35	0,51	750	275	10,36	115-254-101	10

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Fixed Flange, pre-fixed



Combiflex PU Threaded Socket, pre-fixed



Combiflex PU Swivel Flange, pre-fixed



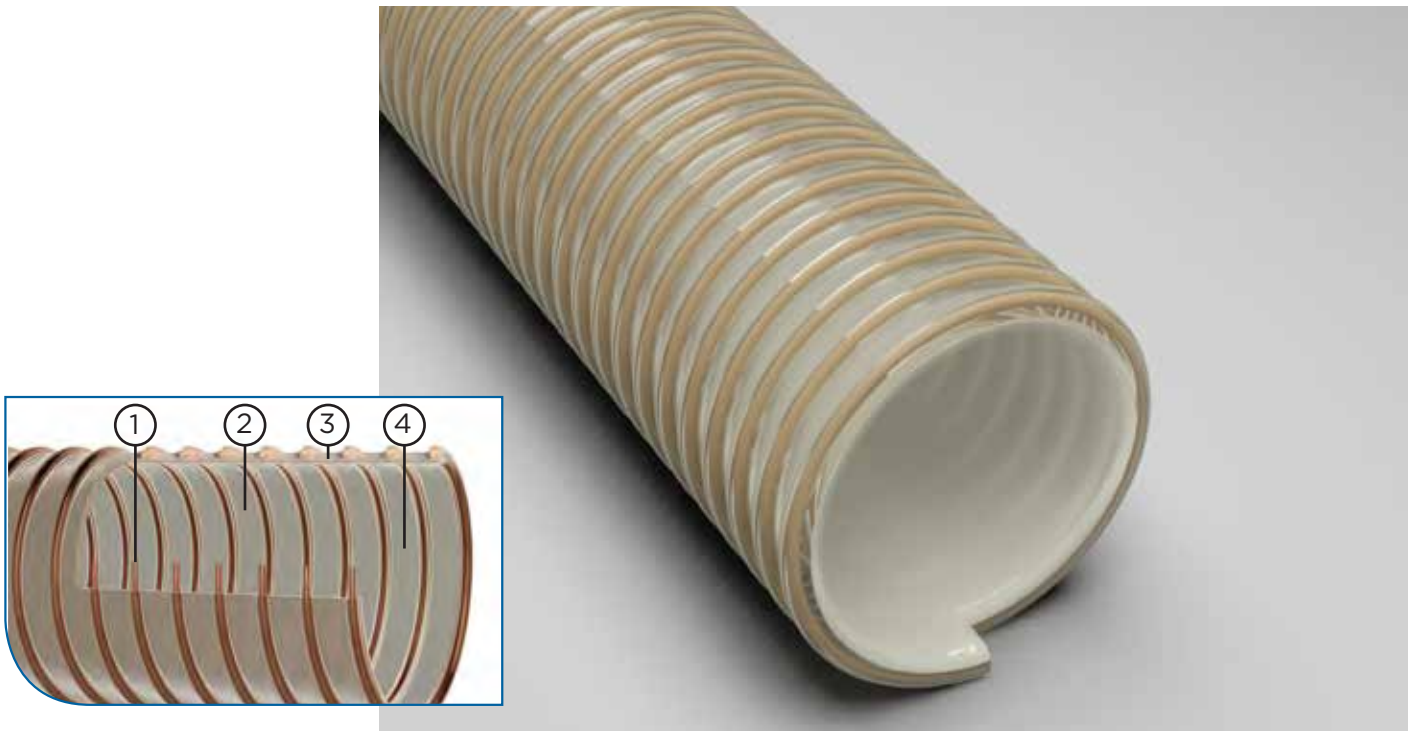
Combiflex PU Cone Flange, pre-fixed



Hose Clamp with Bolts

Master-PUR Inline

PU Suction hose & Transport Hose, extremely abrasion resistant, vacuum proof, seamless, very smooth inner lining, antistatic, microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyurethane
- ③ inner lining: application-optimised polyurethane 60° Shore A
- ④ Wall thickness c. 5.5 mm

Applications

- special hose for transport of extremely abrasive media
- transport hose for problematic media, e.g. sand, gravel, grain, granules
- everywhere where easy-to-clean surfaces are required
- transport hose for feeding and cleaning of glass works, mineral processing plants, steelworks, quarries, shipyards and docks, cement works, flat roof gravelling
- other conveyer and loading plants

Available on request

- available on request in other lengths and sizes, with print.

Properties

- extremely abrasion resistant, extra strong PU Inline
- completely smooth internal lining, therefore ideal flow characteristics
- microbe-resistant
- flexible
- excellent vacuum-resistance and good pressure-resistance
- permanently antistatic, surface resistance < 10⁹ Ohm
- halogen and plasticizer-free
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
38	4,65	0,94	150	56	1,72	119-038-104	20
40	4,5	0,94	160	58	1,79	119-040-104	20
50	4,16	0,94	196	69	1,65	119-050-104	20
51	4,125	0,94	200	70	1,64	119-051-104	20
65	3,9	0,94	300	85	2,02	119-065-104	20
75	3,75	0,94	390	96	3,31	119-075-104	20
76	3,75	0,94	400	97	3,44	119-076-104	20
80	3,375	0,94	410	99	2,69	119-080-104	20
100	3,03	0,94	428	120	4,24	119-100-102	20
102	3	0,94	430	122	4,39	119-102-104	20
115	2,6	0,94	440	136	4,9	119-115-104	15
125	2,45	0,94	448	146	5,56	119-125-101	15
127	2,4	0,94	450	148	5,69	119-127-104	15
150	1,95	0,94	600	175	7,3	119-150-104	15
152	1,95	0,94	600	175	7,3	119-152-104	15
175	1,8	0,77	700	198	7,48	119-175-104	10
180	1,65	0,75	700	202	7,68	119-180-104	10
200	1,35	0,67	800	223	10,01	119-200-104	10
203	1,35	0,67	800	227	10,2	119-203-104	10
250	0,95	0,5	1000	271	12,07	119-250-104	10
254	0,95	0,5	1000	275	12,1	119-254-104	10

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Threaded Socket, pre-fixed



Hose Clamp with Bolts



Combiflex PU fixed-flange, Inline



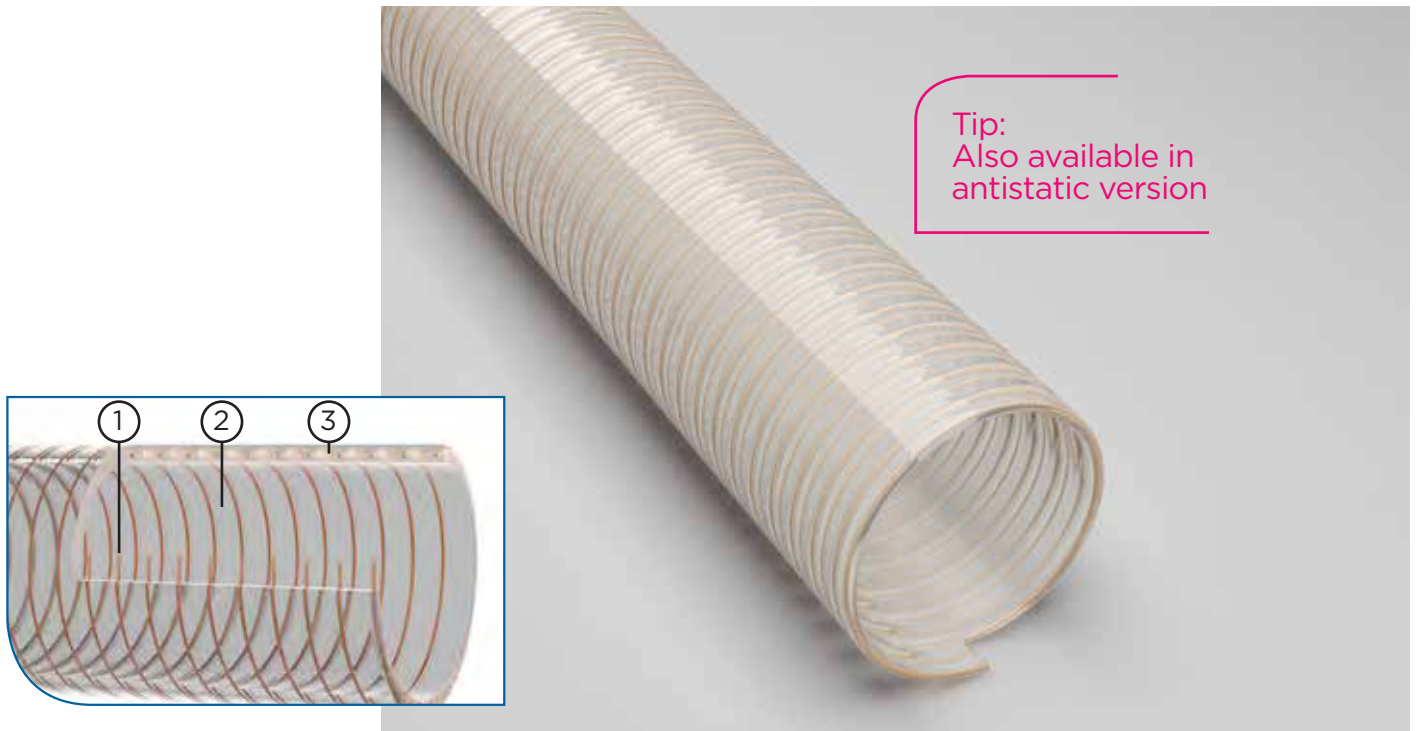
Combiflex PU Swivel Flange for Master-PUR Inline



Clamp Collars

Polderflex PUR

PU Suction hose & Transport Hose, extremely pressure and vacuum resistant, smooth inner and outer linings



Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness 3-5 mm depending on DN

Applications

- suction/extraction of glass splinters, glass wool, mineral wool, slag, mill scale and sinter
- suction & transport hose for quarries, cement works, shipyards and docks
- for highest standards of abrasion resistance and durability
- refurbishment of rail systems
- transport of gravel and rocks
- suction & transport hose for the most extreme fields of application
- transport hose for handling and conveying plants
- working hose for silo vehicles and cargo depots

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- extremely abrasion resistant, extra strong PU lining
- extra heavyweight
- flexible
- excellent vacuum-resistance and good pressure-resistance
- smooth inner and outer linings
- highly durable, long service lives
- halogen and plasticizer-free
- optimum flow characteristics
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
32	5,75	0,93	160	41,5	0,88	118-032-101	20
38	5,625	0,93	190	47,5	1,03	118-038-101	20
40	5,5	0,93	200	49,5	1,07	118-040-101	20
45	5,375	0,93	225	54,5	1,2	118-045-101	20
50	5,27	0,93	246	61	1,24	118-050-101	20
51	5,25	0,93	250	62,5	1,25	118-051-101	20
60	5,125	0,93	300	71,5	1,44	118-060-101	20
65	5,1	0,93	325	76,5	1,56	118-065-101	20
70	5,05	0,93	350	81,5	1,77	118-070-101	20
75	5	0,93	375	87	1,9	118-075-101	20
76	5	0,93	380	87,5	1,92	118-076-101	20
80	4,5	0,88	400	91,5	2,01	118-080-101	20
100	4,16	0,86	580	111	3	118-100-101	20
102	4,125	0,86	600	113	3,1	118-102-101	20
125	3,32	0,66	690	136,5	3,79	118-125-101	20
127	3,25	0,64	700	138,5	3,85	118-127-101	20
150	2,2	0,44	790	162	4,53	118-150-101	20
152	2,125	0,42	800	164	4,59	118-152-101	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



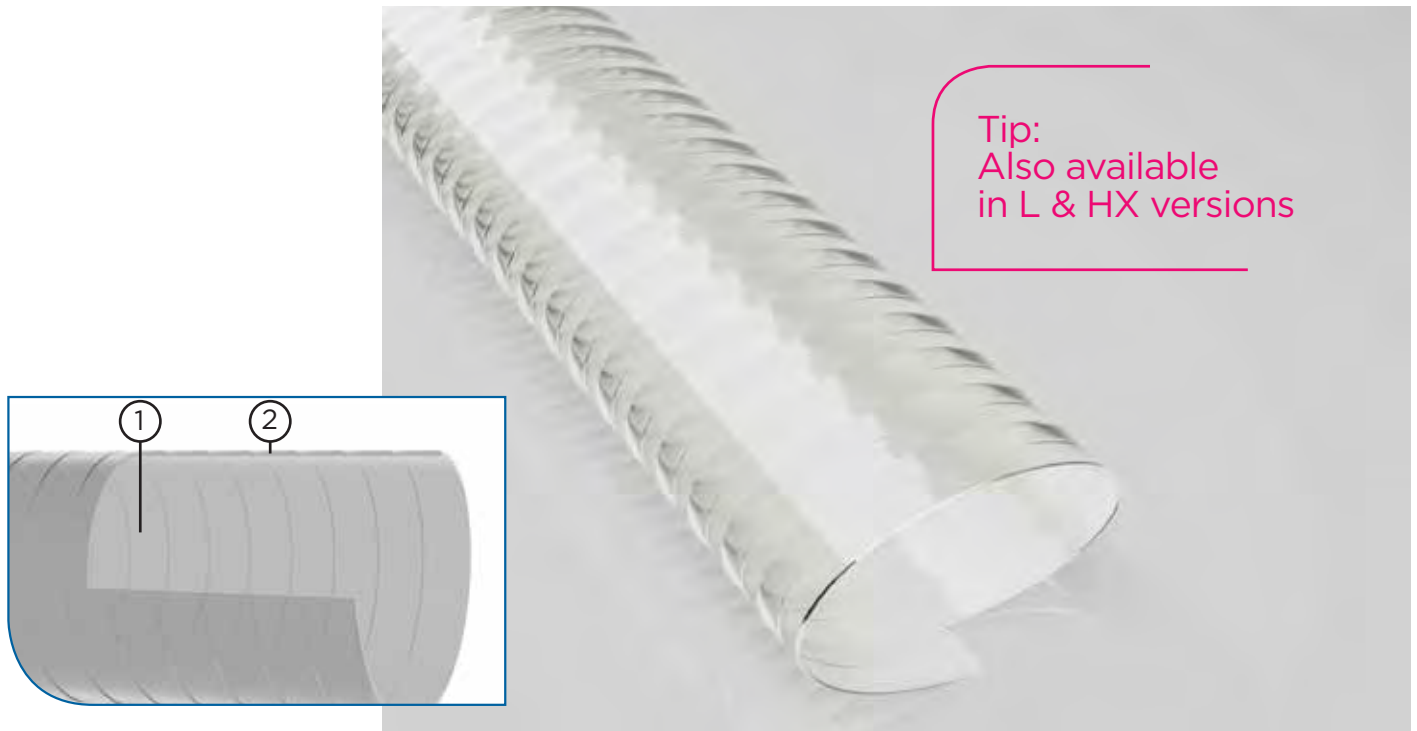
Metal socket with cone flange



Hose Clamp with Bolts

Master-PUR Flat H Food

Spiral-Free PU Transport Hose, medium duty, food-grade quality acc. to EU 10/2011 and FDA



Material

- 1 wall: pure polyether polyurethane, food-grade quality (FDA)
- 2 wall thickness approx. 1.5 mm

Applications

- application as compensator
- spiral-free transport hose for abrasive solids
- solids transport for sieving machines
- conductor hose on charging station

Available on request

- available on request in other lengths, sizes, colours, with print, with flexible earthing lead.

Properties

- hoses comply with the following European food regulations:
 - EU Regulations 1935/2004, 10/2011 and 1282/2011
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- extremely vibration resistant
- solvent, oil and petroleum resistant
- smooth inner lining
- permanently kink-resistant
- optimum flow characteristics
- highly abrasion-resistant
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	weight/m kg	article no.	max. production length m
50	0,32	314-050-501	5
51	0,32	314-051-501	5
60	0,38	314-060-501	5
63	0,39	314-063-501	5
65	0,4	314-065-501	5
70	0,43	314-070-501	5
75	0,46	314-075-501	5
76	0,46	314-076-501	5
80	0,49	314-080-501	5
90	0,56	314-090-501	5
100	0,61	314-100-501	5
102	0,62	314-102-501	5
110	0,67	314-110-501	5
115	0,7	314-115-501	5
120	0,73	314-120-501	5
125	0,75	314-125-501	5
127	0,76	314-127-501	5
130	0,78	314-130-501	5
140	0,85	314-140-501	5
150	0,9	314-150-501	5
152	0,91	314-152-501	5
160	0,97	314-160-501	5
170	1,03	314-170-501	5
175	1,06	314-175-501	5
180	1,09	314-180-501	5
200	1,19	314-200-501	5
203	1,21	314-203-501	5
225	1,36	314-225-501	5
250	1,49	314-250-501	5
254	1,51	314-254-501	5
275	1,66	314-275-501	5
280	1,68	314-280-501	5
300	1,81	314-300-501	5

All data refers to a medium and ambient temperature of +20 °C.
Subject to technical changes and colour deviations.



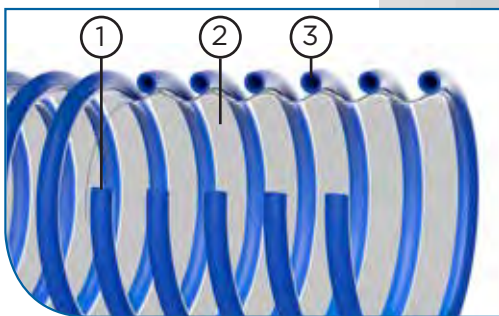
Hose Clamp with
Worm-Gear Drive



Hose Clamp with Bolts

Master-PUR STEP

PU Film Hose, crush-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- ① spiral: polyurethane, hardly inflammable, with integrated wire
- ② wall: pure polyester polyurethane with flame-retardant additives (acc. to DIN ISO 4649 more abrasion-resistant than polyether polyurethane)
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- ideal as Suction Hose for floor-level areas where conventional hoses are subjected to rough conditions and can be permanently deformed
- wood processing
- protective hose
- suction & transport hose for abrasive solids, liquids and gases

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- acc. to requirements of the Holz-BG standard, BGI 739-2
- crush-resistant and recoverable
- withstands high mechanical loads
- excellent recovery properties
- abrasion-resistant
- super lightweight
- highly flexible
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
50	0,78	0,2	50	68	0,39	311-050-618	25
51	0,78	0,2	50	68	0,39	311-051-618	25
60	0,76	0,19	65	80	0,45	311-060-618	25
75	0,62	0,13	74	94	0,6	311-075-618	25
76	0,61	0,13	75	95	0,61	311-076-618	25
80	0,53	0,13	80	100	0,65	311-080-618	25
100	0,47	0,09	98	118	0,79	311-100-618	25
102	0,46	0,09	100	120	0,8	311-102-618	25
120	0,38	0,09	120	140	0,95	311-120-618	25
140	0,3	0,06	140	160	1,15	311-140-618	25
150	0,3	0,06	148	168	1,19	311-150-618	25
152	0,3	0,06	150	170	1,2	311-152-618	25
160	0,3	0,06	160	180	1,3	311-160-618	25

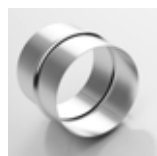
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Car-Grip Quick-Fix Clamp



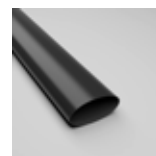
Car-Grip Hose Clamp, screwable



Hose Connector



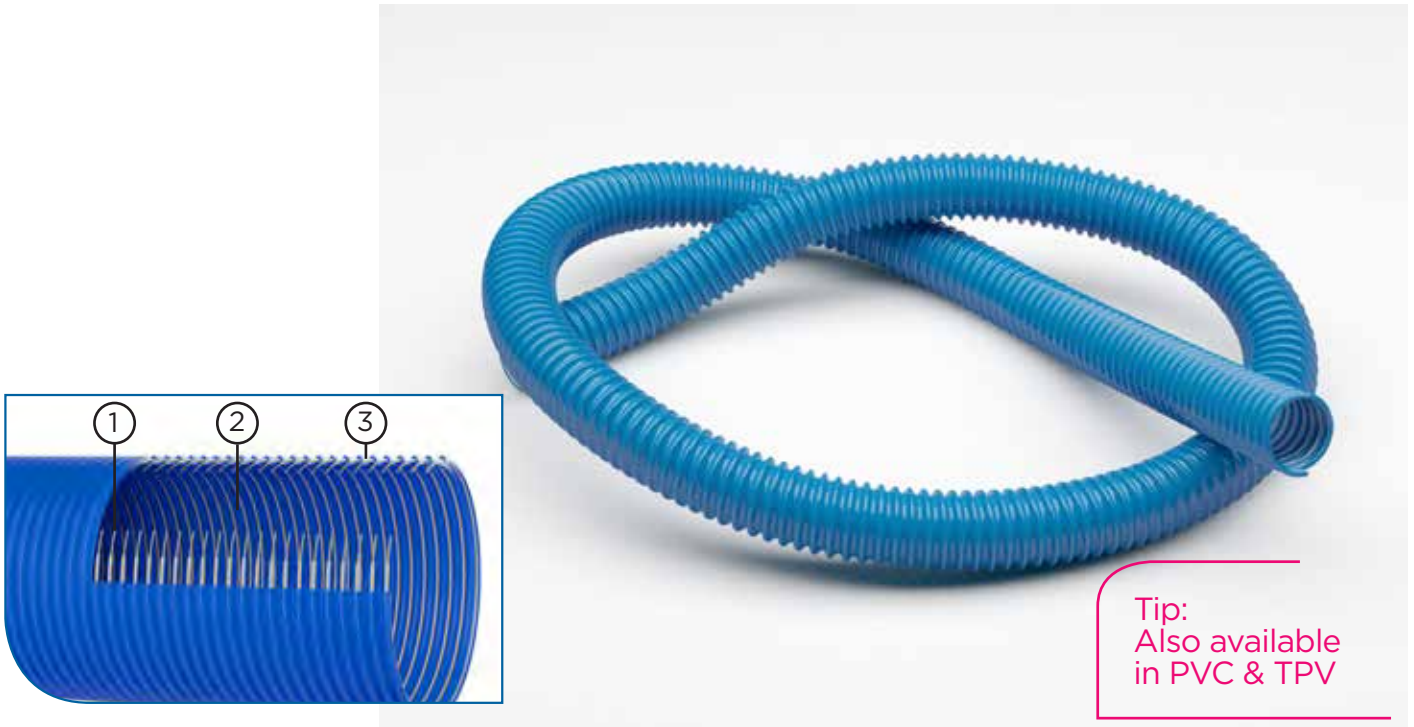
PU Cuff, pre-fitted



Heat-Shrink Cuff

Miniflex PU

PU Protection Hose & Suction Hose with plastic-coated wire Helix, microbe-resistant, highly flexible



Material

- ① spiral: spring steel wire, plastic-coated
- ② wall: pure polyether polyurethane
- ③ wall thickness: 0.3 - 1.2mm, dep. on DN

Applications

- cable protection hose
- protective & suction hose for solids, liquids and gases
- suction hose for fine-grained particles, e.g. dust, powders, fibres
- ventilation (gauge pressure & low pressure range)
- suction hose for handheld machines
- protective hose against mechanical wear

Available on request

- available on request in other lengths, sizes and colours

Properties

- protection class IP 68, EN 60 529
- axial flexible and compressable
- ageing resistant
- bending radius = outer diameter
- super lightweight
- highly flexible
- microbe and hydrolysis-resistant
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



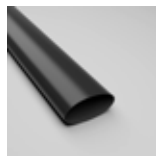
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
7	0,23	0,76	10	10	0,06	410-007-118	50
10	0,22	0,75	14	14	0,11	410-010-118	50
13	0,21	0,74	17	17	0,13	410-013-118	50
15	0,2	0,74	19	19	0,14	410-015-118	50
16	0,2	0,74	21	21	0,19	410-016-118	50
22	0,18	0,72	27	27	0,24	410-022-118	50
26	0,17	0,71	30	30	0,31	410-026-118	50
30	0,15	0,69	36	36	0,36	410-030-118	25
32	0,13	0,69	38	38	0,44	410-032-118	25
38	0,11	0,66	45	45	0,49	410-038-118	25
40	0,1	0,66	47	47	0,61	410-040-118	25
44	0,09	0,59	52	52	0,76	410-044-118	25
45	0,09	0,59	53	53	0,76	410-045-118	25
48	0,08	0,53	56	56	0,81	410-048-118	25
51	0,08	0,52	58	58	0,83	410-051-118	25

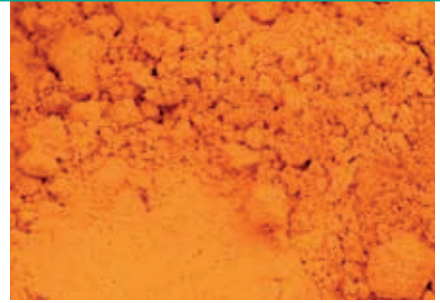
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with
Worm-Gear Drive



Heat-Shrink Cuff



2

Suction & Transport Hoses made from PVC/EVA

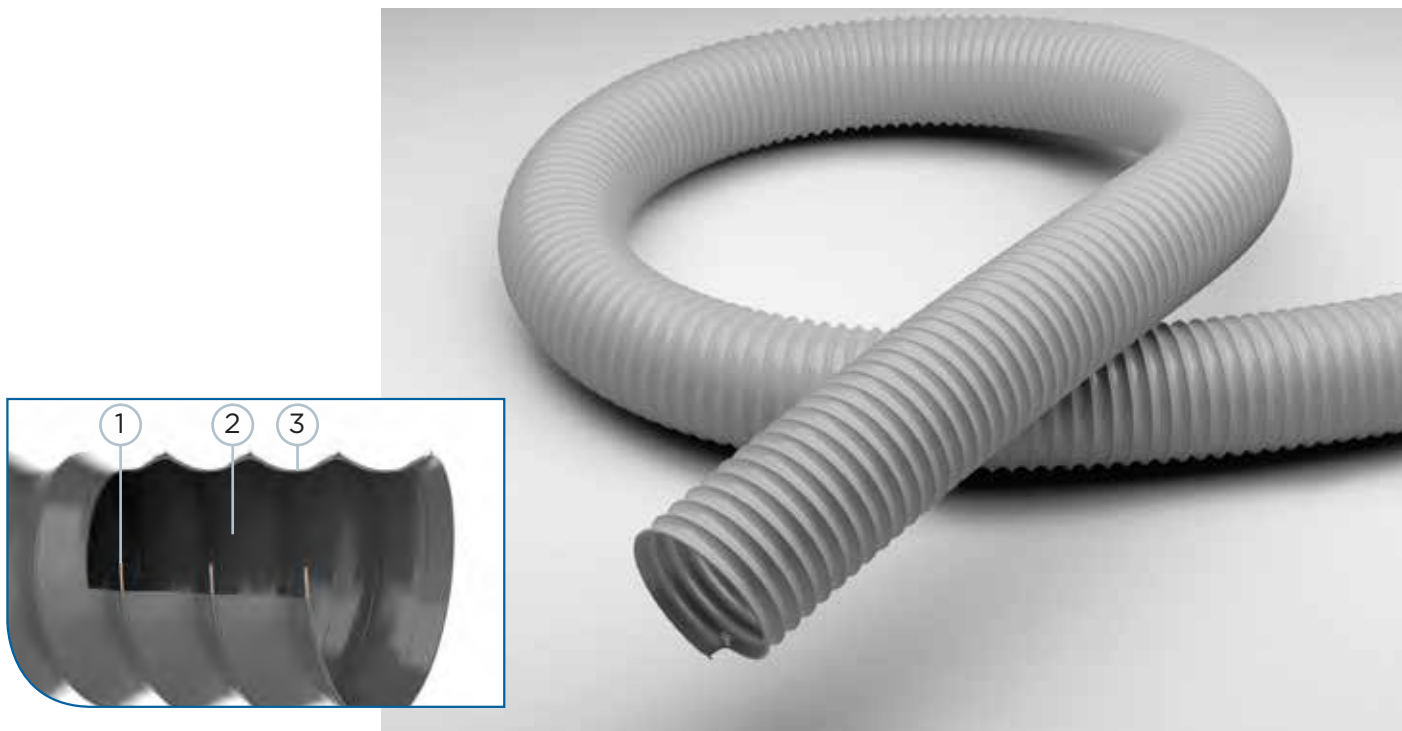
Suction & transport hoses made from PVC offer good chemical resistance. Hoses made from EVA are very lightweight, robust and crush-resistant



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PVC L-F

PVC Film/Foil Hose, light, highly flexible



Material

- ① spiral: spring steel wire, plastic-coated
- ② wall: soft PVC
- ③ film thickness between spirals approx. 0.5 - 0.8 mm, dep. on DN size

Applications

- protective hose
- liquid drainage
- suction and transport hose for solid, liquid and gaseous media
- ventilation and air-conditioning systems
- dust removal
- apparatus construction
- spinning fibre extraction
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- good oil/alkali/acid resistance
- good chemical resistance
- light
- very good flexibility
- smallest bending radii
- optimum flow characteristics
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

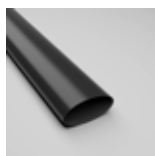
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
20	1,9	0,54	20	24	0,14	662-020-102	25
22	1,8	0,49	22	26	0,15	662-022-102	25
26	1,7	0,47	25	30	0,17	662-026-102	25
28	1,65	0,44	28	33	0,19	662-028-102	25
30	1,6	0,44	30	35	2,05	662-030-102	25
32	1,55	0,4	32	37	0,22	662-032-102	25
38	1,43	0,33	38	43	0,25	662-038-102	25
40	1,4	0,29	40	45	0,26	662-040-102	25
45	1,32	0,28	45	50	0,28	662-045-102	25
51	1,3	0,27	51	57	0,34	662-051-102	25
55	1,2	0,25	55	61	0,46	662-055-102	25
60	1,1	0,25	60	66	0,52	662-060-102	25
65	1	0,22	65	71	0,46	662-065-102	25
70	0,9	0,22	70	76	0,58	662-070-102	25
76	0,79	0,2	76	82	0,65	662-076-102	25
80	0,77	0,18	80	86	0,66	662-080-102	25
90	0,7	0,17	90	96	0,75	662-090-102	25
102	0,59	0,15	102	109	0,84	662-102-102	25
110	0,57	0,14	110	117	0,89	662-110-102	25
115	0,51	0,14	115	122	0,94	662-115-102	25
120	0,45	0,13	120	127	0,97	662-120-102	25
127	0,38	0,12	127	134	1,04	662-127-101	25
130	0,35	0,12	130	137	1,05	662-130-102	25
140	0,3	0,11	140	147	1,13	662-140-102	25
152	0,25	0,1	168	159	1,32	662-152-102	25
160	0,25	0,1	240	168	1,64	662-160-102	25
170	0,25	0,1	255	178	1,74	662-170-102	25
175	0,25	0,1	265	183	1,9	662-175-102	25
180	0,22	0,1	285	188	1,95	662-180-102	25
203	0,2	0,1	305	211	2,19	662-203-102	25
215	0,2	0,09	325	223	2,25	662-215-102	25
225	0,15	0,08	340	233	2,31	662-225-102	25
254	0,12	0,07	380	263	2,6	662-254-102	25
300	0,08	0,06	450	309	3,07	662-300-102	25
315	0,08	0,05	475	324	3,28	662-315-102	25
325	0,08	0,05	490	334	3,33	662-325-102	25
350	0,06	0,04	525	359	3,58	662-350-102	25
400	0,05	0,02	600	409	4,1	662-400-102	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



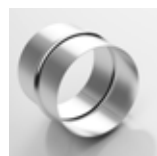
Heat-Shrink Cuff



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



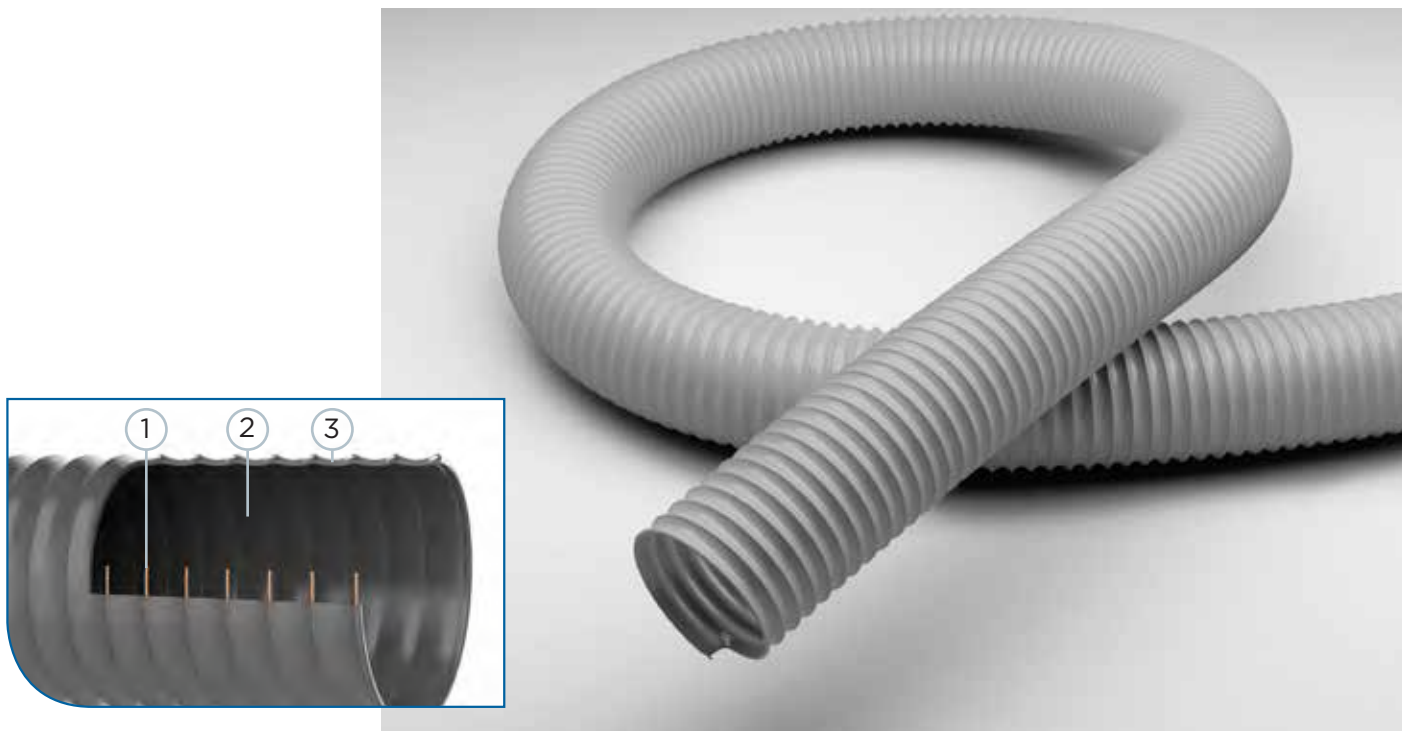
Hose Connector



Hose Reducer, symmetrical

Master PVC-L

PVC Suction hose & Transport hose, light duty, highly flexible



Material

- ① spiral: spring steel wire
- ② wall: soft PVC
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- protective hose
- liquid drainage
- suction and transport hose for solid, liquid and gaseous media
- ventilation and air-conditioning systems
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- good oil/alkali/acid resistance
- light
- very good flexibility
- smallest bending radii
- RoHs compliant
- optimum flow characteristics
- good chemical resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

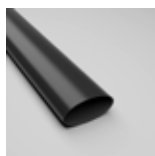
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
38	0,84	0,66	46	46	0,41	140-038-102	25
40	0,84	0,66	48	48	0,42	140-040-102	25
45	0,74	0,59	53	53	0,44	140-045-102	25
50	0,68	0,53	57	57	0,47	140-050-102	25
51	0,67	0,52	58	58	0,48	140-051-102	25
55	0,62	0,44	63	63	0,54	140-055-102	25
60	0,56	0,44	68	68	0,56	140-060-102	25
65	0,5	0,37	73	73	0,68	140-065-102	25
70	0,45	0,37	78	78	0,72	140-070-102	25
75	0,45	0,3	83	83	0,75	140-075-102	25
76	0,45	0,29	84	84	0,76	140-076-102	25
80	0,39	0,29	88	88	0,8	140-080-102	25
90	0,34	0,22	99	99	0,93	140-090-102	25
100	0,34	0,22	108	108	0,99	140-100-102	25
102	0,34	0,22	110	110	1	140-102-102	25
110	0,28	0,22	119	119	1,09	140-110-102	25
115	0,28	0,22	124	124	1,12	140-115-102	25
120	0,28	0,22	129	129	1,18	140-120-102	25
125	0,28	0,22	133	133	1,23	140-125-102	25
127	0,28	0,22	135	135	1,25	140-127-102	25
130	0,22	0,22	139	139	1,27	140-130-102	25
140	0,22	0,15	149	149	1,46	140-140-102	25
150	0,22	0,15	159	159	1,54	140-150-102	25
152	0,22	0,15	161	161	1,56	140-152-102	25
160	0,22	0,15	170	170	1,84	140-160-102	25
170	0,17	0,15	180	180	1,9	140-170-102	25
175	0,17	0,15	185	185	1,95	140-175-102	25
180	0,17	0,15	190	190	2,01	140-180-102	25
200	0,17	0,15	210	210	2,38	140-200-102	25
203	0,17	0,15	214	214	2,43	140-203-102	25
225	0,11	0,07	235	235	2,69	140-225-102	25
250	0,11	0,07	256	256	3,12	140-250-102	25
254	0,11	0,07	260	260	3,19	140-254-102	25
275	0,11	0,07	284	284	3,28	140-275-102	25
300	0,1	0,07	310	310	3,38	140-300-102	20
315	0,1	0,07	325	325	3,5	140-315-102	20
325	0,1	0,07	335	335	3,59	140-325-102	20
350	0,05	0,07	360	360	3,8	140-350-102	20
400	0,05	0,05	410	411	4,7	140-400-102	20
450	0,05	0,05	460	461	5,34	140-450-102	20
500	0,05	0,05	510	511	6,02	140-500-102	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



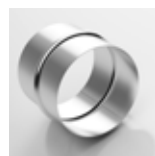
Heat-Shrink Cuff



Master-Grip Hose
Clamp, screwable



Master-Grip Quick-Fix
Clamp



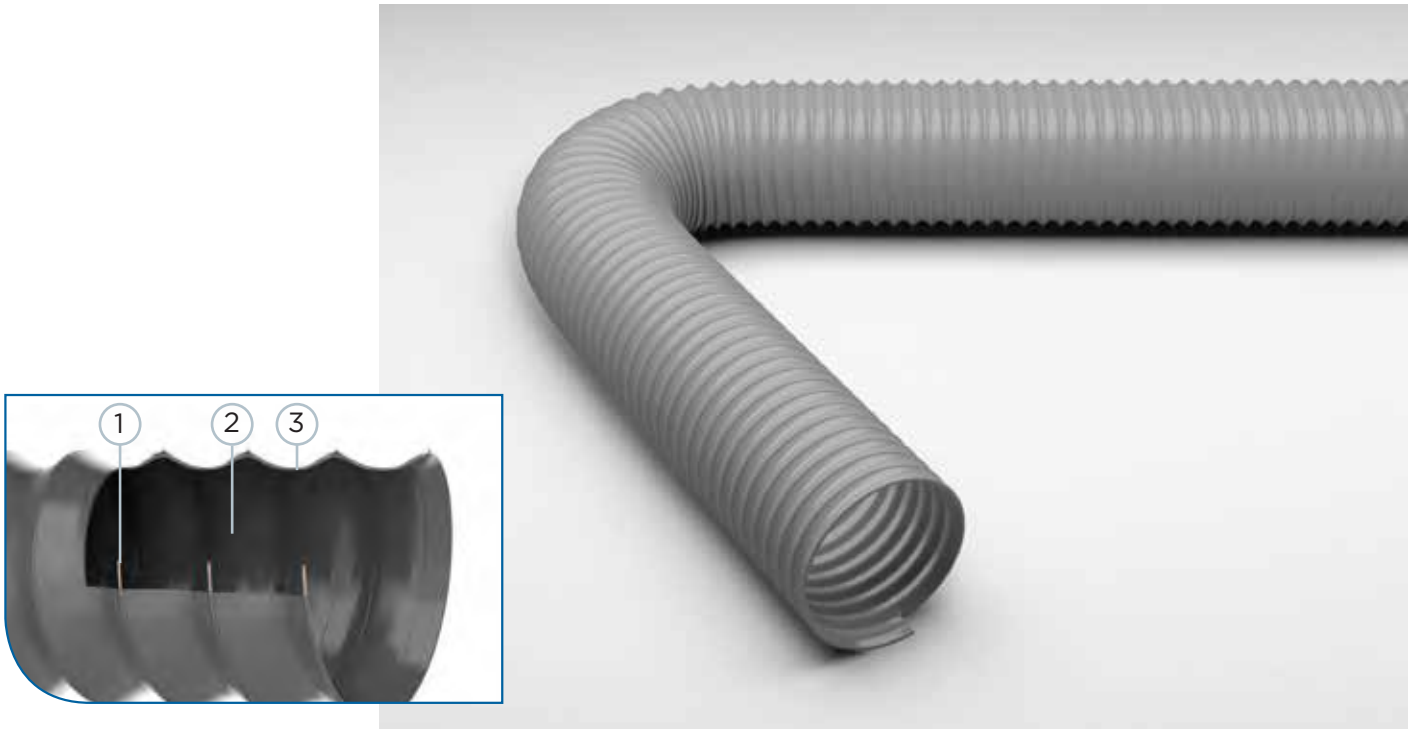
Hose Connector



Hose Reducer, sym-
metrical

Master-PVC H-F

PVC Film/Foil Hose, medium-weight, flexible



Material

- 1 spiral: spring steel wire, plastic-coated
- 2 wall: soft PVC
- 3 Film thickness between spirals approx. 1.2 - 1.5mm, dep. on DN size

Applications

- protective hose
- liquid drainage
- suction and transport hose for solid, liquid and gaseous media
- ventilation and air-conditioning systems
- dust removal
- apparatus construction
- spinning fibre extraction
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- small bending radii
- good flexibility
- medium duty
- good oil/alkali/acid resistance
- increased pressure and vacuum resistance
- optimum flow characteristics
- good chemical resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

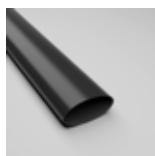
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
20	2,4	0,83	30	27	0,24	663-020-102	25
22	2,4	0,83	33	29	0,27	663-022-102	25
26	2,4	0,8	39	33	0,31	663-026-102	25
28	2,3	0,8	42	35	0,34	663-028-102	25
30	2,2	0,79	45	37	0,37	663-030-102	25
32	2,2	0,79	48	39	0,39	663-032-102	25
38	2,15	0,64	57	45	0,46	663-038-102	25
40	2,1	0,59	60	48	0,48	663-040-102	25
45	2	0,49	68	53	0,54	663-045-102	25
51	1,87	0,38	76	59	0,62	663-051-102	25
55	1,75	0,34	83	63	0,67	663-055-102	25
60	1,6	0,34	90	68	0,73	663-060-102	25
65	1,5	0,32	98	73	0,79	663-065-102	25
70	1,3	0,29	105	78	0,85	663-070-102	25
76	1,24	0,29	114	84	0,92	663-076-102	25
80	1,2	0,29	120	88	0,97	663-080-102	25
90	1,1	0,25	135	98	1,09	663-090-102	25
102	0,98	0,25	153	111	1,26	663-102-102	25
110	0,9	0,25	165	119	1,28	663-110-102	25
115	0,85	0,2	173	124	1,34	663-115-102	25
120	0,8	0,2	180	129	1,4	663-120-102	25
127	0,73	0,19	189	136	1,47	663-127-102	25
130	0,7	0,18	195	139	1,51	663-130-102	25
140	0,6	0,18	210	151	1,83	663-140-102	25
152	0,48	0,18	228	163	1,97	663-152-102	25
160	0,4	0,16	240	171	2,09	663-160-102	25
170	0,35	0,16	255	181	2,22	663-170-102	25
175	0,35	0,16	260	186	2,26	663-175-102	25
180	0,35	0,15	270	191	2,35	663-180-102	25
203	0,29	0,14	305	214	2,73	663-203-102	25
215	0,25	0,12	323	227	3,16	663-215-102	25
225	0,2	0,12	338	237	3,3	663-225-102	25
300	0,15	0,1	450	312	4,41	663-300-102	15
315	0,15	0,1	473	327	4,63	663-315-102	15
325	0,1	0,09	488	337	4,77	663-325-102	15
350	0,1	0,09	525	362	5,14	663-350-102	15
400	0,1	0,08	600	412	5,87	663-400-102	15
500	0,05	0,03	750	512	7,34	663-500-102	15

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



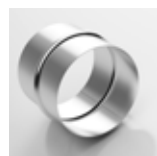
Heat-Shrink Cuff



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



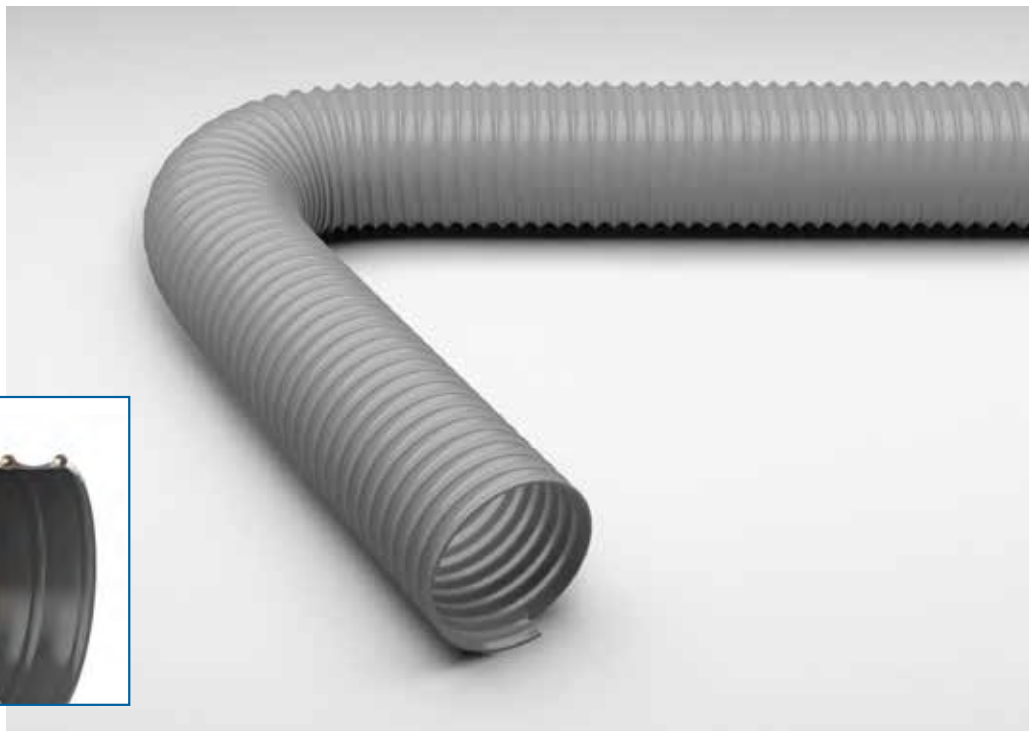
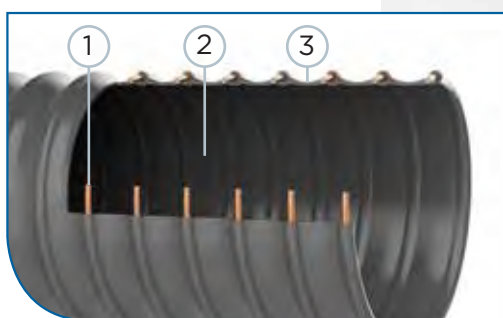
Hose Connector



Hose Reducer, symmetrical

Master-PVC H

PVC Suction Hose & Transport Hose, medium-weight, flexible



Material

- ① spiral: spring steel wire
- ② wall: soft PVC
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- protective hose
- liquid drainage
- suction and transport hose for solid, liquid and gaseous media
- ventilation and air-conditioning systems
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- small bending radii
- good flexibility
- medium duty
- good oil/alkali/acid resistance
- increased pressure and vacuum resistance
- RoHs compliant
- good chemical resistance
- optimum flow characteristics
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

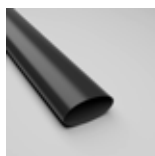
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
32	1,63	0,92	60	41	0,48	141-032-102	25
38	1,56	0,82	69	47	0,55	141-038-102	25
40	1,5	0,82	72	49	0,56	141-040-102	25
45	1,48	0,81	80	55	0,64	141-045-102	25
50	1,46	0,79	85	60	0,74	141-050-102	25
51	1,45	0,79	87	61	0,76	141-051-102	25
55	1,38	0,76	95	65	0,82	141-055-102	25
60	1,27	0,74	102	70	0,88	141-060-102	25
65	1,2	0,66	110	75	0,96	141-065-102	25
70	1,13	0,66	117	80	1,04	141-070-102	25
75	1,02	0,6	125	86	1,1	141-075-102	25
76	1	0,59	126	87	1,11	141-076-102	25
80	1	0,59	132	91	1,2	141-080-102	25
90	0,83	0,52	149	101	1,29	141-090-102	25
100	0,76	0,45	162	110	1,38	141-100-102	25
102	0,75	0,44	165	112	1,4	141-102-102	25
110	0,68	0,44	179	121	1,5	141-110-102	25
115	0,68	0,31	186	126	1,56	141-115-102	25
120	0,65	0,31	194	131	1,61	141-120-102	25
125	0,65	0,31	200	136	1,71	141-125-102	25
127	0,65	0,31	203	138	1,75	141-127-102	25
130	0,65	0,31	209	141	1,8	141-130-102	25
140	0,53	0,25	224	151	1,93	141-140-102	25
150	0,53	0,25	239	161	2,04	141-150-102	25
152	0,53	0,25	242	163	2,06	141-152-102	25
160	0,45	0,25	255	171	2,39	141-160-102	25
170	0,45	0,18	270	181	2,59	141-170-102	25
175	0,45	0,18	278	186	2,7	141-175-102	25
180	0,38	0,18	285	191	2,8	141-180-102	25
200	0,38	0,18	316	212	3,06	141-200-102	25
203	0,38	0,18	321	215	3,1	141-203-102	25
225	0,3	0,12	353	237	3,44	141-225-102	25
250	0,3	0,12	385	259	4,12	141-250-102	25
254	0,3	0,12	390	263	4,23	141-254-102	25
275	0,28	0,12	426	288	4,93	141-275-102	25
300	0,28	0,12	465	313	5,37	141-300-102	20
315	0,28	0,12	488	328	5,69	141-315-102	20
325	0,28	0,12	503	338	5,91	141-325-102	20
350	0,28	0,12	540	363	6,66	141-350-102	20
400	0,15	0,07	615	413	7,84	141-400-102	20
450	0,15	0,07	690	463	9,04	141-450-102	20
500	0,15	0,07	765	513	10,16	141-500-102	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



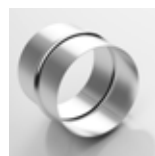
Heat-Shrink Cuff



Master-Grip Hose
Clamp, screwable



Master-Grip Quick-Fix
Clamp



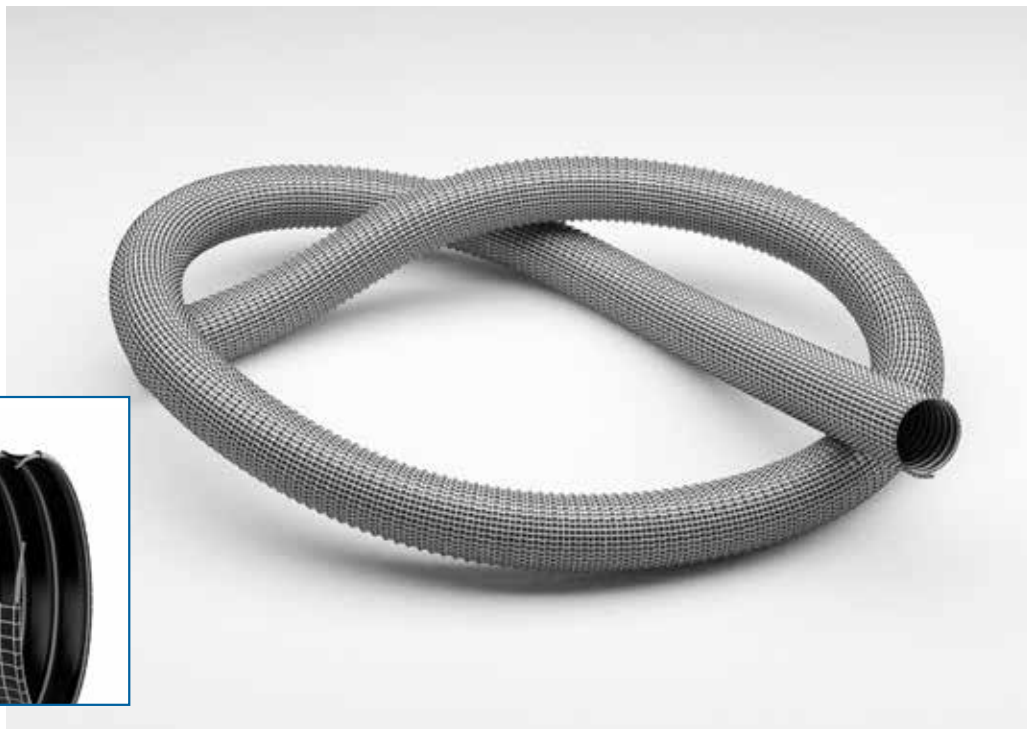
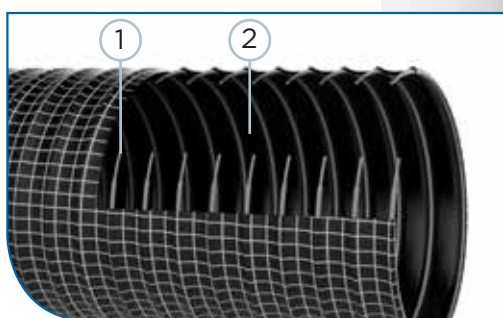
Hose Connector



Hose Reducer, sym-
metrical

Master-PVC Flex

PVC Suction & Transport Hose, light, highly flexible, reinforced



Material

- ① spiral: spring steel wire, plastic-coated
- ② wall: double-layered soft PVC with strand reinforcements

Applications

- protective hose
- suction and transport hose for solid, liquid and gaseous media
- ventilation and air-conditioning systems
- boat and caravan manufacturing
- household and industrial vacuum cleaners
- welding fume extraction
- textile industry
- construction drying
- machine manufacturing
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- super lightweight
- mostly smooth inner lining
- highly flexible
- good oil/alkali/acid resistance
- smallest bending radii
- RoHs compliant
- good chemical resistance

Temperature Range

- 0°C to +70°C
- peaks to +85°C



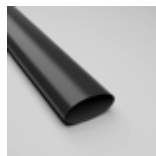
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
25	1	0,39	25	30	0,22	671-025-107	15
28	1	0,34	28	33	0,24	671-028-107	15
32	1	0,34	32	37	0,27	671-032-107	15
38	0,95	0,29	38	43	0,37	671-038-107	15
41	0,95	0,29	41	46	0,4	671-041-107	15
44	0,9	0,28	44	50	0,43	671-044-107	15
51	0,9	0,28	51	57	0,49	671-051-107	15
63	0,8	0,25	63	69	0,61	671-063-107	15
70	0,8	0,2	71	78	0,78	671-070-107	15
76	0,8	0,2	76	83	0,85	671-076-107	15
80	0,8	0,18	80	87	0,88	671-080-107	15
89	0,8	0,17	89	96	0,98	671-089-107	10
102	0,8	0,15	102	109	1,15	671-102-107	15

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Worm-Gear Drive



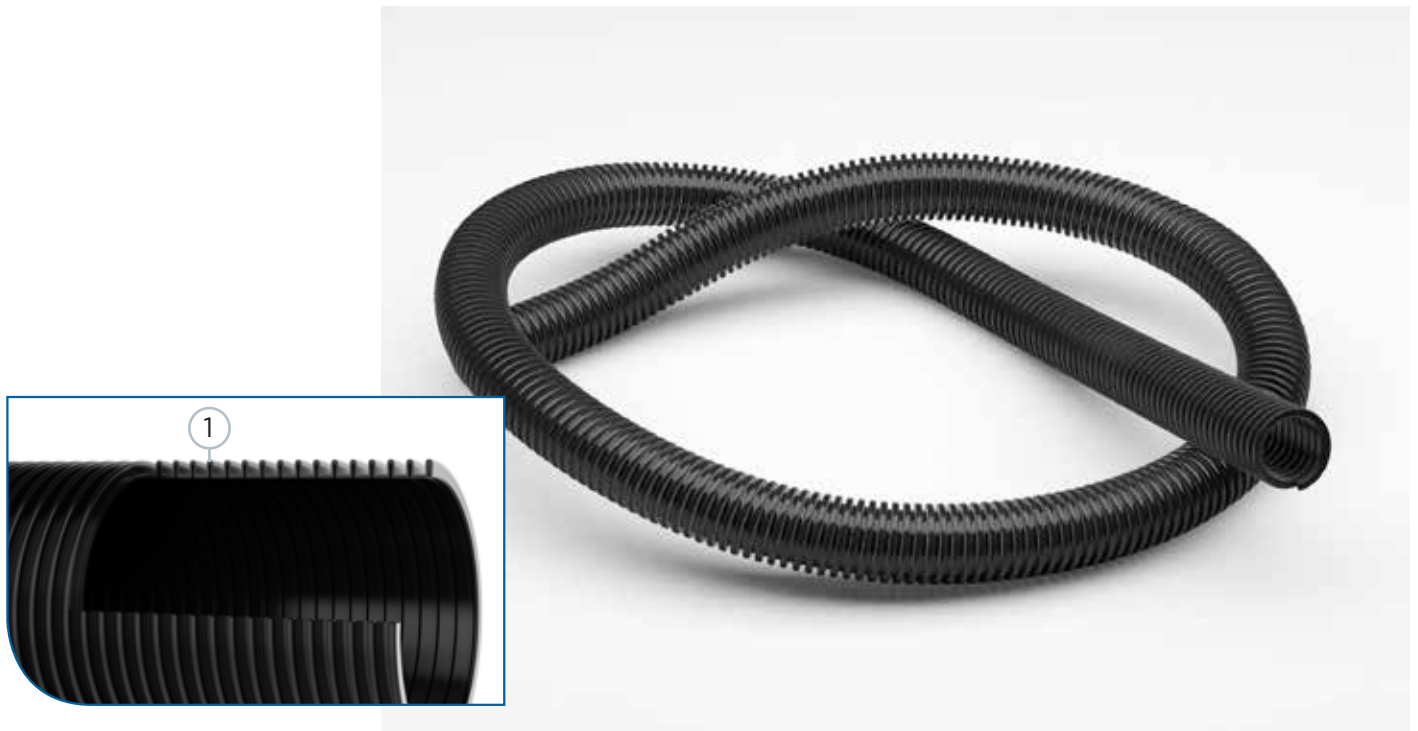
Heat-Shrink Cuff



Cuff for Master-PVC Flex

Master-VAC

PE-EVA Suction Hose & Transport Hose, lightweight, crush-resistant



Material

- 1 wall: PE-EVA Co-polymer

Applications

- suction hose for fine-grained particles, e.g. dust, powders, fibres
- protective hose
- swimming pool cleaning
- ventilation
- conveyance and suction of solid, liquid and gaseous media
- chemicals industry
- dust removal units
- household vacuum cleaners
- Industrial vacuum cleaners
- Handheld machines

Available on request

- Available on request in other lengths, sizes and colours, with print.

Properties

- floatable (spec. Weight 0.94)
- crush-resistant
- super lightweight
- highly flexible
- good oil/alkali/acid resistance
- UV/ozone-proof
- RoHs compliant
- air-tight / watertight

Temperature Range

- -40°C to +60°C
- peaks to +70°C



Stock lengths and technical data / www.masterflex.de/en

DN	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
28	0,74	70	0,19	670-028-107	20
32	0,49	70	0,22	670-032-107	30
36	0,49	75	0,27	670-036-107	20
38	0,49	80	0,29	670-038-107	30
45	0,49	90	0,37	670-045-107	30
50	0,39	100	0,42	670-050-107	30

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



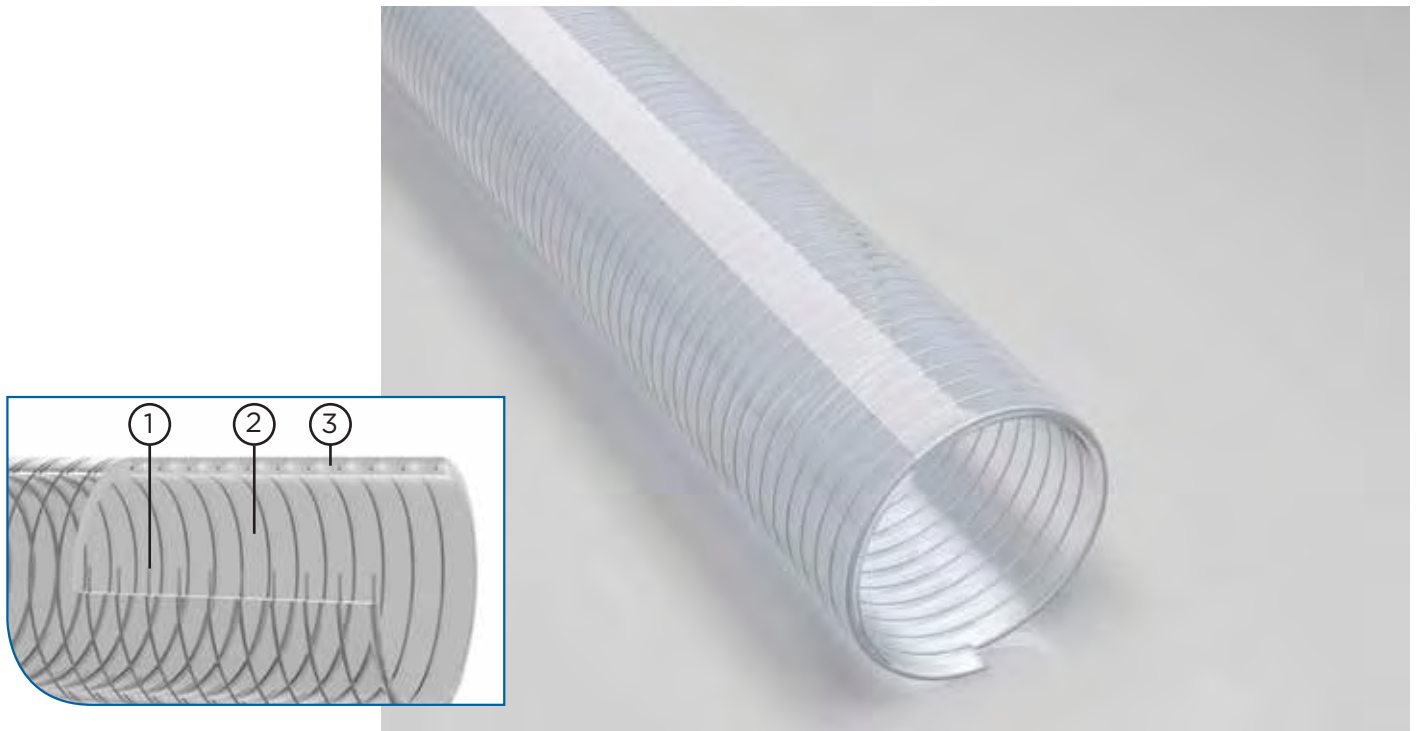
Hose Clamp with Worm-Gear Drive



Cuff for Master-VAC

Polderflex

PVC Suction Hose & Transport Hose, pressure & vacuum proof, cadmium-free, flexible



Material

- ① spiral: spring steel wire
- ② wall: soft PVC
- ③ wall thickness between spirals
approx. 3 - 10mm, dep. on DN size

Applications

- Sewer cleaning
- Vacuum pumps
- Agriculture
- Construction industry
- Groundwater offtake
- Suction & transport hose for abrasive solids, liquids and gases

Available on request

- Available on request in other lengths, sizes and colours, with print.

Properties

- pressure and vacuum resistant
- flexible
- smooth inner and outer linings
- atoxic, physiologically safe/harmless
- good oil/alkali/acid resistance
- good chemical resistance

Temperature Range

- -20°C to +70°C
- peaks to +80°C



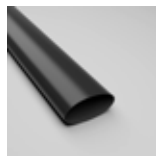
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
13	9	0,88	26	19	0,22	660-013-101	50
16	9	0,88	32	22	0,27	660-016-101	50
19	8	0,88	38	26	0,35	660-019-101	50
20	8	0,88	40	27	0,34	660-020-101	50
26	8	0,88	50	33	0,52	660-026-101	50
32	8	0,88	64	40	0,66	660-032-101	50
38	7	0,88	76	47	0,8	660-038-101	50
40	7	0,88	80	50	0,95	660-040-101	50
45	6	0,88	90	55	1,15	660-045-101	50
51	5	0,88	102	62	1,35	660-051-101	50
60	5	0,88	120	72	1,75	660-060-101	50
63	5	0,88	126	75	1,8	660-063-101	50
76	4	0,88	152	89	2,3	660-076-101	30
80	4	0,88	160	93	2,58	660-080-101	30
90	4	0,88	270	104	2,95	660-090-101	30
102	3	0,88	306	117	3,75	660-102-101	30
127	3	0,88	381	143	4,8	660-127-101	15
152	2	0,88	456	170	6,5	660-152-101	15

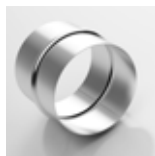
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Heat-Shrink Cuff



Hose Connector



Hose Clamp with Worm-Gear Drive



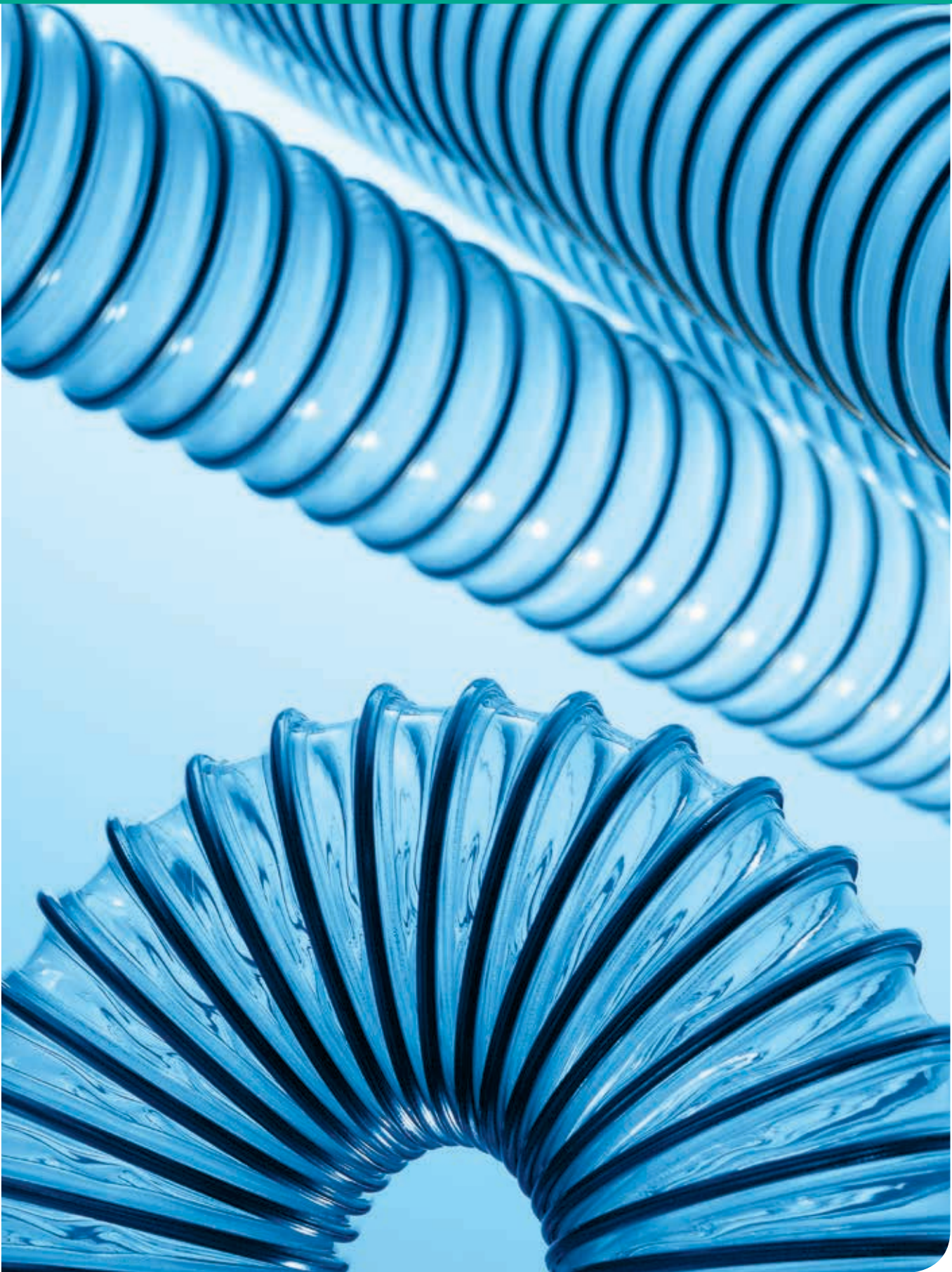
Hose Clamp with Bolts



3

Microbe & Hydrolysis-Resistant Hoses

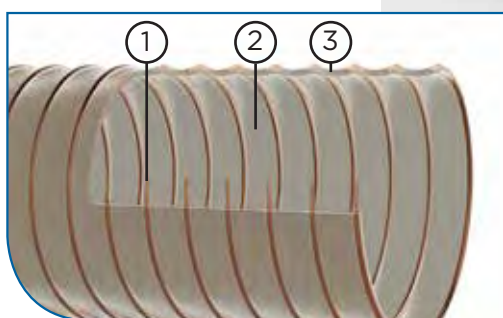
**Extremely flexible hoses made
from Polyester and Polyether
Polyurethane for a wide range of
applications**



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PUR L Trivolution

PU Suction hose & Transport Hose, extremely flexible, light duty, antistatic, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Tip:
Also available in L-F, H,
HÜ, HÜ-S & HX version

Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- transport of fine-grained particles, such as dust and powder
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- microbe-resistant
- permanently antistatic, surface resistance < 10⁹ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- light
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
26	3,22	0,79	31	31	0,25	110-026-401	25
32	2,52	0,71	40	40	0,35	110-032-401	25
38	2,1	0,66	46	46	0,39	110-038-401	25
40	2,1	0,66	48	48	0,4	110-040-401	25
45	1,84	0,59	53	53	0,42	110-045-401	25
51	1,68	0,52	58	58	0,48	110-051-401	25
55	1,54	0,44	63	63	0,51	110-055-401	25
60	1,4	0,44	68	68	0,53	110-060-401	25
65	1,26	0,37	73	73	0,64	110-065-401	25
70	1,12	0,37	78	78	0,68	110-070-401	25
76	1,12	0,29	84	84	0,72	110-076-401	25
80	0,98	0,29	88	88	0,76	110-080-401	25
90	0,84	0,22	99	99	0,88	110-090-401	25
102	0,84	0,22	110	110	0,95	110-102-401	25
110	0,7	0,22	119	119	1,03	110-110-401	25
115	0,7	0,22	124	124	1,06	110-115-401	25
120	0,7	0,22	129	129	1,12	110-120-401	25
127	0,7	0,22	135	135	1,18	110-127-401	25
130	0,56	0,22	139	139	1,2	110-130-401	25
140	0,56	0,15	149	149	1,38	110-140-401	25
152	0,56	0,15	161	161	1,48	110-152-401	25
160	0,56	0,15	170	170	1,74	110-160-401	25
170	0,42	0,15	180	180	1,8	110-170-401	25
175	0,42	0,15	185	185	1,85	110-175-401	25
180	0,42	0,15	190	190	1,9	110-180-401	25
203	0,42	0,15	214	214	2,3	110-203-401	25
225	0,28	0,07	235	235	2,55	110-225-401	25
254	0,28	0,07	264	264	3,02	110-254-401	25
275	0,28	0,07	284	284	3,11	110-275-401	25
280	0,28	0,07	290	290	3,14	110-280-401	20
300	0,25	0,07	310	310	3,2	110-300-401	20
315	0,25	0,07	325	325	3,32	110-315-401	20
325	0,25	0,07	335	335	3,4	110-325-401	20
350	0,13	0,07	360	360	3,6	110-350-401	20
375	0,13	0,05	386	386	3,85	110-375-401	20
400	0,13	0,05	410	411	4,45	110-400-401	20
450	0,13	0,05	460	461	5,06	110-450-401	20
500	0,13	0,05	510	511	5,7	110-500-401	20

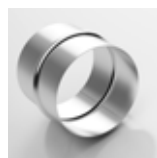
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



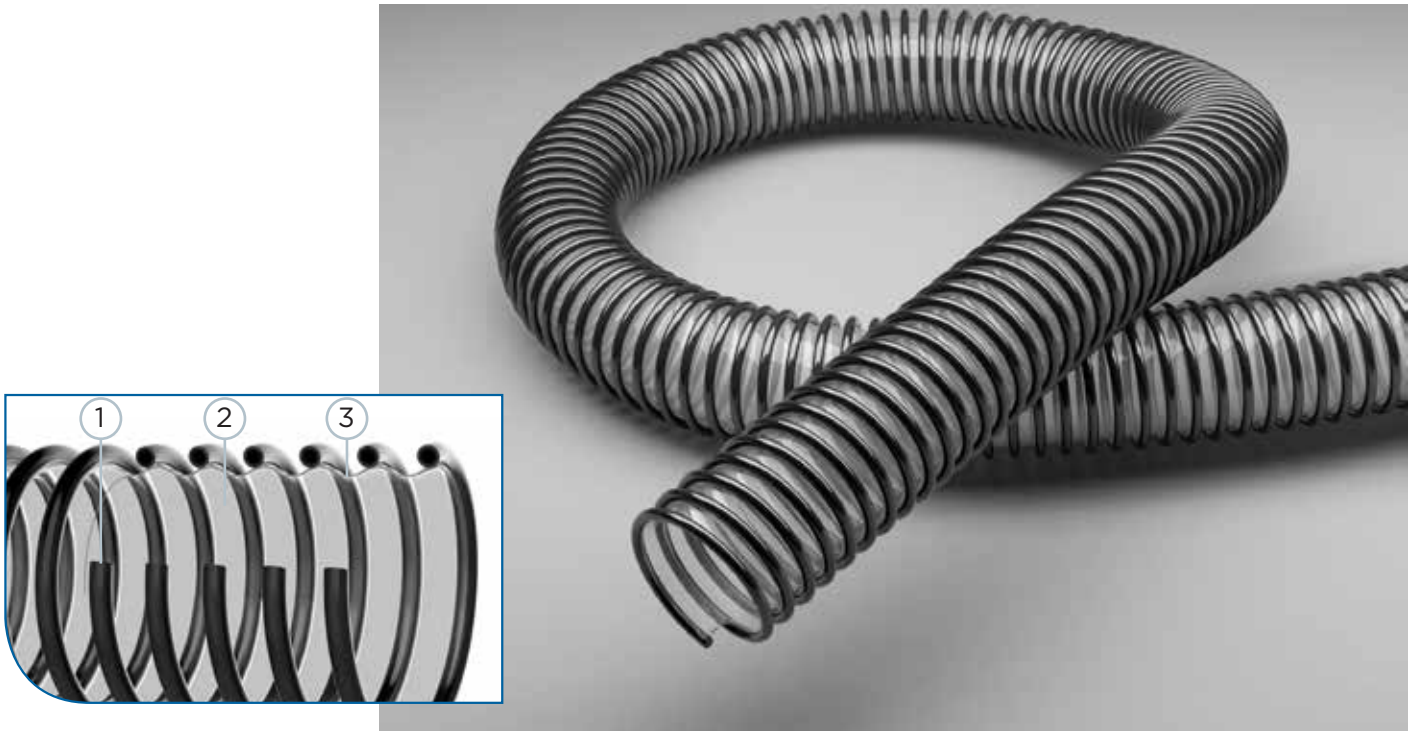
PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR STEP MHR

PU Film Hose, crush-resistant, microbe & hydrolysis-resistant



Material

- ① spiral: plastic-profile helix
- ② wall: pure polyether polyurethane, microbe resistant
- ③ Wall thickness between spirals c. 0.6 mm

Applications

- suction & transport hose for abrasive solids, for which microbe and hydrolysis resistance is required
- light suction hose for municipal vehicles
- lawnmowers
- leaf vacuums/blowers

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- high tension/tear-proof
- vibration-proof
- flexible at cold temperatures
- extremely flexible
- crush-resistant
- mostly smooth inner lining
- microbe and hydrolysis-resistant
- free of halogens and heavy metals
- light
- smallest bending radii
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Aktuelle Lagerlängen und technische Daten / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
80	0,8	0,31	80	100	0,72	311-080-498	25
100	0,7	0,28	98	118	0,87	311-100-498	25
102	0,7	0,28	100	120	0,88	311-102-498	25
120	0,63	0,23	120	140	1,05	311-120-498	25
150	0,51	0,17	148	168	1,28	311-150-498	25
152	0,5	0,17	150	170	1,3	311-152-498	25
160	0,45	0,15	160	180	1,39	311-160-498	25
180	0,4	0,11	180	200	1,56	311-180-498	25
200	0,31	0,08	197	217	1,7	311-200-498	25
203	0,3	0,07	200	220	1,72	311-203-498	25

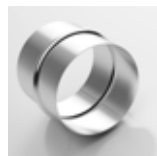
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Car-Grip Quick-Fix Clamp



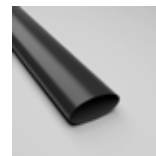
Car-Grip Hose Clamp, screwable



Hose Connector



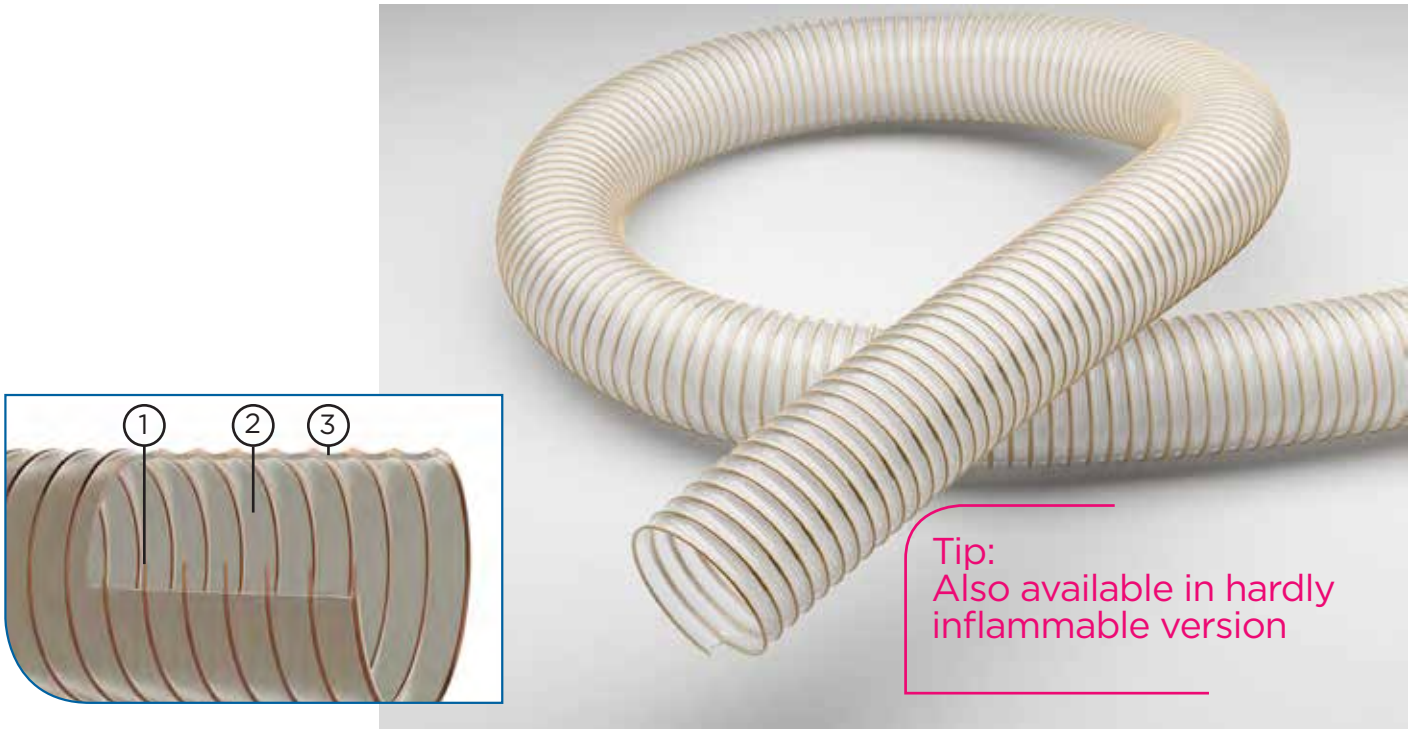
PU Cuff, pre-fitted



Heat-Shrink Cuff

Master-PUR L-MHR

PU Suction & Transport Hose, lightweight, microbe & hydrolysis-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- suction & transport hose for abrasive solids, for which microbe and hydrolysis resistance is required
- transport of fine-grained particles, such as dust and powder
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- microbe and hydrolysis-resistant
- very good flexibility
- light
- halogen and plasticizer-free
- smallest bending radii
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Aktuelle Lagerlängen und technische Daten / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
26	3,22	0,79	31	31	0,25	110-026-498	25
32	2,52	0,71	40	40	0,35	110-032-498	25
38	2,1	0,66	46	46	0,39	110-038-498	25
40	2,1	0,66	48	48	0,4	110-040-498	25
45	1,84	0,59	53	53	0,42	110-045-498	25
51	1,68	0,52	58	58	0,45	110-051-498	25
55	1,54	0,44	63	63	0,51	110-055-498	25
60	1,4	0,44	68	68	0,53	110-060-498	25
65	1,26	0,37	73	73	0,64	110-065-498	25
70	1,12	0,37	78	78	0,68	110-070-498	25
76	1,12	0,29	84	84	0,72	110-076-498	25
80	0,98	0,29	88	88	0,76	110-080-498	25
90	0,84	0,22	99	99	0,88	110-090-498	25
102	0,84	0,22	110	110	0,95	110-102-498	25
110	0,7	0,22	119	119	1,03	110-110-498	25
115	0,7	0,22	124	124	1,06	110-115-498	25
120	0,7	0,22	129	129	1,12	110-120-498	25
127	0,7	0,22	135	135	1,18	110-127-498	25
130	0,56	0,22	139	139	1,2	110-130-498	25
140	0,56	0,15	149	149	1,38	110-140-498	25
152	0,56	0,15	161	161	1,48	110-152-498	25
160	0,56	0,15	170	170	1,74	110-160-498	25
170	0,42	0,15	180	180	1,8	110-170-498	25
175	0,42	0,15	185	185	1,85	110-175-498	25
180	0,42	0,15	190	190	1,9	110-180-498	25
203	0,42	0,15	214	214	2,3	110-203-498	25
225	0,28	0,07	235	235	2,55	110-225-498	25
254	0,28	0,07	264	264	3,02	110-254-498	25
275	0,28	0,07	284	284	3,11	110-275-498	25
280	0,28	0,07	290	290	3,14	110-280-498	25
300	0,25	0,07	310	310	3,2	110-300-498	20
315	0,25	0,07	325	325	3,32	110-315-498	20
325	0,25	0,07	335	335	3,4	110-325-498	20
350	0,13	0,07	360	360	3,6	110-350-498	20
375	0,13	0,05	386	386	3,85	110-375-498	20
400	0,13	0,05	410	411	4,45	110-400-498	20
450	0,13	0,05	460	461	5,06	110-450-498	20
500	0,13	0,05	510	511	5,7	110-500-498	20

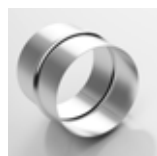
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



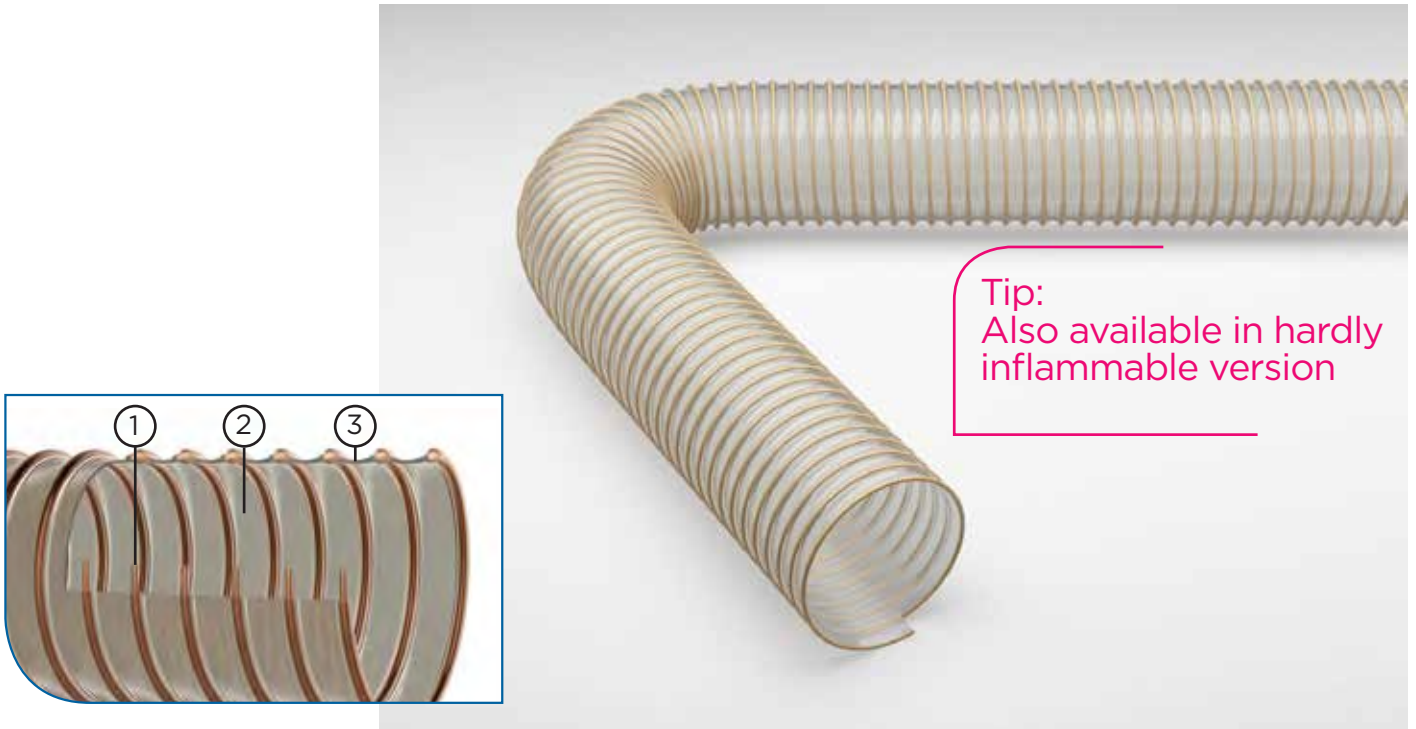
PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR H-MHR

PU Suction & Transport Hose, medium duty, microbe/hydrolysis-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- suction & transport hose for abrasive solids, for which microbe and hydrolysis resistance is required
- granulate transport hose
- standard hose for industrial vacuum cleaners
- transport of chips/shavings
- oil mist extraction/suction
- suction and transport of paper fibres

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Properties

- small bending radii
- good flexibility
- medium duty
- increased pressure and vacuum resistance
- microbe and hydrolysis-resistant
- halogen and plasticizer-free
- optimum flow characteristics
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.
- acc. to DIN 26057 type III

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Aktuelle Lagerlängen und technische Daten / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
16	4,5	0,92	40	22	0,2	111-016-498	25
20	4,3	0,92	43	26	0,22	111-020-498	25
26	4,16	0,92	47	33	0,29	111-026-498	25
32	3,25	0,92	60	41	0,39	111-032-498	25
38	3,12	0,82	69	47	0,46	111-038-498	25
40	3	0,82	72	49	0,52	111-040-498	25
45	2,95	0,81	80	55	0,55	111-045-498	25
51	2,9	0,79	87	61	0,71	111-051-498	25
55	2,75	0,76	95	65	0,77	111-055-498	25
60	2,55	0,74	102	70	0,82	111-060-498	25
65	2,4	0,66	112	75	0,91	111-065-498	25
70	2,25	0,66	117	80	0,97	111-070-498	25
76	2	0,59	126	87	1,03	111-076-498	25
80	2	0,59	132	91	1,11	111-080-498	25
90	1,65	0,52	149	101	1,25	111-090-498	25
102	1,5	0,44	165	112	1,48	111-102-498	25
110	1,35	0,44	179	121	1,61	111-110-498	25
115	1,35	0,31	186	126	1,68	111-115-498	25
120	1,3	0,31	194	131	1,75	111-120-498	25
127	1,3	0,31	203	138	1,91	111-127-498	25
130	1,3	0,31	209	141	1,96	111-130-498	25
140	1,05	0,25	224	151	2,02	111-140-498	25
152	1,05	0,25	242	163	2,10	111-152-498	25
160	0,9	0,25	255	171	2,35	111-160-498	25
170	0,9	0,18	270	181	2,67	111-170-498	25
175	0,9	0,18	278	186	2,74	111-175-498	25
180	0,75	0,18	285	191	2,82	111-180-498	25
203	0,75	0,18	321	215	3,5	111-203-498	25
225	0,6	0,12	353	237	3,65	111-225-498	25
254	0,58	0,12	396	267	3,84	111-254-498	25
275	0,45	0,12	426	288	4,22	111-275-498	25
280	0,45	0,12	435	293	4,3	111-280-498	25
300	0,45	0,12	465	313	4,94	111-300-498	20
315	0,45	0,12	488	328	5,19	111-315-498	20
325	0,45	0,12	503	338	5,35	111-325-498	20
350	0,45	0,12	540	363	6,96	111-350-498	20
400	0,3	0,07	615	413	7,95	111-400-498	20
450	0,3	0,07	690	463	8,94	111-450-498	20
500	0,3	0,07	765	513	9,93	111-500-498	20

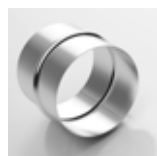
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose
Clamp, screwable



Master-Grip Quick-Fix
Clamp



Hose Connector



PU Cuff, electrocon-
ductive



Combiflex PU Thread-
ed Socket

Streetmaster GKS

PU Large Street-Cleaner Suction Hose, highly abrasion / vacuum / microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane, microbe resistant
- ③ wall thickness between spirals approx. 1.8 - 3.4 mm

Applications

- municipal and waste disposal vehicles
- suction dredger hose
- suction hose for larger sweepers
- suction & transport hose for abrasive solids, which require microbe resistance

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- extremely abrasion resistant
- axial compressable
- microbe-resistant
- flexible
- lightweight (compared to rubber)
- optimum flow characteristics
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
225	0,6	0,36	525	240	4,7	130-225-407	20
250	0,6	0,32	585	269	5,4	130-250-407	20
280	0,5	0,28	655	295	6,3	130-280-407	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU fixed flange



Hose Clamp with Bolts



PU Cuff, pre-fitted flange

Streetmaster KKS

PU suction hose for smaller street cleaning machines, abrasion / vacuum / microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane, microbe resistant
- ③ wall thickness between spirals approx. 1.7 mm

Applications

- municipal and waste disposal vehicles
- suction dredger hose
- suction hose for smaller sweepers
- suction & transport hose for abrasive solids, which require microbe resistance

Available on request

- available on request in other lengths, sizes and colours, with print.
- those marked with # only available with Streetmaster Cuffs
- available from stock in black (-407) and transparent (-401)

Properties

- extremely abrasion resistant
- axial compressable
- microbe-resistant
- flexible
- lightweight (compared to rubber)
- optimum flow characteristics
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Aktuelle Lagerlängen und technische Daten / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
200	0,65	0,15	266	221	2,8	131-201-407#	20
200	0,65	0,15	266	228	2,8	131-208-407	20
200	0,65	0,15	266	221	2,8	131-201-401#	20
200	0,65	0,15	266	228	2,8	131-208-401	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU fixed flange



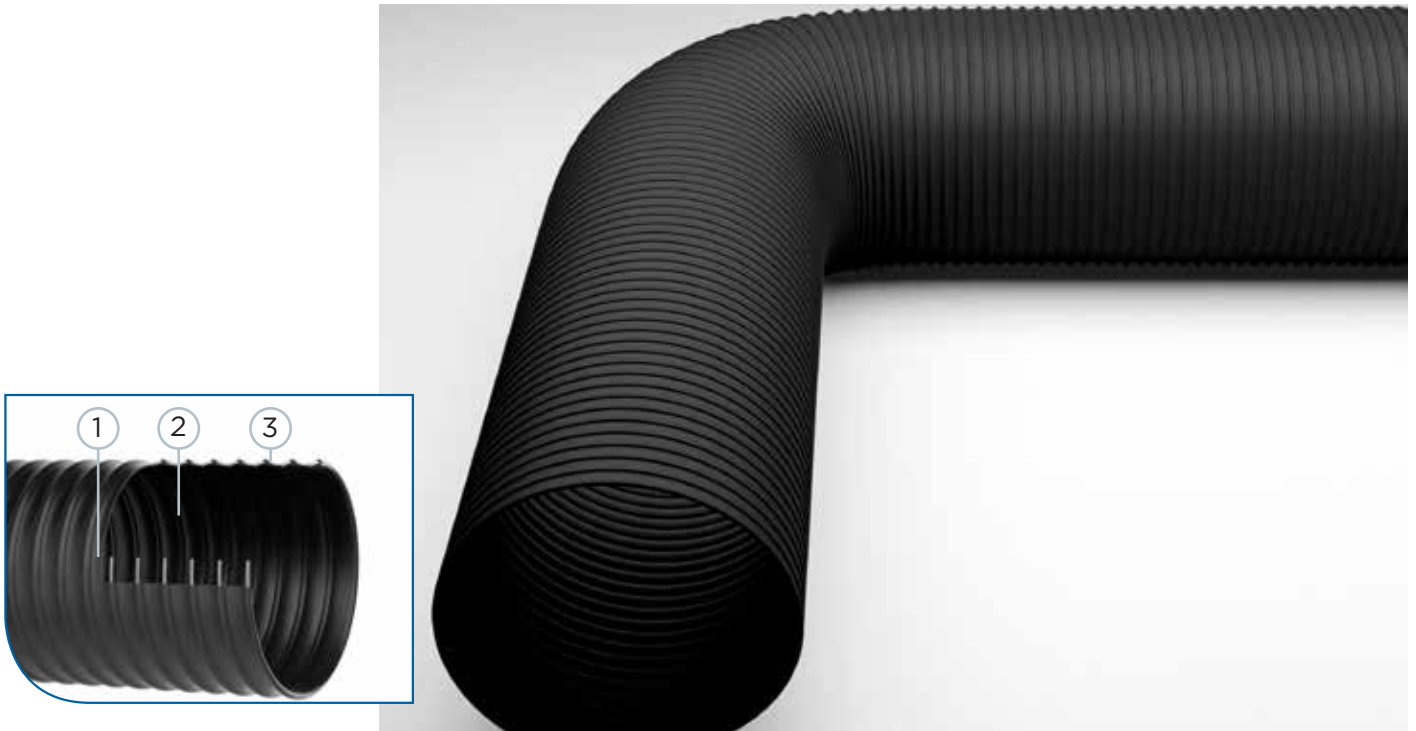
Hose Clamp with Bolts



PU Cuff, pre-fitted flange

Streetmaster GLG

PU hose for larger leaf and grass suction devices, microbe-resistant



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane, microbe resistant
- ③ wall thickness between spirals approx. 1.7 mm

Applications

- transport hose for abrasive solids, which require microbe resistance
- slope cutters
- leaf vacuums/blowers

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- extremely abrasion resistant
- axial compressable
- microbe-resistant
- flexible
- lightweight (compared to rubber)
- optimum flow characteristics
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Aktuelle Lagerlängen und technische Daten / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
400	0,35	0,05	510	414	6,5	133-400-407	20
All data refers to a medium and ambient temperature of +20 °C. * Refers to the inner hose lining Subject to technical changes and colour deviations.							

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16



Hose Clamp with Bolts

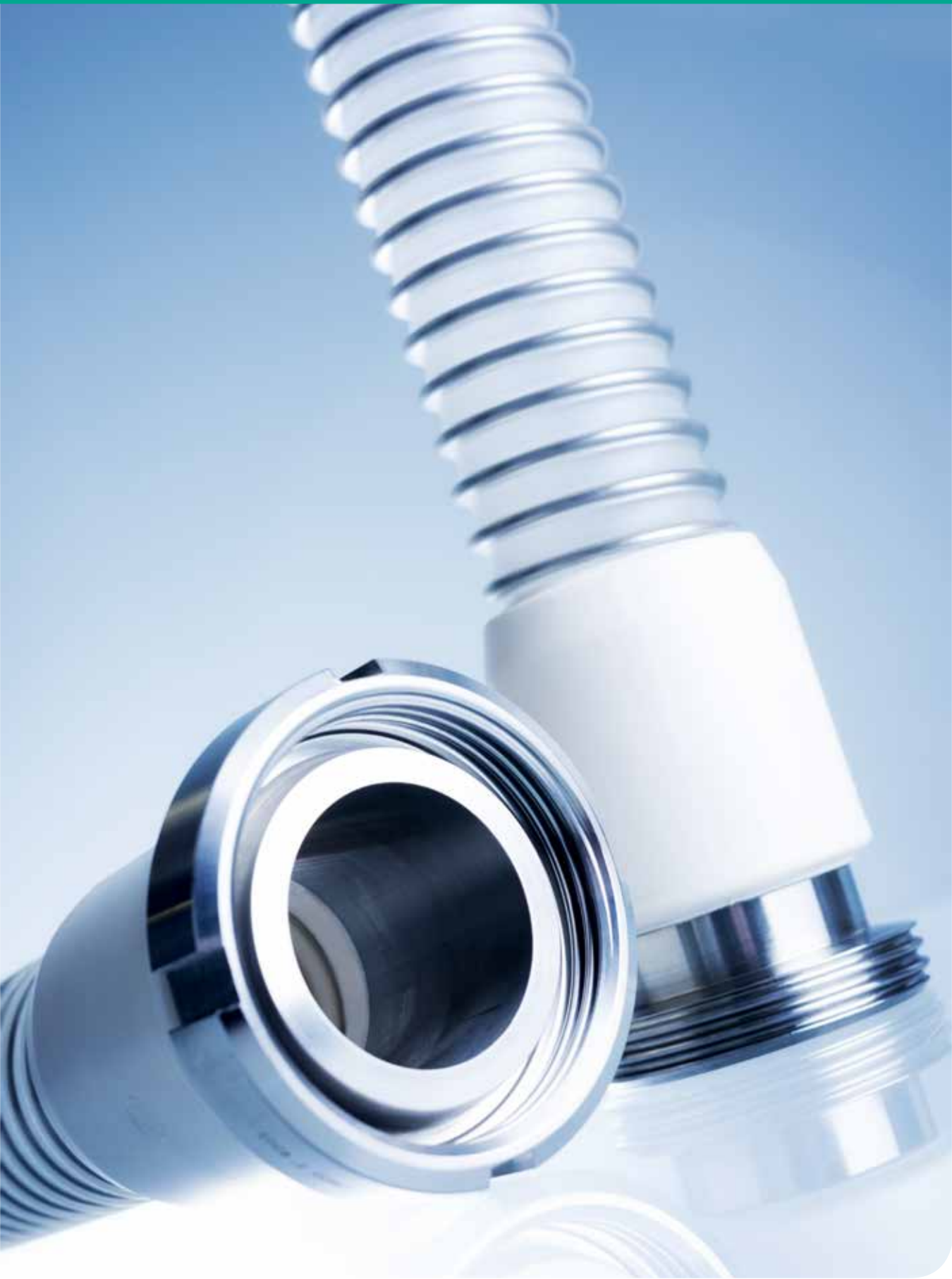


PU Cuff, pre-fitted



4 Food & Pharmaceutical Hoses

Smoother hoses made from pure Polyether-Polyurethane, certified to EU directives & FDA compliant for almost any application in the Food & Pharmaceutical industries



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PUR L-F Food

PU Suction & Transport Hose, super lightweight, extremely flexible, food-grade quality acc. to EU 10/2011 and FDA



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade quality (FDA)
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- abrasion-resistant
- highly flexible
- very light
- odourless/tasteless
- microbe and hydrolysis-resistant
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
40	0,82	0,24	20	46	0,28	310-040-501	25
50	0,78	0,2	24	56	0,33	310-050-501	25
51	0,78	0,2	25	57	0,34	310-051-501	25
60	0,76	0,19	35	68	0,35	310-060-501	25
70	0,61	0,16	40	78	0,41	310-070-501	25
75	0,61	0,13	42	82	0,51	310-075-501	25
76	0,61	0,13	43	83	0,53	310-076-501	25
80	0,53	0,13	45	88	0,53	310-080-501	25
90	0,46	0,09	50	99	0,6	310-090-501	25
100	0,46	0,09	54	107	0,68	310-100-501	25
102	0,46	0,09	55	108	0,69	310-102-501	25
110	0,38	0,09	60	119	0,73	310-110-501	25
120	0,38	0,09	65	129	0,82	310-120-501	25
125	0,38	0,09	68	132	0,84	310-125-501	25
127	0,38	0,09	70	134	0,85	310-127-501	25
150	0,3	0,06	79	157	1	310-150-501	25
152	0,3	0,06	80	159	1,02	310-152-501	25
160	0,3	0,06	85	169	1,23	310-160-501	25
180	0,23	0,06	95	189	1,38	310-180-501	25
200	0,23	0,06	104	207	1,5	310-200-501	25
203	0,23	0,06	105	210	1,52	310-203-501	25
250	0,15	0,03	128	256	1,64	310-250-501	25
254	0,15	0,03	130	260	1,64	310-254-501	25
300	0,14	0,03	155	310	1,78	310-300-501	25
315	0,14	0,03	162	325	1,87	310-315-501	25
350	0,12	0,03	180	360	2,44	310-350-501	25
400	0,12	0,03	210	410	3,04	310-400-501	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Master-Grip Double-Wire Clamp



Combiflex PU Fixed Flange Food



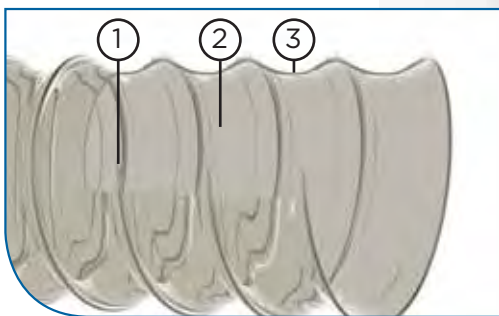
Combiflex PU Swivel Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR L-F Food A

PU Suction & Transport Hose, super lightweight, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade category: E (contact duration acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- abrasion-resistant
- highly flexible
- very light
- odourless/tasteless
- microbe and hydrolysis-resistant
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



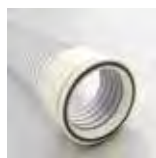
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
40	0,82	0,24	20	46	0,28	310-040-571	25
50	0,78	0,2	24	56	0,33	310-050-571	25
51	0,78	0,2	25	57	0,34	310-051-571	25
60	0,76	0,19	35	68	0,35	310-060-571	25
70	0,61	0,16	40	78	0,41	310-070-571	25
75	0,61	0,13	42	82	0,51	310-075-571	25
76	0,61	0,13	43	83	0,53	310-076-571	25
80	0,53	0,13	45	88	0,53	310-080-571	25
90	0,46	0,09	50	99	0,6	310-090-571	25
100	0,46	0,09	54	106	0,68	310-100-571	25
102	0,46	0,09	55	108	0,69	310-102-571	25
110	0,38	0,09	60	119	0,73	310-110-571	25
120	0,38	0,09	65	129	0,82	310-120-571	25
125	0,38	0,09	70	132	0,84	310-125-571	25
127	0,38	0,09	70	134	0,85	310-127-571	25
150	0,31	0,06	78	157	1,01	310-150-571	25
152	0,3	0,06	80	159	1,02	310-152-571	25
160	0,3	0,06	85	169	1,23	310-160-571	25
180	0,23	0,06	95	189	1,38	310-180-571	25
200	0,23	0,06	102	207	1,5	310-200-571	25
203	0,23	0,06	105	210	1,52	310-203-571	25
250	0,16	0,03	126	256	1,66	310-250-571	25
254	0,15	0,03	130	260	1,65	310-254-571	25
300	0,14	0,03	155	310	1,78	310-300-571	25
315	0,14	0,03	162	325	1,87	310-315-571	25
350	0,12	0,03	180	360	2,44	310-350-571	25
400	0,12	0,03	210	410	3,04	310-400-571	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



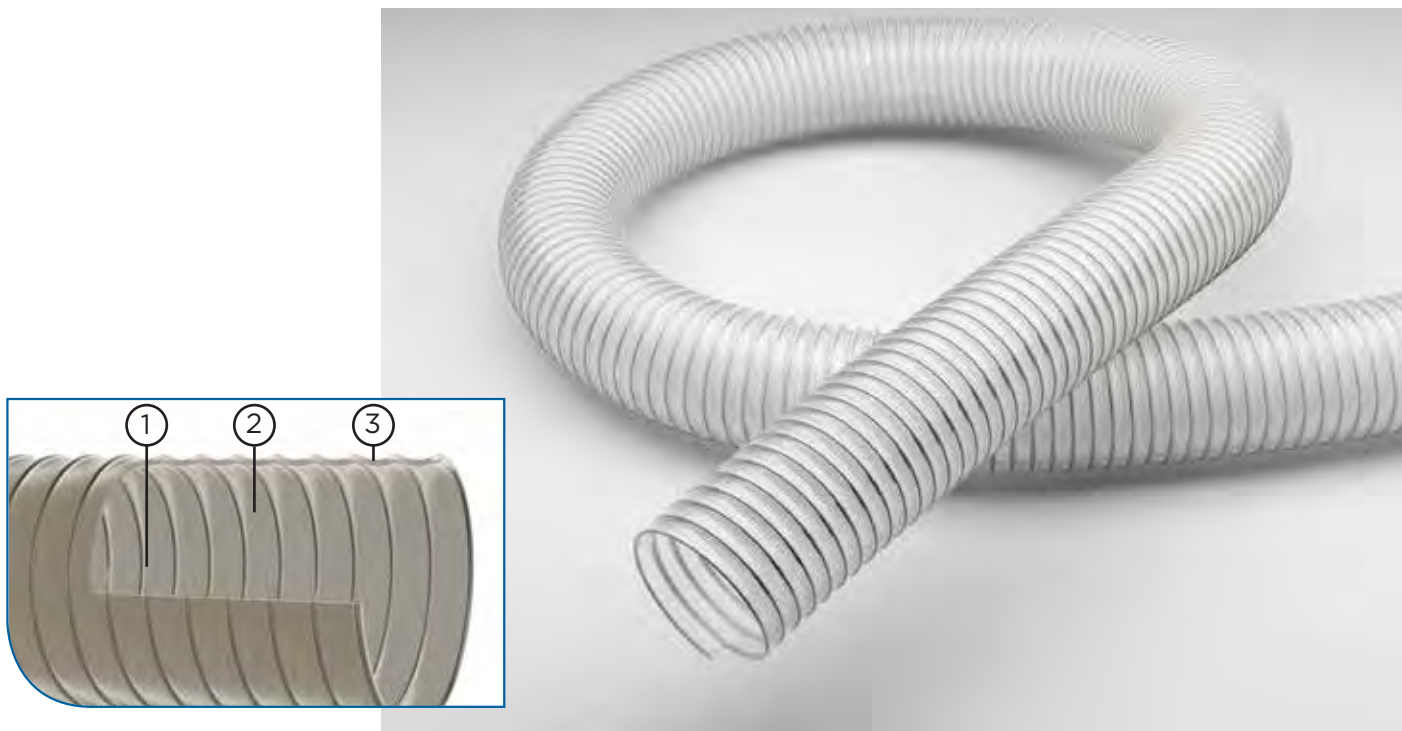
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR L Food

PU Suction & Transport Hose, light duty, food-grade quality acc. to EU 10/2011 and FDA



Material

- 1 spiral: spring steel wire (stainless steel 1.4310)
- 2 wall: pure polyether polyurethane, food-grade quality (FDA)
- 3 wall thickness between spirals approx. 0.7 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- abrasion-resistant
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- light
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	2,52	0,71	40	40	0,35	110-032-501	25
38	2,1	0,66	46	46	0,39	110-038-501	25
40	2,1	0,66	48	48	0,4	110-040-501	25
45	1,84	0,59	53	53	0,44	110-045-501	25
50	1,71	0,51	57	57	0,45	110-050-501	25
51	1,68	0,52	58	58	0,45	110-051-501	25
55	1,54	0,44	63	63	0,54	110-055-501	25
60	1,4	0,44	68	68	0,53	110-060-501	25
65	1,26	0,37	75	73	0,64	110-065-501	25
70	1,12	0,37	80	78	0,68	110-070-501	25
75	1,12	0,3	84	83	0,71	110-075-501	25
76	1,12	0,29	85	84	0,72	110-076-501	25
80	0,98	0,29	90	88	0,76	110-080-501	25
90	0,84	0,22	99	99	0,88	110-090-501	25
100	0,84	0,22	108	108	0,94	110-100-501	25
102	0,84	0,22	110	110	0,95	110-102-501	25
110	0,7	0,22	119	119	1,23	110-110-501	25
115	0,7	0,22	124	124	1,28	110-115-501	25
120	0,7	0,22	130	129	1,12	110-120-501	25
125	0,7	0,22	133	133	1,17	110-125-501	25
127	0,7	0,22	135	135	1,18	110-127-501	25
130	0,56	0,22	141	140	1,2	110-130-501	25
140	0,56	0,15	153	150	1,38	110-140-501	25
150	0,56	0,15	163	159	1,47	110-150-501	25
152	0,56	0,15	165	161	1,48	110-152-501	25
160	0,56	0,15	170	170	1,74	110-160-501	25
175	0,42	0,15	185	185	1,85	110-175-501	25
180	0,42	0,15	190	190	1,9	110-180-501	25
200	0,42	0,15	212	211	2,25	110-200-501	25
203	0,42	0,15	215	214	2,3	110-203-501	25

All data refers to a medium and ambient temperature of +20 °C.
* Refers to the inner hose lining
Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Master-Grip Double-Wire Clamp



Combiflex PU Fixed Flange Food



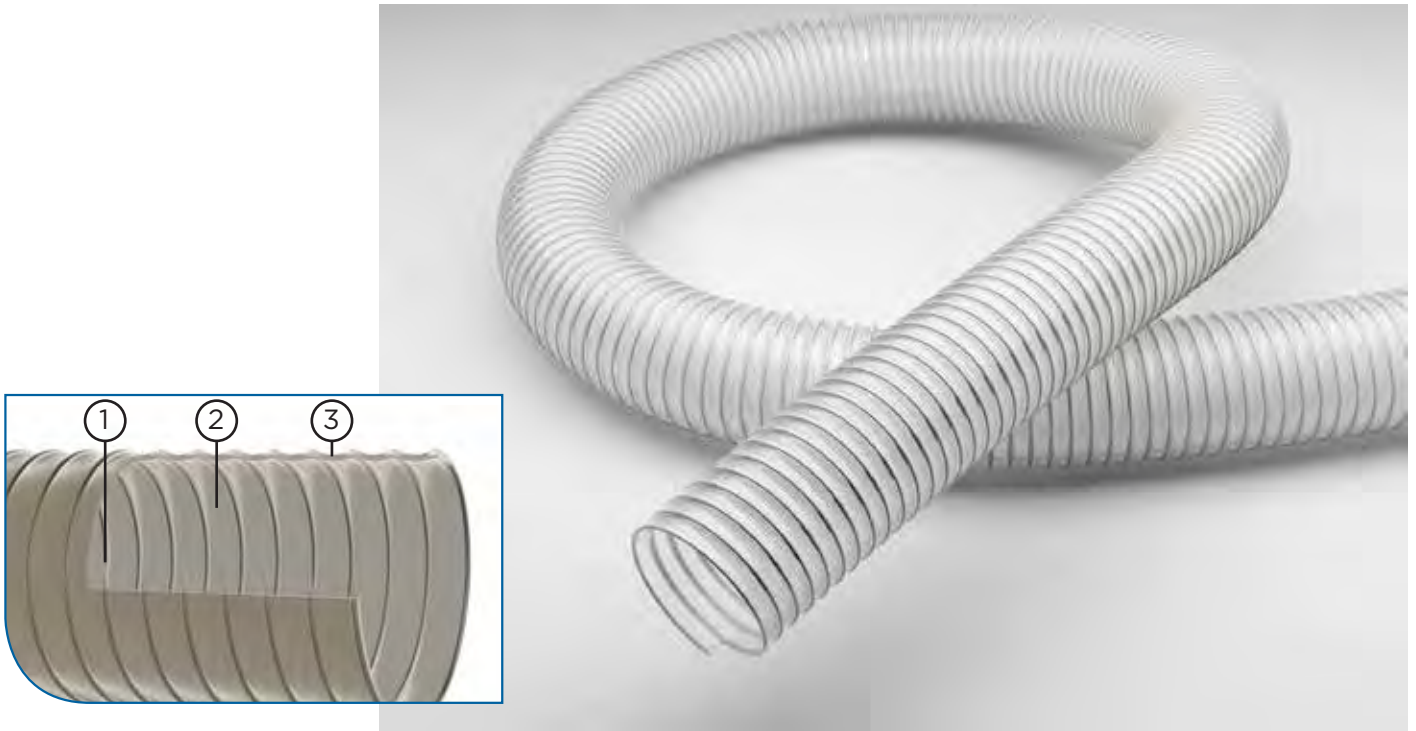
Combiflex PU Swivel Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR L Food A

PU Suction & Transport Hose, light duty, highly flexible, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: anti-rust spring steel wire (material no. 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 0.7 mm

Areas of Application

- food industry
- pharmaceutical industry
- chemicals industry

Forms of Delivery

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- EU guidelines EU 10/2011 and most recent amending directives
- approved for food-grade category: E (contact duration acc. to Test Report)
- the material of the wall complies with the FDA Food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- permanently antistatic, surface resistance $R_o < 10^9$ Ohm, measured acc. to DIN EN ISO 8031
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- light-duty
- very good flexibility
- smallest bending radii
- abrasion-resistant
- optimum flow characteristics
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- halogen and plasticizer-free
- generally good UV and ozone resistance
- good chemical resistance
- high tensile strength

Temperature Range-40°C to +90°C



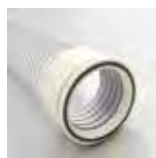
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	2,52	0,71	40	40	0,35	110-032-581	25
38	2,1	0,66	46	46	0,39	110-038-581	25
40	2,1	0,66	48	48	0,4	110-040-581	25
45	1,84	0,59	53	53	0,44	110-045-581	25
50	1,71	0,53	57	57	0,45	110-050-581	25
51	1,68	0,52	58	58	0,45	110-051-581	25
55	1,54	0,44	63	63	0,54	110-055-581	25
60	1,4	0,44	68	68	0,53	110-060-581	25
65	1,26	0,37	75	73	0,64	110-065-581	25
70	1,12	0,37	80	78	0,68	110-070-581	25
75	1,12	0,3	84	83	0,71	110-075-581	25
76	1,12	0,29	85	84	0,72	110-076-581	25
80	0,98	0,29	90	88	0,76	110-080-581	25
90	0,84	0,22	99	99	0,88	110-090-581	25
100	0,84	0,22	108	108	0,94	110-100-581	25
102	0,84	0,22	110	110	0,95	110-102-581	25
110	0,7	0,22	119	119	1,23	110-110-581	25
115	0,7	0,22	124	124	1,28	110-115-581	25
120	0,7	0,22	130	129	1,12	110-120-581	25
125	0,7	0,22	133	133	1,16	110-125-581	25
127	0,7	0,22	135	135	1,18	110-127-581	25
130	0,56	0,22	141	140	1,23	110-130-581	25
140	0,56	0,15	153	150	1,4	110-140-581	25
150	0,56	0,15	163	159	1,57	110-150-581	25
152	0,56	0,15	165	161	1,6	110-152-581	25
160	0,56	0,15	170	170	1,74	110-160-581	25
175	0,42	0,15	185	185	1,85	110-175-581	25
180	0,42	0,15	190	190	1,9	110-180-581	25
200	0,42	0,15	212	212	2,25	110-200-581	25
203	0,42	0,15	215	214	2,3	110-203-581	25

All data refers to a medium and ambient temperature of +20 °C.
* Refers to the inner hose lining
Subject to technical changes and colour deviations.



Combiflex PU cast-on connector, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



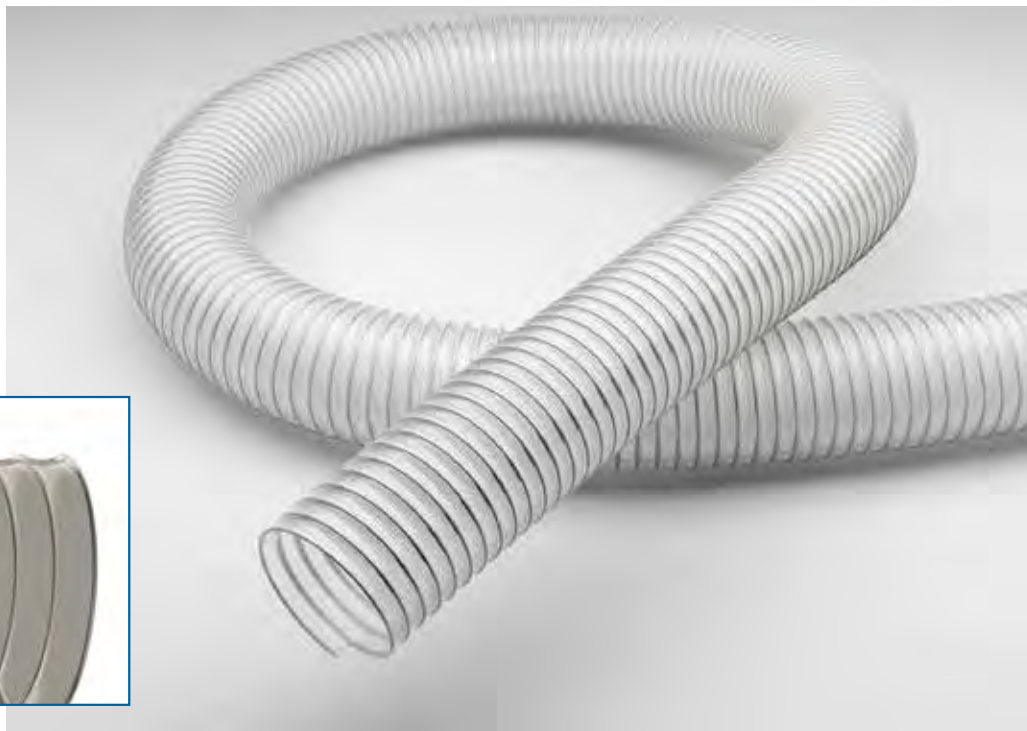
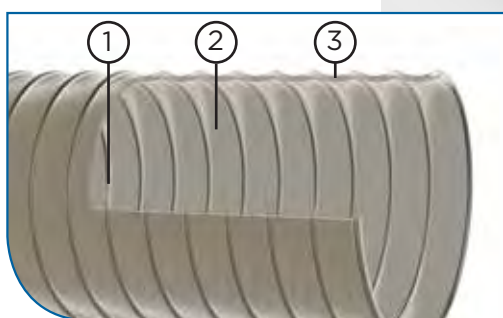
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Socket Food

Master-PUR L Food A Multi

PU Suction & Transport Hose, light duty, highly flexible, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- abrasion-resistant
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- light
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



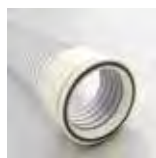
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	2,52	0,71	40	40	0,35	110-032-571	25
38	2,1	0,66	46	46	0,39	110-038-571	25
40	2,1	0,66	48	48	0,4	110-040-571	25
45	1,84	0,59	53	53	0,44	110-045-571	25
50	1,71	0,53	57	57	0,45	110-050-571	25
51	1,68	0,52	58	58	0,45	110-051-571	25
55	1,54	0,44	63	63	0,54	110-055-571	25
60	1,4	0,44	68	68	0,53	110-060-571	25
65	1,26	0,37	75	73	0,64	110-065-571	25
70	1,12	0,37	80	78	0,68	110-070-571	25
75	1,12	0,3	84	83	0,71	110-075-571	25
76	1,12	0,29	85	84	0,72	110-076-571	25
80	0,98	0,29	90	88	0,76	110-080-571	25
90	0,84	0,22	99	99	0,88	110-090-571	25
100	0,84	0,22	108	108	0,94	110-100-571	25
102	0,84	0,22	110	110	0,95	110-102-571	25
110	0,7	0,22	119	119	1,23	110-110-571	25
115	0,7	0,22	124	124	1,28	110-115-571	25
120	0,7	0,22	130	129	1,12	110-120-571	25
125	0,7	0,22	133	133	1,16	110-125-571	25
127	0,7	0,22	135	135	1,18	110-127-571	25
130	0,56	0,22	141	140	1,23	110-130-571	25
140	0,56	0,15	153	150	1,4	110-140-571	25
150	0,56	0,15	163	159	1,57	110-150-571	25
152	0,56	0,15	165	161	1,6	110-152-571	25
160	0,56	0,15	170	170	1,74	110-160-571	25
175	0,42	0,15	185	185	1,85	110-175-571	25
180	0,42	0,15	190	190	1,9	110-180-571	25
200	0,42	0,15	212	212	2,25	110-200-571	25
203	0,42	0,15	215	214	2,3	110-203-571	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



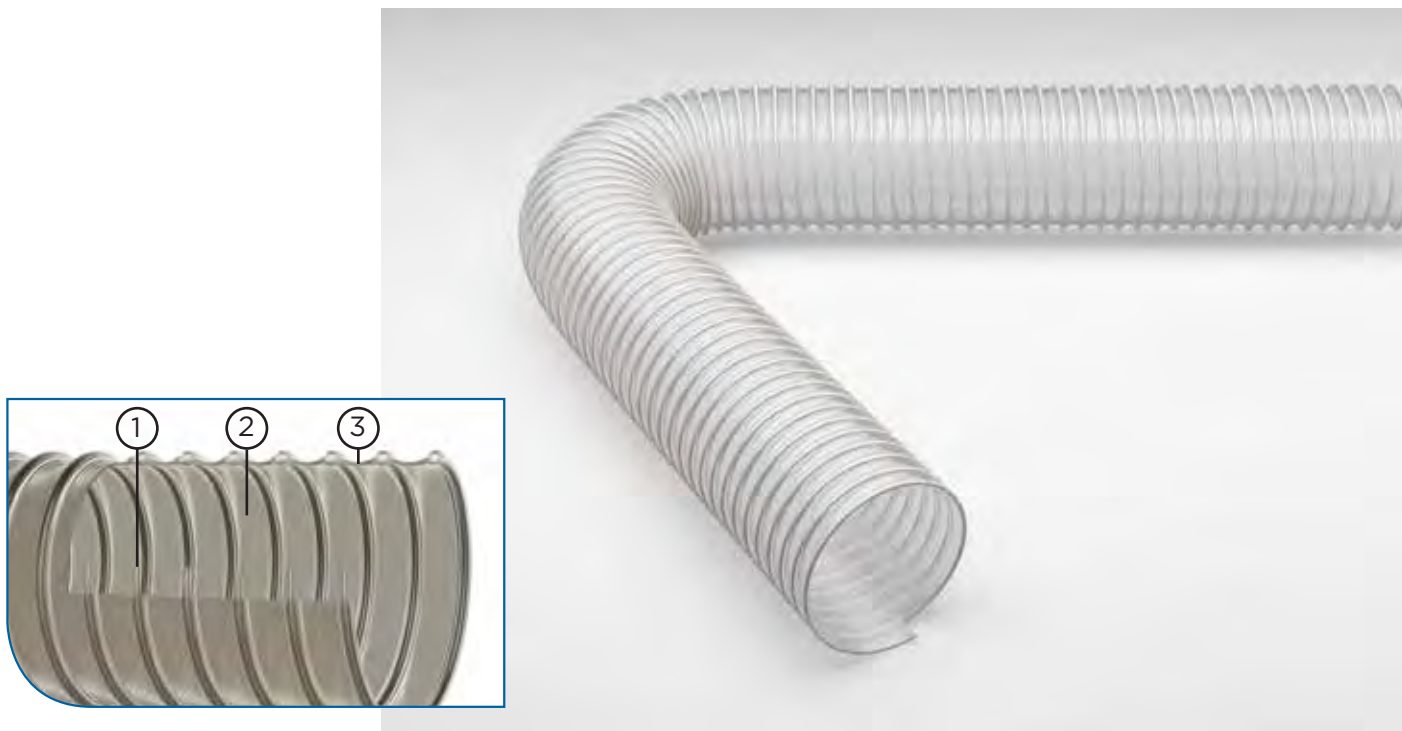
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR H Food

PU Suction & Transport Hose, medium duty, very flexible, food-grade quality acc. to EU 10/2011 and FDA



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade quality (FDA)
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- small bending radii
- good flexibility
- medium duty
- abrasion-resistant
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
20	4,3	0,92	45	28	0,23	111-020-501	25
25	4,16	0,92	50	33	0,28	111-025-501	25
26	4,16	0,92	47	33	0,29	111-026-501	25
30	3,51	0,92	56	39	0,37	111-030-501	25
32	3,25	0,92	60	41	0,39	111-032-501	25
38	3,12	0,82	70	47	0,46	111-038-501	25
40	3	0,82	70	49	0,49	111-040-501	25
45	2,95	0,81	80	55	0,55	111-045-501	25
50	2,9	0,8	86	60	0,68	111-050-501	25
51	2,9	0,79	87	61	0,71	111-051-501	25
55	2,75	0,76	95	65	0,77	111-055-501	25
60	2,55	0,74	105	70	0,84	111-060-501	25
65	2,4	0,66	115	75	0,91	111-065-501	25
70	2,25	0,66	120	80	0,97	111-070-501	25
75	2	0,6	124	86	1,05	111-075-501	25
76	2	0,59	125	87	1,06	111-076-501	25
80	2	0,59	135	91	1,11	111-080-501	25
90	1,65	0,52	149	101	1,25	111-090-501	25
100	1,5	0,45	163	110	1,44	111-100-501	25
102	1,5	0,44	165	112	1,48	111-102-501	25
115	1,35	0,31	186	126	1,68	111-115-501	25
120	1,3	0,31	195	131	1,75	111-120-501	25
125	1,3	0,31	203	136	1,86	111-125-501	25
127	1,3	0,31	205	138	1,91	111-127-501	25
130	1,3	0,31	209	141	1,96	111-130-501	25
140	1,05	0,25	224	151	2,11	111-140-501	25
150	1,05	0,25	243	161	2,26	111-150-501	25
152	1,05	0,25	245	163	2,29	111-152-501	25
160	0,9	0,25	255	171	2,51	111-160-501	25
170	0,9	0,18	255	181	2,67	111-170-501	25
175	0,9	0,18	255	186	2,74	111-175-501	25
180	0,75	0,18	285	191	2,82	111-180-501	25
200	0,75	0,18	320	212	3,41	111-200-501	25
203	0,75	0,18	325	215	3,5	111-203-501	25

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Master-Grip Double-Wire Clamp



Combiflex PU Fixed Flange Food



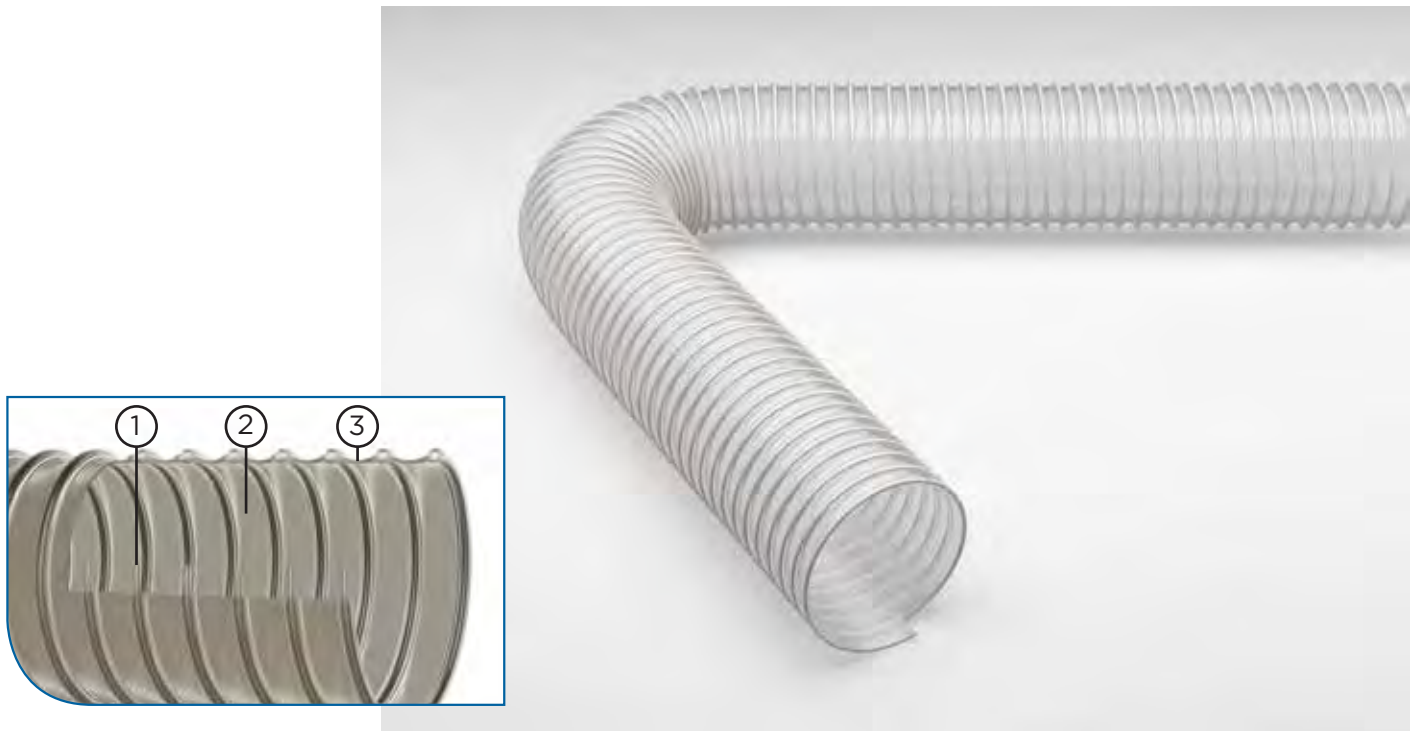
Combiflex PU Swivel Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR H Food A

PU Suciton & Transport Hose, medium duty, very flexible, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade category: E (contact duration acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- good flexibility
- small bending radii
- medium duty
- permanently antistatic, surface resistance <math>< 10^9</math> Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- abrasion-resistant
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
20	4,3	0,92	45	28	0,23	111-020-581	25
26	4,16	0,92	50	33	0,3	111-026-581	25
30	3,51	0,92	56	39	0,37	111-030-581	25
32	3,25	0,92	60	41	0,39	111-032-581	25
38	3,12	0,82	70	47	0,46	111-038-581	25
40	3	0,82	70	49	0,49	111-040-581	25
45	2,95	0,81	80	55	0,55	111-045-581	25
50	2,9	0,8	86	60	0,68	111-050-581	25
51	2,9	0,79	87	61	0,71	111-051-581	25
55	2,75	0,76	95	65	0,77	111-055-581	25
60	2,55	0,74	105	70	0,84	111-060-581	25
65	2,4	0,66	115	75	0,91	111-065-581	25
70	2,25	0,66	120	80	0,97	111-070-581	25
75	2	0,6	124	86	1,05	111-075-581	25
76	2	0,59	125	87	1,06	111-076-581	25
80	2	0,59	135	91	1,11	111-080-581	25
90	1,65	0,52	149	101	1,25	111-090-581	25
100	1,5	0,45	163	110	1,44	111-100-581	25
102	1,5	0,44	165	112	1,48	111-102-581	25
115	1,35	0,31	186	126	1,68	111-115-581	25
120	1,3	0,31	195	131	1,75	111-120-581	25
125	1,3	0,31	203	136	1,86	111-125-581	25
127	1,3	0,31	205	138	1,91	111-127-581	25
130	1,3	0,31	209	141	1,96	111-130-581	25
140	1,05	0,25	224	151	2,11	111-140-581	25
150	1,05	0,25	243	161	2,26	111-150-581	25
152	1,05	0,25	245	163	2,29	111-152-581	25
160	0,9	0,25	255	171	2,51	111-160-581	25
170	0,9	0,18	255	181	2,67	111-170-581	25
175	0,9	0,18	255	186	2,74	111-175-581	25
180	0,75	0,18	285	191	2,82	111-180-581	25
200	0,75	0,18	320	212	3,41	111-200-581	25
203	0,75	0,18	325	215	3,5	111-203-581	25

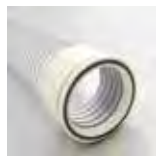
All data refers to a medium and ambient temperature of +20 °C.

* Refers to the inner hose lining

Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



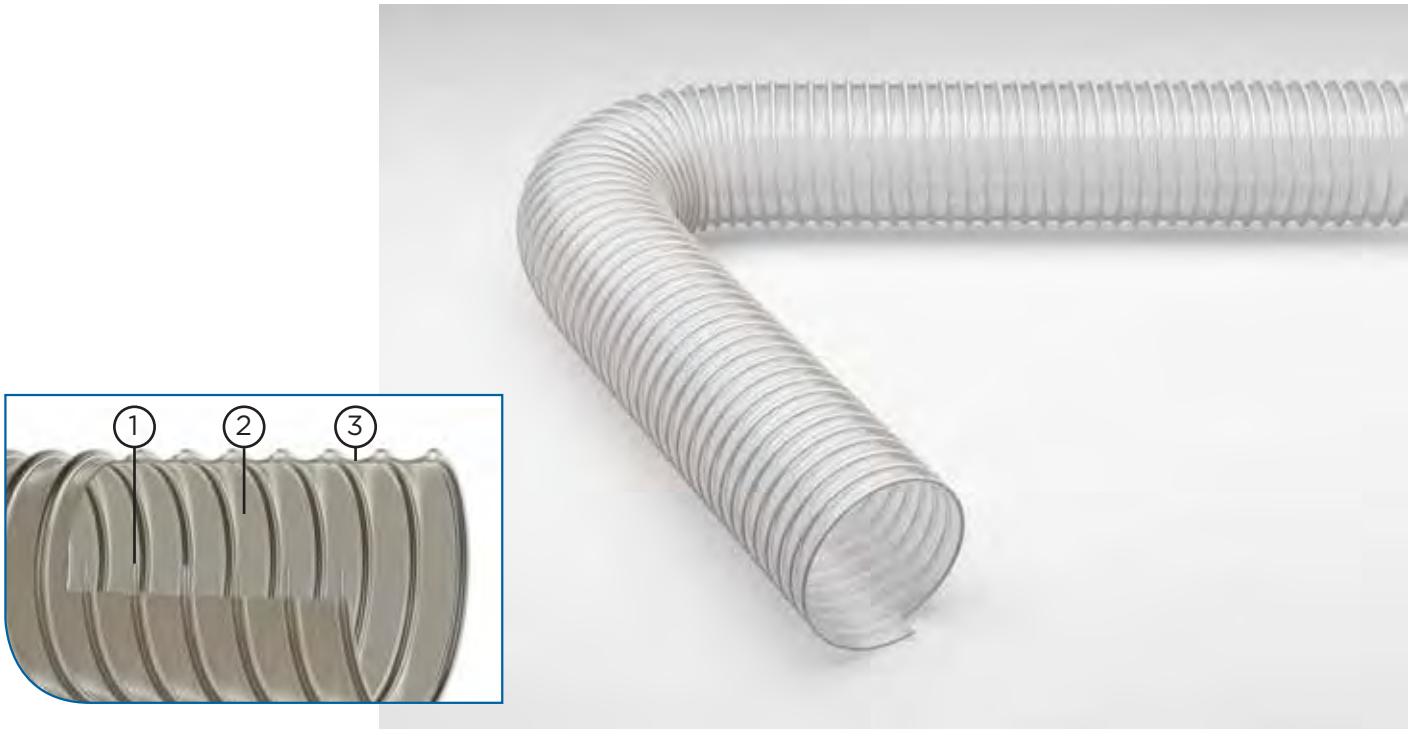
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR H Food A Multi

PU Suciton & Transport Hose, medium duty, very flexible, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- small bending radii
- good flexibility
- medium duty
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- abrasion-resistant
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
20	4,3	0,92	45	28	0,23	111-020-571	25
26	4,16	0,92	50	33	0,3	111-026-571	25
30	3,51	0,92	56	39	0,37	111-030-571	25
32	3,25	0,92	60	41	0,39	111-032-571	25
38	3,12	0,82	70	47	0,46	111-038-571	25
40	3	0,82	70	49	0,49	111-040-571	25
45	2,95	0,81	80	55	0,55	111-045-571	25
50	2,9	0,8	86	60	0,68	111-050-571	25
51	2,9	0,79	87	61	0,71	111-051-571	25
55	2,75	0,76	95	65	0,77	111-055-571	25
60	2,55	0,74	105	70	0,84	111-060-571	25
65	2,4	0,66	115	75	0,91	111-065-571	25
70	2,25	0,66	120	80	0,97	111-070-571	25
75	2	0,6	124	86	1,05	111-075-571	25
76	2	0,59	125	87	1,06	111-076-571	25
80	2	0,59	135	91	1,11	111-080-571	25
90	1,65	0,52	149	101	1,25	111-090-571	25
100	1,5	0,45	163	110	1,44	111-100-571	25
102	1,5	0,44	165	112	1,48	111-102-571	25
115	1,35	0,31	186	126	1,68	111-115-571	25
120	1,3	0,31	195	131	1,75	111-120-571	25
125	1,3	0,31	203	136	1,86	111-125-571	25
127	1,3	0,31	205	138	1,91	111-127-571	25
130	1,3	0,31	209	141	1,96	111-130-571	25
140	1,05	0,25	224	151	2,11	111-140-571	25
150	1,05	0,25	243	161	2,26	111-150-571	25
152	1,05	0,25	245	163	2,29	111-152-571	25
160	0,9	0,25	255	171	2,51	111-160-571	25
170	0,9	0,18	255	181	2,67	111-170-571	25
175	0,9	0,18	255	186	2,74	111-175-571	25
180	0,75	0,18	285	191	2,82	111-180-571	25
200	0,75	0,18	320	212	3,41	111-200-571	25
203	0,75	0,18	325	215	3,5	111-203-571	25

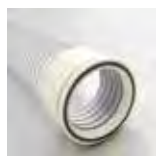
All data refers to a medium and ambient temperature of +20 °C.

* Refers to the inner hose lining

Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



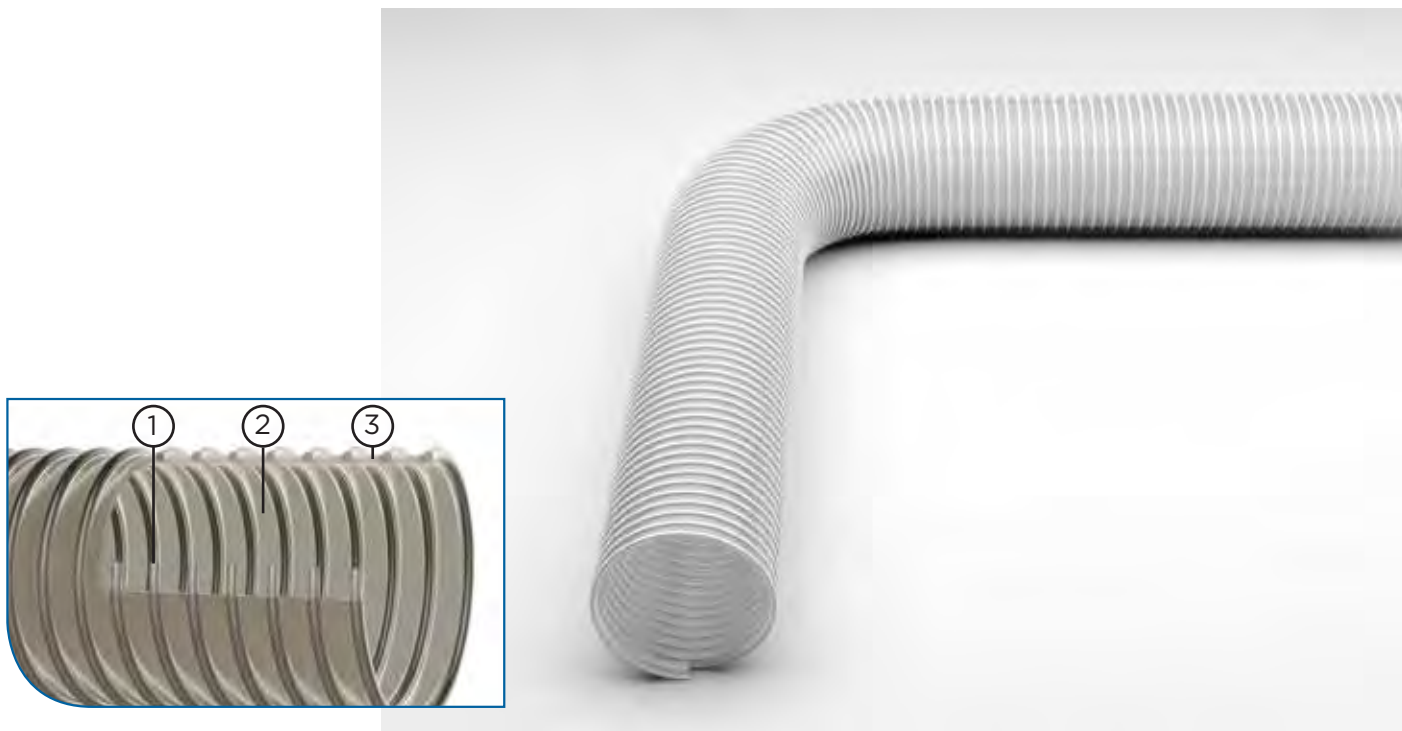
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR HX Food

PU Suction & Transport Hose, heavy-duty, food-grade quality acc. to EU 10/2011 and FDA



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade quality (FDA)
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- extremely abrasion resistant via specific reinforcements underneath the spiral
- flexible
- heavy
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	4,85	0,94	80	42	0,66	114-032-501	20
40	4,27	0,94	100	50	0,83	114-040-501	20
50	4,02	0,94	123	60	1,02	114-050-501	20
51	4	0,94	125	61	1,04	114-051-501	20
55	3,75	0,89	140	65	1,1	114-055-501	20
60	3,6	0,89	150	70	1,2	114-060-501	20
65	3,3	0,89	165	75	1,29	114-065-501	20
70	3,15	0,89	175	80	1,38	114-070-501	20
75	2,96	0,89	188	86	1,57	114-075-501	20
76	2,92	0,89	190	87	1,61	114-076-501	20
80	2,77	0,89	200	93	1,93	114-080-501	20
90	2,4	0,89	225	103	2,16	114-090-501	20
100	2,15	0,87	246	113	2,53	114-100-501	20
102	2,1	0,87	250	115	2,6	114-102-501	20
110	1,95	0,87	275	124	2,82	114-110-501	20
115	1,8	0,87	290	129	2,94	114-115-501	20
120	1,65	0,87	300	134	3,07	114-120-501	20
125	1,65	0,87	310	138	3,33	114-125-501	20
127	1,65	0,87	315	140	3,44	114-127-501	20
130	1,65	0,84	325	145	3,54	114-130-501	20
140	1,5	0,83	350	153	3,81	114-140-501	20
150	1,5	0,82	433	165	4,08	114-150-501	20
152	1,5	0,82	450	167	4,13	114-152-501	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Master-Grip Double-Wire Clamp



Combiflex PU Fixed Flange Food



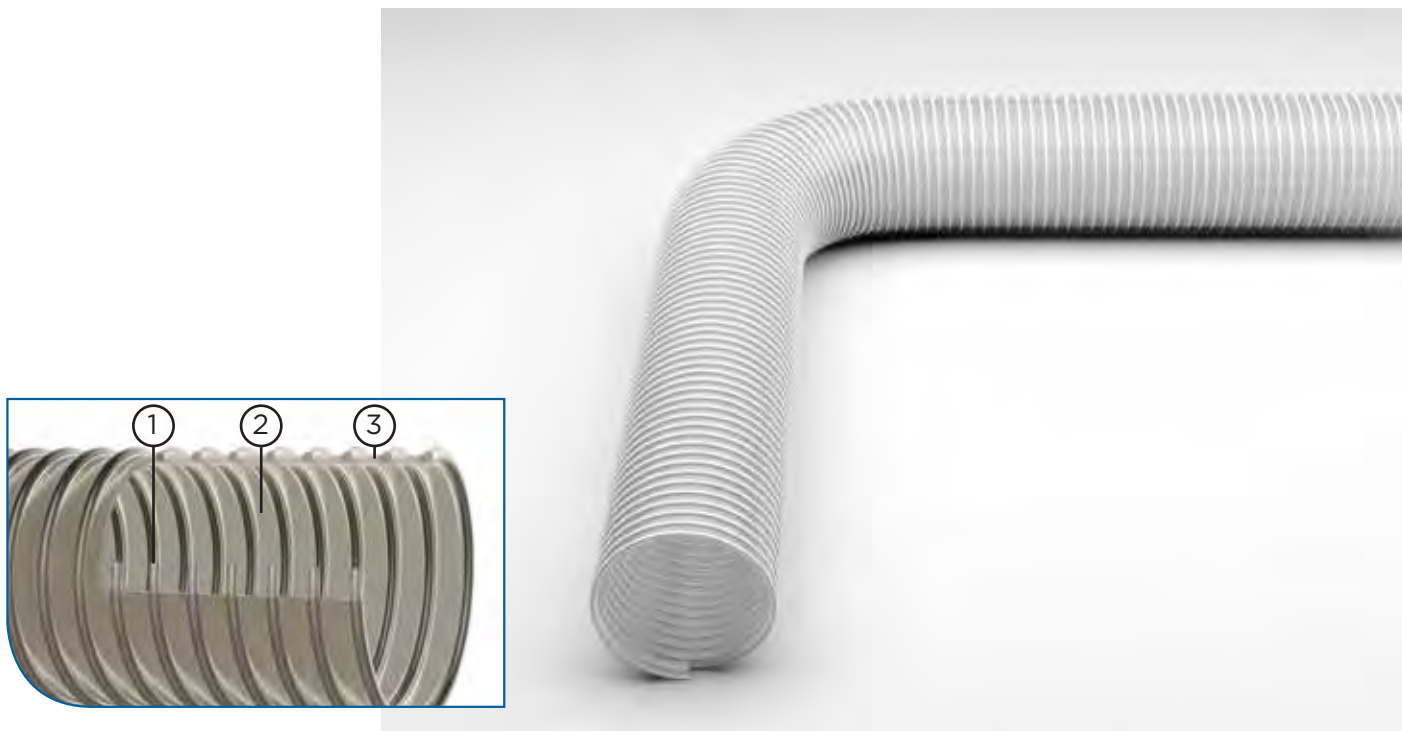
Combiflex PU Swivel Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR HX Food A

PU suction & Transport Hose, heavy-duty, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade category: E (contact duration acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- extremely abrasion resistant via specific reinforcements underneath the spiral
- flexible
- heavy
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



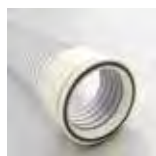
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	4,85	0,94	80	42	0,66	114-032-581	20
40	4,27	0,94	100	50	0,83	114-040-581	20
50	4,02	0,94	123	60	1,02	114-050-581	20
51	4	0,94	125	61	1,04	114-051-581	20
55	3,75	0,89	140	65	1,1	114-055-581	20
60	3,6	0,89	150	70	1,2	114-060-581	20
65	3,3	0,89	165	75	1,29	114-065-581	20
70	3,15	0,89	175	80	1,38	114-070-581	20
75	2,96	0,89	188	86	1,57	114-075-581	20
76	2,92	0,89	190	87	1,61	114-076-581	20
80	2,77	0,89	200	93	1,93	114-080-581	20
90	2,4	0,89	225	103	2,16	114-090-581	20
100	2,15	0,87	246	113	2,53	114-100-581	20
102	2,1	0,87	250	115	2,6	114-102-581	20
110	1,95	0,87	275	124	2,82	114-110-581	20
115	1,8	0,87	290	129	2,94	114-115-581	20
120	1,65	0,87	300	134	3,07	114-120-581	20
125	1,65	0,87	310	138	3,33	114-125-581	20
127	1,65	0,87	315	140	3,44	114-127-581	20
130	1,65	0,84	325	145	3,54	114-130-581	20
140	1,5	0,83	350	153	3,81	114-140-581	20
150	1,5	0,82	433	165	4,08	114-150-581	20
152	1,5	0,82	450	167	4,13	114-152-581	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



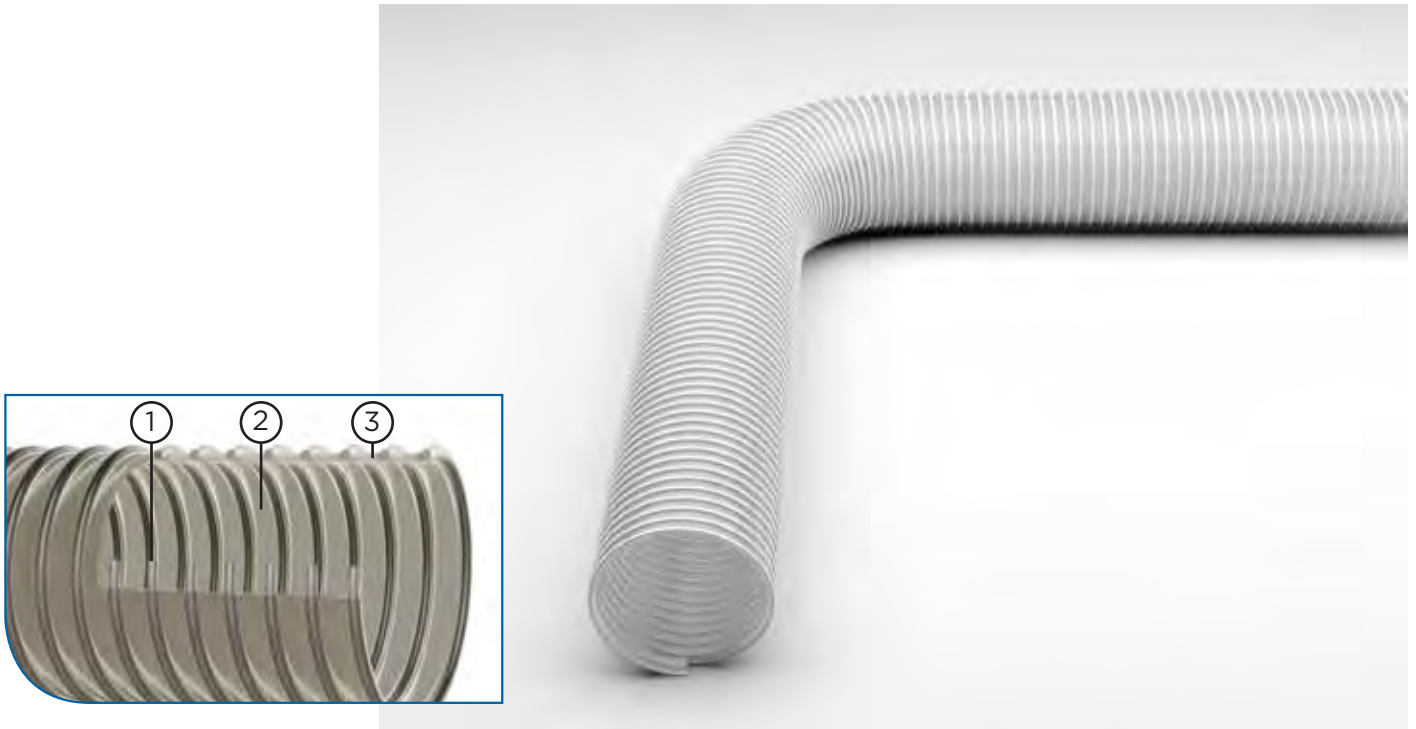
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Master-PUR HX Food A Multi

PU suction & Transport Hose, heavy-duty, food-grade quality acc. to EU 10/2011 and FDA, permanently antistatic



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- The material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- extremely abrasion resistant via specific reinforcements underneath the spiral
- flexible
- heavy
- permanently antistatic, surface resistance < 10⁹ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- mostly smooth inner lining
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- high tensile strength
- generally good UV and ozone resistance



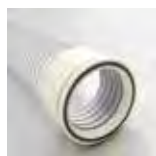
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	4,85	0,94	80	42	0,66	114-032-571	20
40	4,27	0,94	100	50	0,83	114-040-571	20
50	4,02	0,94	123	60	1,02	114-050-571	20
51	4	0,94	125	61	1,04	114-051-571	20
55	3,75	0,89	140	65	1,1	114-055-571	20
60	3,6	0,89	150	70	1,2	114-060-571	20
65	3,3	0,89	165	75	1,29	114-065-571	20
70	3,15	0,89	175	80	1,38	114-070-571	20
75	2,96	0,89	188	86	1,57	114-075-571	20
76	2,92	0,89	190	87	1,61	114-076-571	20
80	2,77	0,89	200	93	1,93	114-080-571	20
90	2,4	0,89	225	103	2,16	114-090-571	20
100	2,15	0,87	246	113	2,53	114-100-571	20
102	2,1	0,87	250	115	2,6	114-102-571	20
110	1,95	0,87	275	124	2,82	114-110-571	20
115	1,8	0,87	290	129	2,94	114-115-571	20
120	1,65	0,87	300	134	3,07	114-120-571	20
125	1,65	0,87	310	138	3,33	114-125-571	20
127	1,65	0,87	315	140	3,44	114-127-571	20
130	1,65	0,84	325	145	3,54	114-130-571	20
140	1,5	0,83	350	153	3,81	114-140-571	20
150	1,5	0,82	433	165	4,08	114-150-571	20
152	1,5	0,82	450	167	4,13	114-152-571	20

All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Combiflex PU Cast-On Connectors, Food



Combiflex PU Cone Flange Food



Master-Grip Double-Wire Clamp



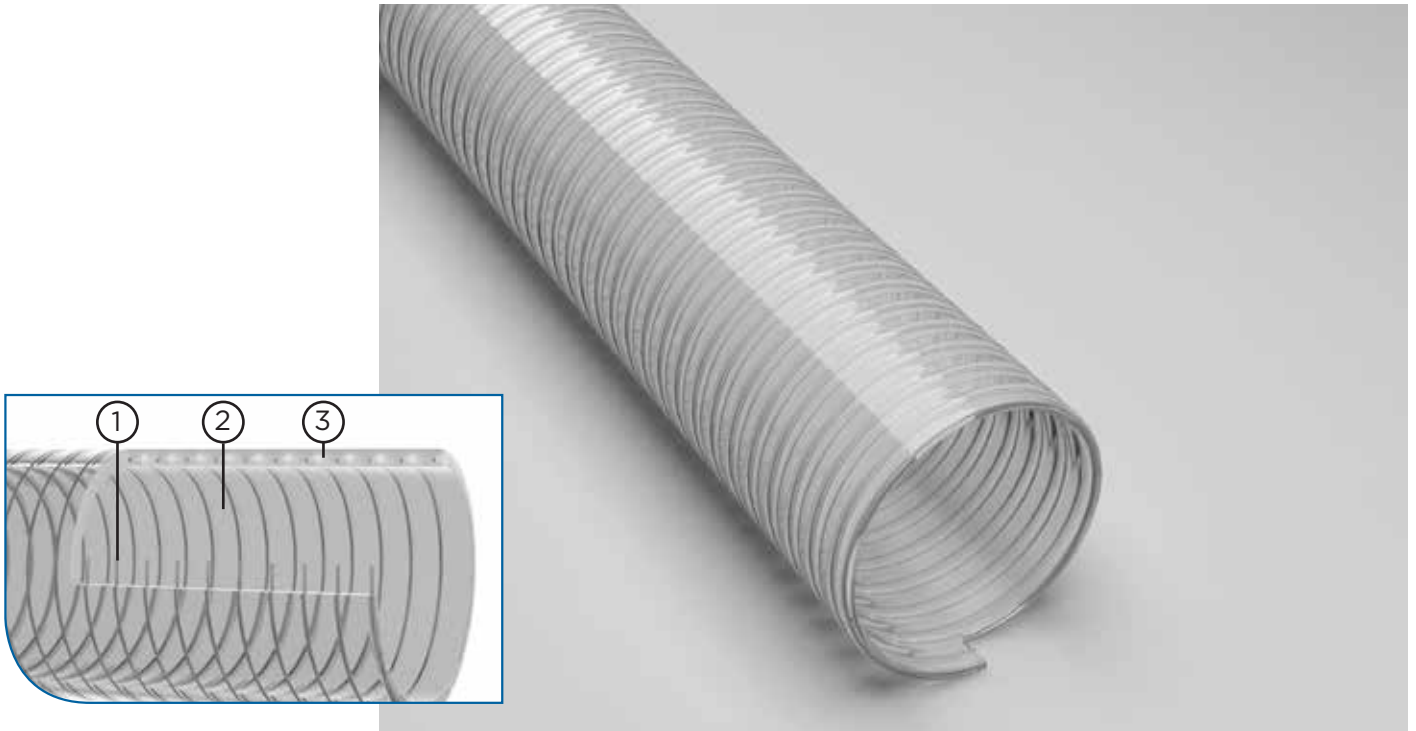
Combiflex PU Fixed Flange Food



Combiflex PU Threaded Sockets Food

Polderflex PUR Food

PU Suction & Transport Hose, extremely pressure/vacuum-proof, smooth inner and outer linings, food-grade quality acc. to EU 10/2011 and FDA



Material

- 1 spiral: spring steel wire (stainless steel 1.4310)
- 2 wall: pure polyether polyurethane, food-grade quality (FDA)
- 3 wall thickness 3-5 mm depending on DN

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- in anderen Längen, anderen Nennweiten, farbig, mit kundenspezifischem Aufdruck.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- extra heavyweight
- flexible
- smooth inner and outer linings
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- highly abrasion-resistant
- high tensile strength
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	5,75	0,93	160	41,5	0,88	118-032-501	20
38	5,625	0,93	190	47,5	1,03	118-038-501	20
40	5,5	0,93	200	49,5	1,07	118-040-501	20
50	5,27	0,93	245	61,5	1,23	118-050-501	20
51	5,25	0,93	250	62,5	1,25	118-051-501	20
60	5,125	0,93	300	71,5	1,44	118-060-501	20
65	5,1	0,93	325	76,5	1,56	118-065-501	20
70	5,05	0,93	350	81,5	1,77	118-070-501	20
75	5,01	0,93	375	86,5	1,9	118-075-501	20
76	5	0,93	380	87,5	1,92	118-076-501	20
80	4,5	0,88	400	91,5	2,01	118-080-501	20
100	4,16	0,86	580	111	3	118-100-501	20
102	4,125	0,86	600	113	3,1	118-102-501	20
125	3,32	0,66	692	136	3,79	118-125-501	20
127	3,25	0,64	700	138,5	3,85	118-127-501	20
150	2,22	0,44	792	162	4,53	118-150-501	20
152	2,125	0,42	800	164	4,59	118-152-501	20

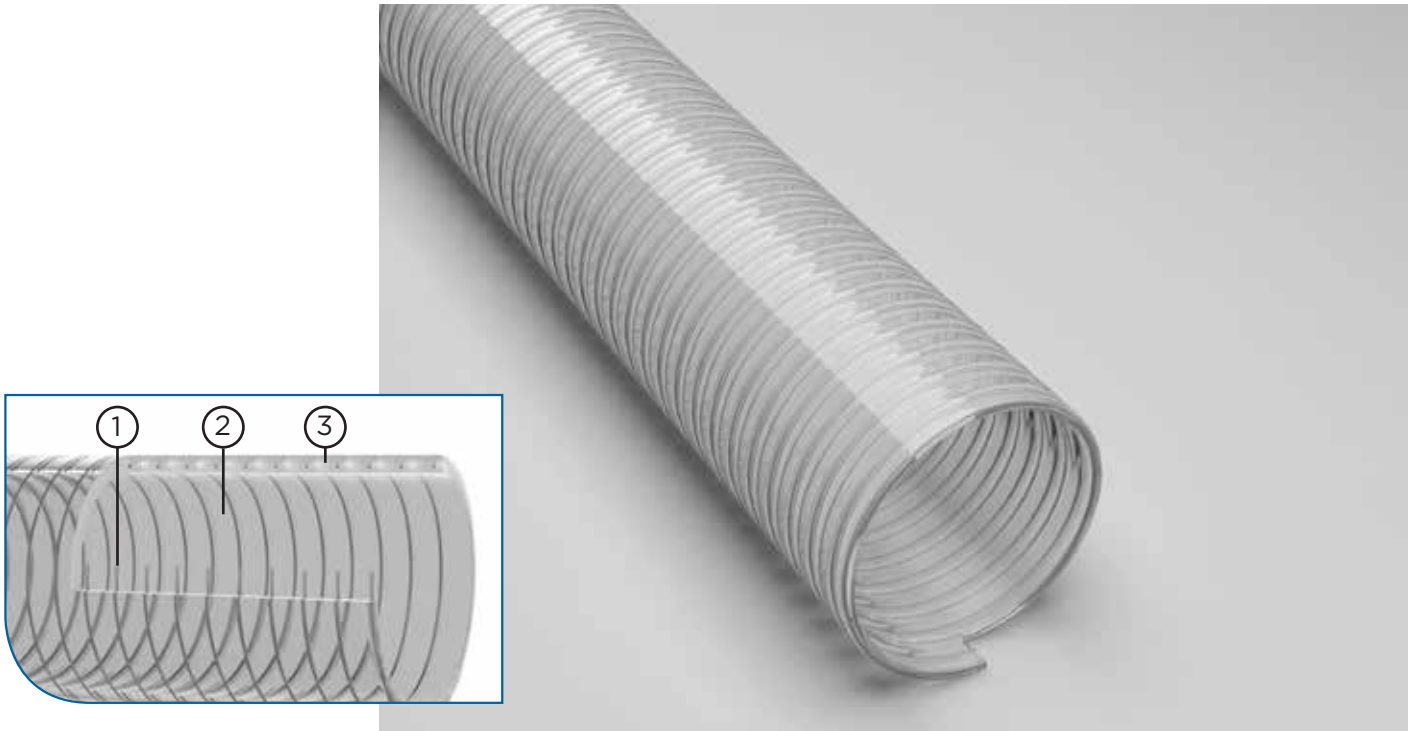
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Bolts

Polderflex PUR Food A

PU Suction & Transport Hose, extremely pressure/vacuum-proof, smooth inner and outer linings, permanently antistatic, food-grade quality acc. to EU 10/2011 and FDA



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: pure polyether polyurethane, food-grade (FDA), with non-migratory permanent antistatic agent
- ③ wall thickness 3-5 mm depending on DN

Applications

- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes and colours, with print.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade category: E (contact duration acc. to Test Report)
- the material of the wall complies with the FDA food regulations 21 CFR § 177.1680 and 21 CFR § 177.2600
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- extra heavyweight
- flexible
- odourless/tasteless
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- good chemical resistance
- highly abrasion-resistant
- high tensile strength
- generally good UV and ozone resistance



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	5,75	0,93	160	41,5	0,88	118-032-581	20
38	5,625	0,93	190	47,5	1,03	118-038-581	20
40	5,5	0,93	200	49,5	1,07	118-040-581	20
50	5,27	0,93	245	61	1,23	118-050-581	20
51	5,25	0,93	250	62,5	1,25	118-051-581	20
60	5,125	0,93	300	71,5	1,44	118-060-581	20
65	5,1	0,93	325	76,5	1,56	118-065-581	20
70	5,05	0,93	350	81,5	1,77	118-070-581	20
75	5	0,93	377	87	1,91	118-075-581	20
76	5	0,93	380	87,5	1,92	118-076-581	20
80	4,5	0,88	400	91,5	2,01	118-080-581	20
100	4,15	0,86	580	111	3	118-100-581	20
102	4,125	0,86	600	113	3,1	118-102-581	20
125	3,32	0,66	690	136	3,79	118-125-581	20
127	3,25	0,64	700	138,5	3,85	118-127-581	20
150	2,22	0,44	790	162	4,53	118-150-581	20
152	2,125	0,42	800	164	4,59	118-152-581	20

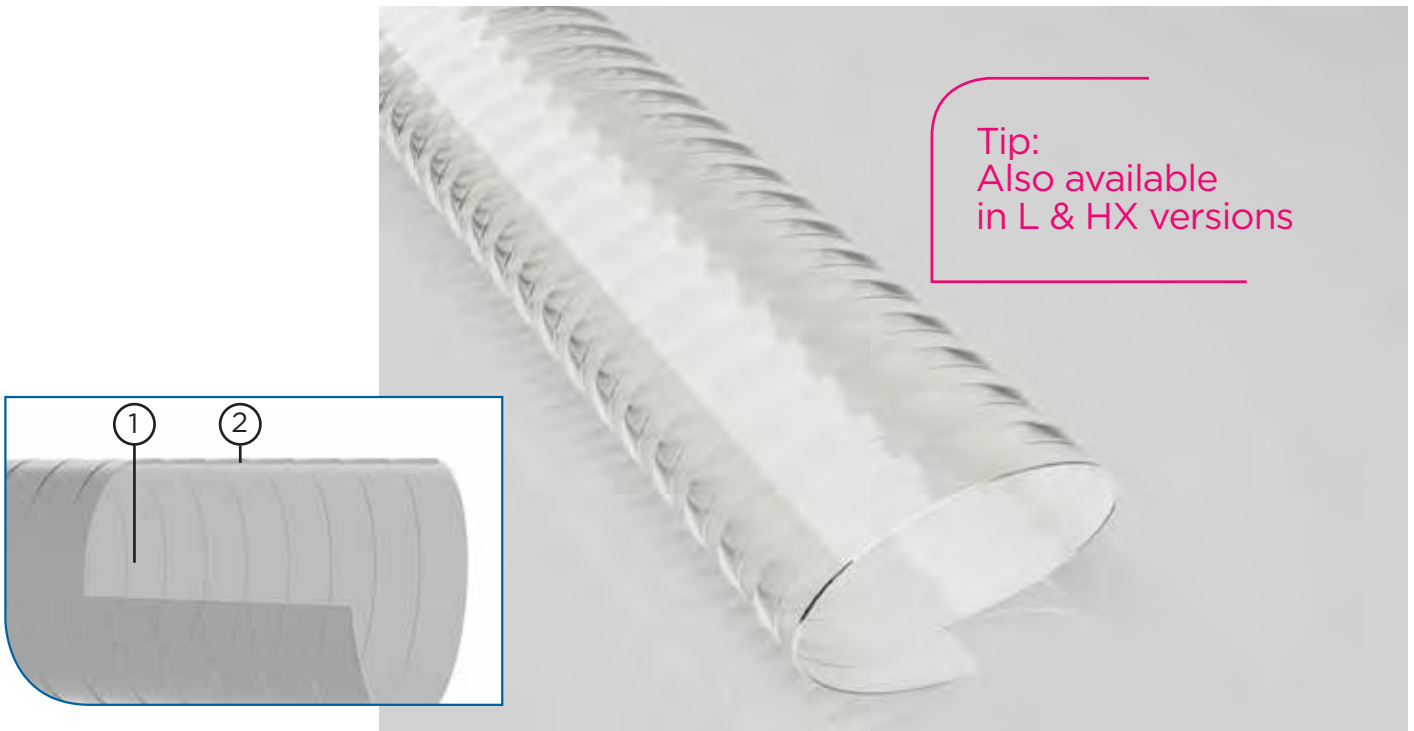
All data refers to a medium and ambient temperature of +20 °C.
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Bolts

Master-PUR Flat H Food

Spiral-Free PU Transport Hose, medium duty, food-grade quality acc. to EU 10/2011 and FDA



Material

- 1 wall: pure polyether polyurethane, food-grade quality (FDA)
- 2 wall thickness approx. 1.5 mm

Applications

- application as compensator
- spiral-free transport hose for abrasive solids
- solids transport for sieving machines
- conductor hose on charging station
- pharmaceutical industry
- chemicals industry
- food industry

Available on request

- available on request in other lengths, sizes, colours, with print, with flexible earthing lead.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- the hose conforms with EU Guideline 10/2011
- approved for food-grade categories: A, B, C, D1, D2, E (contact durations acc. to Test Report)
- materials comply with the following food regulations:
 - FDA 21 CFR §177.2600
 - FDA 21 CFR §178.2010
- extremely vibration resistant
- solvent, oil and petroleum resistant
- smooth inner lining
- abrasion-resistant
- permanently kink resistant
- optimum flow characteristics
- high tensile strength
- generally good UV and ozone resistance



Stock lengths and technical data / www.masterflex.de/en

DN	weight/m kg	article no.	max. production length m
50	0,32	314-050-501	5
51	0,32	314-051-501	5
60	0,38	314-060-501	5
63	0,39	314-063-501	5
65	0,4	314-065-501	5
70	0,43	314-070-501	5
75	0,46	314-075-501	5
76	0,46	314-076-501	5
80	0,49	314-080-501	5
90	0,56	314-090-501	5
100	0,61	314-100-501	5
102	0,62	314-102-501	5
110	0,67	314-110-501	5
115	0,7	314-115-501	5
120	0,73	314-120-501	5
125	0,75	314-125-501	5
127	0,76	314-127-501	5
130	0,78	314-130-501	5
140	0,85	314-140-501	5
150	0,9	314-150-501	5
152	0,91	314-152-501	5
160	0,97	314-160-501	5
170	1,03	314-170-501	5
175	1,06	314-175-501	5
180	1,09	314-180-501	5
200	1,19	314-200-501	5
203	1,21	314-203-501	5
225	1,36	314-225-501	5
250	1,49	314-250-501	5
254	1,51	314-254-501	5
275	1,66	314-275-501	5
280	1,68	314-280-501	5
300	1,81	314-300-501	5

All data refers to a medium and ambient temperature of +20 °C.
Subject to technical changes and colour deviations.



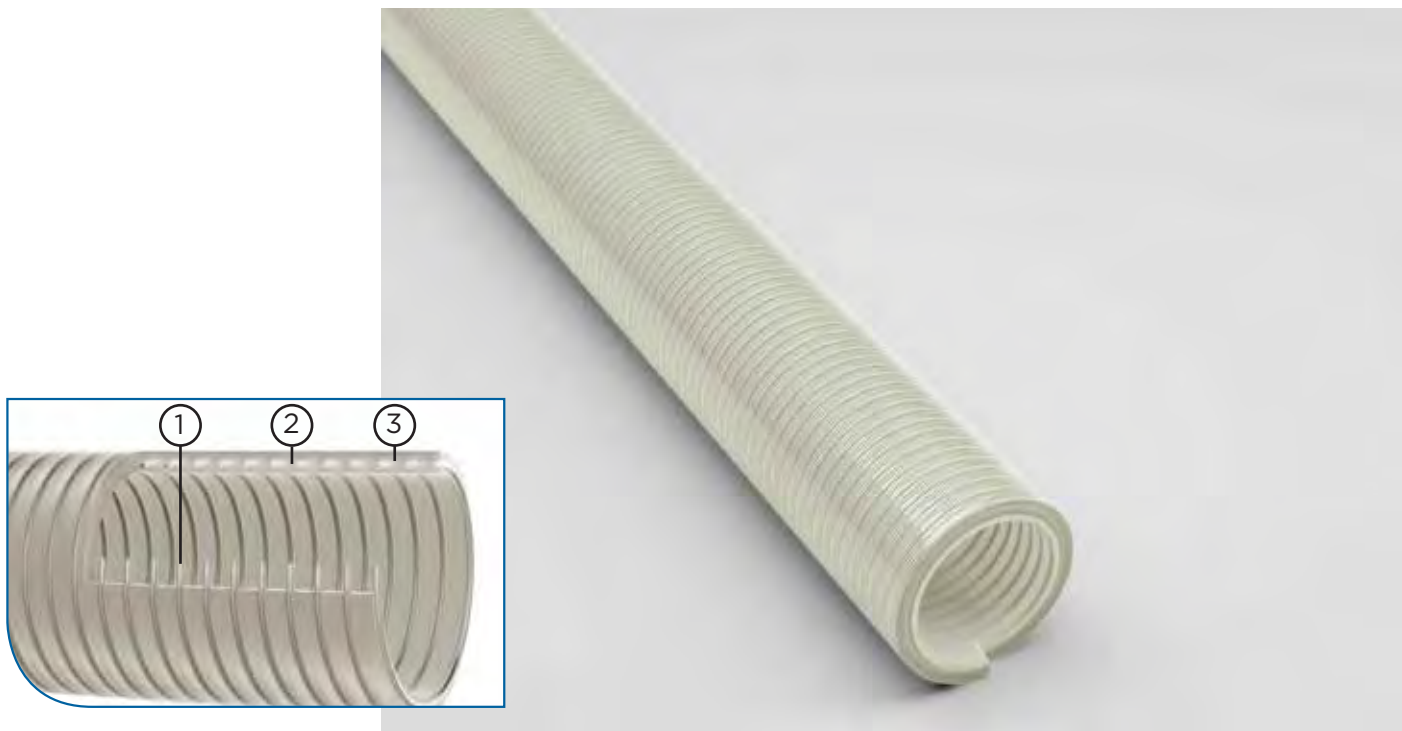
Hose Clamp with
Worm-Gear Drive



Hose Clamp with Bolts

Master-SIL SD Food

Silicone Pressure Hose, Food-grade Quality (FDA)



Material

- ① spiral: spring steel wire (stainless steel 1.4310)
- ② wall: multi-layered polyester fabric coated with transparent silicone, outer lining white, food-grade (FDA)
- ③ Wall thickness c. 5.0 mm

Applications

- when using the corresponding connectors, the hose can remain in the pipeline for cleaning purposes
- suction and transport hose for powder and liquid media in the food industry
- machine development for cosmetic products
- pharmaceutical industry
- chemicals industry
- food industry

Temperature Range

- -60°C to +200°C

Available on request

- available on request in above listed lengths, sizes and colours. Alternatively, other lengths, sizes, colours, with print.

Properties

- food-grade conformal acc. to BfR and FDA standards and therefore fully suitable for applications in food industry
- small bending radii
- flexible
- smooth inner and outer linings
- steam resistant
- optimum flow characteristics
- odourless/tasteless
- good chemical resistance
- high pressure resistance



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
10	12	0,88	30	20	0,39	684-010-401	20
13	11	0,88	40	23	0,42	684-013-401	20
16	10	0,88	45	26	0,5	684-016-401	20
19	10	0,88	55	29	0,57	684-019-401	20
25	9	0,88	65	35	0,71	684-025-401	20
32	8	0,88	95	42	0,87	684-032-401	20
38	7	0,88	110	48	1,1	684-038-401	20
51	6	0,88	150	60	1,37	684-051-401	20
65	5	0,88	180	75	1,8	684-065-401	20
76	4	0,88	240	87	2,15	684-076-401	20
102	2,5	0,88	360	112	3,1	684-102-401	20

All data refers to a medium and ambient temperature of +20 °C.
* Refers to the inner hose lining
Subject to technical changes and colour deviations.



Hose Clamp with Bolts



5

Permanently antistatic & Electroconductive Hoses

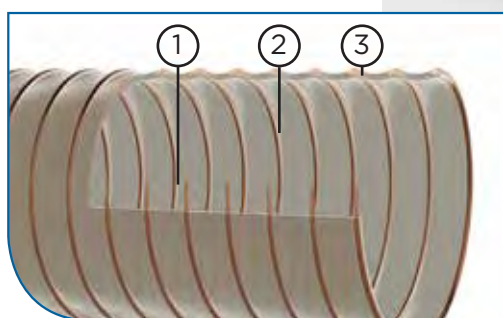
**For preventing danger of ignition
through electrostatic charges**



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PUR L-MHR A

PU Suction & Transport Hose, light duty, highly flexible, microbe & hydrolysis-resistant, antistatic



Material

- ① spiral: spring steel wire
- ② wall: pure polyether polyurethane with non-migratory permanent antistatic agent
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- suction & transport hose for abrasive solids, for which microbe and hydrolysis resistance is required
- transport of fine-grained particles, such as dust and powder
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Properties

- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- microbe and hydrolysis-resistant
- light
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
26	3,22	0,79	31	31	0,25	110-026-498	25
32	2,52	0,71	40	40	0,35	110-032-498	25
38	2,1	0,66	46	46	0,39	110-038-498	25
40	2,1	0,66	48	48	0,4	110-040-498	25
45	1,84	0,59	53	53	0,42	110-045-498	25
51	1,68	0,52	58	58	0,45	110-051-498	25
55	1,54	0,44	63	63	0,51	110-055-498	25
60	1,4	0,44	68	68	0,53	110-060-498	25
65	1,26	0,37	73	73	0,64	110-065-498	25
70	1,12	0,37	78	78	0,68	110-070-498	25
76	1,12	0,29	84	84	0,72	110-076-498	25
80	0,98	0,29	88	88	0,76	110-080-498	25
90	0,84	0,22	99	99	0,88	110-090-498	25
102	0,84	0,22	110	110	0,95	110-102-498	25
110	0,7	0,22	119	119	1,03	110-110-498	25
115	0,7	0,22	124	124	1,06	110-115-498	25
120	0,7	0,22	129	129	1,12	110-120-498	25
127	0,7	0,22	135	135	1,18	110-127-498	25
130	0,56	0,22	139	139	1,2	110-130-498	25
140	0,56	0,15	149	149	1,38	110-140-498	25
152	0,56	0,15	161	161	1,48	110-152-498	25
160	0,56	0,15	170	170	1,74	110-160-498	25
170	0,42	0,15	180	180	1,8	110-170-498	25
175	0,42	0,15	185	185	1,85	110-175-498	25
180	0,42	0,15	190	190	1,9	110-180-498	25
203	0,42	0,15	214	214	2,3	110-203-498	25
225	0,28	0,07	235	235	2,55	110-225-498	25
254	0,28	0,07	264	264	3,03	110-254-798	25
275	0,28	0,07	284	284	3,11	110-275-498	25
280	0,28	0,07	290	290	3,14	110-280-498	25
300	0,25	0,07	310	310	3,2	110-300-498	20
315	0,25	0,07	325	325	3,32	110-315-498	20
325	0,25	0,07	335	335	3,4	110-325-498	20
350	0,13	0,07	360	360	3,6	110-350-498	20
375	0,13	0,05	386	386	3,85	110-375-498	20
400	0,13	0,05	410	411	4,45	110-400-498	20
450	0,13	0,05	460	461	5,06	110-450-498	20
500	0,13	0,05	510	511	5,7	110-500-498	20

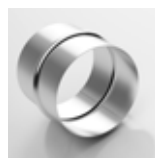
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



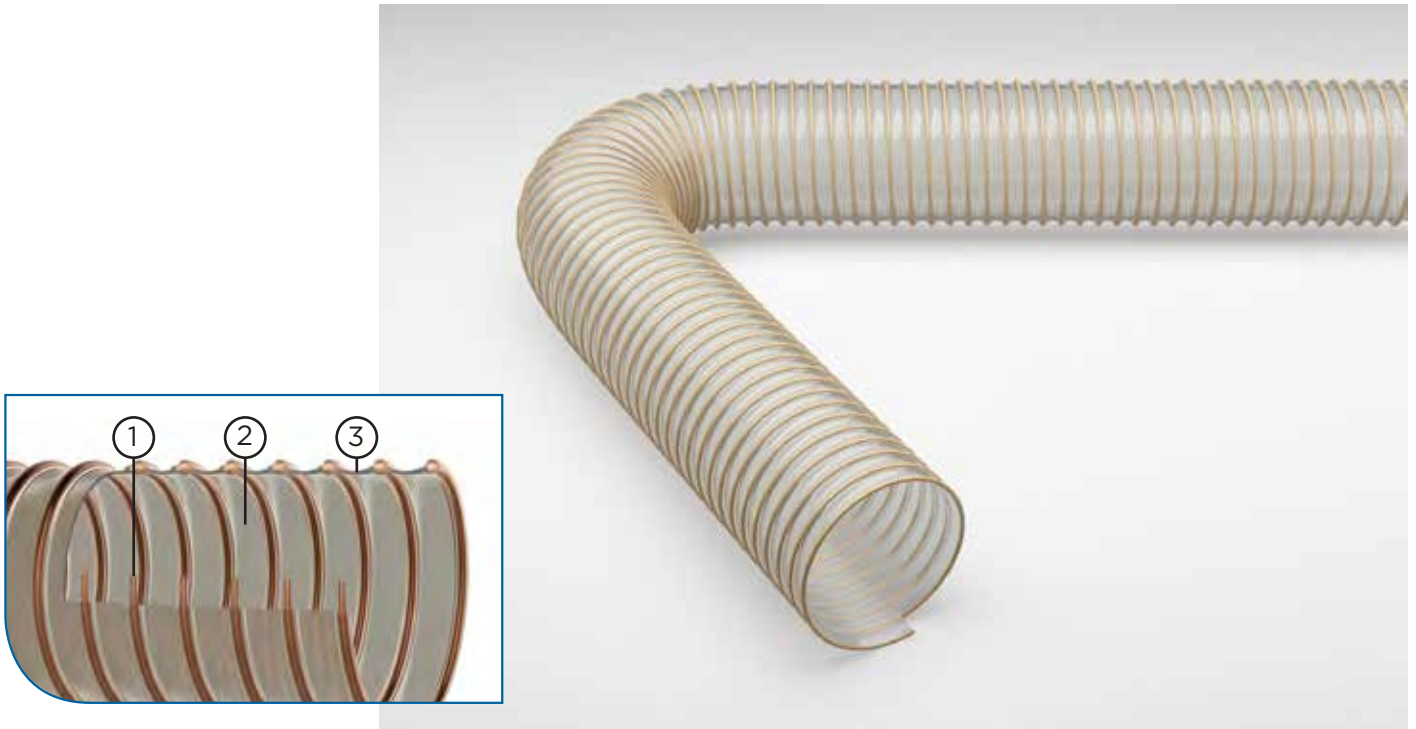
PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR H-MHR A

PU Suction & Transport Hose, medium duty, microbe & hydrolysis-resistant, antistatic,



Material

- ① spiral: spring steel wire
- ② hose wall: polyether polyurethane with non-migrating permanent agents, microbe and hydrolysis resistant
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- suction & transport hose for abrasive solids, for which microbe and hydrolysis resistance is required
- protective hose against mechanical wear

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Properties

- small bending radii
- good flexibility
- medium duty
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- microbe and hydrolysis-resistant
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type III

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
16	4,5	0,92	40	22	0,2	111-016-798	25
20	4,3	0,92	43	26	0,22	111-020-798	25
26	4,16	0,92	47	33	0,29	111-026-798	25
32	3,25	0,92	60	41	0,39	111-032-798	25
38	3,12	0,82	69	47	0,46	111-038-798	25
40	3	0,82	72	49	0,49	111-040-798	25
45	2,95	0,81	80	55	0,55	111-045-798	25
51	2,9	0,78	87	61	0,71	111-051-798	25
55	2,75	0,76	95	65	0,77	111-055-798	25
60	2,55	0,74	102	70	0,84	111-060-798	25
65	2,4	0,66	112	75	0,91	111-065-798	25
70	2,25	0,66	117	80	0,97	111-070-798	25
76	2	0,59	126	87	1,06	111-076-798	25
80	2	0,59	132	91	1,11	111-080-798	25
90	1,65	0,51	149	101	1,25	111-090-798	25
102	1,5	0,44	165	112	1,48	111-102-798	25
110	1,35	0,44	179	121	1,61	111-110-798	25
115	1,35	0,31	186	126	1,68	111-115-798	25
120	1,3	0,31	194	131	1,75	111-120-798	25
127	1,3	0,31	203	138	1,91	111-127-798	25
130	1,3	0,31	209	141	1,96	111-130-798	25
140	1,05	0,25	224	151	2,11	111-140-798	25
152	1,05	0,25	242	163	2,29	111-152-798	25
160	0,9	0,25	255	171	2,51	111-160-798	25
170	0,9	0,18	270	181	2,67	111-170-798	25
175	0,9	0,18	278	186	2,74	111-175-798	25
180	0,75	0,18	285	191	2,82	111-180-798	25
203	0,75	0,18	321	215	3,5	111-203-798	25
225	0,6	0,12	353	237	3,65	111-225-798	25
254	0,6	0,12	390	263	3,84	111-254-798	25
275	0,45	0,12	426	288	4,22	111-275-798	25
280	0,45	0,12	435	293	4,3	111-280-798	25
300	0,45	0,12	465	313	4,94	111-300-798	20
315	0,45	0,12	488	328	5,19	111-315-798	20
325	0,45	0,12	503	338	5,35	111-325-798	20
350	0,45	0,12	540	363	6,96	111-350-798	20
375	0,3	0,07	580	388	7,45	111-375-798	20
400	0,3	0,07	615	413	7,95	111-400-798	20
450	0,3	0,07	690	463	8,94	111-450-798	20
500	0,3	0,07	765	513	9,93	111-500-798	20

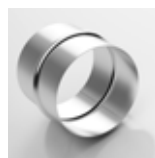
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



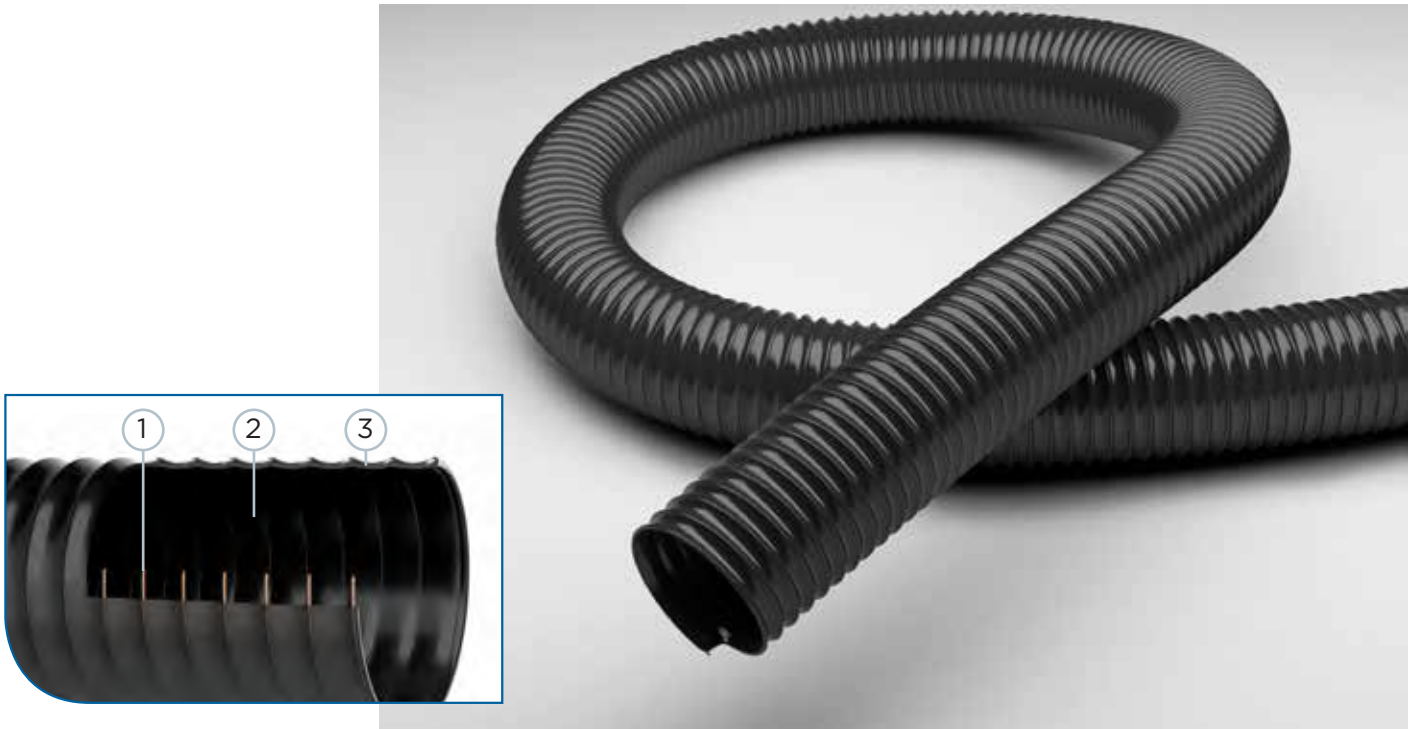
PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR L-EL

PU Suction & Transport Hose, light duty, highly flexible, electroconductive



Material

- ① spiral: spring steel wire
- ② wall: electrically conductive polyurethane
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- danger zones, which require electrically conductive hoses
- transport of fine-grained particles, such as dust and powder
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths and sizes with print.

Properties

- surface resistance $R_o < 10^3 \text{ Ohm}$
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- halogen-free
- light
- very good flexibility
- smallest bending radii
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to DIN 26057 type II

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
26	3,22	0,79	31	31	0,25	110-026-207	25
32	2,52	0,71	40	40	0,35	110-032-207	25
38	2,1	0,66	46	46	0,39	110-038-207	25
40	2,1	0,66	48	48	0,4	110-040-207	25
45	1,84	0,59	53	53	0,42	110-045-207	25
51	1,68	0,52	58	58	0,45	110-051-207	25
55	1,54	0,44	63	63	0,51	110-055-207	25
60	1,4	0,44	68	68	0,53	110-060-207	25
65	1,26	0,37	73	73	0,64	110-065-207	25
70	1,12	0,37	78	78	0,68	110-070-207	25
76	1,12	0,29	84	84	0,72	110-076-207	25
80	0,98	0,29	88	88	0,76	110-080-207	25
90	0,84	0,22	99	99	0,88	110-090-207	25
102	0,84	0,22	110	110	0,95	110-102-207	25
110	0,7	0,22	119	119	1,03	110-110-207	25
115	0,7	0,22	124	124	1,06	110-115-207	25
120	0,7	0,22	129	129	1,12	110-120-207	25
127	0,7	0,22	135	135	1,18	110-127-207	25
130	0,56	0,22	139	139	1,2	110-130-207	25
140	0,56	0,15	149	149	1,38	110-140-207	25
152	0,56	0,15	161	161	1,48	110-152-207	25
160	0,56	0,15	170	170	1,74	110-160-207	25
170	0,42	0,15	180	180	1,8	110-170-207	25
175	0,42	0,15	185	185	1,85	110-175-207	25
180	0,42	0,15	190	190	1,9	110-180-207	25
203	0,42	0,15	214	214	2,3	110-203-207	25
225	0,28	0,07	235	235	2,55	110-225-207	25
254	0,28	0,07	260	260	3,02	110-254-207	25
275	0,28	0,07	284	284	3,11	110-275-207	25
280	0,28	0,07	290	290	3,14	110-280-207	25
300	0,25	0,07	310	310	3,2	110-300-207	20
315	0,25	0,07	325	325	3,32	110-315-207	20
325	0,25	0,07	335	335	3,4	110-325-207	20
350	0,13	0,07	360	360	3,6	110-350-207	20
375	0,13	0,05	386	386	3,85	110-375-207	20
400	0,13	0,05	410	411	4,45	110-400-207	20
450	0,13	0,05	460	461	5,06	110-450-207	20
500	0,13	0,05	510	511	5,7	110-500-207	20

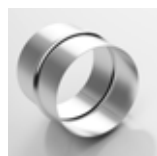
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR H-EL

PU Suction & Transport Hose, medium duty, very flexible, electroconductive



Material

- ① spiral: spring steel wire
- ② wall: electrically conductive polyurethane
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- danger zones, which require electrically conductive hoses
- special hose for industrial vacuum cleaners in explosion-protected areas
- suction of coarse-grained media with high flow rate
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths and sizes with print.

Properties

- surface resistance $R_o < 10^3 \text{ Ohm}$
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- small bending radii
- good flexibility
- medium duty
- halogen-free
- increased pressure and vacuum resistance
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance
- acc. to DIN 26057 type III

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
26	4,16	0,92	47	33	0,29	111-026-207	25
32	3,25	0,92	60	41	0,39	111-032-207	25
38	3,12	0,82	69	47	0,46	111-038-207	25
40	3	0,82	72	49	0,49	111-040-207	25
45	2,95	0,81	80	55	0,55	111-045-207	25
51	2,9	0,79	87	61	0,71	111-051-207	25
55	2,75	0,76	95	65	0,77	111-055-207	25
60	2,55	0,74	102	70	0,84	111-060-207	25
65	2,4	0,66	112	75	0,91	111-065-207	25
70	2,25	0,66	117	80	0,97	111-070-207	25
76	2	0,59	126	87	1,06	111-076-207	25
80	2	0,59	132	91	1,11	111-080-207	25
90	1,65	0,52	149	101	1,25	111-090-207	25
102	1,5	0,44	165	112	1,48	111-102-207	25
110	1,35	0,44	179	121	1,61	111-110-207	25
115	1,35	0,31	186	126	1,68	111-115-207	25
120	1,3	0,31	194	131	1,75	111-120-207	25
127	1,3	0,31	205	139	1,91	111-127-207	25
130	1,3	0,31	209	141	1,96	111-130-207	25
140	1,05	0,25	224	151	2,11	111-140-207	25
152	1,05	0,25	242	163	2,29	111-152-207	25
160	0,9	0,25	255	171	2,51	111-160-207	25
170	0,9	0,18	270	181	2,67	111-170-207	25
175	0,9	0,18	278	186	2,74	111-175-207	25
180	0,75	0,18	285	191	2,82	111-180-207	25
203	0,75	0,18	321	215	3,5	111-203-207	25
225	0,6	0,12	353	237	3,65	111-225-207	25
254	0,6	0,12	390	263	3,84	111-254-207	25
275	0,45	0,12	426	288	4,22	111-275-207	25
280	0,45	0,12	435	293	4,3	111-280-207	25
300	0,45	0,12	465	313	4,94	111-300-207	20
315	0,45	0,12	488	328	5,19	111-315-207	20
325	0,45	0,12	503	338	5,35	111-325-207	20
350	0,45	0,12	540	363	6,96	111-350-207	20
375	0,3	0,07	580	388	7,45	111-375-207	20
400	0,3	0,07	615	413	7,95	111-400-207	20
450	0,3	0,07	690	463	8,94	111-450-207	20
500	0,3	0,07	765	513	9,93	111-500-207	20

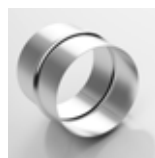
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



PU Cuff, electroconductive



Combiflex PU Threaded Socket

Master-PUR HX-EL

PU Suction & Transport Hose, flexible, highly abrasion-proof and vacuum-proof, electroconductive



Material

- ① spiral: spring steel wire
- ② wall: electrically conductive polyurethane
- ③ wall thickness between spirals approx. 1.7 - 2.1 mm, depending on DN

Applications

- danger zones, which require electrically conductive hoses
- suction of coarse-grained media with highest flow rate
- protective hose against greater mechanical wear
- suction and transport hose for extremely abrasive solid, liquid and gaseous media

Available on request

- available on request in the above listed lengths, sizes and colours. Alternatively, also available with print.

Properties

- surface resistance $R_o < 10^3 \text{ Ohm}$
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- extremely abrasion resistant via specific reinforcements underneath the spiral
- flexible
- high vacuum and apex pressure resistance
- highly durable, long service lives
- optimum flow characteristics
- mostly smooth inner lining
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance
- acc. to DIN 26057 type IV

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
32	4,85	0,94	80	42	0,69	114-032-207	20
38	4,39	0,94	95	48	0,78	114-038-207	20
40	4,27	0,94	100	50	0,81	114-040-207	20
45	4,1	0,94	115	55	0,88	114-045-207	20
50	4,02	0,94	123	60	0,94	114-050-207	20
51	4	0,94	125	61	0,95	114-051-207	20
55	3,75	0,89	140	65	1,08	114-055-207	20
60	3,6	0,89	150	70	1,2	114-060-207	20
65	3,3	0,89	165	75	1,33	114-065-207	20
70	3,15	0,89	175	80	1,49	114-070-207	20
75	2,96	0,89	188	86	1,65	114-075-207	20
76	2,92	0,89	190	87	1,68	114-076-207	20
80	2,77	0,89	200	93	1,85	114-080-207	20
90	2,4	0,89	225	103	2,1	114-090-207	20
100	2,15	0,87	246	113	2,28	114-100-207	20
102	2,1	0,87	250	115	2,32	114-102-207	20
110	1,95	0,87	275	124	2,6	114-110-207	20
115	1,8	0,87	290	129	2,73	114-115-207	20
120	1,65	0,87	300	134	2,86	114-120-207	20
125	1,65	0,87	311	138	2,97	114-125-207	20
127	1,65	0,87	315	140	3,01	114-127-207	20
130	1,65	0,84	325	143	3,25	114-130-207	20
140	1,5	0,83	350	153	3,66	114-140-207	20
150	1,5	0,82	371	165	4,07	114-150-207	20
152	1,5	0,82	375	167	4,15	114-152-207	20
160	1,35	0,81	400	175	4,55	114-160-207	20
170	1,2	0,8	425	185	5,01	114-170-207	20
175	1,2	0,79	440	190	5,27	114-175-207	20
180	1,2	0,77	450	195	5,52	114-180-207	20
200	1,07	0,67	493	217	5,99	114-200-207	15
203	1,05	0,66	500	220	6,06	114-203-207	15
225	0,9	0,58	565	241	6,99	114-225-207	10
250	0,9	0,52	617	263	7,91	114-250-207	10
254	0,9	0,51	625	267	7,91	114-254-207	10
275	0,75	0,47	690	292	8,67	114-275-207	10
300	0,6	0,42	750	317	9,42	114-300-207	10

All data refers to a medium and ambient temperature of +20 °C
* Refers to the inner hose lining
Subject to technical changes and colour deviations.



Combiflex PU Fixed Flange, pre-fixed



Combiflex PU Swivel Flange, pre-fixed



Combiflex PU Cone Flange, pre-fixed



Hose Clamp with Bolts



Combiflex metal male threaded socket

Master-PE L-F EL

PE foil hose, lightweight, highly flexible, electroconductive



Material

- ① spiral: spring steel wire
- ② wall: electroconductive polyethylene
- ③ Film thickness between spirals approx. 0.5mm

Applications

- suction of chemical fumes and gases in ventilation and air conditioning

Properties

- very good chemical resistance
- surface resistance $< 10^4$ Ohm
- especially resistant to solvent and other aggressive fumes
- super lightweight
- highly flexible
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- smallest bending radii
- halogen and plasticizer-free

Temperature Range

- -40°C to +60°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,45	0,18	28	0,11	668-040-207	25
50	0,4	0,16	35	0,14	668-050-207	25
51	0,4	0,16	36	0,14	668-051-207	25
60	0,4	0,16	42	0,17	668-060-207	25
65	0,35	0,14	45	0,19	668-065-207	25
70	0,3	0,12	49	0,2	668-070-207	25
75	0,3	0,1	53	0,21	668-075-207	25
76	0,3	0,1	54	0,21	668-076-207	25
80	0,3	0,1	56	0,22	668-080-207	25
90	0,25	0,09	63	0,25	668-090-207	25
100	0,2	0,09	70	0,28	668-100-207	25
102	0,2	0,09	71	0,29	668-102-207	25
120	0,2	0,09	82	0,33	668-120-207	25
125	0,2	0,08	85	0,35	668-125-207	25
127	0,2	0,08	87	0,36	668-127-207	25
130	0,2	0,07	91	0,38	668-130-207	25
140	0,1	0,06	97	0,41	668-140-207	25
150	0,1	0,06	100	0,48	668-150-207	25
152	0,1	0,06	103	0,49	668-152-207	25
160	0,1	0,05	115	0,55	668-160-207	25
175	0,09	0,05	123	0,71	668-175-207	25
200	0,08	0,05	140	0,81	668-200-207	25
203	0,08	0,05	142	0,82	668-203-207	25
250	0,05	0,04	175	1,01	668-250-207	25
254	0,05	0,04	178	1,03	668-254-207	25
300	0,03	0,03	210	1,22	668-300-207	25
350	0,02	0,02	245	1,42	668-350-207	25
400	0,02	0,02	280	1,62	668-400-207	25

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes, lengths, in black. Delivery time approx. 10 working days
 Subject to technical changes and colour deviations.



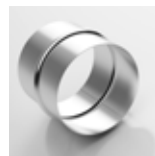
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



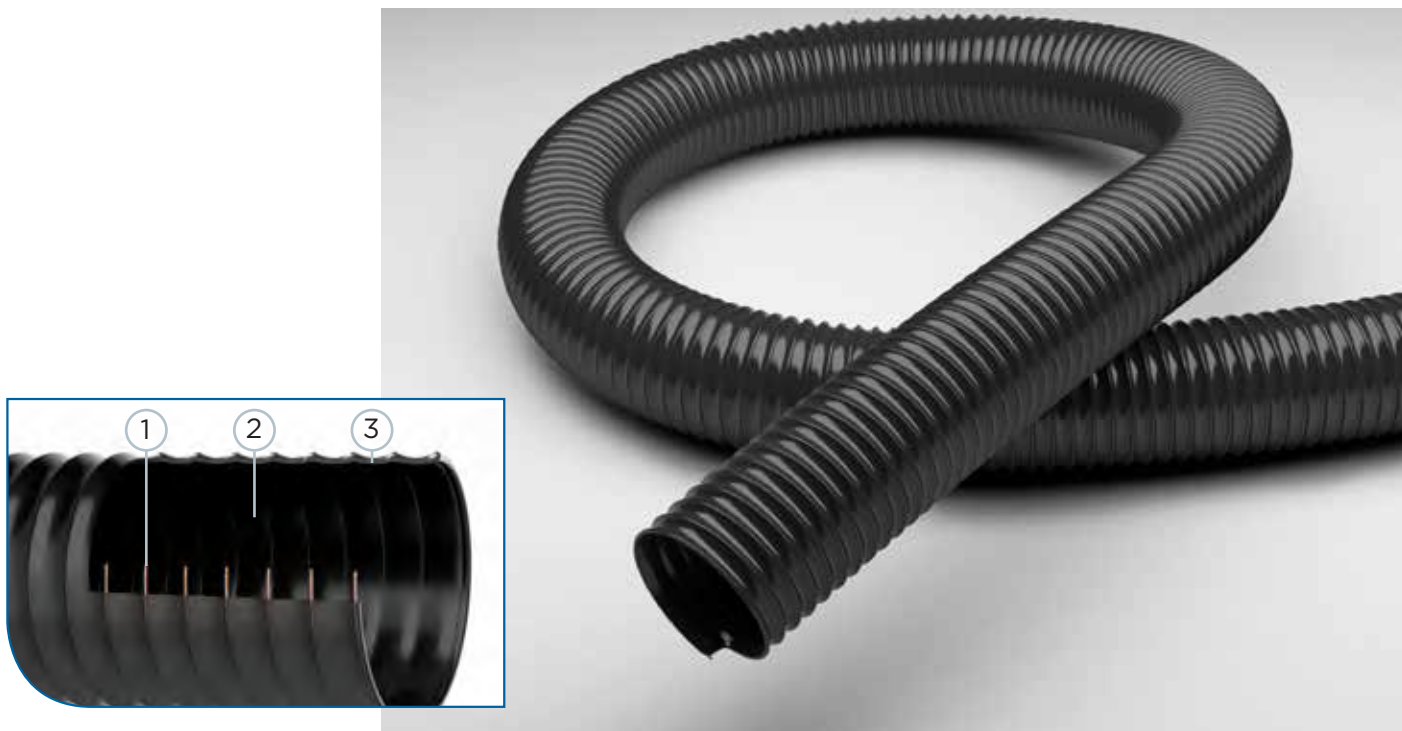
Master-Grip Quick-Fix Clamp



Hose Connector

Master-PE L-EL

PE Suction & Transport Hose, lightweight, highly flexible, electroconductive



Material

- ① spiral: spring steel wire
- ② wall: electroconductive polyethylene
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction & Transport Hose for aggressive gases and liquids
- danger zones, which require electrically conductive hoses
- transport of fine-grained particles, such as dust and powder
- oil mist extraction/suction

Available on request

- available on request in other lengths and sizes with print.

Properties

- surface resistance <math>< 10^4 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- high tension/tear-proof
- flexible
- mostly smooth inner lining
- light
- halogen and plasticizer-free
- optimum flow characteristics
- good resistance to chemicals, oil and fuel
- generally good UV and ozone resistance

Temperature Range

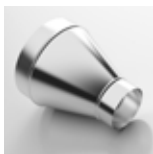
- -35°C to +80°C
- peaks to +120°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
25	1,39	0,94	31	31	0,23	180-025-207	25
26	1,35	0,93	32	32	0,24	180-026-207	25
32	1,09	0,85	40	40	0,32	180-032-207	25
38	0,91	0,79	46	46	0,35	180-038-207	25
40	0,91	0,79	48	48	0,36	180-040-207	25
45	0,79	0,71	53	53	0,38	180-045-207	25
50	0,73	0,64	57	57	0,41	180-050-207	25
51	0,72	0,62	58	58	0,41	180-051-207	25
55	0,66	0,53	63	63	0,46	180-055-207	25
60	0,6	0,53	68	68	0,48	180-060-207	25
65	0,54	0,44	73	73	0,58	180-065-207	25
70	0,48	0,44	78	78	0,62	180-070-207	25
75	0,48	0,37	83	83	0,65	180-075-207	25
76	0,48	0,35	84	84	0,65	180-076-207	25
80	0,42	0,35	88	88	0,69	180-080-207	25
90	0,36	0,26	99	99	0,8	180-090-207	25
100	0,36	0,26	108	108	0,85	180-100-207	25
102	0,36	0,26	110	110	0,86	180-102-207	25
110	0,3	0,26	119	119	0,93	180-110-207	25
115	0,3	0,26	124	124	0,96	180-115-207	25
120	0,3	0,26	129	129	1,01	180-120-207	25
125	0,3	0,26	133	133	1,05	180-125-207	25
127	0,3	0,26	135	135	1,07	180-127-207	25
130	0,24	0,26	139	139	1,09	180-130-207	25
140	0,24	0,18	149	149	1,25	180-140-207	25
150	0,24	0,18	159	159	1,33	180-150-207	25
152	0,24	0,18	161	161	1,34	180-152-207	25
160	0,24	0,18	170	170	1,58	180-160-207	25
170	0,18	0,18	180	180	1,63	180-170-207	25
175	0,18	0,18	185	185	1,68	180-175-207	25
180	0,18	0,18	190	190	1,72	180-180-207	25
200	0,18	0,18	211	211	2,03	180-200-207	25
203	0,18	0,18	214	214	2,08	180-203-207	25
225	0,12	0,09	235	235	2,31	180-225-207	25
250	0,12	0,09	260	260	2,74	180-250-207	25
254	0,12	0,09	264	264	2,75	180-254-207	25
275	0,12	0,09	284	284	2,82	180-275-207	25
280	0,12	0,09	290	290	2,84	180-280-207	25
300	0,11	0,08	310	310	2,9	180-300-207	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



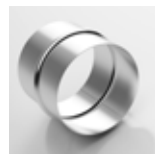
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector

Master-PVC L-F EL

PVC Film/Foil Hose, lightweight, electroconductive



Material

- ① spiral: spring steel wire, plastic-coated
- ② wall: soft PVC, electrically conductive
- ③ wall thickness between spirals approx. 0.5 mm

Applications

- chemicals industry
- apparatus construction
- suction and transport hose for solid, liquid and gaseous media
- danger zones, which require electrically conductive hoses
- transport of fine-grained particles, such as dust and powder

Available on request

- available on request in other lengths and sizes with print.

Properties

- surface resistance <math>< 10^6 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- extremely flexible
- axial compressable
- mostly smooth inner lining
- good oil/alkali/acid resistance
- light
- smallest bending radii
- good chemical resistance

Temperature Range

- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
50	0,7	0,19	29	56	0,33	340-050-207	25
51	0,7	0,19	30	57	0,33	340-051-207	25
60	0,68	0,19	35	68	0,39	340-060-207	25
63	0,65	0,17	37	70	0,41	340-063-207	25
65	0,61	0,16	38	72	0,42	340-065-207	25
70	0,55	0,13	40	77	0,45	340-070-207	25
75	0,53	0,13	42	81	0,48	340-075-207	25
76	0,52	0,13	43	82	0,48	340-076-207	25
80	0,48	0,13	45	87	0,51	340-080-207	25
90	0,41	0,09	50	98	0,58	340-090-207	25
100	0,39	0,09	54	107	0,63	340-100-207	25
102	0,38	0,09	55	109	0,64	340-102-207	25
110	0,34	0,09	60	117	0,69	340-110-207	25
115	0,34	0,09	63	122	0,72	340-115-207	25
120	0,32	0,09	65	128	0,76	340-120-207	25
125	0,32	0,09	67	131	0,77	340-125-207	25
127	0,32	0,09	68	133	0,78	340-127-207	25
130	0,27	0,09	70	136	0,81	340-130-207	25
140	0,27	0,06	75	147	0,87	340-140-207	25
150	0,27	0,06	79	156	0,93	340-150-207	25
152	0,27	0,06	80	158	0,94	340-152-207	25
160	0,21	0,06	85	170	1,14	340-160-207	25
170	0,21	0,06	90	180	1,21	340-170-207	25
175	0,21	0,06	93	185	1,24	340-175-207	25
180	0,21	0,06	95	190	1,28	340-180-207	25
200	0,21	0,06	103	207	1,4	340-200-207	25
203	0,21	0,06	105	210	1,42	340-203-207	25
225	0,14	0,03	118	235	1,59	340-225-207	25
250	0,14	0,03	128	257	1,75	340-250-207	25
254	0,14	0,03	130	261	1,77	340-254-207	25
275	0,13	0,03	143	285	1,94	340-275-207	25
280	0,13	0,03	145	290	1,97	340-280-207	25
300	0,13	0,03	155	311	2,11	340-300-207	25

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



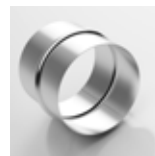
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



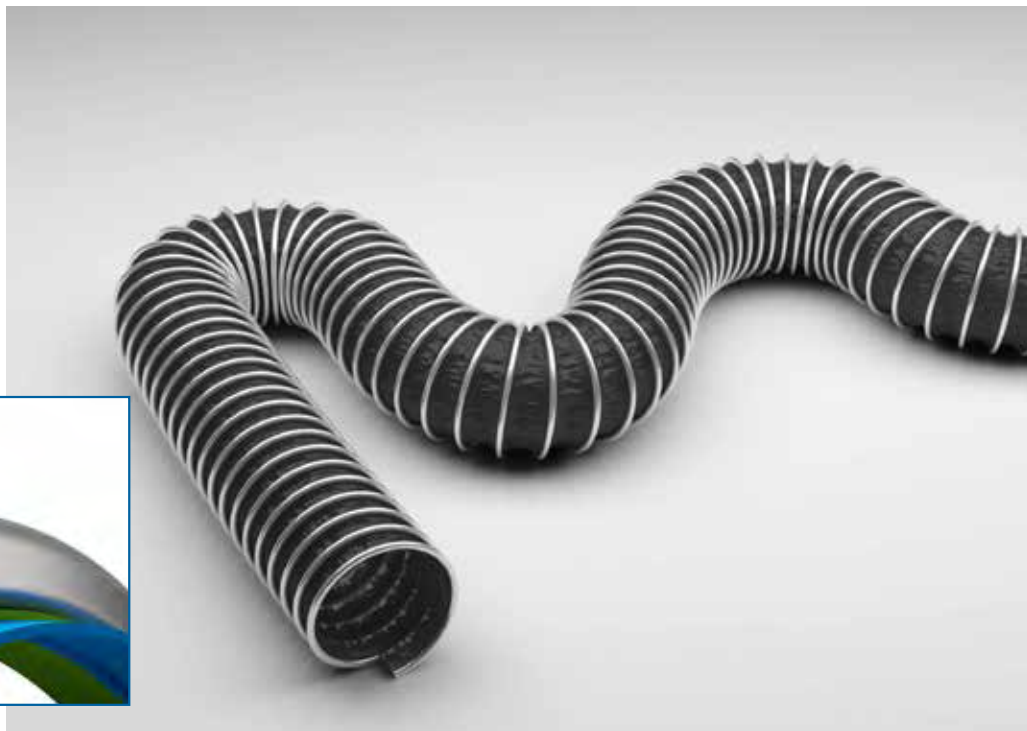
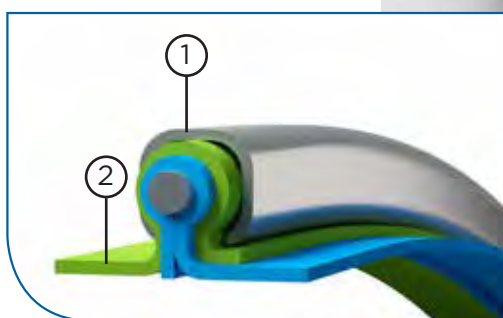
Master-Grip Quick-Fix Clamp



Hose Connector

Master-Clip VINYL EL

Suction & Blower hose made from PVC coated polyester fabric, electroconductive



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: PVC-coated polyester fabric, electrically conductive $< 10^6$ Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- suction and conveyance of aggressive media, explosive gases and fumes
- air supply and extraction in explosion-protected areas
- for greater mechanical demands
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- surface resistance $< 10^6$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- robust wall material
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- extremely compressable to approx. 1:6
- highly flexible
- smallest bending radii
- extremely lightweight

Temperature Range

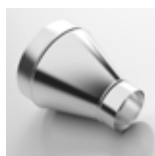
- -20°C to $+70^{\circ}\text{C}$
- peaks to $+80^{\circ}\text{C}$



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,9	0,31	30	0,55	260-050-207	20
55	0,85	0,26	33	0,6	260-055-207	20
60	0,78	0,22	36	0,64	260-060-207	20
65	0,68	0,19	39	0,69	260-065-207	20
70	0,67	0,16	42	0,74	260-070-207	20
75	0,62	0,14	45	0,79	260-075-207	20
80	0,61	0,12	48	0,84	260-080-207	20
90	0,56	0,11	54	0,94	260-090-207	20
100	0,51	0,1	60	0,77	260-100-207	20
110	0,48	0,08	66	0,85	260-110-207	20
120	0,36	0,07	72	0,93	260-120-207	20
125	0,33	0,06	75	0,97	260-125-207	20
130	0,28	0,06	78	1	260-130-207	20
140	0,25	0,05	84	1,1	260-140-207	20
150	0,22	0,04	90	1,16	260-150-207	20
160	0,21	0,04	96	3,14	260-160-207	20
170	0,19	0,03	102	3,33	260-170-207	20
175	0,185	0,03	105	3,43	260-175-207	20
180	0,172	0,03	108	3,52	260-180-207	20
200	0,148	0,03	120	3,9	260-200-207	20
215	0,128	0,02	151	4,8	260-215-207	20
225	0,115	0,02	158	4,73	260-225-207	20
250	0,1	0,02	175	4,84	260-250-207	20
275	0,08	0,01	193	5,31	260-275-207	20
300	0,07	0,01	210	5,78	260-300-207	20
315	0,06	0,01	221	6,1	260-315-207	20
325	0,06	0,01	228	6,25	260-325-207	20
350	0,06	0,01	245	6,72	260-350-207	20
375	0,05	0,01	263	7,19	260-375-207	20
400	0,05	0,01	280	7,66	260-400-207	20
450	0,05	0,01	360	8,6	260-450-207	20
500	0,04	0,01	400	5,64	260-500-207	20
550	0,04	0,01	440	10,49	260-550-207	20
600	0,04	0,01	480	11,43	260-600-207	15
700	0,03	0,01	560	13,31	260-700-207	15
800	0,02	0,01	640	15,2	260-800-207	15
900	0,02	0,01	720	17,1	260-900-207	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes and lengths.
 Subject to technical changes and colour deviations.



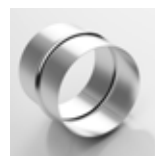
Hose Reducer, symmetrical



Clip-Grip quick action clamp



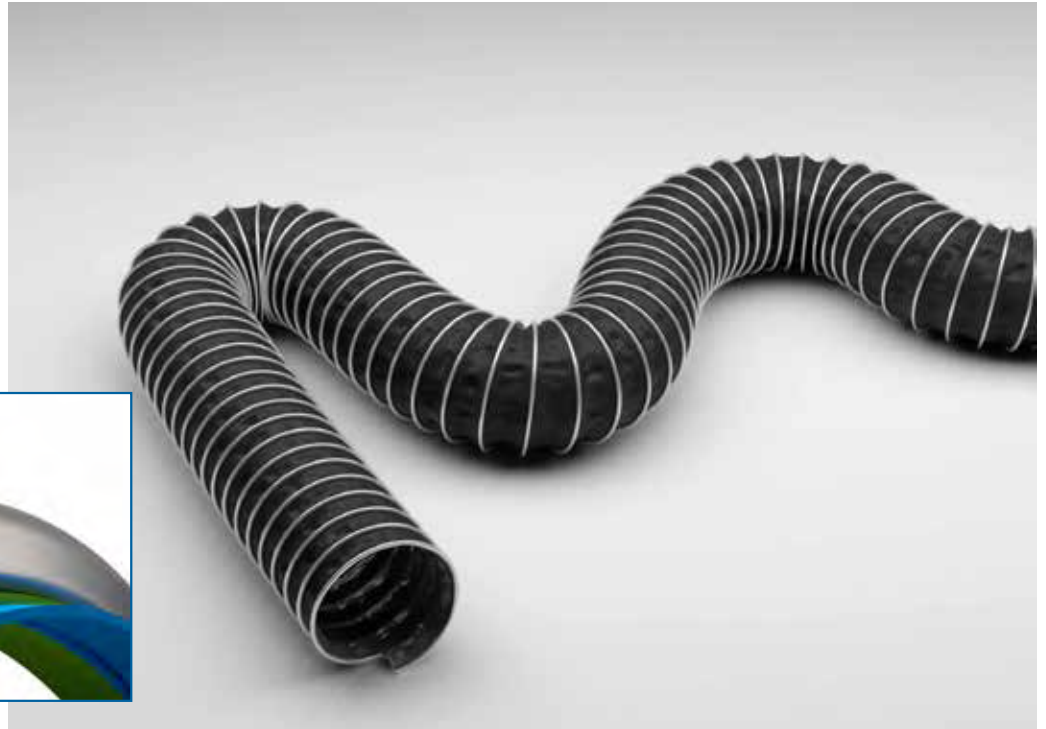
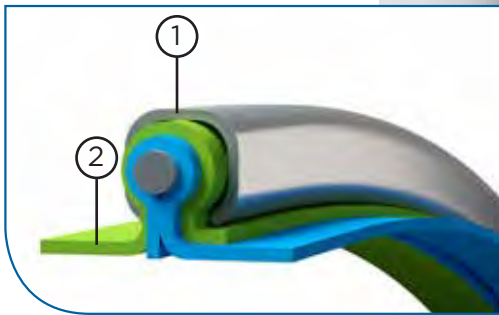
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip VITON EL

Suction & Blower hose made from VITON-coated Polyester fabric, for corrosive media up to +210 °C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: Viton®-coated polyester fabric, electrically conductive $< 10^4$ Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- paint mist extraction
- suction/extraction of aggressive media in medium temperature range
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good chemical resistance
- outer chafing protection spiral
- high temperature resistance
- surface resistance $< 10^4$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- robust wall material
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- tear-proof
- smallest bending radii
- UV/ozone-proof
- extremely lightweight

Temperature Range

- -25°C to +210°C
- peaks to +240°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,47	23	0,4	222-038-207	25
40	0,93	0,46	24	0,4	222-040-207	25
45	0,92	0,43	27	0,4	222-045-207	25
50	0,9	0,39	30	0,4	222-050-207	25
55	0,85	0,32	33	0,4	222-055-207	25
60	0,78	0,27	36	0,5	222-060-207	25
65	0,68	0,23	39	0,5	222-065-207	25
70	0,67	0,2	42	0,5	222-070-207	25
75	0,62	0,18	45	0,6	222-075-207	25
80	0,61	0,15	48	0,6	222-080-207	25
90	0,56	0,12	54	0,6	222-090-207	25
100	0,51	0,1	60	0,6	222-100-207	25
110	0,48	0,08	66	0,7	222-110-207	25
120	0,36	0,07	72	0,7	222-120-207	25
125	0,33	0,06	75	0,8	222-125-207	25
130	0,28	0,06	78	0,8	222-130-207	25
140	0,25	0,05	84	0,8	222-140-207	25
150	0,22	0,04	90	0,9	222-150-207	25
160	0,21	0,04	96	0,9	222-160-207	25
170	0,19	0,03	102	0,9	222-170-207	25
175	0,19	0,03	105	1	222-175-207	25
180	0,17	0,03	108	1	222-180-207	25
200	0,15	0,03	120	1,2	222-200-207	25
215	0,13	0,02	151	1,3	222-215-207	25
225	0,12	0,02	158	1,4	222-225-207	25
250	0,1	0,02	175	1,6	222-250-207	25
275	0,08	0,01	193	1,9	222-275-207	25
300	0,07	0,01	210	2,1	222-300-207	25
325	0,06	0,01	228	2,5	222-325-207	25
350	0,06	0,01	245	2,5	222-350-207	25
375	0,05	0,01	263	2,9	222-375-207	25
400	0,05	0,01	280	3,1	222-400-207	25
450	0,05	0,01	360	3,6	222-450-207	25
500	0,04	0,01	400	4,1	222-500-207	25
550	0,04	0,01	440	4,6	222-550-207	25
600	0,04	0,01	480	5,1	222-600-207	20
700	0,03	0,01	560	6	222-700-207	20
800	0,02	0,01	640	6,9	222-800-207	20
900	0,02	0,01	720	7,8	222-900-207	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes and lengths.
 Subject to technical changes and colour deviations.



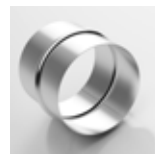
Hose Reducer, symmetrical



Clip-Grip quick action clamp



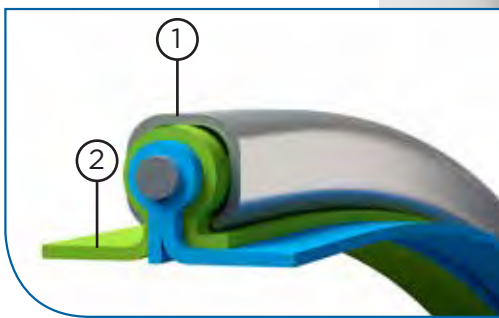
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE EL

Suction & Blower hose for corrosive media up to +280°C, electroconductive



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: multi-layered, PTFE laminate, electrically conductive $< 10^6$ Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- suction and conveyance of aggressive media, explosive gases and fumes
- paint mist extraction
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- excellent chemical resistance
- outer chafing protection spiral
- surface resistance $< 10^6$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- cold and heat resistant
- weather-proof
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- optimum medium flow characteristics
- extremely lightweight

Temperature Range

- -150°C to +280°C
- peaks to +300°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
55	0,58	0,13	33	0,4	263-055-207	10
60	0,55	0,12	36	0,5	263-060-207	10
65	0,5	0,11	39	0,5	263-065-207	10
70	0,4	0,11	42	0,5	263-070-207	10
75	0,35	0,1	45	0,5	263-075-207	10
80	0,3	0,09	48	0,5	263-080-207	10
90	0,26	0,08	54	0,6	263-090-207	10
100	0,23	0,07	60	0,6	263-100-207	10
110	0,2	0,06	66	0,6	263-110-207	10
120	0,18	0,05	72	0,7	263-120-207	10
125	0,17	0,05	75	0,7	263-125-207	10
130	0,15	0,05	78	0,8	263-130-207	10
140	0,14	0,04	84	0,8	263-140-207	10
150	0,14	0,04	90	0,9	263-150-207	10
160	0,13	0,04	96	0,9	263-160-207	10
170	0,12	0,03	102	0,9	263-170-207	10
175	0,11	0,03	105	1	263-175-207	10
180	0,11	0,03	108	1	263-180-207	10
200	0,1	0,03	120	1,1	263-200-207	10
215	0,09	0,02	151	1,1	263-215-207	10
225	0,08	0,02	158	1,2	263-225-207	10
250	0,08	0,02	175	1,4	263-250-207	10
275	0,07	0,01	193	1,7	263-275-207	6
300	0,06	0,01	210	1,9	263-300-207	6
315	0,06	0,01	221	1,9	263-315-207	6
325	0,05	0,01	228	2	263-325-207	6
350	0,05	0,01	245	2,2	263-350-207	6
375	0,04	0,01	263	2,6	263-375-207	6
400	0,03	0,01	280	2,8	263-400-207	6
450	0,03	0,01	360	3,3	263-450-207	3
500	0,03	0,01	400	3,8	263-500-207	3
550	0,02	0,01	440	4,4	263-550-207	3
600	0,02	0,01	480	4,9	263-600-207	3
700	0,02	0,01	560	5,6	263-700-207	3
800	0,02	0,01	640	6,2	263-800-207	3
900	0,01	0,01	720	7	263-900-207	3

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes and lengths.
 Subject to technical changes and colour deviations.



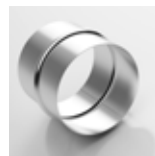
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE H-EL

Suction & Blower hose for corrosive media up to +175°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: inner PTFE foil, electroconductive, outer layer: HYPALON®-coated polyester fabric

Applications

- danger zones, which require electrically conductive hoses
- suction and conveyance of aggressive media, explosive gases and fumes
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- excellent chemical resistance
- outer chafing protection spiral
- PTFE-foil: surface resistance $R_o < 10^6$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- cold and heat resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressible to approx. 1:4
- UV/ozone-proof
- weather-proof
- anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

- -40°C to +175°C
- peaks to +190°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,52	23	0,5	261-038-207	20
40	0,93	0,51	24	0,5	261-040-207	20
45	0,92	0,48	27	0,5	261-045-207	20
50	0,9	0,43	30	0,5	261-050-207	20
55	0,85	0,36	33	0,5	261-055-207	20
60	0,78	0,3	36	0,6	261-060-207	20
65	0,68	0,26	39	0,7	261-065-207	20
70	0,67	0,22	42	0,7	261-070-207	20
75	0,62	0,19	45	0,8	261-075-207	20
80	0,61	0,17	48	0,8	261-080-207	20
90	0,56	0,13	54	0,9	261-090-207	20
100	0,51	0,11	60	1	261-100-207	20
110	0,48	0,09	66	1,1	261-110-207	20
120	0,36	0,08	72	1,1	261-120-207	20
125	0,33	0,07	75	1,2	261-125-207	20
130	0,28	0,06	78	1,2	261-130-207	20
140	0,25	0,06	84	1,3	261-140-207	20
150	0,22	0,05	90	1,3	261-150-207	20
160	0,21	0,04	96	1,3	261-160-207	20
170	0,19	0,04	102	1,4	261-170-207	20
175	0,185	0,04	105	1,4	261-175-207	20
180	0,172	0,03	108	1,4	261-180-207	20
200	0,148	0,03	120	1,6	261-200-207	20
215	0,128	0,03	151	1,8	261-215-207	20
225	0,115	0,02	158	2	261-225-207	20
250	0,1	0,02	175	2,1	261-250-207	20
275	0,08	0,02	193	2,3	261-275-207	20
300	0,07	0,01	210	2,4	261-300-207	20
325	0,06	0,01	228	2,8	261-325-207	20
350	0,06	0,01	245	3,3	261-350-207	20
375	0,05	0,01	263	3,5	261-375-207	20
400	0,05	0,01	280	3,8	261-400-207	15
450	0,05	0,01	360	4,2	261-450-207	15
500	0,04	0,01	400	4,7	261-500-207	15
550	0,04	0,01	440	5,3	261-550-207	15
600	0,04	0,01	480	5,9	261-600-207	15
700	0,03	0,01	560	6,9	261-700-207	15
800	0,02	0,01	640	7,6	261-800-207	15
900	0,02	0,01	720	8,2	261-900-207	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes and lengths.
 Subject to technical changes and colour deviations.



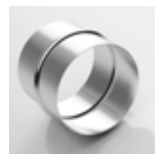
Hose Reducer, symmetrical



Clip-Grip quick action clamp



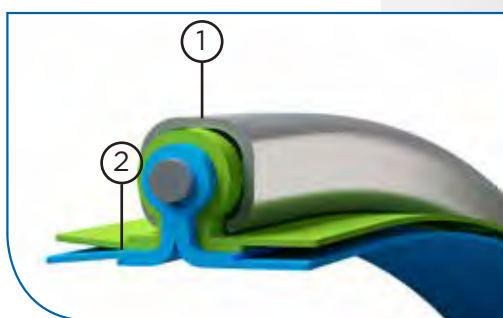
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE S-EL

Suction & Blower hose for corrosive media up to +250°C



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: inner PTFE foil, electroconductive, outer layer: silicone-coated glass fabric

Applications

- danger zones, which require electrically conductive hoses
- suction and conveyance of aggressive media, explosive gases and fumes
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- excellent chemical resistance
- outer chafing protection spiral
- PTFE-foil: surface resistance $R_o < 10^6$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- cold and heat resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressible to approx. 1:4
- UV/ozone-proof
- weather-proof
- robust outer wall material anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

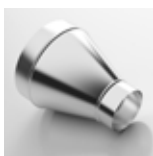
- -70°C to +250°C
- peaks to +270°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,85	0,35	30	0,5	262-050-216	10
55	0,78	0,29	33	0,5	262-055-216	10
60	0,68	0,24	36	0,6	262-060-216	10
65	0,59	0,21	39	0,7	262-065-216	10
70	0,53	0,17	42	0,7	262-070-216	10
75	0,47	0,15	45	0,8	262-075-216	10
80	0,43	0,14	48	0,8	262-080-216	10
90	0,36	0,11	54	0,9	262-090-216	10
100	0,3	0,09	60	1	262-100-216	10
110	0,26	0,07	66	1,1	262-110-216	10
120	0,22	0,06	72	1,1	262-120-216	10
125	0,21	0,05	75	1,2	262-125-216	10
130	0,2	0,05	78	1,2	262-130-216	10
140	0,18	0,05	84	1,3	262-140-216	10
150	0,16	0,04	90	1,3	262-150-216	10
160	0,14	0,03	96	1,3	262-160-216	10
170	0,13	0,03	102	1,4	262-170-216	10
175	0,12	0,03	105	1,4	262-175-216	10
180	0,12	0,03	108	1,4	262-180-216	10
200	0,1	0,02	120	1,6	262-200-216	10
215	0,09	0,02	151	1,8	262-215-216	10
225	0,08	0,02	158	2	262-225-216	10
250	0,07	0,02	175	2,1	262-250-216	10
275	0,06	0,01	193	2,3	262-275-216	10
300	0,05	0,01	210	2,4	262-300-216	10
315	0,05	0,01	221	2,6	262-315-216	10
325	0,05	0,01	228	2,8	262-325-216	10
350	0,04	0,01	245	3,3	262-350-216	10
375	0,04	0,01	263	3,5	262-375-216	10
400	0,03	0,01	280	3,8	262-400-216	10
450	0,03	0,01	360	4,2	262-450-216	10
500	0,02	0,01	400	4,7	262-500-216	10
550	0,02	0,01	440	5,3	262-550-216	10
600	0,02	0,01	480	5,9	262-600-216	10
700	0,01	0,01	560	6,9	262-700-216	10
800	0,01	0,01	640	7,6	262-800-216	10
900	0,01	0,01	720	8,2	262-900-216	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Order-specific production in above listed sizes and lengths.
 Subject to technical changes and colour deviations.



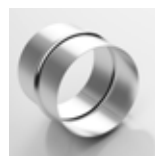
Hose Reducer, symmetrical



Clip-Grip quick action clamp



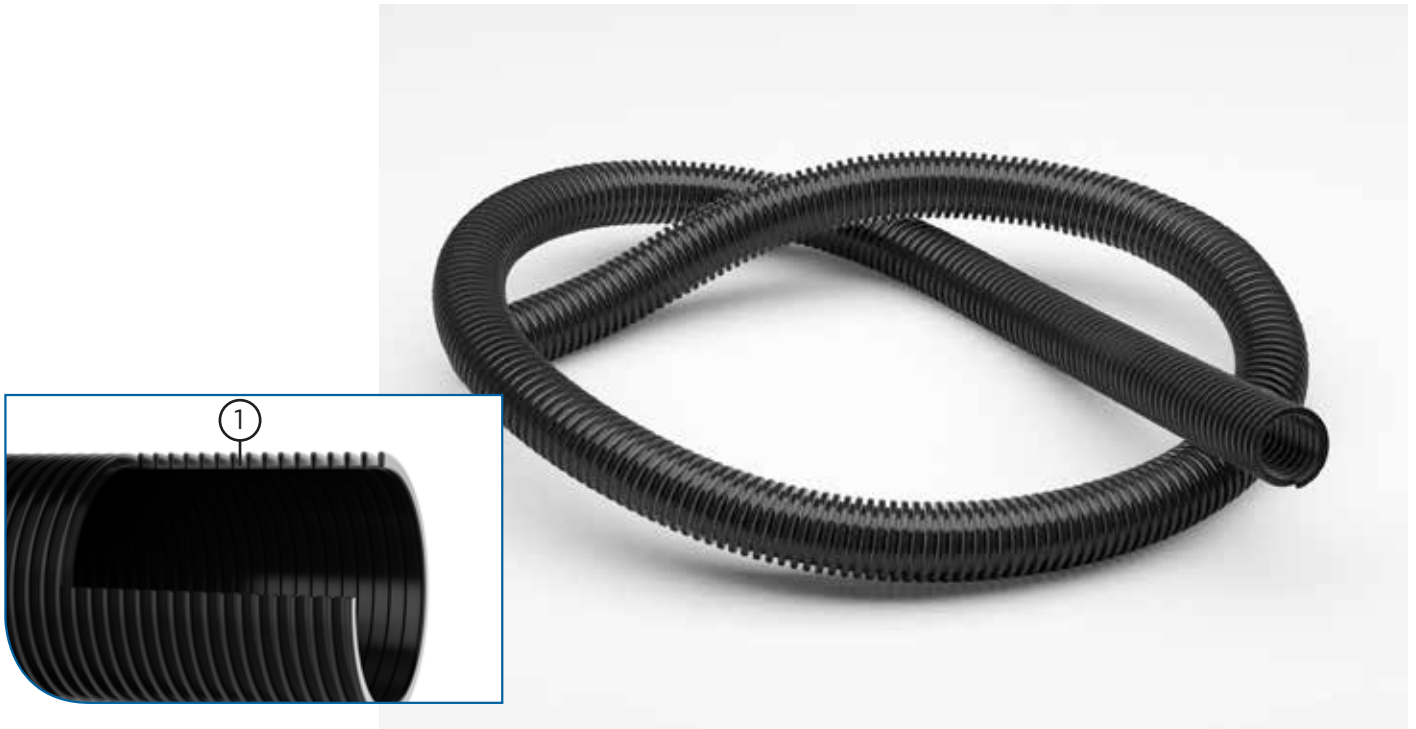
Clip-Grip Hose clamp, screwable



Hose Connector

Master-VAC EL

PE-EVA Suction Hose & Transport Hose, lightweight, crush-resistant, electroconductive



Material

- 1 wall: PE-EVA Co-polymer

Applications

- suction hose for fine-grained particles, e.g. dust, powders, fibres
- protective hose
- swimming pool cleaning
- ventilation
- conveyance and suction of solid, liquid and gaseous media
- chemicals industry
- dust removal units
- household vacuum cleaners
- industrial vacuum cleaners
- handheld machines

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- surface resistance <math>< 10^6 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- floatable (spec. Weight 0.94)
- crush-resistant
- super lightweight
- UV/ozone-proof
- air-tight / watertight

Temperature Range

- -40°C to +60°C
- peaks to +70°C



Stock lengths and technical data / www.masterflex.de/en

DN	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
25	0,74	60	0,15	670-025-207	20
28	0,74	70	0,19	670-028-207	20
32	0,49	70	0,22	670-032-207	20
38	0,49	80	0,29	670-038-207	20
45	0,49	90	0,37	670-045-207	20
50	0,39	100	0,42	670-050-207	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



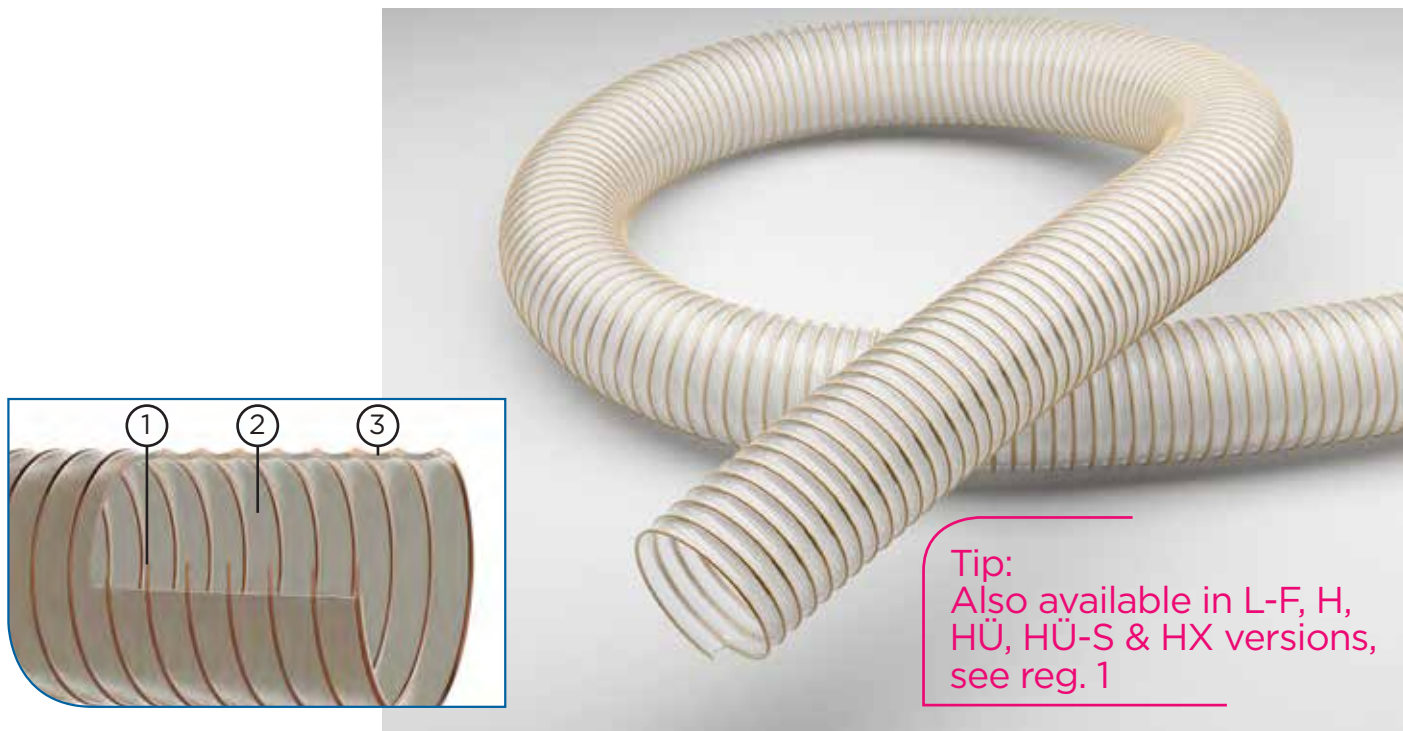
Hose Clamp with Worm-Gear Drive



Cuff for Master-VAC

Master-PUR L Trivolution

PU Suction hose & Transport Hose, extremely flexible, light duty, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Tip:
Also available in L-F, H,
HÜ, HÜ-S & HX versions,
see reg. 1

Material

- ① spiral: spring steel wire
- ② wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction/extraction of paper and textile fibres
- transport of fine-grained particles, such as dust and powder
- suction & transport hose for abrasive solids, liquids and gases
- protective hose against mechanical wear
- oil mist extraction/suction

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- hardly inflammable acc. to DIN 4102 B1
- microbe-resistant
- permanently antistatic, surface resistance <math>< 10^9 \text{ Ohm}</math>
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- light
- very good flexibility
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- high tensile strength
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no	max. production length m
26	3,22	0,79	31	31	0,25	110-026-401	25
32	2,52	0,71	40	40	0,35	110-032-401	25
38	2,1	0,66	46	46	0,39	110-038-401	25
40	2,1	0,66	48	48	0,4	110-040-401	25
45	1,84	0,59	53	53	0,42	110-045-401	25
51	1,68	0,52	58	58	0,48	110-051-401	25
55	1,54	0,44	63	63	0,51	110-055-401	25
60	1,4	0,44	68	68	0,53	110-060-401	25
65	1,26	0,37	73	73	0,64	110-065-401	25
70	1,12	0,37	78	78	0,68	110-070-401	25
76	1,12	0,29	84	84	0,72	110-076-401	25
80	0,98	0,29	88	88	0,76	110-080-401	25
90	0,84	0,22	99	99	0,88	110-090-401	25
102	0,84	0,22	110	110	0,95	110-102-401	25
110	0,7	0,22	119	119	1,03	110-110-401	25
115	0,7	0,22	124	124	1,06	110-115-401	25
120	0,7	0,22	129	129	1,12	110-120-401	25
127	0,7	0,22	135	135	1,18	110-127-401	25
130	0,56	0,22	139	139	1,2	110-130-401	25
140	0,56	0,15	149	149	1,38	110-140-401	25
152	0,56	0,15	161	161	1,48	110-152-401	25
160	0,56	0,15	170	170	1,74	110-160-401	25
170	0,42	0,15	180	180	1,8	110-170-401	25
175	0,42	0,15	185	185	1,85	110-175-401	25
180	0,42	0,15	190	190	1,9	110-180-401	25
203	0,42	0,15	214	214	2,3	110-203-401	25
225	0,28	0,07	235	235	2,55	110-225-401	25
254	0,28	0,07	264	264	3,02	110-254-401	25
275	0,28	0,07	284	284	3,11	110-275-401	25
280	0,28	0,07	290	290	3,14	110-280-401	20
300	0,25	0,07	310	310	3,2	110-300-401	20
315	0,25	0,07	325	325	3,32	110-315-401	20
325	0,25	0,07	335	335	3,4	110-325-401	20
350	0,13	0,07	360	360	3,6	110-350-401	20
375	0,13	0,05	386	386	3,85	110-375-401	20
400	0,13	0,05	410	411	4,45	110-400-401	20
450	0,13	0,05	460	461	5,06	110-450-401	20
500	0,13	0,05	510	511	5,7	110-500-401	20

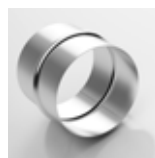
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



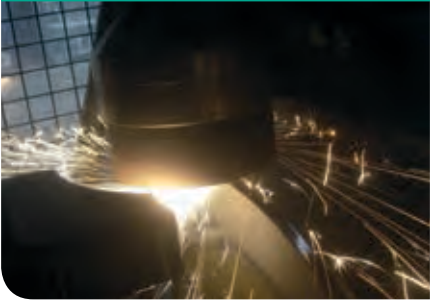
Hose Connector



PU Cuff, electroconductive



Combiflex PU Threaded Socket



6

Air-conditioning, Ventilation & Welding Fumes Hoses

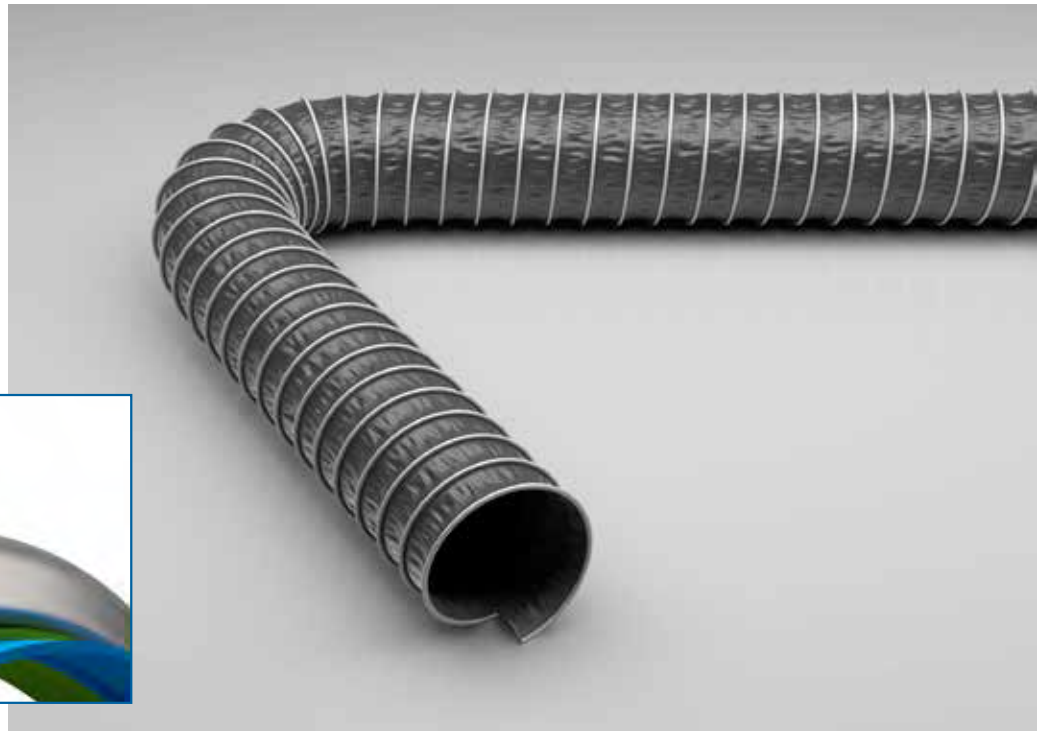
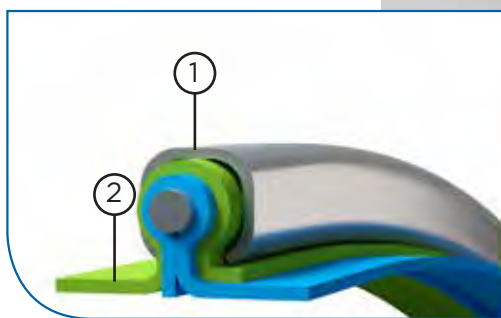
Air supply & ventilation in air-conditioning technology & extractor units



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-Clip VINYL

Suction & Blower Hose made from PVC foil/film



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② hose wall: 100% PVC Film

Applications

- air-conditioning and ventilation systems
- air supply and extraction
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- robust and inexpensive
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- extremely lightweight

Temperature Range

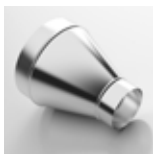
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,63	0,15	24	0,4	210-040-102	25
45	0,62	0,14	27	0,4	210-045-102	25
50	0,6	0,13	30	0,4	210-050-102	25
55	0,58	0,13	33	0,4	210-055-102	25
60	0,55	0,12	36	0,5	210-060-102	25
65	0,5	0,11	39	0,5	210-065-102	25
70	0,4	0,11	42	0,5	210-070-102	25
75	0,35	0,1	45	0,5	210-075-102	25
80	0,3	0,09	48	0,5	210-080-102	25
90	0,26	0,08	54	0,6	210-090-102	25
100	0,23	0,07	60	0,6	210-100-102	25
110	0,2	0,06	66	0,6	210-110-102	25
120	0,18	0,05	72	0,7	210-120-102	25
125	0,17	0,05	75	0,7	210-125-102	25
130	0,15	0,05	78	0,8	210-130-102	25
140	0,14	0,04	84	0,8	210-140-102	25
150	0,14	0,04	90	0,9	210-150-102	25
160	0,13	0,04	96	0,9	210-160-102	25
170	0,12	0,03	102	0,9	210-170-102	25
175	0,11	0,03	105	1	210-175-102	25
180	0,11	0,03	108	1	210-180-102	25
200	0,1	0,03	120	1,1	210-200-102	25
215	0,09	0,02	151	1,1	210-215-102	25
225	0,08	0,02	158	1,2	210-225-102	25
250	0,08	0,02	175	1,4	210-250-102	25
275	0,07	0,01	193	1,7	210-275-102	25
300	0,06	0,01	210	1,9	210-300-102	25
315	0,06	0,01	221	1,9	210-315-102	25
325	0,05	0,01	228	2	210-325-102	25
350	0,05	0,01	245	2,2	210-350-102	25
375	0,04	0,01	263	2,6	210-375-102	25
400	0,03	0,01	280	2,8	210-400-102	25
450	0,03	0,01	360	3,3	210-450-102	25
500	0,03	0,01	400	3,8	210-500-102	25
550	0,02	0,01	440	4,3	210-550-102	15
600	0,02	0,01	480	4,9	210-600-102	15
700	0,02	0,01	560	5,6	210-700-102	15
800	0,02	0,01	640	6,2	210-800-102	15
900	0,01	0,01	720	7	210-900-102	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



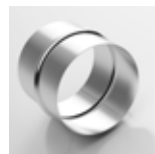
Hose Reducer, symmetrical



Clip-Grip quick action clamp



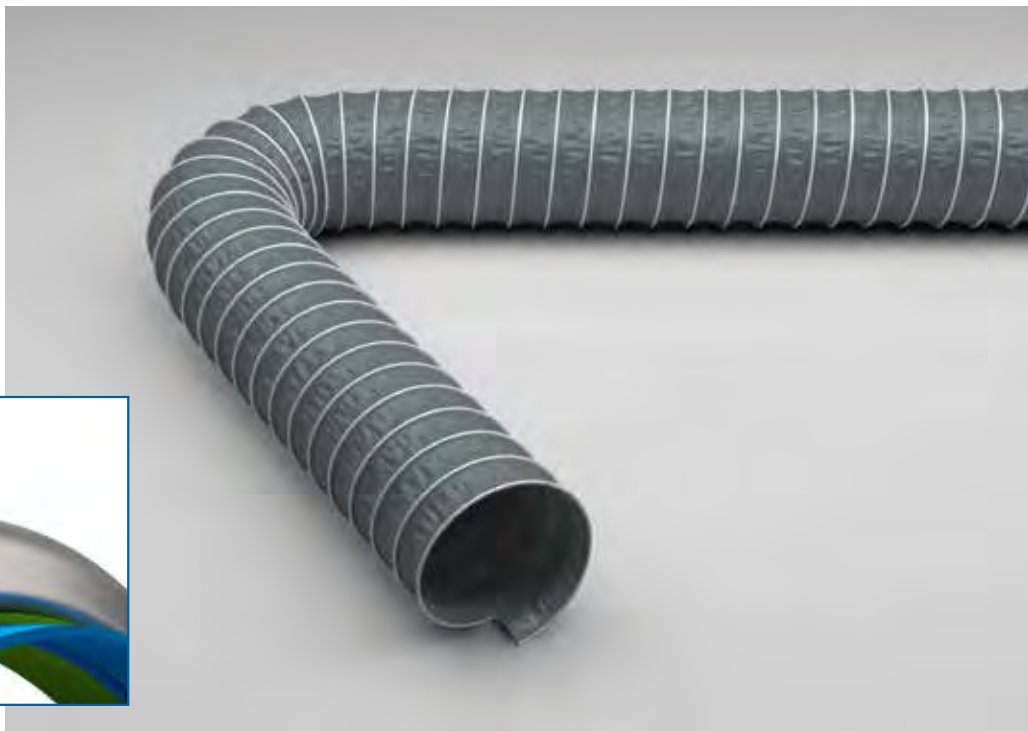
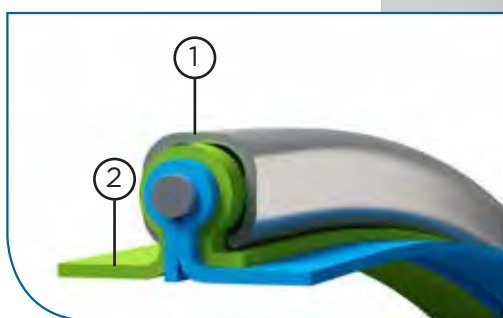
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip VINYL B

Suction & Blower Hose made from PVC-coated Polyester fabric, hardly inflammable



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: PVC-coated polyester fabric, hardly inflammable

Applications

- air-conditioning and ventilation systems
- air supply and extraction
- tent heating
- solder fume extraction
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- good mechanical resistance
- light
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- robust and inexpensive
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- extremely lightweight

Temperature Range

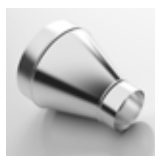
- -20°C to +70°C
- peaks to +80°C



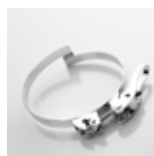
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,93	0,35	24	0,4	212-040-602	25
45	0,92	0,33	27	0,4	212-045-602	25
50	0,9	0,31	30	0,4	212-050-602	25
55	0,85	0,26	33	0,4	212-055-602	25
60	0,78	0,22	36	0,5	212-060-602	25
65	0,68	0,19	39	0,5	212-065-602	25
70	0,67	0,16	42	0,5	212-070-602	25
75	0,62	0,14	45	0,6	212-075-602	25
80	0,61	0,12	48	0,6	212-080-602	25
90	0,56	0,1	54	0,6	212-090-602	25
100	0,51	0,08	60	0,6	212-100-602	25
110	0,48	0,07	66	0,7	212-110-602	25
120	0,36	0,06	72	0,7	212-120-602	25
125	0,33	0,05	75	0,8	212-125-602	25
130	0,28	0,05	78	0,8	212-130-602	25
140	0,25	0,04	84	0,8	212-140-602	25
150	0,22	0,04	90	0,9	212-150-602	25
160	0,21	0,03	96	0,9	212-160-602	25
170	0,19	0,03	102	0,9	212-170-602	25
175	0,19	0,03	105	1	212-175-602	25
180	0,17	0,02	108	1	212-180-602	25
200	0,15	0,02	120	1,2	212-200-602	25
215	0,13	0,02	129	1,3	212-215-602	25
225	0,12	0,02	135	1,4	212-225-602	25
250	0,1	0,01	175	1,6	212-250-602	25
275	0,08	0,01	193	1,9	212-275-602	25
300	0,07	0,01	210	2,1	212-300-602	25
315	0,06	0,01	221	2,1	212-315-602	25
325	0,06	0,01	228	2,2	212-325-602	25
350	0,06	0,01	245	2,5	212-350-602	25
375	0,05	0,01	263	2,9	212-375-602	25
400	0,05	0,01	280	3,1	212-400-602	25
450	0,05	0,01	360	3,6	212-450-602	25
500	0,04	0,01	400	4,1	212-500-602	25
550	0,04	0,01	440	4,6	212-550-602	20
600	0,04	0,01	480	5,1	212-600-602	20
700	0,03	0,01	560	6	212-700-602	20
800	0,02	0,01	640	6,9	212-800-602	20
900	0,02	0,01	720	7,8	212-900-602	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



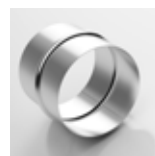
Hose Reducer, symmetrical



Clip-Grip quick action clamp



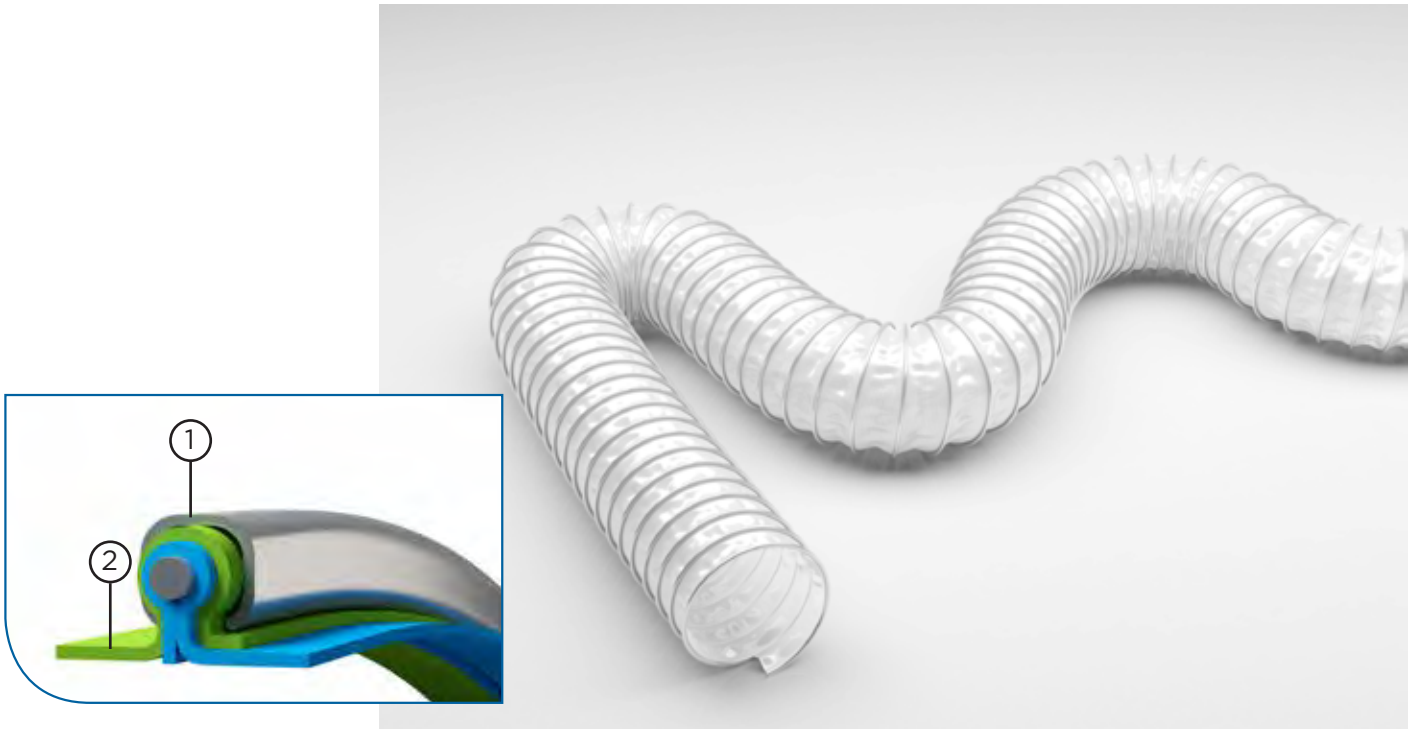
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PE

Suction & Blower Hose made from PE-coated PE fabric, environmentally friendly



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: double-sided PE-coated PE fabric

Applications

- air-conditioning and ventilation systems
- air supply and extraction
- vacuum devices for asbestos removal
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- higher temperature resistance than PVC hose
- highly flexible
- increased vacuum resistance
- extremely compressible to approx. 1:6
- smallest bending radii
- halogen and plasticizer-free
- more environmentally friendly alternative to PVC hoses
- extremely lightweight

Temperature Range

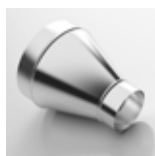
- -40°C to +85°C
- peaks to +95°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,93	0,46	24	0,4	213-040-103	25
45	0,92	0,43	27	0,4	213-045-103	25
50	0,9	0,39	30	0,4	213-050-103	25
55	0,85	0,32	33	0,4	213-055-103	25
60	0,78	0,27	36	0,5	213-060-103	25
65	0,68	0,23	39	0,5	213-065-103	25
70	0,67	0,2	42	0,5	213-070-103	25
75	0,62	0,18	45	0,5	213-075-103	25
80	0,61	0,15	48	0,6	213-080-103	25
90	0,56	0,12	54	0,6	213-090-103	25
100	0,51	0,1	60	0,6	213-100-103	25
110	0,48	0,08	66	0,6	213-110-103	25
120	0,36	0,07	72	0,6	213-120-103	25
125	0,33	0,06	75	0,7	213-125-103	25
130	0,28	0,06	78	0,7	213-130-103	25
140	0,25	0,05	84	0,7	213-140-103	25
150	0,22	0,04	90	0,8	213-150-103	25
160	0,21	0,04	96	0,8	213-160-103	25
170	0,19	0,03	102	0,8	213-170-103	25
175	0,19	0,03	105	0,9	213-175-103	25
180	0,17	0,03	108	0,9	213-180-103	25
200	0,15	0,03	120	1	213-200-103	25
215	0,13	0,02	151	1,1	213-215-103	25
225	0,12	0,02	158	1,1	213-225-103	25
250	0,1	0,02	175	1,3	213-250-103	25
275	0,08	0,01	193	1,4	213-275-103	25
300	0,07	0,01	210	1,5	213-300-103	25
315	0,06	0,01	221	1,6	213-315-103	25
325	0,06	0,01	228	1,7	213-325-103	25
350	0,06	0,01	245	1,9	213-350-103	25
375	0,05	0,01	263	2,2	213-375-103	25
400	0,05	0,01	280	2,4	213-400-103	25
450	0,05	0,01	360	2,7	213-450-103	25
500	0,04	0,01	400	3,1	213-500-103	25
550	0,04	0,01	440	3,5	213-550-103	25
600	0,04	0,01	480	3,9	213-600-103	25
700	0,03	0,01	560	4,5	213-700-103	25
800	0,02	0,01	640	5,2	213-800-103	25
900	0,02	0,01	720	6	213-900-103	25

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



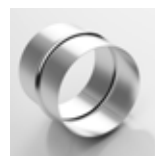
Hose Reducer, symmetrical



Clip-Grip quick action clamp



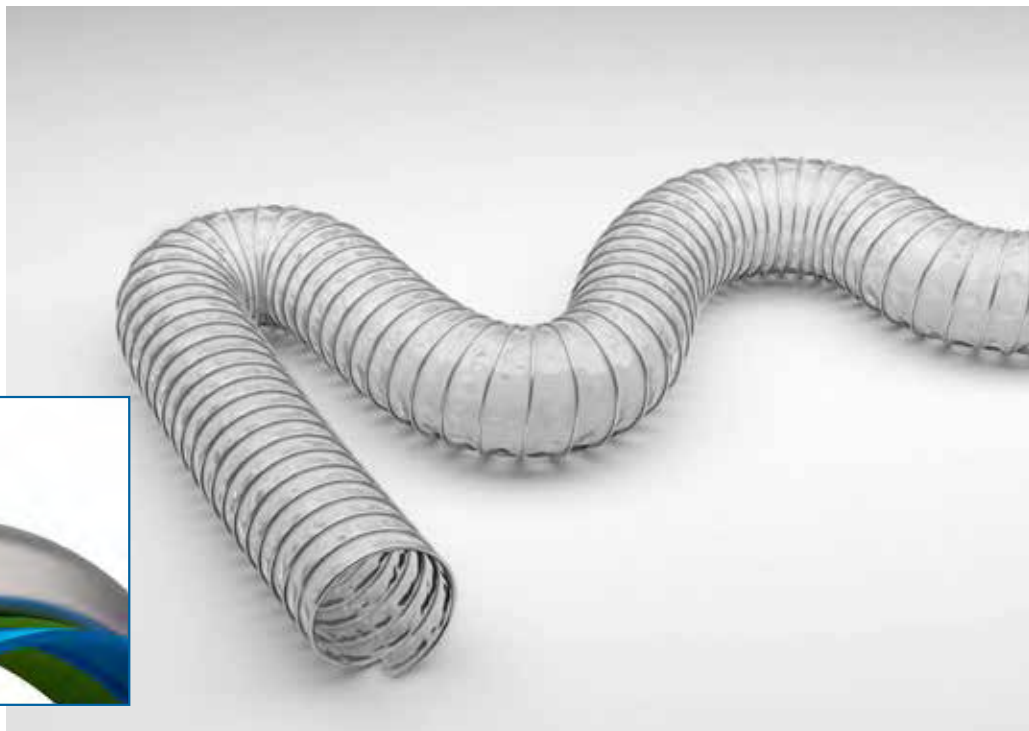
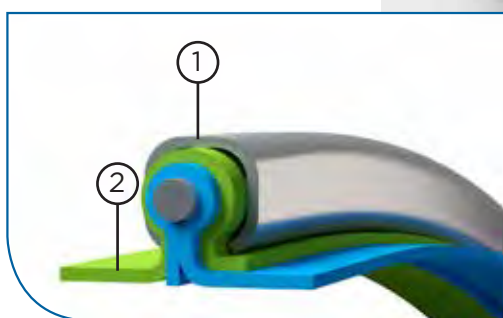
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PUR

Suction & Blower Hose made from PU foil, extremely abrasion-proof



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: pure polyurethane foil, plasticiser-free

Applications

- suction of abrasive solids
- air-conditioning and ventilation systems
- low pressure range

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- good mechanical resistance
- good resistance to oil and petrol fumes
- cold resistant
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- highly abrasion-resistant
- more environmentally friendly alternative to PVC hoses
- significantly higher temperature resistance than PVC hoses
- extremely lightweight

Temperature Range

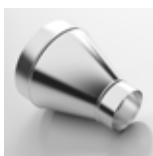
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,63	0,15	24	0,4	214-040-101	15
45	0,62	0,14	27	0,4	214-045-101	15
50	0,6	0,13	30	0,4	214-050-101	15
55	0,575	0,13	33	0,4	214-055-101	15
60	0,55	0,12	36	0,5	214-060-101	15
65	0,5	0,11	39	0,5	214-065-101	15
70	0,4	0,11	42	0,5	214-070-101	15
75	0,35	0,1	45	0,6	214-075-101	15
80	0,3	0,09	48	0,6	214-080-101	15
90	0,26	0,08	54	0,6	214-090-101	15
100	0,23	0,07	60	0,6	214-100-101	15
110	0,2	0,06	66	0,6	214-110-101	15
120	0,18	0,05	72	0,7	214-120-101	15
125	0,17	0,05	75	0,7	214-125-101	15
130	0,15	0,05	78	0,7	214-130-101	15
140	0,14	0,04	84	0,8	214-140-101	15
150	0,135	0,04	90	0,8	214-150-101	15
160	0,13	0,04	96	0,9	214-160-101	15
170	0,12	0,03	102	0,9	214-170-101	15
175	0,11	0,03	105	1	214-175-101	15
180	0,105	0,03	108	1	214-180-101	15
200	0,1	0,03	120	1,1	214-200-101	15
215	0,09	0,02	151	1,2	214-215-101	15
225	0,08	0,02	158	1,3	214-225-101	15
250	0,075	0,02	175	1,4	214-250-101	15
275	0,07	0,01	193	1,7	214-275-101	15
300	0,06	0,01	210	1,9	214-300-101	15
315	0,06	0,01	221	2	214-315-101	15
325	0,05	0,01	228	2,1	214-325-101	15
350	0,05	0,01	245	2,3	214-350-101	15
375	0,04	0,01	263	2,7	214-375-101	15
400	0,03	0,01	280	2,9	214-400-101	15
450	0,03	0,01	360	3,5	214-450-101	15
500	0,03	0,01	400	3,9	214-500-101	15
550	0,02	0,01	440	4,4	214-550-101	15
600	0,02	0,01	480	4,9	214-600-101	15
700	0,02	0,01	560	5,8	214-700-101	10
800	0,02	0,01	640	6,7	214-800-101	10
900	0,01	0,01	720	7,6	214-900-101	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



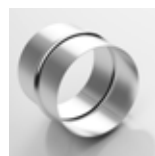
Hose Reducer, symmetrical



Clip-Grip quick action clamp



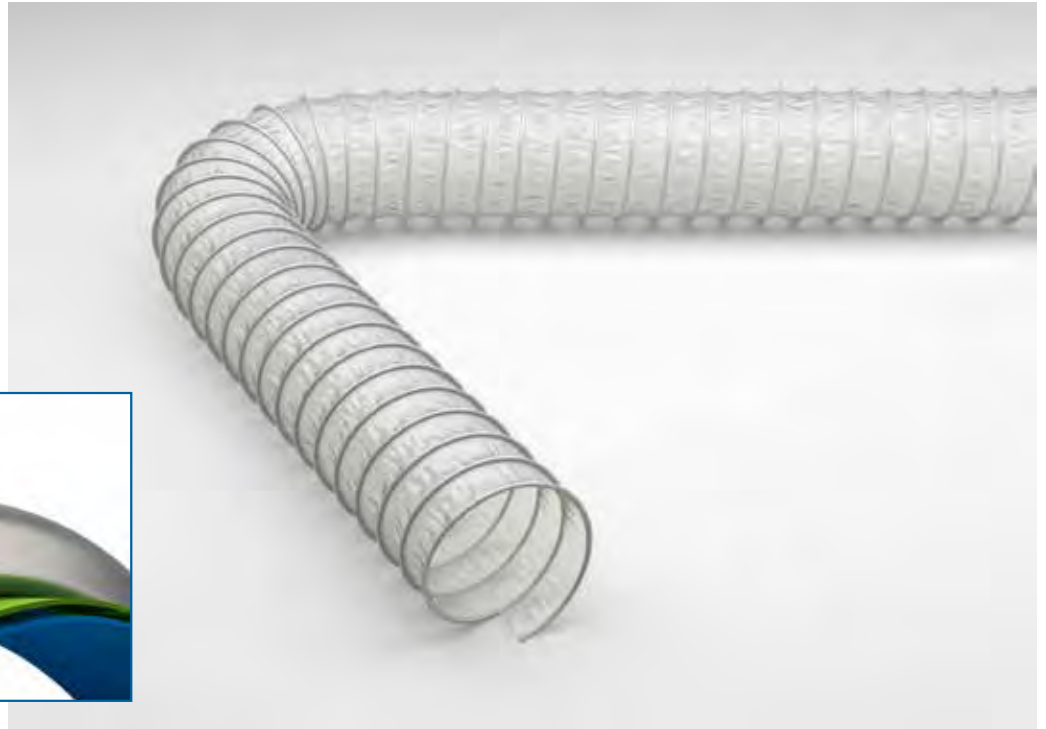
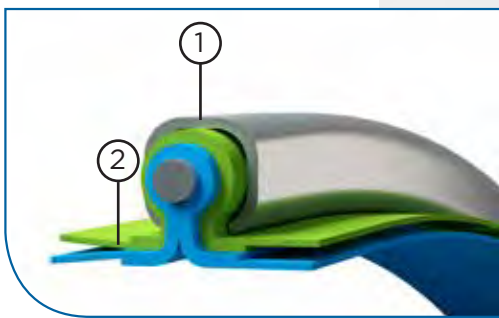
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PUR-S

Suction & Blower Hose made from PU foil, extremely abrasion-proof, double-layered



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: pure polyurethane foil, plasticiser-free, double-layered

Applications

- suction of abrasive solids
- filling plants
- low pressure range

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- increased abrasion resistance via double lining
- outer chafing protection spiral
- good mechanical resistance
- good resistance to oil and petrol fumes
- cold resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- good recovery properties
- ageing resistant

Temperature Range

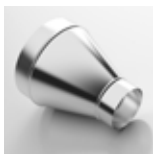
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,6	0,13	30	0,48	216-050-101	15
55	0,58	0,13	33	0,48	216-055-101	15
60	0,55	0,12	36	0,61	216-060-101	15
65	0,5	0,11	39	0,61	216-065-101	15
70	0,4	0,11	42	0,61	216-070-101	15
75	0,35	0,1	45	0,75	216-075-101	15
80	0,3	0,09	48	0,75	216-080-101	15
90	0,26	0,08	54	0,75	216-090-101	15
100	0,23	0,07	60	0,75	216-100-101	15
110	0,2	0,06	66	0,75	216-110-101	15
120	0,18	0,05	72	0,91	216-120-101	15
125	0,17	0,05	75	0,91	216-125-101	15
130	0,15	0,05	78	0,91	216-130-101	15
140	0,14	0,04	84	1,04	216-140-101	15
150	0,14	0,04	90	1,04	216-150-101	15
160	0,13	0,04	96	1,14	216-160-101	15
170	0,12	0,03	102	1,14	216-170-101	15
175	0,11	0,03	105	1,26	216-175-101	15
180	0,11	0,03	108	1,26	216-180-101	15
200	0,1	0,03	120	1,4	216-200-101	15
215	0,09	0,02	151	1,55	216-215-101	15
225	0,08	0,02	158	1,7	216-225-101	15
250	0,08	0,02	175	1,82	216-250-101	15
275	0,07	0,01	193	2,2	216-275-101	15
300	0,06	0,01	210	2,45	216-300-101	15
315	0,06	0,01	221	2,6	216-315-101	15
325	0,05	0,01	228	2,7	216-325-101	15
350	0,05	0,01	245	3	216-350-101	15
375	0,04	0,01	263	3,5	216-375-101	15
400	0,03	0,01	280	3,75	216-400-101	15
450	0,03	0,01	360	4,55	216-450-101	15
500	0,03	0,01	400	5,1	216-500-101	10
550	0,02	0,01	440	5,7	216-550-101	10
600	0,02	0,01	480	6,4	216-600-101	10
700	0,02	0,01	560	7,55	216-700-101	10
800	0,02	0,01	640	8,7	216-800-101	10
900	0,01	0,01	720	9,9	216-900-101	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



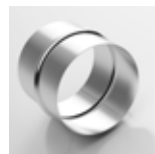
Hose Reducer, symmetrical



Clip-Grip quick action clamp



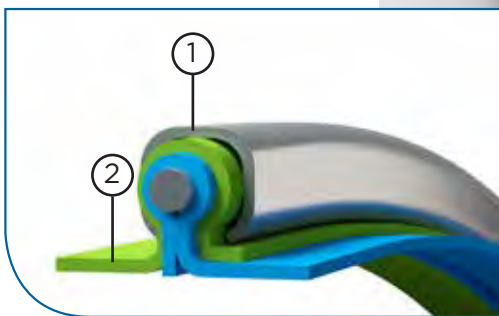
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip SPARK

Special hose for welding fumes extraction, made from PVC-coated glass fabric



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: PVC-coated glass fabric, flame retardent

Applications

- welding fume extraction
- for greater safety requirements
- air-conditioning and ventilation systems
- air supply and extraction
- tent heating
- solder fume extraction
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- primarily resistant to flying sparks
- good mechanical resistance
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- extremely lightweight

Temperature Range

- -20°C to +90°C
- peaks to +110°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,9	0,35	24	0,4	215-040-604	25
45	0,87	0,33	27	0,4	215-045-604	25
50	0,85	0,31	30	0,4	215-050-604	25
55	0,78	0,26	33	0,4	215-055-604	25
60	0,68	0,22	36	0,5	215-060-604	25
65	0,59	0,19	39	0,5	215-065-604	25
70	0,53	0,16	42	0,5	215-070-604	25
75	0,47	0,14	45	0,6	215-075-604	25
80	0,43	0,12	48	0,6	215-080-604	25
90	0,36	0,1	54	0,6	215-090-604	25
100	0,3	0,08	60	0,6	215-100-604	25
110	0,26	0,07	66	0,7	215-110-604	25
120	0,22	0,06	72	0,7	215-120-604	25
125	0,21	0,05	75	0,8	215-125-604	25
130	0,2	0,05	78	0,8	215-130-604	25
140	0,18	0,04	84	0,8	215-140-604	25
150	0,16	0,04	90	0,9	215-150-604	25
160	0,14	0,03	96	0,9	215-160-604	25
170	0,13	0,03	102	0,9	215-170-604	25
175	0,12	0,03	105	1	215-175-604	25
180	0,12	0,02	108	1	215-180-604	25
200	0,1	0,02	120	1,2	215-200-604	25
215	0,09	0,02	151	1,3	215-215-604	25
225	0,08	0,02	158	1,4	215-225-604	25
250	0,07	0,01	175	1,6	215-250-604	25
275	0,06	0,01	193	1,9	215-275-604	25
300	0,05	0,01	210	2,1	215-300-604	25
315	0,05	0,01	221	2,1	215-315-604	25
325	0,05	0,01	228	2,2	215-325-604	25
350	0,04	0,01	245	2,5	215-350-604	25
375	0,04	0,01	263	2,9	215-375-604	25
400	0,03	0,01	280	3,1	215-400-604	25
450	0,03	0,01	360	3,6	215-450-604	25
500	0,02	0,01	400	4,1	215-500-604	20
550	0,02	0,01	440	4,6	215-550-604	20
600	0,02	0,01	480	5,1	215-600-604	20
700	0,01	0,01	560	6	215-700-604	20
800	0,01	0,01	640	6,9	215-800-604	20
900	0,01	0,01	720	7,8	215-900-604	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



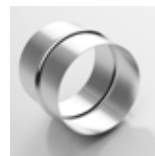
Hose Reducer, symmetrical



Clip-Grip quick action clamp



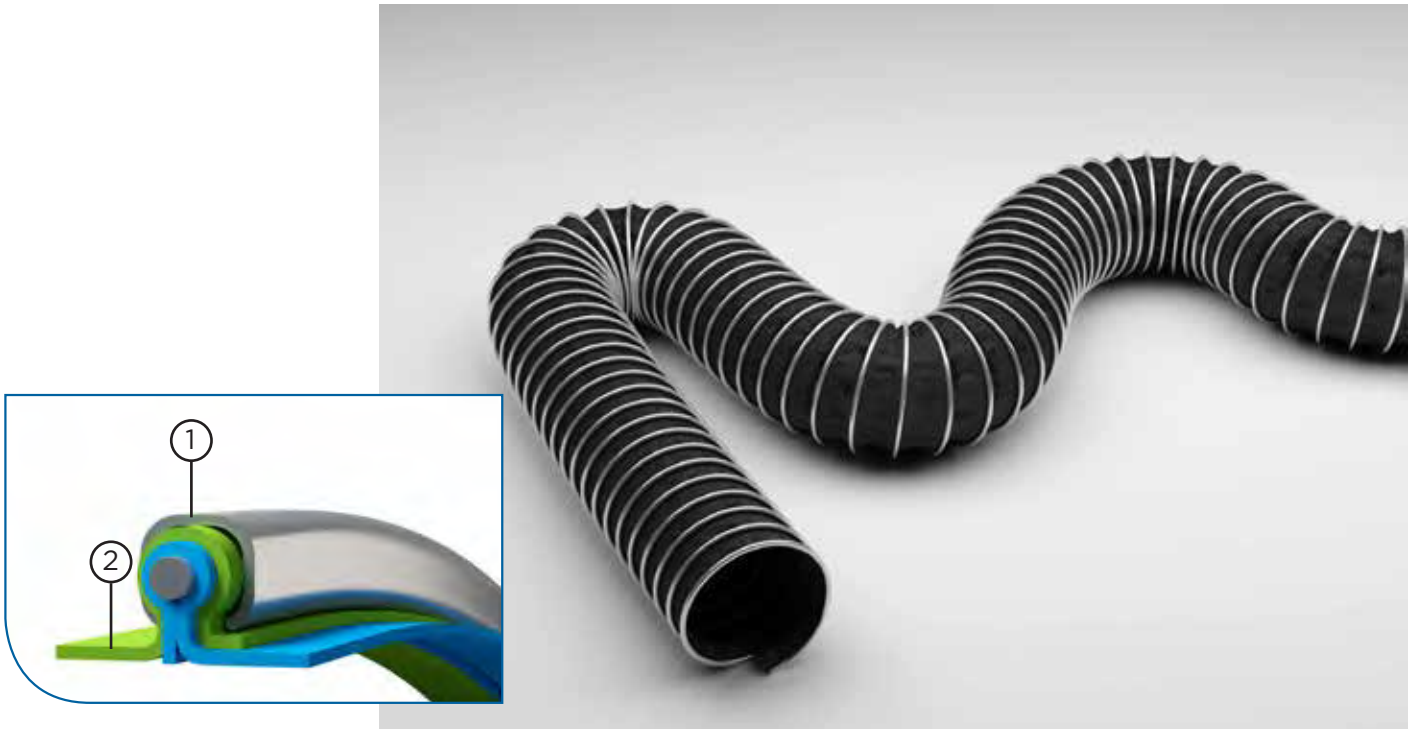
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip SPARK XL

Special hose for welding fume extraction with increased risk of flying sparks



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: special-coated textile high-temperature fabric

Applications

- for greater safety requirements
- grinding dust extraction with high degree of flying sparks
- welding fume extraction with greater degree of flying sparks
- suction of hot and abrasive sanding dust

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- primarily resistant to increased risk of flying sparks
- good mechanical resistance
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- abrasion-resistant
- extremely lightweight

Temperature Range

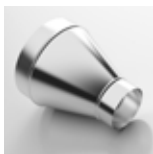
- -40°C to +200°C
- peaks to +280°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,9	0,31	30	0,97	232-050-107	15
55	0,85	0,26	33	1,04	232-055-107	15
60	0,78	0,22	36	1,1	232-060-107	15
65	0,68	0,19	39	1,17	232-065-107	15
70	0,67	0,16	42	1,25	232-070-107	15
75	0,62	0,14	45	1,3	232-075-107	15
80	0,61	0,12	48	1,36	232-080-107	15
90	0,56	0,1	54	1,55	232-090-107	15
100	0,51	0,08	60	1,74	232-100-107	15
110	0,48	0,07	66	1,97	232-110-107	15
120	0,36	0,06	72	2,16	232-120-107	15
125	0,33	0,05	75	2,29	232-125-107	15
130	0,28	0,05	78	2,35	232-130-107	15
140	0,25	0,04	84	2,43	232-140-107	15
150	0,22	0,04	90	2,56	232-150-107	15
160	0,21	0,03	96	1,98	232-160-107	15
170	0,19	0,03	107	2,1	232-170-107	15
175	0,19	0,03	105	2,25	232-175-107	15
180	0,17	0,02	108	2,35	232-180-107	15
200	0,15	0,02	120	2,56	232-200-107	15
215	0,13	0,02	151	2,69	232-215-107	15
225	0,12	0,02	158	2,8	232-225-107	15
250	0,1	0,01	175	3,1	232-250-107	15
275	0,08	0,01	193	3,34	232-275-107	15
300	0,07	0,01	232	3,6	232-300-107	15
315	0,06	0,01	221	3,82	232-315-107	15
325	0,06	0,01	228	3,92	232-325-107	15
350	0,06	0,01	245	4,15	232-350-107	15
375	0,05	0,01	263	4,45	232-375-107	15
400	0,05	0,01	280	4,64	232-400-107	15
450	0,05	0,01	360	5,11	232-450-107	15
500	0,04	0,01	400	5,59	232-500-107	15
550	0,04	0,01	440	6,16	232-550-107	10
600	0,04	0,01	480	6,63	232-600-107	10
700	0,03	0,01	560	7,68	232-700-107	10
800	0,02	0,01	640	8,72	232-800-107	10
900	0,02	0,01	720	9,67	232-900-107	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



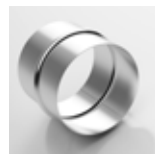
Hose Reducer, symmetrical



Clip-Grip quick action clamp



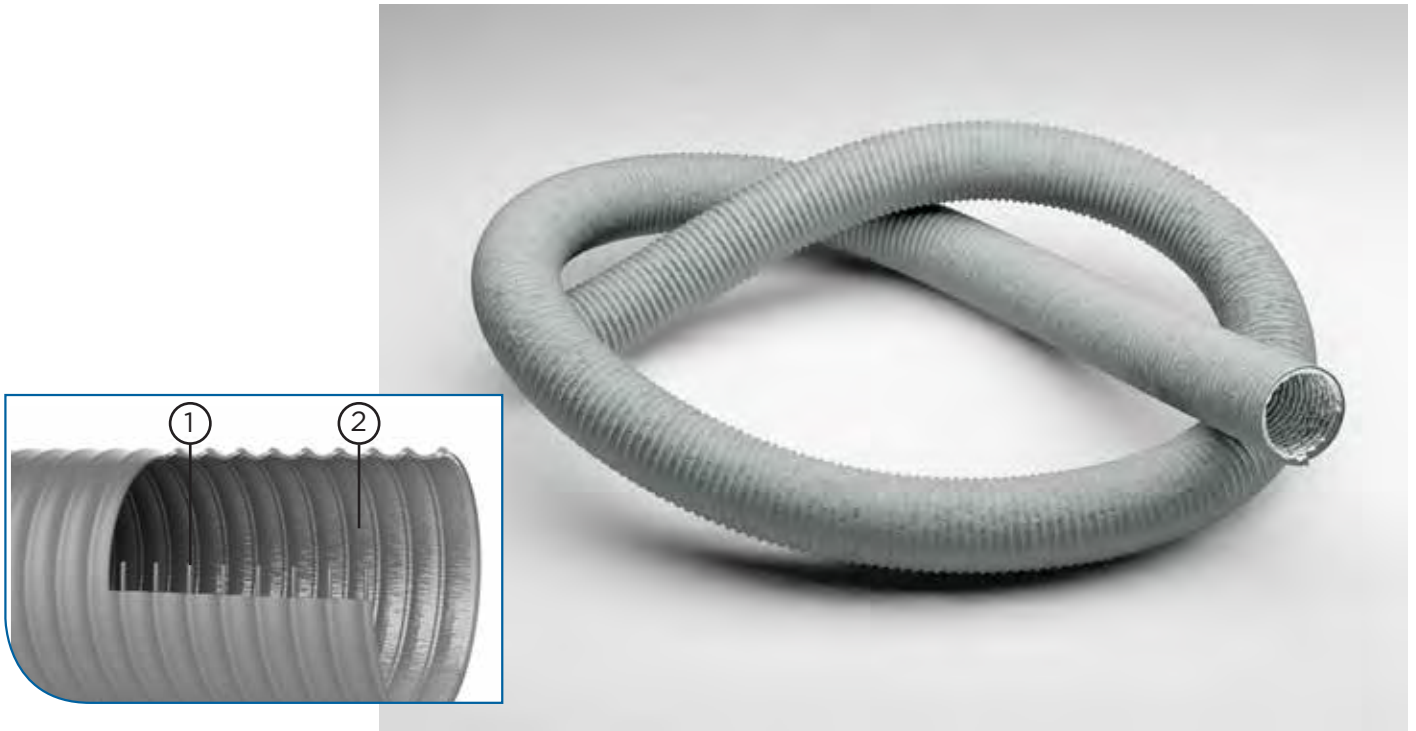
Clip-Grip Hose clamp, screwable



Hose Connector

Master-VENT 2

Suction & Blower hose made from co-polymer coated Polyester fabric



Material

- ① spiral: spring steel wire
- ② hose wall: two layer construction
 - inner layer: aluminium lamination
 - outer layer: co-polymer coated polyester fabric

Applications

- steam extraction
- air-conditioning and ventilation systems
- extractor units, which require normal inflammable hoses
- extractors

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- flammability rating acc. to DIN 4102 B2
- acc.to DIN EN 13180
- extremely compressible to approx. 1:5
- extremely flexible
- reinforced with a semi-concealed spring steel spiral
- smallest bending radii
- extremely lightweight

Temperature Range

- -30°C to +140°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
51	0,36	0,4	51	0,13	664-051-104	10
63	0,29	0,29	63	0,14	664-063-104	10
76	0,24	0,22	76	0,16	664-076-104	10
82	0,23	0,2	82	0,17	664-082-104	10
89	0,21	0,17	89	0,18	664-089-104	10
102	0,18	0,14	102	0,21	664-102-104	10
127	0,14	0,1	127	0,25	664-127-104	10
152	0,12	0,08	152	0,3	664-152-104	10
160	0,12	0,07	160	0,37	664-160-104	10
178	0,11	0,06	178	0,39	664-178-104	10
203	0,09	0,05	203	0,4	664-203-104	10
254	0,07	0,04	254	0,58	664-254-104	10
304	0,06	0,03	304	0,74	664-304-104	10
356	0,05	0,02	356	0,9	664-356-104	10
406	0,05	0,02	406	1,05	664-406-104	10
457	0,04	0,02	457	1,2	664-457-104	10
508	0,04	0,01	508	1,35	664-508-104	10
560	0,04	0,01	560	1,5	664-560-104	10
610	0,03	0,01	610	1,6	664-610-104	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



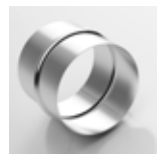
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp



Hose Connector



Hose Clamp with Bolts



7 Exhaust Gas Hoses

Hoses for suction/extraction of exhaust fumes from combustion engines at temperatures up to 1.100 °C



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Carflex Super

Exhaust hose for exhaust fume temperatures up to +200°C, super lightweight, crush-resistant



Material

- ① spiral: plastic-profile helix
- ② wall: EPDM/PP-coated polyester fabric

Applications

- suction of engine exhaust fumes up to max.+200 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- permanently rollover-proof exhaust hose
- medium wear during extraction of petrol and diesel engine exhaust fumes
- all conventional exhaust systems, such as: - Exhaust Hose Reel - Suction Rail System - Upper/Lower Floor Systems - Stationary Systems

Available on request

- available on request in other lengths, sizes and colours, with print.

Properties

- permanently rollover-proof
- high tension/tear-proof
- robust
- good flow characteristics
- tight bending radii
- extremely flexible
- withstands high mechanical loads
- excellent recovery properties
- super lightweight

Temperature Range

- +200°C with appropriate use of exhaust regulators and sufficient air supply (approx. 50%)



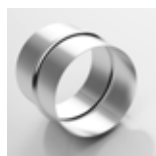
Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
26	0,37	25	35	0,17	320-026-107	25
30	0,35	30	40	0,2	320-030-107	25
32	0,35	32	42	0,21	320-032-107	25
38	0,34	38	48	0,24	320-038-107	25
51	0,31	55	63	0,4	320-051-107	25
63	0,28	60	79	0,41	320-063-107	25
76	0,24	75	95	0,48	320-076-107	25
80	0,23	80	100	0,51	320-080-107	25
102	0,18	100	120	0,64	320-102-107	25
127	0,12	125	145	0,78	320-127-107	25
152	0,05	150	170	0,93	320-152-107	25
203	0,02	200	220	1,22	320-203-107	25

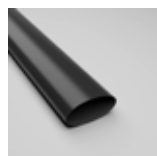
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Car-Grip Hose Clamp, screwable



Hose Connector



Heat-Shrink Cuff



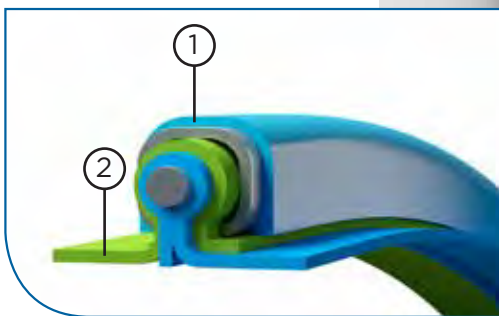
Hose Reducer, symmetrical



Car-Grip Quick-Fix Clamp

Carflex 200

Exhaust gas hose for exhaust fumes/gases up to +200°C



Material

- ① clamp profile spiral: hot-dip galvanized steel band with additional plastic outer scuff-protection profile
- ② wall: neoprene-coated polyester fabric

Applications

- suction of engine exhaust fumes up to max.+200 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- all conventional exhaust systems, such as: - Exhaust Hose Reel - Suction Rail System - Upper/Lower Floor Systems - Stationary Systems
- light to medium wear during extraction of petrol and diesel engine fumes from passenger vehicles

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- good flow characteristics
- extremely compressible to approx. 1:5
- vibration-proof
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely lightweight

Temperature Range

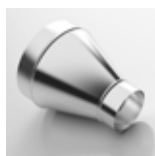
- +200°C with appropriate use of exhaust regulators and sufficient air supply (approx. 50%)



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
63	0,23	38	76	0,55	240-063-118	25
75	0,18	46	89	0,6	240-075-118	25
80	0,15	48	93	0,63	240-080-118	25
100	0,1	60	117	0,79	240-100-118	25
125	0,06	75	142	0,95	240-125-118	25
150	0,04	90	167	1,47	240-150-118	25
200	0,03	120	217	1,76	240-200-118	25

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



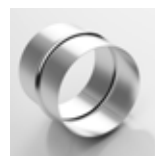
Hose Reducer, symmetrical



Clip-Grip quick action clamp



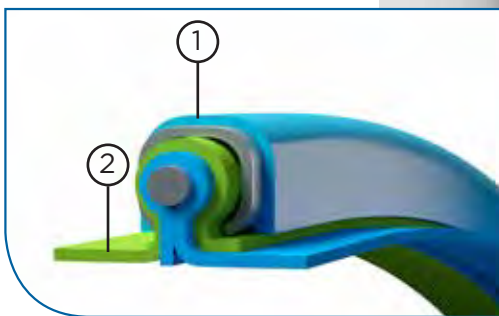
Clip-Grip Hose clamp, screwable



Hose Connector

Carflex 300

Exhaust gas hose for exhaust fumes up to +300°C



Material

- ① clamp profile spiral: hot-dip galvanized steel band with additional plastic outer scuff-protection profile
- ② wall: special-coated textile high-temperature fabric

Applications

- all conventional exhaust systems, such as: - Exhaust Hose Reel - Suction Rail System - Upper/Lower Floor Systems - Stationary Systems
- suction of engine exhaust fumes up to max.+300 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- medium and high wear during extraction of petrol and diesel engine exhaust fumes, esp. heavy-duty and construction vehicles

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- robust
- good flow characteristics
- extremely compressible to approx. 1:5
- vibration-proof
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- abrasion-resistant to soot particles from diesel exhaust fumes
- smallest bending radii

Temperature Range

- from -60°C to +300 °C (Exhaust temperatures) with appropriate use if exhaust regulators and sufficient air supply (approx. 50%)



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
63	0,17	38	76	0,55	241-063-119	25
75	0,14	46	89	0,51	241-075-119	25
80	0,12	48	93	0,51	241-080-119	25
100	0,08	60	117	0,64	241-100-119	25
125	0,05	75	142	0,79	241-125-119	25
150	0,04	90	167	1,23	241-150-119	25
200	0,02	120	217	1,67	241-200-119	25

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



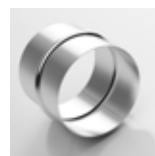
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 300

Medium and high temperature hose up to +300°C, silicon-free, highly flexible



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② Wall: special glass fabric coating

Applications

- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- exhaust gas extraction (esp. diesel engines)
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- hardly inflammable / self-extinguishing
- primarily suitable as exhaust hose
- vibration-proof
- light
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- silicone-free
- extremely compressable to approx. 1:6
- smallest bending radii
- hydrolysis-resistant
- no gas emission during commissioning
- UV-resistant acc. to ISO EN 105 B02
- Ozone-resistant

Temperature Range

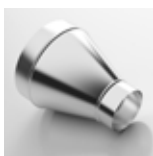
- -20°C to +300°C
- peaks to +350°C*



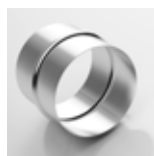
Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,39	30	0,4	233-050-102	15
55	on request	0,32	33	0,4	233-055-102	15
60	on request	0,27	36	0,5	233-060-102	15
65	on request	0,23	39	0,5	233-065-102	15
70	on request	0,2	42	0,5	233-070-102	15
75	on request	0,18	45	0,6	233-075-102	15
80	on request	0,15	48	0,6	233-080-102	15
90	on request	0,12	54	0,6	233-090-102	15
100	on request	0,1	60	0,6	233-100-102	15
110	on request	0,08	66	0,7	233-110-102	15
120	on request	0,07	72	0,7	233-120-102	15
125	on request	0,06	75	0,8	233-125-102	15
130	on request	0,07	78	0,8	233-130-102	15
140	on request	0,05	84	0,8	233-140-102	15
150	on request	0,04	90	0,9	233-150-102	15
160	on request	0,09	96	0,9	233-160-102	15
170	on request	0,03	102	0,9	233-170-102	15
175	on request	0,03	105	1	233-175-102	15
180	on request	0,03	108	1	233-180-102	15
200	on request	0,03	120	1,2	233-200-102	15
215	on request	0,02	151	1,3	233-215-102	15
225	on request	0,02	158	1,4	233-225-102	15
250	on request	0,02	175	1,6	233-250-102	15
275	on request	0,01	193	1,9	233-275-102	15
300	on request	0,01	210	2,1	233-300-102	15
325	on request	0,01	228	2,2	233-325-102	15
350	on request	0,01	245	2,5	233-350-102	15
375	on request	0,01	263	2,9	233-375-102	15
400	on request	0,01	280	3,1	233-400-102	15
450	on request	0,01	360	3,6	233-450-102	15
500	on request	0,01	400	4,1	233-500-102	15
550	on request	0,01	440	4,6	233-550-102	10
600	on request	0,01	480	5,1	233-600-102	10
700	on request	0,01	560	6	233-700-102	10
800	on request	0,01	640	6,9	233-800-102	10
900	on request	0,01	720	7,8	233-900-102	10

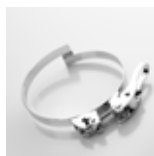
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Hose Connector



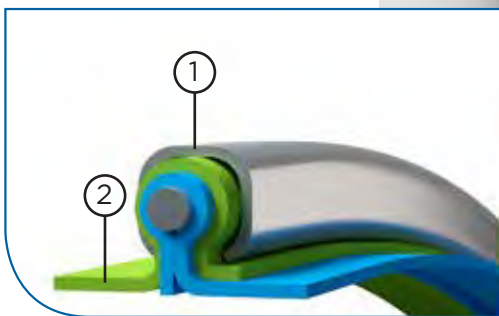
Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable

Master-Clip CAR

Medium and high temperature hose for temperatures up to +300°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: special-coated textile high-temperature fabric

Applications

- suction of engine exhaust fumes up to max.+300 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- exhaust gas extraction (esp. diesel engines)
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- very good temperature resistance
- outer chafing protection spiral
- primarily suitable as exhaust hose
- vibration-proof
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressible to approx. 1:6
- smallest bending radii
- abrasion-resistant
- extremely lightweight

Temperature Range

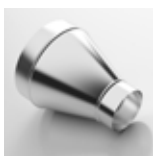
- from -60°C to +300 °C (Exhaust temperatures) with appropriate use if exhaust regulators and sufficient air supply (approx. 50%)
- peaks to +350°C*



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,36	23	0,5	225-038-120	20
40	0,93	0,35	24	0,5	225-040-120	20
45	0,92	0,33	27	0,5	225-045-120	20
50	0,9	0,31	30	0,5	225-050-120	20
55	0,85	0,26	33	0,6	225-055-120	20
60	0,78	0,22	36	0,6	225-060-120	20
65	0,68	0,19	39	0,7	225-065-120	20
70	0,67	0,16	42	0,7	225-070-120	20
75	0,62	0,14	45	0,8	225-075-120	20
80	0,61	0,12	48	0,8	225-080-120	20
90	0,56	0,1	54	0,8	225-090-120	20
100	0,51	0,08	60	0,9	225-100-120	20
110	0,48	0,07	66	0,9	225-110-120	20
120	0,36	0,06	72	1	225-120-120	20
125	0,33	0,05	75	1	225-125-120	20
130	0,28	0,05	78	1,1	225-130-120	20
140	0,25	0,04	84	1,1	225-140-120	20
150	0,22	0,04	90	1,2	225-150-120	20
160	0,21	0,03	96	1,2	225-160-120	20
170	0,19	0,03	102	1,3	225-170-120	20
175	0,185	0,03	105	1,4	225-175-120	20
180	0,172	0,02	126	1,4	225-180-120	20
200	0,148	0,02	140	1,6	225-200-120	20
215	0,128	0,02	151	1,7	225-215-120	20
225	0,115	0,02	158	1,8	225-225-120	20
250	0,1	0,01	175	2	225-250-120	20
275	0,08	0,01	193	2,1	225-275-120	20
300	0,07	0,01	210	2,2	225-300-120	20
315	0,062	0,01	221	2,2	225-315-120	20
325	0,059	0,01	228	2,3	225-325-120	20
350	0,056	0,01	245	2,6	225-350-120	20
375	0,05	0,01	300	2,9	225-375-120	20
400	0,047	0,01	320	3,1	225-400-120	20
450	0,045	0,01	360	3,6	225-450-120	20
500	0,043	0,01	400	4,1	225-500-120	20
550	0,042	0,01	440	4,6	225-550-120	20
600	0,039	0,01	480	5,1	225-600-120	15
700	0,031	0,01	560	6	225-700-120	15
800	0,022	0,01	640	6,9	225-800-120	15
900	0,016	0,01	720	7,8	225-900-120	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



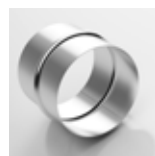
Hose Reducer, symmetrical



Clip-Grip quick action clamp



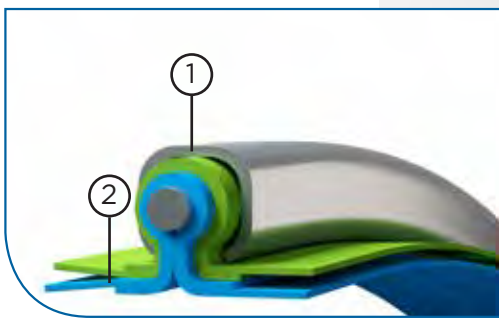
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip ISO-CAR

Medium and high temperature hose for temperatures up to +300°C, two layers



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: double-layered, inner layer with heat resistant impregnated glass fabric, outer layer special-coated, textile high-temperature fabric

Applications

- suction of engine exhaust fumes up to max.+300 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- diesel engine test-benches with higher extraction performance
- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- primarily suitable as exhaust hose
- vibration-proof
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressible to approx. 1:4
- abrasion-resistant
- good vacuum resistance

Temperature Range

- from -60°C to +300 °C (Exhaust temperatures) with appropriate use if exhaust regulators and sufficient air supply (approx. 50%)
- peaks to +350°C*



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,44	23	0,55	226-038-120	20
40	0,93	0,43	24	0,55	226-040-120	20
45	0,92	0,41	27	0,6	226-045-120	20
50	0,9	0,38	30	0,6	226-050-120	20
55	0,85	0,33	33	0,7	226-055-120	20
60	0,78	0,29	36	0,7	226-060-120	20
65	0,67	0,26	39	0,8	226-065-120	20
70	0,67	0,22	42	0,9	226-070-120	20
75	0,62	0,21	45	1	226-075-120	20
80	0,61	0,19	48	1	226-080-120	20
90	0,56	0,16	54	1,2	226-090-120	20
100	0,51	0,13	60	1,3	226-100-120	20
110	0,48	0,11	66	1,3	226-110-120	20
120	0,36	0,09	72	1,4	226-120-120	20
125	0,33	0,08	75	1,4	226-125-120	20
130	0,28	0,08	78	1,6	226-130-120	20
140	0,25	0,07	84	1,6	226-140-120	20
150	0,22	0,06	90	1,8	226-150-120	20
160	0,21	0,05	96	1,8	226-160-120	20
170	0,19	0,05	102	2	226-170-120	20
175	0,19	0,04	105	2,1	226-175-120	20
180	0,17	0,04	126	2,1	226-180-120	20
200	0,15	0,03	140	2,4	226-200-120	20
215	0,13	0,03	151	1,9	226-215-120	20
225	0,12	0,03	158	2	226-225-120	20
250	0,1	0,02	175	2,2	226-250-120	20
275	0,08	0,02	193	2,3	226-275-120	20
300	0,07	0,02	210	2,4	226-300-120	20
325	0,06	0,01	228	2,5	226-325-120	20
350	0,06	0,01	245	2,9	226-350-120	20
375	0,05	0,01	300	3,2	226-375-120	20
400	0,05	0,01	320	3,4	226-400-120	20
450	0,05	0,01	360	4	226-450-120	20
500	0,04	0,01	400	4,5	226-500-120	20
550	0,04	0,01	440	5,1	226-550-120	20
600	0,04	0,01	480	5,6	226-600-120	15
700	0,03	0,01	560	6,6	226-700-120	15
800	0,02	0,01	640	7,6	226-800-120	15
900	0,02	0,01	720	8,6	226-900-120	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



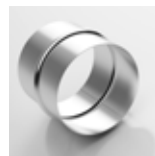
Hose Reducer, symmetrical



Clip-Grip quick action clamp



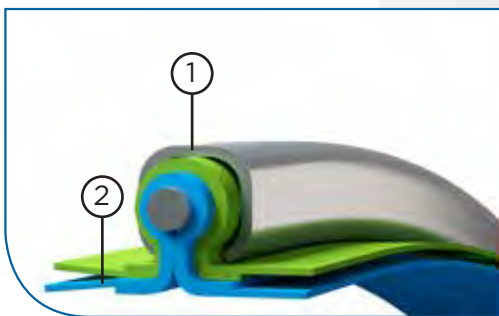
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 450

Exhaust gas hose for exhaust gas temperatures up to +450°C, two layers



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: double-layered, inner layer with heat resistant impregnated glass fabric and outer layer with special-coated high-temperature fabric reinforced with integrated VA wire

Applications

- diesel engine test-benches with higher extraction performance
- hot air conveyance
- engine manufacturing
- exhaust gas extraction
- machine manufacturing
- automotive manufacturing
- low pressure range
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- extremely flexible
- hardly inflammable
- very good temperature resistance
- outer chafing protection spiral
- small bending radii
- primarily suitable as exhaust hose
- withstands high mechanical loads
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- abrasion-resistant
- increased vacuum resistance via integrated reinforcement components

Temperature Range

- -20°C to +450°C for vacuum applications
- peaks to +500°C



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,35	30	0,59	231-050-111	15
55	on request	0,29	33	0,65	231-055-111	15
60	on request	0,24	36	0,63	231-060-111	15
65	on request	0,21	39	0,68	231-065-111	15
70	on request	0,17	42	0,73	231-070-111	15
75	on request	0,15	45	0,78	231-075-111	15
80	on request	0,14	48	0,83	231-080-111	15
90	on request	0,11	54	0,93	231-090-111	15
100	on request	0,09	60	1,2	231-100-111	15
110	on request	0,07	66	1,31	231-110-111	15
120	on request	0,06	72	1,43	231-120-111	15
125	on request	0,05	75	1,48	231-125-111	15
130	on request	0,05	78	1,54	231-130-111	15
140	on request	0,05	84	1,65	231-140-111	15
150	on request	0,04	90	1,76	231-150-111	15
160	on request	0,03	96	1,87	231-160-111	15
170	on request	0,03	102	1,99	231-170-111	15
175	on request	0,03	105	2,04	231-175-111	15
180	on request	0,03	108	2,1	231-180-111	15
200	on request	0,02	120	2,32	231-200-111	15
215	on request	0,02	151	2,78	231-215-111	15
225	on request	0,02	158	2,9	231-225-111	15
250	on request	0,02	175	3,21	231-250-111	15
275	on request	0,01	193	3,52	231-275-111	15
300	on request	0,01	210	3,83	231-300-111	15
315	on request	0,01	221	4,01	231-315-111	15
325	on request	0,01	228	4,14	231-325-111	15
350	on request	0,01	245	4,45	231-350-111	15
375	on request	0,01	263	4,78	231-375-111	15
400	on request	0,01	280	5,09	231-400-111	15
450	on request	0,01	360	5,71	231-450-111	15
500	on request	0,01	400	6,33	231-500-111	15
550	on request	0,01	440	6,94	231-550-111	10
600	on request	0,01	480	7,56	231-600-111	10
700	on request	0,01	560	8,8	231-700-111	10
800	on request	0,01	640	10,03	231-800-111	10
900	on request	0,01	720	11,27	231-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



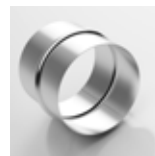
Hose Reducer, symmetrical



Clip-Grip quick action clamp



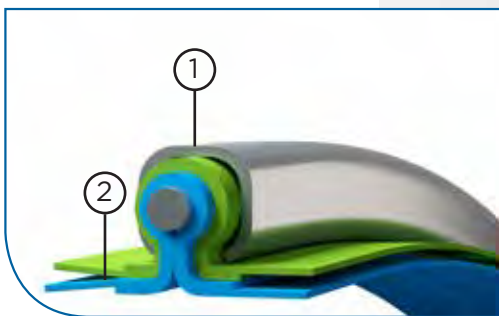
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 650

Medium- and high temperature hose for temperatures up to +650°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: double-layered, inner and outer layers with special-coated high-temperature fabric reinforced with integrated VA wire

Applications

- oven manufacturing
- exhaust gas extraction for high-performance engine test-benches in the automotive industry
- automotive and aircraft industry
- shipbuilding industry
- infrared drying units
- heat protection
- mining and steel industry
- machine manufacturing
- smoke extractors

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- small bending radii
- axial compressable
- flame-resistant
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- increased vibration resistance via integrated reinforcement components
- silicone-free
- flexible
- limited suitability for long-term kink movements
- good vacuum resistance

Temperature Range

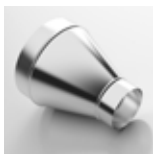
- -20°C to +650°C for vacuum applications
- peaks to +750°C



Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,39	30	1,1	229-050-111	15
55	on request	0,34	33	1,19	229-055-111	15
60	on request	0,31	36	1,29	229-060-111	15
65	on request	0,29	39	1,38	229-065-111	15
70	on request	0,26	42	1,47	229-070-111	15
75	on request	0,25	45	1,57	229-075-111	15
80	on request	0,22	48	1,66	229-080-111	15
90	on request	0,21	54	1,85	229-090-111	15
100	on request	0,17	60	1,57	229-100-111	15
110	on request	0,14	66	1,71	229-110-111	15
120	on request	0,12	72	1,85	229-120-111	15
125	on request	0,1	75	1,93	229-125-111	15
130	on request	0,1	78	2	229-130-111	15
140	on request	0,09	84	2,14	229-140-111	15
150	on request	0,08	90	2,29	229-150-111	15
160	on request	0,07	96	2,43	229-160-111	15
170	on request	0,06	102	2,57	229-170-111	15
175	on request	0,06	105	2,65	229-175-111	15
180	on request	0,05	108	2,72	229-180-111	15
200	on request	0,04	120	3,01	229-200-111	15
215	on request	0,04	151	3,22	229-215-111	15
225	on request	0,03	158	3,36	229-225-111	15
250	on request	0,03	175	3,72	229-250-111	15
275	on request	0,02	193	4,08	229-275-111	15
300	on request	0,02	210	4,44	229-300-111	15
315	on request	0,02	221	4,66	229-315-111	15
325	on request	0,02	228	4,8	229-325-111	15
350	on request	0,02	245	5,16	229-350-111	15
375	on request	0,01	263	5,55	229-375-111	15
400	on request	0,01	280	5,91	229-400-111	15
450	on request	0,01	360	6,63	229-450-111	15
500	on request	0,01	400	7,35	229-500-111	15
550	on request	0,01	440	8,07	229-550-111	10
600	on request	0,01	480	8,79	229-600-111	10
700	on request	0,01	560	10,23	229-700-111	10
800	on request	0,01	640	11,67	229-800-111	10
900	on request	0,01	720	13,11	229-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



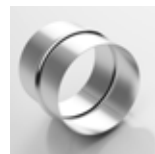
Hose Reducer, symmetrical



Clip-Grip quick action clamp



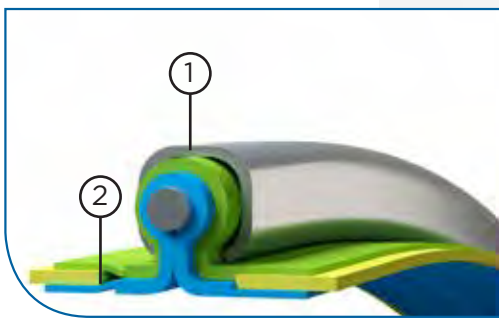
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 1100

Medium- and high temperature hose for temperatures up to +1100°C



Material

- 1 clamp profile spiral: VA steel band (1.4512)
- 2 wall: three-layered, inner layer: stainless steel wire fabric, outer layer: high-temperature, special-coated with heat stabilisers reinforced with VA wire, intermediate layer: thermo-textile fabric

Applications

- oven manufacturing
- automotive and aircraft industry
- shipbuilding industry
- heat protection
- mining and steel industry
- exhaust gas extraction for high performance test-benches in the automotive industry
- suction/extraction of turbojet engine exhaust fumes
- exhaust gas extraction for larger capacity engines
- extreme temperature demands
- suction during spark formation
- machine manufacturing
- defence systems

Available on request

- available on request in other lengths, sizes, colours and spiral intervals

Properties

- very good temperature resistance
- outer chafing protection spiral
- small bending radii
- flame-resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- silicone-free
- flexible
- limited suitability for long-term kink movements

Temperature Range

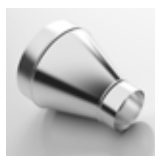
- 20°C to +1100°C for vacuum applications



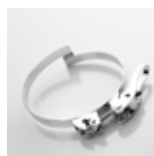
Stock lengths and technical data / www.masterflex.de

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
75	on request	0,3	45	1,68	230-075-111	15
80	on request	0,27	48	1,78	230-080-111	15
90	on request	0,25	54	1,99	230-090-111	15
100	on request	0,2	60	1,78	230-100-111	15
110	on request	0,16	66	1,94	230-110-111	15
120	on request	0,14	72	2,11	230-120-111	15
125	on request	0,12	75	2,19	230-125-111	15
130	on request	0,12	78	2,27	230-130-111	15
140	on request	0,1	84	2,44	230-140-111	15
150	on request	0,09	90	2,6	230-150-111	15
160	on request	0,08	96	2,77	230-160-111	15
170	on request	0,07	102	2,93	230-170-111	15
175	on request	0,07	105	3,02	230-175-111	15
180	on request	0,06	126	3,1	230-180-111	15
200	on request	0,05	140	3,43	230-200-111	15
215	on request	0,05	151	3,68	230-215-111	10
225	on request	0,04	158	3,84	230-225-111	10
250	on request	0,03	175	4,25	230-250-111	10
275	on request	0,03	193	4,67	230-275-111	10
300	on request	0,02	210	5,08	230-300-111	10
315	on request	0,02	221	5,33	230-315-111	10
325	on request	0,02	228	5,49	230-325-111	10
350	on request	0,02	245	5,9	230-350-111	10
375	on request	0,02	300	6,35	230-375-111	10
400	on request	0,01	320	6,76	230-400-111	10
450	on request	0,01	360	7,59	230-450-111	10
500	on request	0,01	400	8,41	230-500-111	10
550	on request	0,01	440	9,24	230-550-111	10
600	on request	0,01	480	10,06	230-600-111	10
700	on request	0,01	560	11,72	230-700-111	10
800	on request	0,01	640	13,37	230-800-111	10
900	on request	0,01	720	15,02	230-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



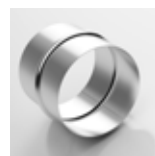
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector



8

Temperature-Resistant Hoses up to 1.100 °C

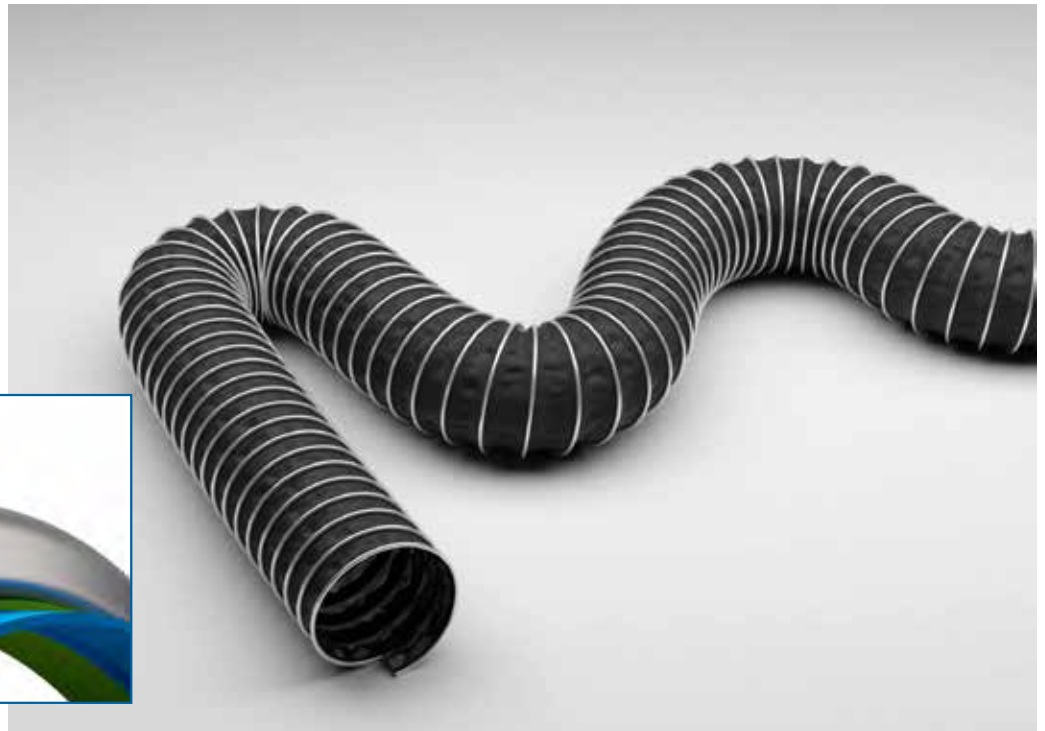
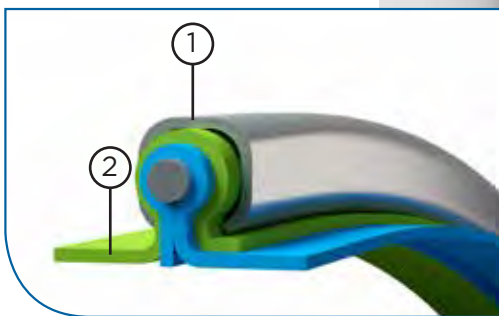
Suction & transport hoses for media temperatures up to 1.100 °C



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-Clip NEOPRENE

Medium and high temperature hose for temperatures up to +125°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: neoprene-coated polyester fabric

Applications

- air-conditioning and ventilation systems
- engine manufacturing
- exhaust gas extraction
- suction of aggressive media
- transport of hot and cold air
- automotive manufacturing
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- increased temperature resistance
- extremely compressible to approx. 1:6
- vibration-proof
- smallest bending radii
- highly flexible
- extremely lightweight
- good chemical resistance
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- -35°C to +125°C
- peaks to +150°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,47	23	0,4	220-038-107	25
40	0,93	0,46	24	0,4	220-040-107	25
45	0,92	0,43	27	0,4	220-045-107	25
50	0,9	0,39	30	0,4	220-050-107	25
55	0,85	0,32	33	0,4	220-055-107	25
60	0,78	0,27	36	0,5	220-060-107	25
65	0,68	0,23	39	0,5	220-065-107	25
70	0,67	0,2	42	0,5	220-070-107	25
75	0,62	0,18	45	0,6	220-075-107	25
80	0,61	0,15	48	0,6	220-080-107	25
90	0,56	0,12	54	0,6	220-090-107	25
100	0,51	0,1	60	0,6	220-100-107	25
110	0,48	0,08	66	0,7	220-110-107	25
120	0,36	0,07	72	0,7	220-120-107	25
125	0,33	0,06	75	0,8	220-125-107	25
130	0,28	0,06	78	0,8	220-130-107	25
140	0,25	0,05	84	0,8	220-140-107	25
150	0,22	0,04	90	0,9	220-150-107	25
160	0,21	0,04	96	0,9	220-160-107	25
170	0,19	0,03	102	0,9	220-170-107	25
175	0,19	0,03	105	1	220-175-107	25
180	0,1	0,03	108	1	220-180-107	25
200	0,15	0,03	120	1,2	220-200-107	25
215	0,13	0,02	151	1,3	220-215-107	25
225	0,12	0,02	158	1,4	220-225-107	25
250	0,1	0,02	175	1,6	220-250-107	25
275	0,08	0,01	193	1,9	220-275-107	25
300	0,07	0,01	210	2,1	220-300-107	25
315	0,06	0,01	221	2,1	220-315-107	25
325	0,06	0,01	228	2,2	220-325-107	25
350	0,06	0,01	245	2,5	220-350-107	25
375	0,05	0,01	263	2,9	220-375-107	25
400	0,05	0,01	280	3,1	220-400-107	25
450	0,05	0,01	360	3,6	220-450-107	25
500	0,04	0,01	400	4,1	220-500-107	25
550	0,04	0,01	440	4,6	220-550-107	25
600	0,04	0,01	480	5,1	220-600-107	20
700	0,03	0,01	560	6	220-700-107	20
800	0,02	0,01	640	6,9	220-800-107	20
900	0,02	0,01	720	7,8	220-900-107	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



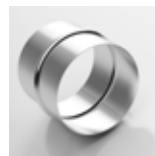
Hose Reducer, symmetrical



Clip-Grip quick action clamp



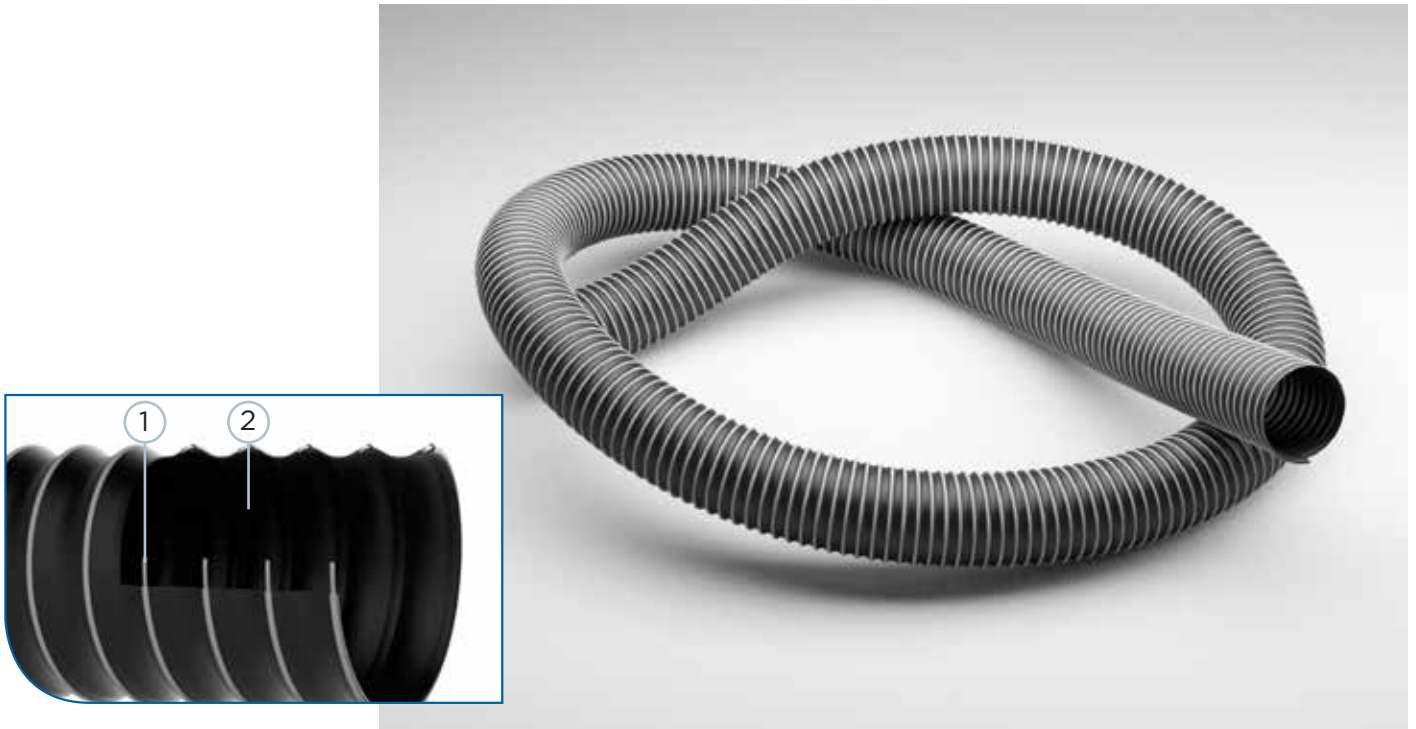
Clip-Grip Hose clamp, screwable



Hose Connector clamp

Master-SANTO SL

TPV transport and suction hose, very lightweight, for increased temperatures



Material

- ① spiral: spring steel wire, TPV-coated
- ② wall: TPV-coated polyester fabric

Applications

- steam extraction
- air supply and extraction in engine applications
- conveyance of hot and cold air in vehicle and machine manufacturing
- gaseous media
- air supply at blown film machines

Available on request

- available on request in other lengths and sizes with print or hardly inflammable acc. to DIN 4102 B1.

Properties

- good resistance to acids, alkalis and solvent fumes
- smooth inner lining
- super lightweight
- smallest bending radii
- highly flexible
- halogen and plasticizer-free
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

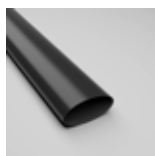
- -40°C to +130°C
- peaks to +150°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
25	3	0,88	25	33	0,14	325-025-107	25
26	3	0,88	25	33	0,15	325-026-107	25
30	3	0,86	30	38	0,18	325-030-107	25
32	2,6	0,83	32	40	0,2	325-032-107	25
38	2,5	0,81	38	48	0,24	325-038-107	25
40	2,4	0,8	40	49	0,25	325-040-107	25
45	2,3	0,8	45	54	0,28	325-045-107	25
50	2,2	0,79	50	60	0,34	325-050-107	25
51	2,2	0,79	50	60	0,36	325-051-107	25
60	1,6	0,71	60	70	0,43	325-060-107	25
63	1,5	0,68	63	72	0,44	325-063-107	25
65	1,4	0,67	65	74	0,46	325-065-107	25
70	1,3	0,63	70	79	0,49	325-070-107	25
75	1,2	0,59	75	83	0,57	325-075-107	25
76	1,2	0,59	75	84	0,59	325-076-107	25
80	1,1	0,55	80	89	0,63	325-080-107	25
90	1	0,47	90	100	0,71	325-090-107	25
100	0,9	0,39	100	110	0,61	325-100-107	25
102	0,9	0,39	100	111	0,63	325-102-107	25
110	0,9	0,37	110	119	0,68	325-110-107	25
115	0,8	0,36	115	124	0,71	325-115-107	25
120	0,8	0,35	120	130	0,74	325-120-107	25
125	0,8	0,34	125	133	0,75	325-125-107	25
127	0,8	0,34	125	135	0,77	325-127-107	25
130	0,7	0,33	130	138	0,79	325-130-107	25
140	0,7	0,31	140	149	0,86	325-140-107	25
150	0,6	0,29	150	160	0,93	325-150-107	25
152	0,6	0,29	150	160	0,95	325-152-107	25
160	0,6	0,28	160	170	1,01	325-160-107	25
170	0,6	0,26	170	180	1,07	325-170-107	25
175	0,5	0,25	175	185	1,1	325-175-107	25
180	0,5	0,24	180	190	1,13	325-180-107	25
200	0,5	0,2	200	210	1,66	325-200-107	25
203	0,5	0,2	200	211	1,68	325-203-107	25
225	0,4	0,18	225	236	1,88	325-225-107	25
250	0,4	0,16	250	260	1,76	325-250-107	25
254	0,4	0,16	250	262	1,78	325-254-107	25
275	0,3	0,14	275	287	1,96	325-275-107	25
280	0,3	0,14	280	291	1,98	325-280-107	25
300	0,3	0,12	300	313	2,75	325-300-107	25
350	0,2	0,08	350	362	3,19	325-350-107	25
400	0,2	0,05	400	413	3,65	325-400-107	25

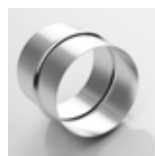
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Heat-Shrink Cuff



Master-Grip Hose Clamp, screwable



Hose Connector



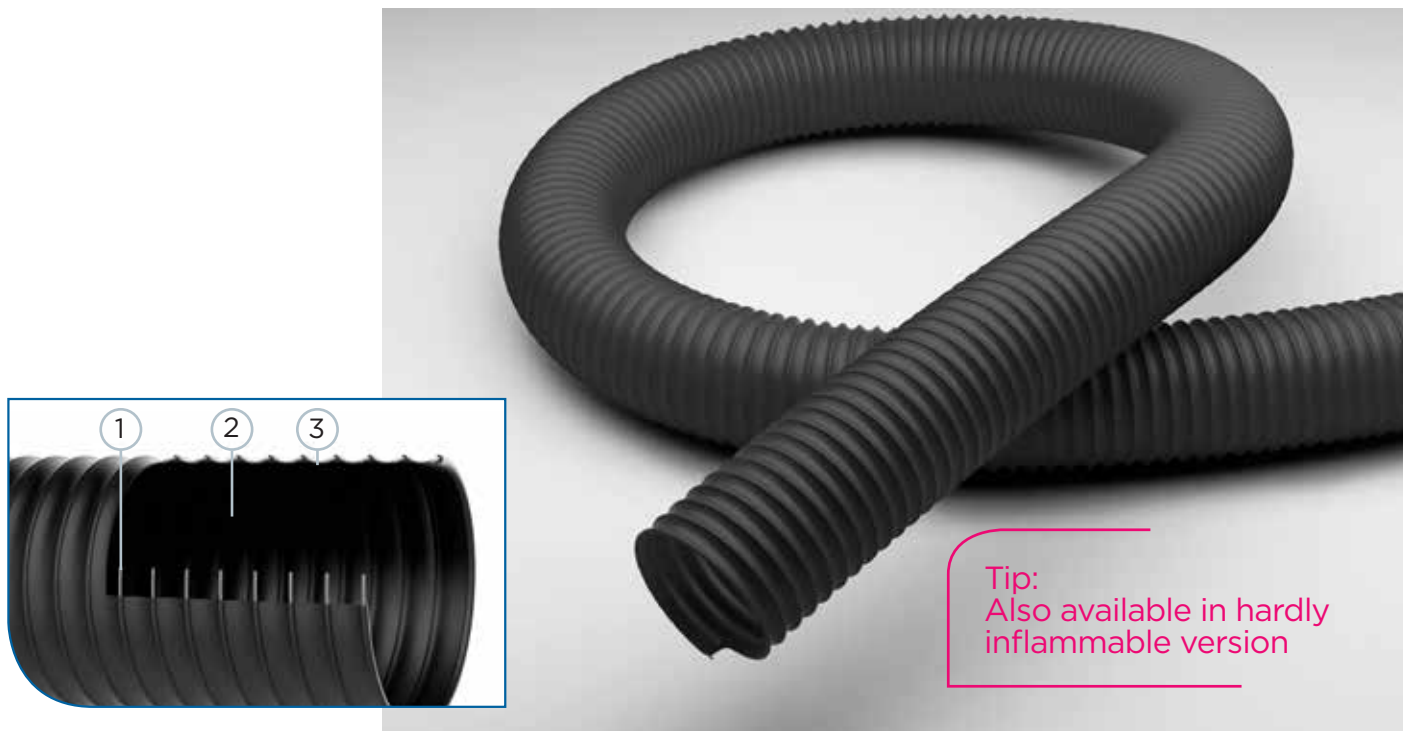
Master-Grip Quick-Fix Clamp



Hose Reducer, symmetrical

Master-SANTO L

TPV transport and suction hose, lightweight, for increased temperatures



Material

- ① spiral: spring steel wire
- ② wall: thermoplastic vulcanisate (TPV)
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- steam extraction
- air supply and extraction in engine applications
- conveyance of hot and cold air in vehicle and machine manufacturing
- liquid and gaseous media
- protective hose against mechanical wear

Available on request

- available in other lengths and sizes with customer-specific imprint or with flame-resistance (hardly inflammable) feature

Properties

- good resistance to acids, alkalis and solvent fumes
- mostly smooth inner lining
- very good flexibility
- light
- smallest bending radii
- halogen and plasticizer-free
- optimum flow characteristics
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.

Temperature Range

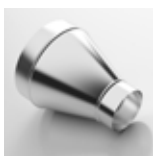
- -40°C to +130°C
- peaks to +150°C



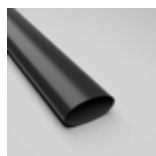
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
25	1,06	0,79	30	30	0,24	150-025-107	25
26	1,06	0,79	31	31	0,24	150-026-107	25
32	0,83	0,71	40	40	0,34	150-032-107	25
38	0,69	0,66	46	46	0,37	150-038-107	25
40	0,69	0,66	48	48	0,38	150-040-107	25
45	0,61	0,59	53	53	0,4	150-045-107	25
51	0,55	0,52	58	58	0,43	150-051-107	25
55	0,51	0,44	63	63	0,49	150-055-107	25
60	0,46	0,44	68	68	0,51	150-060-107	25
65	0,42	0,37	73	73	0,62	150-065-107	25
70	0,37	0,37	78	78	0,65	150-070-107	25
76	0,37	0,29	84	84	0,69	150-076-107	25
80	0,32	0,29	88	88	0,73	150-080-107	25
90	0,28	0,22	99	99	0,85	150-090-107	25
102	0,28	0,22	110	110	0,91	150-102-107	25
110	0,23	0,22	119	119	0,99	150-110-107	25
115	0,23	0,22	124	124	1,02	150-115-107	25
120	0,23	0,22	129	129	1,06	150-120-107	25
127	0,23	0,22	135	135	1,13	150-127-107	25
130	0,19	0,22	139	139	1,15	150-130-107	25
140	0,19	0,15	149	149	1,33	150-140-107	25
152	0,19	0,15	161	161	1,42	150-152-107	25
160	0,19	0,15	170	170	1,67	150-160-107	25
170	0,14	0,15	180	180	1,73	150-170-107	25
175	0,14	0,15	185	185	1,78	150-175-107	25
180	0,14	0,15	190	190	1,52	150-180-107	25
203	0,14	0,15	214	214	2,21	150-203-107	25
225	0,09	0,07	235	235	2,45	150-225-107	25
250	0,09	0,07	257	257	2,85	150-250-107	25
254	0,09	0,07	260	260	2,9	150-254-107	25
275	0,09	0,07	284	284	2,99	150-275-107	25
280	0,09	0,07	290	290	3,01	150-280-107	25
300	0,08	0,07	310	310	3,07	150-300-107	20
315	0,08	0,07	325	325	3,11	150-315-107	20
325	0,08	0,07	335	335	3,26	150-325-107	20
350	0,04	0,07	360	360	3,46	150-350-107	20
375	0,04	0,05	385	385	3,87	150-375-107	20
400	0,04	0,05	410	411	4,27	150-400-107	20
450	0,04	0,05	460	461	4,86	150-450-107	20
500	0,04	0,05	510	511	5,47	150-500-107	20

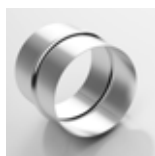
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Heat-Shrink Cuff



Hose Connector



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp

Master-SANTO H

TPV transport and suction hose, medium weight, for increased temperatures



Material

- ① spiral: spring steel wire
- ② wall: thermoplastic vulcanisate (TPV)
- ③ wall thickness between spirals approx. 1.4 mm

Applications

- steam extraction
- air supply and extraction in engine applications
- conveyance of hot and cold air in vehicle and machine manufacturing
- liquid and gaseous media
- protective hose against mechanical wear

Available on request

- available in other lengths and sizes with customer-specific imprint or with flame-resistance (hardly inflammable) feature

Properties

- extremely flexible, lightweight
- good resistance to acids, alkalis and solvent fumes
- mostly smooth inner lining
- increased mechanical resistance
- small bending radii
- increased pressure and vacuum resistance
- halogen and plasticizer-free
- optimum flow characteristics
- acc. to TRGS 727 and ATEX 2014/34 EU, with earthing at both ends of the spiral for non-flammable dust/bulk solids in Zone 22. For gases/liquids with low conductivity of electrostatic charges in Zone 2.
- generally good UV and ozone resistance

Temperature Range

- -40°C to +130°C
- peaks to +150°C



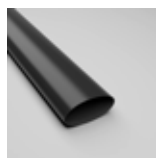
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
25	1,46	0,992	47	33	0,25	151-025-107	25
26	1,46	0,92	47	33	0,25	151-026-107	25
32	1,14	0,92	60	41	0,35	151-032-107	25
38	1,09	0,82	69	47	0,4	151-038-107	25
40	1,05	0,82	72	49	0,41	151-040-107	25
45	1,03	0,81	80	55	0,47	151-045-107	25
51	1,02	0,79	87	61	0,55	151-051-107	25
55	0,96	0,76	95	65	0,59	151-055-107	25
60	0,89	0,74	102	70	0,64	151-060-107	25
65	0,84	0,66	112	75	0,69	151-065-107	25
70	0,79	0,66	117	80	0,76	151-070-107	25
76	0,7	0,59	126	87	0,8	151-076-107	25
80	0,7	0,59	132	91	0,87	151-080-107	25
90	0,58	0,52	149	101	0,94	151-090-107	25
102	0,53	0,44	165	112	1,01	151-102-107	25
110	0,47	0,44	179	121	1,09	151-110-107	25
115	0,47	0,31	186	126	1,13	151-115-107	25
120	0,46	0,31	194	131	1,17	151-120-107	25
127	0,46	0,31	203	138	1,27	151-127-107	25
130	0,46	0,31	209	141	1,31	151-130-107	25
140	0,37	0,25	224	151	1,41	151-140-107	25
152	0,37	0,25	242	163	1,5	151-152-107	25
160	0,32	0,25	255	171	1,73	151-160-107	25
170	0,32	0,18	270	181	1,88	151-170-107	25
175	0,32	0,18	278	186	1,96	151-175-107	25
180	0,26	0,18	285	191	2,04	151-180-107	25
203	0,26	0,18	321	215	2,25	151-203-107	25
225	0,21	0,12	353	237	2,5	151-225-107	25
250	0,21	0,12	388	261	2,99	151-250-107	25
254	0,21	0,12	390	263	3,07	151-254-107	25
275	0,16	0,12	426	288	3,58	151-275-107	25
280	0,16	0,12	435	293	3,64	151-280-107	25
300	0,16	0,12	465	313	3,9	151-300-107	20
315	0,16	0,12	488	328	4,13	151-315-107	20
325	0,16	0,12	503	338	4,29	151-325-107	20
350	0,16	0,12	540	363	4,84	151-350-107	20
375	0,11	0,07	580	388	5,23	151-375-107	20
400	0,11	0,07	615	413	5,69	151-400-107	20
450	0,11	0,07	690	463	6,58	151-450-107	20
500	0,11	0,07	765	513	7,38	151-500-107	20

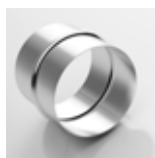
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Heat-Shrink Cuff



Hose Connector



Master-Grip Hose Clamp, screwable



Master-Grip Quick-Fix Clamp

Master-NEO 1

Medium and high temperature hose for temperatures up to +135°C



Material

- ① spiral: spring steel wire
- ② wall: neoprene-coated glass fabric
- ③ cord: fibreglass fabric

Applications

- chemicals industry
- hot air hose for granulate dryer
- machine and engine manufacturing
- shipbuilding
- plastic processing industry
- waste incineration plants
- conveyance of air and gaseous media with high nominal and ambient temperatures
- automotive manufacturing
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, with spiral-free sleeves, with plastic spirals.

Properties

- mostly smooth inner lining
- bend-proof
- fixed vulcanised wall and steel filament
- approved acc.to DIN 75200 and FMVSS 302 for application in transit vehicles
- light
- symmetrical fold behaviour
- smallest bending radii
- highly flexible
- good chemical resistance

Temperature Range

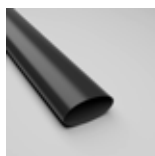
- -35°C to +135°C
- peaks -55°C to +150°C*



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
13	1,7	0,51	8	0,1	680-013-107	4
19	1,6	0,5	8	0,11	680-019-107	4
25	1,6	0,5	8	0,12	680-025-107	4
32	1,37	0,49	11	0,15	680-032-107	4
35	1,35	0,49	11	0,15	680-035-107	4
38	1,3	0,49	12	0,17	680-038-107	4
41	1,3	0,47	13	0,2	680-041-107	4
42	1,2	0,47	13	0,2	680-042-107	4
44	1,2	0,45	14	0,21	680-044-107	4
45	1,2	0,45	14	0,21	680-045-107	4
51	1,2	0,42	16	0,25	680-051-107	4
55	1,1	0,41	18	0,27	680-055-107	4
57	1,1	0,4	18	0,28	680-057-107	4
60	1,1	0,39	20	0,3	680-060-107	4
63	1,1	0,38	22	0,32	680-063-107	4
64	1,1	0,38	22	0,32	680-064-107	4
65	1,1	0,37	22	0,34	680-065-107	4
70	1,1	0,35	24	0,36	680-070-107	4
76	1,1	0,33	27	0,41	680-076-107	4
80	1	0,31	28	0,44	680-080-107	4
83	1	0,3	28	0,46	680-083-107	4
90	1	0,29	29	0,49	680-090-107	4
91	1	0,29	29	0,49	680-091-107	4
102	0,9	0,26	35	0,65	680-102-107	4
108	0,9	0,24	38	0,68	680-108-107	4
110	0,9	0,24	38	0,69	680-110-107	4
114	0,9	0,22	40	0,71	680-114-107	4
120	0,8	0,2	43	0,76	680-120-107	4
127	0,8	0,17	46	0,8	680-127-107	4
130	0,8	0,17	47	0,82	680-130-107	4
140	0,7	0,15	48	0,9	680-140-107	4
152	0,7	0,14	51	0,99	680-152-107	4
160	0,6	0,13	53	1,05	680-160-107	4
165	0,6	0,12	55	1,08	680-165-107	4
180	0,6	0,11	60	1,19	680-180-107	4
203	0,5	0,07	68	1,33	680-203-107	4
229	0,4	0,06	84	1,48	680-229-107	4
254	0,4	0,04	102	1,68	680-254-107	4
305	0,2	0,02	123	2,05	680-305-107	4

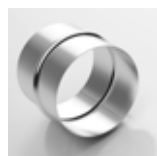
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Heat-Shrink Cuff



Hose Clamp with Worm-Gear Drive



Hose Connector



Hose Reducer, symmetrical

Master-NEO 2

Medium and high temperature hose for temperatures up to +135°C, two layers



Material

- ① spiral: spring steel wire
- ② wall: neoprene-coated glass fabric, double-layered
- ③ cord: fibreglass fabric

Applications

- chemicals industry
- conveyance of air and gaseous media with high nominal and ambient temperatures with greater mechanical requirements
- hot air hose for granulate dryer
- machine and engine manufacturing
- shipbuilding
- plastic processing industry
- waste incineration plants
- automotive manufacturing
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, with spiral-free sleeves, with plastic spirals.

Properties

- mostly smooth inner lining
- bend-proof
- fixed vulcanised wall and steel filament
- light
- symmetrical fold behaviour
- smallest bending radii
- highly flexible
- good chemical resistance

Temperature Range

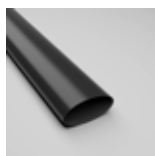
- -35°C to +135°C
- peaks -55°C to +150°C*



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
13	2,8	0,64	15	0,16	681-013-107	4
19	2,8	0,64	15	0,19	681-019-107	4
26	2,8	0,64	15	0,22	681-026-107	4
30	2,8	0,64	15	0,25	681-030-107	4
35	2,7	0,62	16	0,27	681-032-107	4
38	2,6	0,59	18	0,31	681-038-107	4
41	2,6	0,59	19	0,32	681-041-107	4
42	2,6	0,59	19	0,32	681-042-107	4
44	2,6	0,55	21	0,34	681-044-107	4
45	2,6	0,55	21	0,34	681-045-107	4
51	2,6	0,51	24	0,36	681-051-107	4
55	2,5	0,48	27	0,42	681-055-107	4
57	2,5	0,48	28	0,43	681-057-107	4
60	2,4	0,47	31	0,47	681-060-107	4
63	2,4	0,47	31	0,49	681-063-107	4
64	2,4	0,47	31	0,49	681-064-107	4
65	2,4	0,47	31	0,5	681-065-107	4
70	2,3	0,43	35	0,53	681-070-107	4
76	2,2	0,42	38	0,58	681-076-107	4
80	2,1	0,41	40	0,62	681-080-107	4
83	2,1	0,4	42	0,64	681-083-107	4
90	2	0,39	44	0,7	681-083-107	4
91	2	0,39	44	0,7	681-091-107	4
102	1,9	0,34	52	0,77	681-102-107	4
108	1,7	0,3	55	0,83	681-108-107	4
110	1,7	0,29	57	0,85	681-110-107	4
114	1,6	0,28	57	0,89	681-114-107	4
120	1,6	0,28	61	0,94	681-120-107	4
127	1,4	0,25	64	1	681-127-107	4
130	1,3	0,23	65	1,02	681-130-107	4
140	1,3	0,19	70	1,11	681-140-107	4
152	1,2	0,17	75	1,2	681-152-107	4
160	1,1	0,15	80	1,28	681-160-107	4
173	1	0,13	87	1,4	681-173-107	4
180	1	0,12	90	1,48	681-180-107	4
203	0,7	0,09	101	1,65	681-203-107	4
229	0,6	0,08	125	1,9	681-229-107	4
254	0,5	0,07	150	2,14	681-254-107	4
305	0,3	0,04	210	2,58	681-305-107	4

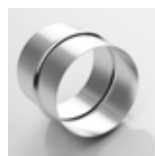
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Heat-Shrink Cuff



Hose Clamp with Worm-Gear Drive



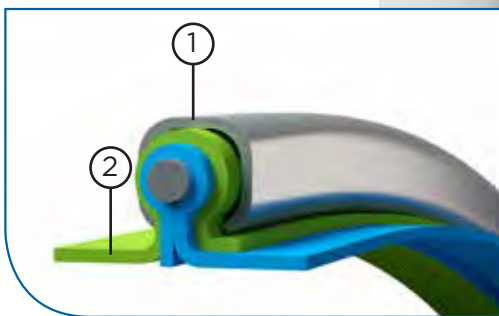
Hose Connector



Hose Reducer, symmetrical

Master-Clip HYPALON

Medium and high temperature hose for temperatures up to +175°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: HYPALON®-coated polyester fabric

Applications

- air-conditioning and ventilation systems
- engine manufacturing
- exhaust gas extraction
- suction of aggressive media
- transport of hot and cold air
- granulate drying
- standard industrial hose
- automotive manufacturing
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- increased temperature resistance
- extremely compressable to approx. 1:6
- outer chafing protection spiral
- vibration-proof
- excellent UV / ozone resistance
- smallest bending radii
- highly flexible
- very good chemical resistance
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- extremely lightweight

Temperature Range

- -40°C to +175°C
- peaks to +190°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,47	23	0,4	221-038-107	25
40	0,93	0,46	24	0,4	221-040-107	25
45	0,92	0,43	27	0,4	221-045-107	25
50	0,9	0,39	30	0,4	221-050-107	25
55	0,85	0,32	33	0,4	221-055-107	25
60	0,78	0,27	36	0,5	221-060-107	25
65	0,68	0,23	39	0,5	221-065-107	25
70	0,67	0,2	42	0,5	221-070-107	25
75	0,62	0,18	45	0,6	221-075-107	25
80	0,61	0,15	48	0,6	221-080-107	25
90	0,56	0,12	54	0,6	221-090-107	25
100	0,51	0,1	60	0,6	221-100-107	25
110	0,48	0,08	66	0,7	221-110-107	25
120	0,36	0,07	72	0,7	221-120-107	25
125	0,33	0,06	75	0,8	221-125-107	25
130	0,28	0,06	78	0,8	221-130-107	25
140	0,25	0,05	84	0,8	221-140-107	25
150	0,22	0,04	90	0,9	221-150-107	25
160	0,21	0,04	96	0,9	221-160-107	25
170	0,19	0,03	102	0,9	221-170-107	25
175	0,19	0,03	105	1	221-175-107	25
180	0,172	0,03	108	1	221-180-107	25
200	0,15	0,03	120	1,2	221-200-107	25
215	0,13	0,02	151	1,3	221-215-107	25
225	0,12	0,02	158	1,4	221-225-107	25
250	0,1	0,02	175	1,6	221-250-107	25
275	0,08	0,01	193	1,9	221-275-107	25
300	0,07	0,01	210	2,1	221-300-107	25
315	0,06	0,01	221	2,1	221-315-107	25
325	0,06	0,01	228	2,2	221-325-107	25
350	0,06	0,01	245	2,5	221-350-107	25
375	0,05	0,01	263	2,9	221-375-107	25
400	0,05	0,01	280	3,1	221-400-107	25
450	0,05	0,01	360	3,6	221-450-107	25
500	0,04	0,01	400	4,1	221-500-107	25
550	0,04	0,01	440	4,6	221-550-107	25
600	0,04	0,01	480	5,1	221-600-107	20
700	0,03	0,01	560	6	221-700-107	20
800	0,02	0,01	640	6,9	221-800-107	20
900	0,02	0,01	720	7,8	221-900-107	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



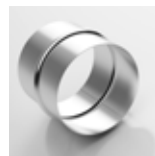
Hose Reducer, symmetrical



Clip-Grip quick action clamp



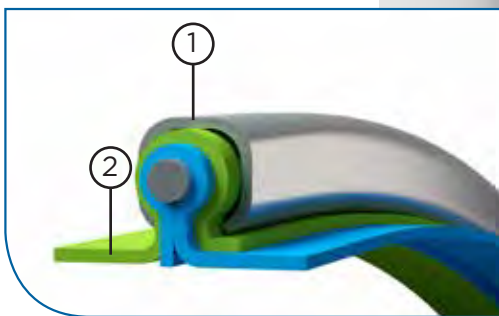
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip VITON

Medium and high temperature hose for temperatures up to +210°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: Viton®-coated polyester fabric

Applications

- paint mist extraction
- suction/extraction of aggressive media in medium temperature range
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good chemical resistance
- increased temperature resistance
- extremely compressable to approx. 1:6
- outer chafing protection spiral
- vibration-proof
- smallest bending radii
- highly flexible
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- tear-proof
- excellent UV / ozone resistance
- extremely lightweight

Temperature Range

- -25°C to +210°C
- peaks to +240°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,47	23	0,4	222-038-119	25
40	0,93	0,46	24	0,4	222-040-119	25
45	0,92	0,43	27	0,4	222-045-119	25
50	0,9	0,39	30	0,4	222-050-119	25
55	0,85	0,32	33	0,4	222-055-119	25
60	0,78	0,27	36	0,5	222-060-119	25
65	0,68	0,23	39	0,5	222-065-119	25
70	0,67	0,2	42	0,5	222-070-119	25
75	0,62	0,18	45	0,6	222-075-119	25
80	0,61	0,15	48	0,6	222-080-119	25
90	0,56	0,12	54	0,6	222-090-119	25
100	0,51	0,1	60	0,6	222-100-119	25
110	0,48	0,08	66	0,7	222-110-119	25
120	0,36	0,07	72	0,7	222-120-119	25
125	0,33	0,06	75	0,8	222-125-119	25
130	0,28	0,06	78	0,8	222-130-119	25
140	0,25	0,05	84	0,8	222-140-119	25
150	0,22	0,04	90	0,9	222-150-119	25
160	0,21	0,04	96	0,9	222-160-119	25
170	0,19	0,03	102	0,9	222-170-119	25
175	0,19	0,03	105	1	222-175-119	25
180	0,17	0,03	108	1	222-180-119	25
200	0,15	0,03	120	1,2	222-200-119	25
215	0,13	0,02	151	1,3	222-215-119	25
225	0,12	0,02	158	1,4	222-225-119	25
250	0,1	0,02	175	1,6	222-250-119	25
275	0,08	0,01	193	1,9	222-275-119	25
300	0,07	0,01	210	2,1	222-300-119	25
315	0,06	0,01	221	2,1	222-315-119	25
325	0,06	0,01	228	2,2	222-325-119	25
350	0,06	0,01	245	2,5	222-350-119	25
375	0,05	0,01	263	2,9	222-375-119	25
400	0,05	0,01	280	3,1	222-400-119	25
450	0,05	0,01	360	3,6	222-450-119	25
500	0,04	0,01	400	4,1	222-500-119	25
550	0,04	0,01	440	4,6	222-550-119	25
600	0,04	0,01	480	5,1	222-600-119	20
700	0,03	0,01	560	6	222-700-119	20
800	0,02	0,01	640	6,9	222-800-119	20
900	0,02	0,01	720	7,8	222-900-119	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



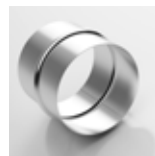
Hose Reducer, symmetrical



Clip-Grip quick action clamp



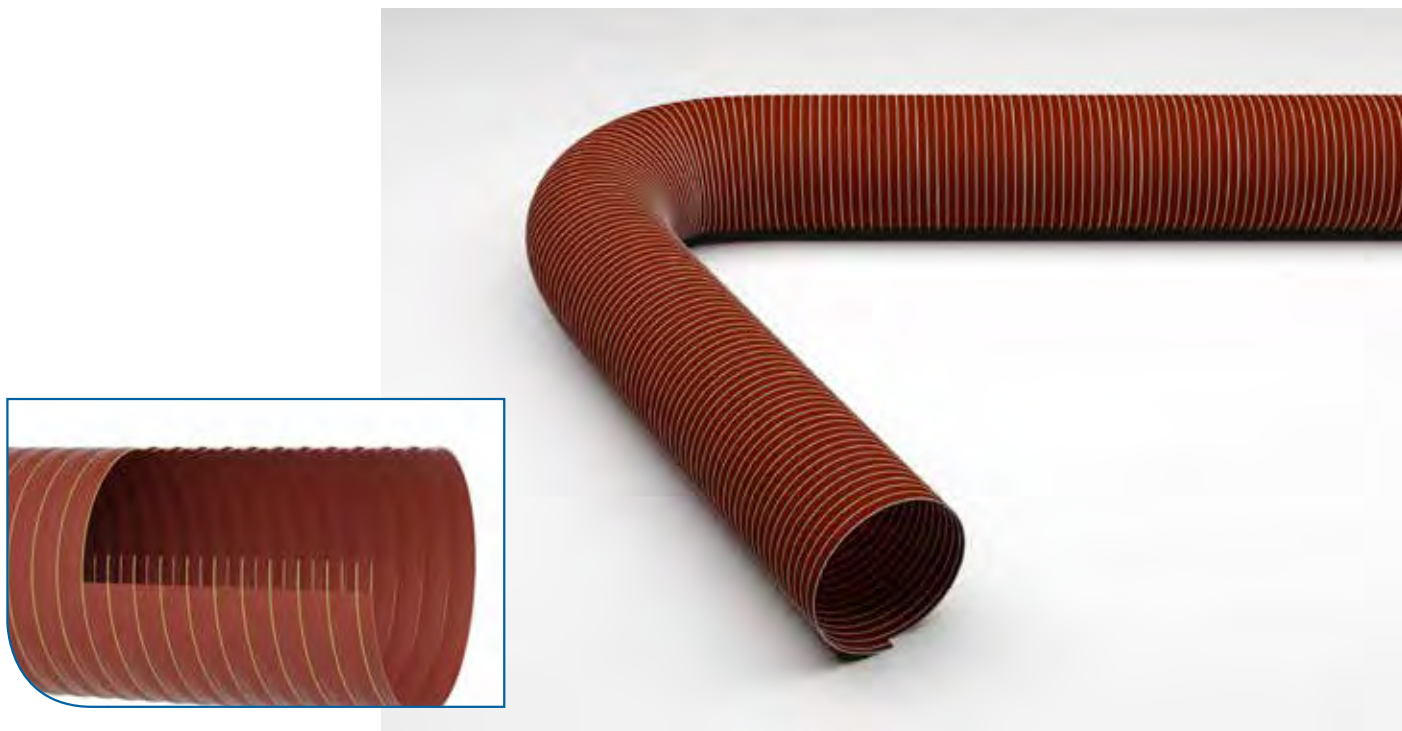
Clip-Grip Hose clamp, screwable



Hose Connector

Master-SIL 1

Medium and high temperature hose for temperatures up to +250°C



Material

- ① spiral: spring steel wire
- ② wall: silicone-coated glass-fibre fabric
- ③ cord: fibreglass fabric

Applications

- chemicals industry
- hot air hose for granulate dryer
- machine and engine manufacturing
- shipbuilding
- plastic processing industry
- waste incineration plants
- conveyance of air and gaseous media with high nominal and ambient temperatures
- automotive manufacturing
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, with spiral-free sleeves, with plastic spirals.

Properties

- mostly smooth inner lining
- bend-proof
- fixed vulcanised wall and steel filament
- light
- symmetrical fold behaviour
- smallest bending radii
- highly flexible
- good chemical resistance

Temperature Range

- -70°C to +250°C
- peaks -85°C to +300°C



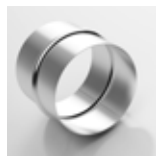
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
13	1,7	0,51	8	0,1	685-013-119	4
19	1,6	0,5	8	0,11	685-019-119	4
26	1,6	0,5	8	0,12	685-025-119	4
30	1,4	0,49	10	0,14	685-030-119	4
38	1,3	0,49	12	0,17	685-038-119	4
41	1,3	0,47	13	0,2	685-041-119	4
42	1,2	0,45	14	0,21	685-042-119	4
44	1,2	0,45	14	0,21	685-044-119	4
45	1,2	0,45	14	0,21	685-045-119	4
51	1,2	0,42	16	0,25	685-051-119	4
55	1,1	0,41	18	0,27	685-055-119	4
57	1,1	0,4	18	0,28	685-057-119	4
60	1,1	0,39	20	0,3	685-060-119	4
63	1,1	0,38	22	0,32	685-063-119	4
64	1,1	0,38	22	0,32	685-064-119	4
65	1,1	0,37	22	0,34	685-065-119	4
70	1,1	0,35	24	0,36	685-070-119	4
76	1,1	0,33	27	0,41	685-076-119	4
80	1	0,31	28	0,44	685-080-119	4
83	1	0,3	28	0,46	685-083-119	4
90	1	0,29	29	0,49	685-090-119	4
95	0,9	0,28	32	0,56	685-095-119	4
102	0,9	0,26	35	0,65	685-102-119	4
108	0,9	0,24	38	0,68	685-108-119	4
110	0,9	0,24	38	0,69	685-110-119	4
114	0,9	0,22	40	0,71	685-114-119	4
120	0,8	0,2	43	0,76	685-120-119	4
127	0,8	0,17	46	0,8	685-127-119	4
130	0,8	0,17	47	0,82	685-130-119	4
140	0,7	0,15	48	0,9	685-140-119	4
152	0,7	0,14	51	0,99	685-152-119	4
160	0,6	0,13	53	1,05	685-160-119	4
165	0,6	0,12	55	1,08	685-165-119	4
180	0,6	0,11	60	1,19	685-180-119	4
203	0,5	0,07	68	1,33	685-203-119	4
229	0,4	0,06	84	1,48	685-229-119	4
254	0,4	0,04	102	1,68	685-254-119	4
305	0,2	0,02	123	2,05	685-305-119	4

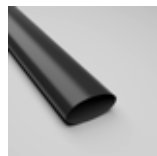
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Worm-Gear Drive



Hose Connector



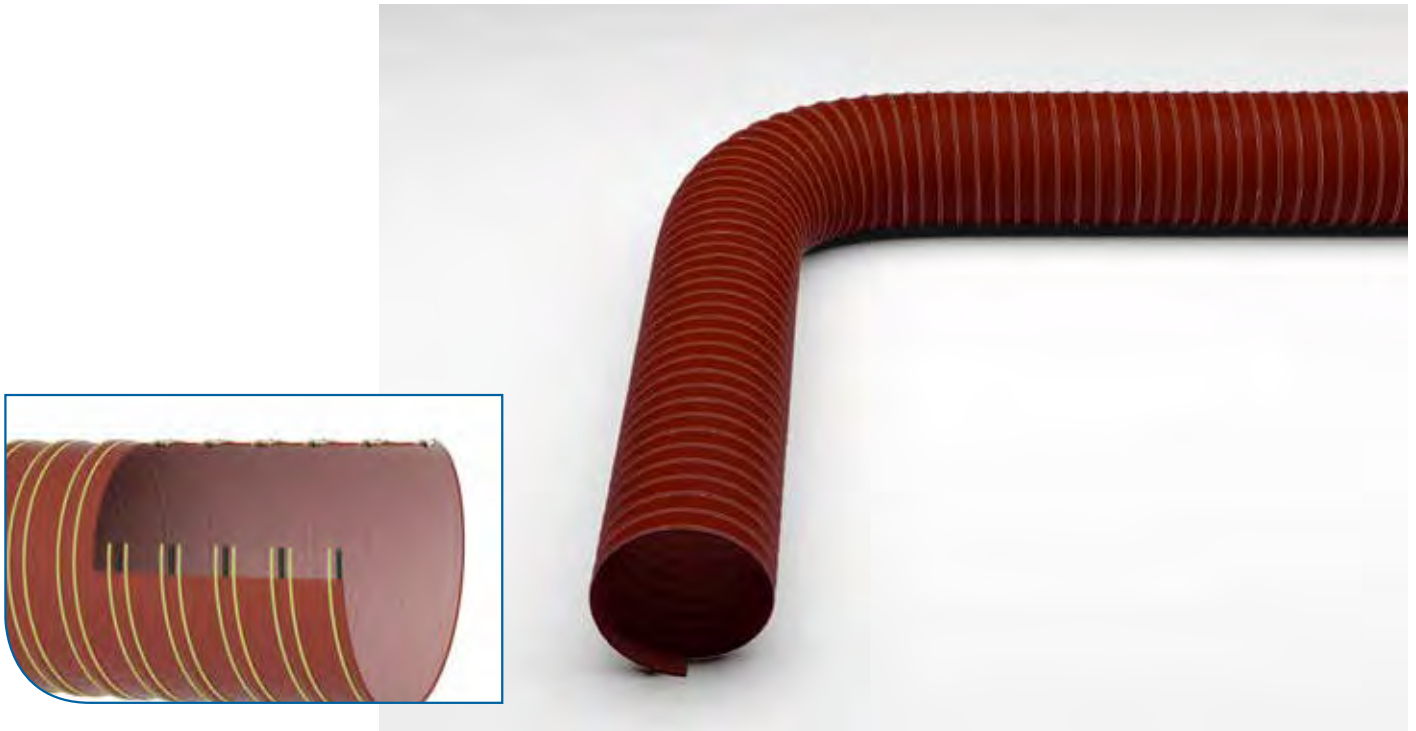
Heat-Shrink Cuff



Hose Reducer, symmetrical

Master-SIL 2

Medium and high temperature hose for temperatures up to +250°C, two layers



Material

- ① spiral: spring steel wire
- ② wall: silicone-coated glass-fibre fabric, double-layered
- ③ cord: fibreglass fabric

Applications

- chemicals industry
- conveyance of air and gaseous media with high nominal and ambient temperatures with greater mechanical requirements
- hot air hose for granulate dryer
- machine and engine manufacturing
- shipbuilding
- plastic processing industry
- waste incineration plants
- automotive manufacturing
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, with spiral-free sleeves, with plastic spirals.

Properties

- mostly smooth inner lining
- bend-proof
- fixed vulcanised wall and steel filament
- light
- symmetrical fold behaviour
- smallest bending radii
- highly flexible
- good chemical resistance

Temperature Range

- -70°C to +250°C
- peaks -85°C to +300°C



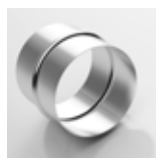
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
13	2,8	0,64	15	0,16	686-013-119	4
19	2,8	0,64	15	0,19	686-019-119	4
26	2,8	0,64	15	0,22	686-026-119	4
30	2,8	0,64	15	0,25	686-030-119	4
32	2,8	0,64	16	0,26	686-032-119	4
38	2,6	0,59	18	0,31	686-038-119	4
41	2,6	0,59	19	0,32	686-041-119	4
42	2,6	0,59	19	0,32	686-042-119	4
44	2,6	0,55	21	0,34	686-044-119	4
45	2,6	0,55	21	0,34	686-045-119	4
51	2,6	0,51	24	0,36	686-051-119	4
55	2,5	0,48	27	0,42	686-055-119	4
57	2,5	0,48	28	0,43	686-057-119	4
60	2,4	0,47	31	0,47	686-060-119	4
63	2,4	0,47	31	0,49	686-063-119	4
64	2,4	0,47	31	0,49	686-064-119	4
65	2,4	0,47	31	0,5	686-065-119	4
70	2,3	0,43	35	0,53	686-070-119	4
76	2,2	0,42	38	0,58	686-076-119	4
80	2,1	0,41	40	0,62	686-080-119	4
83	2,1	0,4	42	0,64	686-083-119	4
90	2	0,39	44	0,69	686-090-119	4
95	1,9	0,36	48	0,73	686-095-119	4
102	1,9	0,34	52	0,77	686-102-119	4
108	1,7	0,3	55	0,83	686-108-119	4
110	1,7	0,29	57	0,85	686-110-119	4
114	1,6	0,28	57	0,89	686-114-119	4
120	1,6	0,28	61	0,94	686-120-119	4
127	1,4	0,25	64	1	686-127-119	4
130	1,3	0,23	65	1,02	686-130-119	4
140	1,3	0,19	70	1,11	686-140-119	4
152	1,2	0,17	75	1,2	686-152-119	4
160	1,1	0,15	80	1,28	686-160-119	4
165	1	0,14	83	1,32	686-165-119	4
180	1	0,12	90	1,48	686-180-119	4
203	0,7	0,09	101	1,65	686-203-119	4
229	0,6	0,08	125	1,9	686-229-119	4
254	0,5	0,07	150	2,14	686-254-119	4
305	0,3	0,04	210	2,58	686-305-119	4

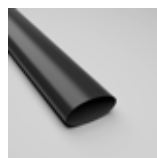
All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Clamp with Worm-Gear Drive



Hose Connector



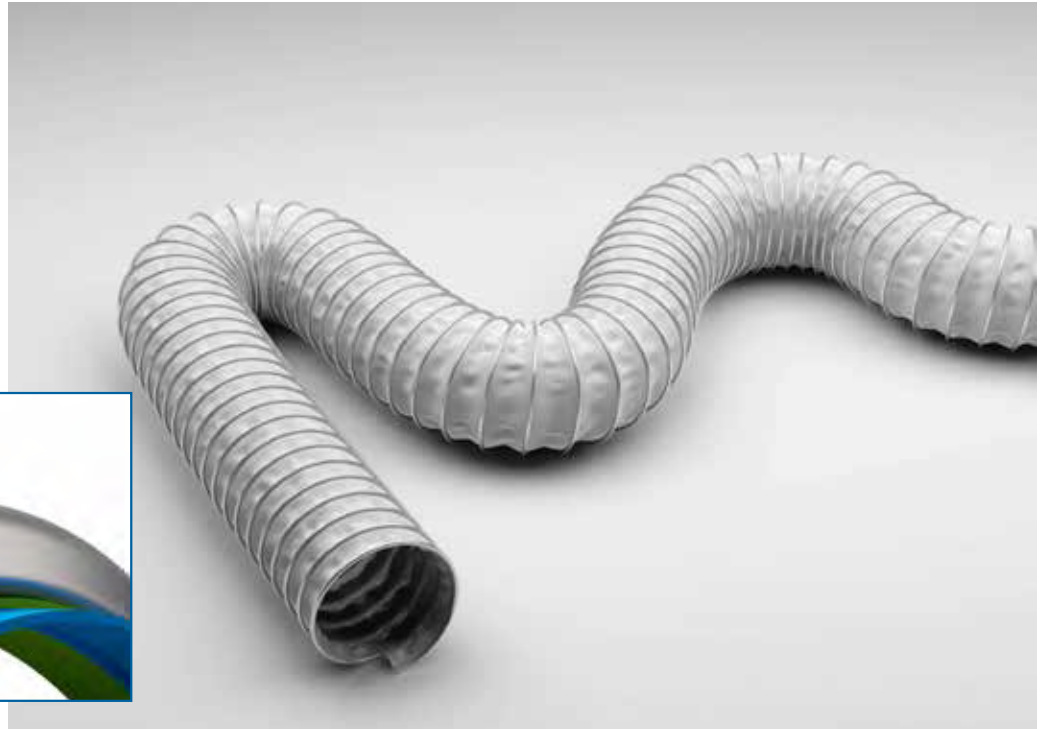
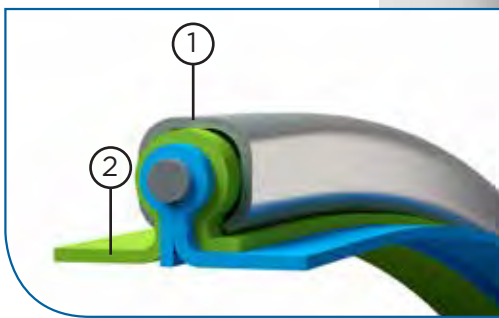
Heat-Shrink Cuff



Hose Reducer, symmetrical

Master-Clip SILICON

Medium and high temperature hose for temperatures up to +300°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: silicone-coated glass-fibre fabric

Applications

- engine manufacturing
- hot and cold air conveyance
- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- good temperature resistance
- limited vibration-proof
- extremely compressable to approx. 1:6
- smallest bending radii
- highly flexible
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- UV/ozone-proof
- extremely lightweight

Temperature Range

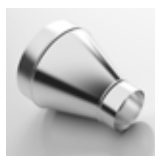
- -60°C to +300°C
- peaks to +350°C*



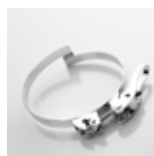
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,88	0,37	24	0,4	223-040-116	15
45	0,87	0,35	27	0,4	223-045-116	15
50	0,85	0,31	30	0,4	223-050-116	15
55	0,78	0,26	33	0,4	223-055-116	15
60	0,68	0,22	36	0,5	223-060-116	15
65	0,59	0,19	39	0,5	223-065-116	15
70	0,53	0,16	42	0,5	223-070-116	15
75	0,47	0,14	45	0,6	223-075-116	15
80	0,43	0,12	48	0,6	223-080-116	15
90	0,36	0,1	54	0,6	223-090-116	15
100	0,3	0,08	60	0,6	223-100-116	15
110	0,26	0,07	66	0,7	223-110-116	15
120	0,22	0,06	72	0,7	223-120-116	15
125	0,21	0,05	75	0,8	223-125-116	15
130	0,2	0,05	78	0,8	223-130-116	15
140	0,18	0,04	84	0,8	223-140-116	15
150	0,16	0,04	90	0,9	223-150-116	15
160	0,14	0,03	96	0,9	223-160-116	15
170	0,13	0,03	102	0,9	223-170-116	15
175	0,12	0,03	105	1	223-175-116	15
180	0,12	0,02	108	1	223-180-116	15
200	0,1	0,02	120	1,2	223-200-116	15
215	0,09	0,02	151	1,3	223-215-116	15
225	0,08	0,02	158	1,4	223-225-116	15
250	0,07	0,01	175	1,6	223-250-116	15
275	0,06	0,01	193	1,9	223-275-116	15
300	0,05	0,01	210	2,1	223-300-116	15
315	0,05	0,01	221	2,1	223-315-116	15
325	0,05	0,01	228	2,2	223-325-116	15
350	0,04	0,01	245	2,5	223-350-116	15
375	0,04	0,01	263	2,9	223-375-116	15
400	0,03	0,01	280	3,1	223-400-116	15
450	0,03	0,01	360	3,6	223-450-116	15
500	0,02	0,01	400	4,1	223-500-116	15
550	0,02	0,01	440	4,6	223-550-116	15
600	0,02	0,01	480	5,1	223-600-116	10
700	0,01	0,01	560	6	223-700-116	10
800	0,01	0,01	640	6,9	223-800-116	10
900	0,01	0,01	720	7,8	223-900-116	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



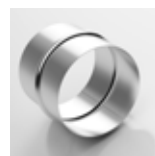
Hose Reducer, symmetrical



Clip-Grip quick action clamp



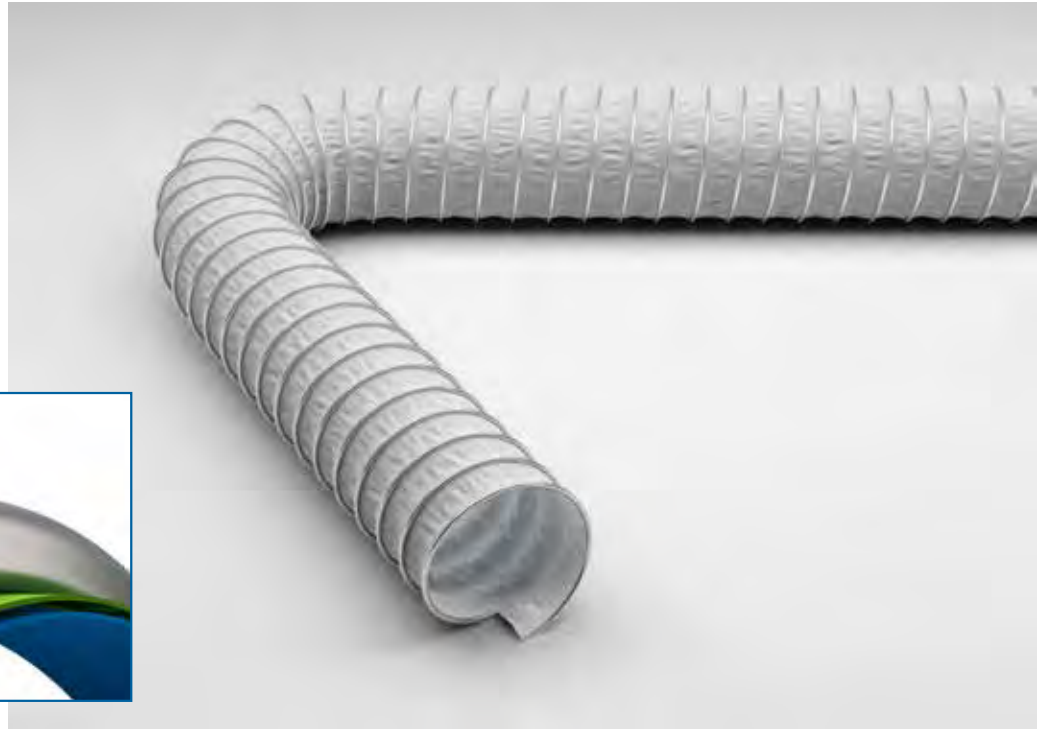
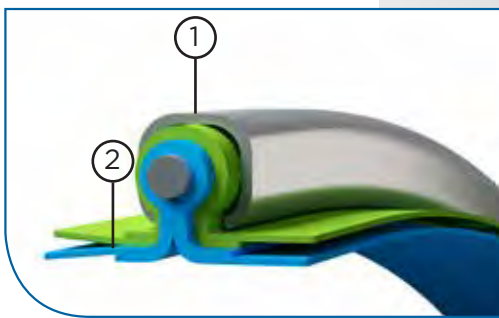
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip ISO-SILICON

Medium and high temperature hose for temperatures up to +300°C, two layers



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 hose wall: two layers
 - inner layer: heat resistant impregnated glass fabric
 - outer layer: Silicon coated glass fabric

Applications

- engine manufacturing
- hot and cold air conveyance
- extractor units with greater suction performance
- machine manufacturing
- automotive manufacturing
- low pressure range
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- outer chafing protection spiral
- good temperature resistance
- limited vibration-proof
- extremely compressable to approx. 1:4
- super lightweight
- smallest bending radii
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- UV/ozone-proof

Temperature Range

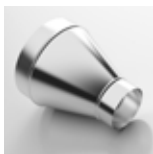
- -60°C to +300°C
- peaks to +350°C*



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,85	0,38	30	0,5	224-050-116	15
55	0,78	0,31	33	0,5	224-055-116	15
60	0,68	0,26	36	0,6	224-060-116	15
65	0,59	0,22	39	0,6	224-065-116	15
70	0,53	0,19	42	0,6	224-070-116	15
75	0,47	0,17	45	0,7	224-075-116	15
80	0,43	0,15	48	0,7	224-080-116	15
90	0,36	0,12	54	0,7	224-090-116	15
100	0,3	0,09	60	0,7	224-100-116	15
110	0,26	0,08	66	0,8	224-110-116	15
120	0,22	0,07	72	0,8	224-120-116	15
125	0,21	0,06	75	0,9	224-125-116	15
130	0,2	0,06	78	0,9	224-130-116	15
140	0,18	0,05	84	0,9	224-140-116	15
150	0,16	0,04	90	1	224-150-116	15
160	0,14	0,04	96	1	224-160-116	15
170	0,13	0,03	102	1	224-170-116	15
175	0,12	0,03	105	1,1	224-175-116	15
180	0,12	0,03	108	1,1	224-180-116	15
200	0,1	0,02	120	1,3	224-200-116	15
215	0,09	0,02	151	1,4	224-215-116	15
225	0,08	0,02	158	1,6	224-225-116	15
250	0,07	0,02	175	1,8	224-250-116	15
275	0,06	0,01	193	2,1	224-275-116	15
300	0,05	0,01	210	2,3	224-300-116	15
315	0,05	0,01	221	2,3	224-315-116	15
325	0,05	0,01	228	2,4	224-325-116	15
350	0,04	0,01	245	2,8	224-350-116	15
375	0,04	0,01	263	3,2	224-375-116	15
400	0,03	0,01	280	3,4	224-400-116	15
450	0,03	0,01	360	4	224-450-116	15
500	0,02	0,01	400	4,5	224-500-116	15
550	0,02	0,01	440	5,1	224-550-116	10
600	0,02	0,01	480	5,6	224-600-116	10
700	0,01	0,01	560	6,6	224-700-116	10
800	0,01	0,01	640	7,6	224-800-116	10
900	0,01	0,01	720	8,6	224-900-116	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



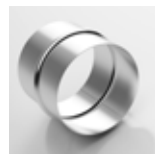
Hose Reducer, symmetrical



Clip-Grip quick action clamp



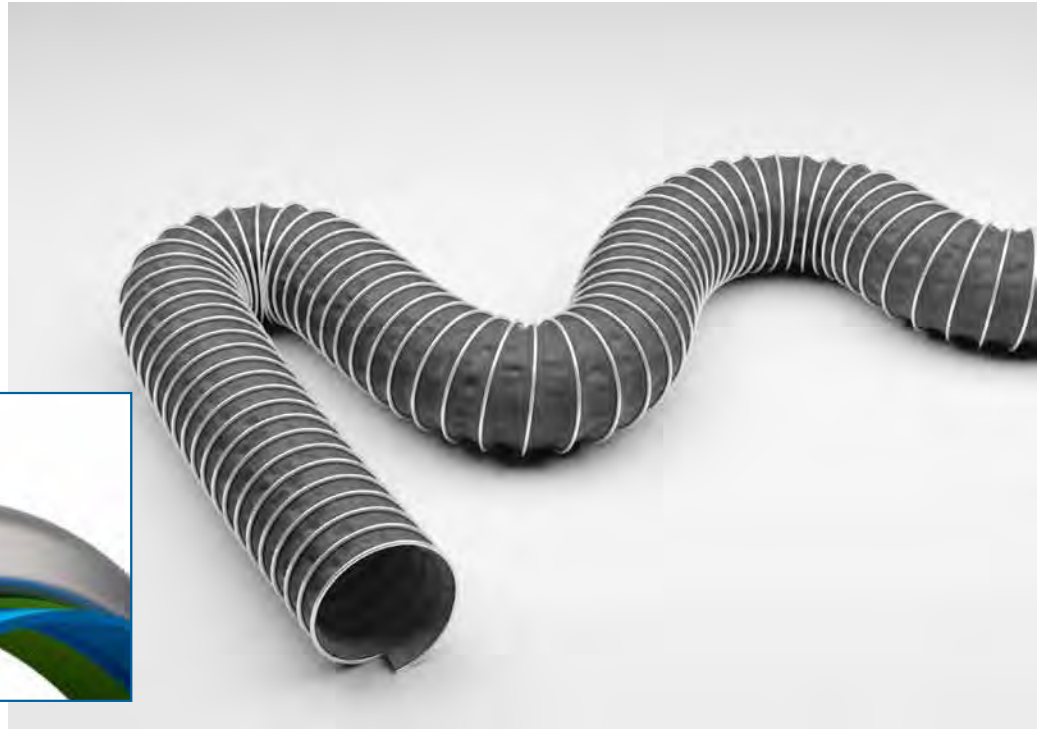
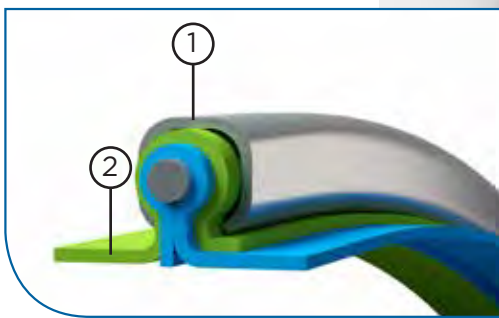
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 300

Medium and high temperature hose up to +300°C, silicon-free, highly flexible



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 Wall: special glass fabric coating

Applications

- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- exhaust gas extraction (esp. diesel engines)
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- hardly inflammable / self-extinguishing
- primarily suitable as exhaust hose
- silicone-free
- hydrolysis-resistant
- No gas emission during commissioning
- light
- extremely compressible to approx. 1:6
- vibration-proof
- smallest bending radii
- highly flexible
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- UV-resistant acc. to ISO EN 105 B02
- Ozone-resistant

Temperature Range

- -20°C to +300°C for vacuum applications
- peaks to +350°C*



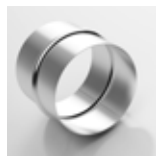
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,39	30	0,4	233-050-102	15
55	on request	0,32	33	0,4	233-055-102	15
60	on request	0,27	36	0,5	233-060-102	15
65	on request	0,23	39	0,5	233-065-102	15
70	on request	0,2	42	0,5	233-070-102	15
75	on request	0,18	45	0,6	233-075-102	15
80	on request	0,15	48	0,6	233-080-102	15
90	on request	0,12	54	0,6	233-090-102	15
100	on request	0,1	60	0,6	233-100-102	15
110	on request	0,08	66	0,7	233-110-102	15
120	on request	0,07	72	0,7	233-120-102	15
125	on request	0,06	75	0,8	233-125-102	15
130	on request	0,07	78	0,8	233-130-102	15
140	on request	0,05	84	0,8	233-140-102	15
150	on request	0,04	90	0,9	233-150-102	15
160	on request	0,09	96	0,9	233-160-102	15
170	on request	0,03	102	0,9	233-170-102	15
175	on request	0,03	105	1	233-175-102	15
180	on request	0,03	108	1	233-180-102	15
200	on request	0,03	120	1,2	233-200-102	15
215	on request	0,02	151	1,3	233-215-102	15
225	on request	0,02	158	1,4	233-225-102	15
250	on request	0,02	175	1,6	233-250-102	15
275	on request	0,01	193	1,9	233-275-102	15
300	on request	0,01	210	2,1	233-300-102	15
325	on request	0,01	228	2,2	233-325-102	15
350	on request	0,01	245	2,5	233-350-102	15
375	on request	0,01	263	2,9	233-375-102	15
400	on request	0,01	280	3,1	233-400-102	15
450	on request	0,01	360	3,6	233-450-102	15
500	on request	0,01	400	4,1	233-500-102	15
550	on request	0,01	440	4,6	233-550-102	10
600	on request	0,01	480	5,1	233-600-102	10
700	on request	0,01	560	6	233-700-102	10
800	on request	0,01	640	6,9	233-800-102	10
900	on request	0,01	720	7,8	233-900-102	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Hose Reducer, symmetrical



Hose Connector



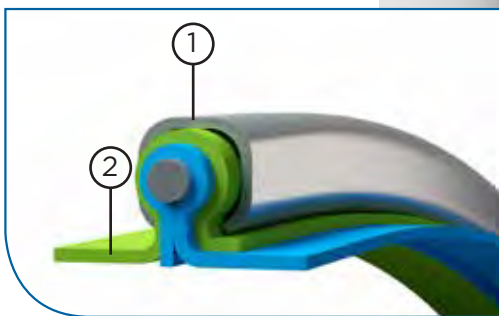
Clip-Grip Hose clamp, screwable



Clip-Grip quick action clamp

Master-Clip CAR

Medium and high temperature hose for temperatures up to +300°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: special-coated textile high-temperature fabric

Applications

- suction of engine exhaust fumes up to max.+300 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- exhaust gas extraction (esp. diesel engines)
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- very good temperature resistance
- outer chafing protection spiral
- primarily suitable as exhaust hose
- extremely compressible to approx. 1:6
- withstands high mechanical loads
- vibration-proof
- smallest bending radii
- highly flexible
- extremely lightweight
- abrasion-resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- from -60°C to +300 °C (Exhaust temperatures) with appropriate use if exhaust regulators and sufficient air supply (approx. 50%)
- peaks to +350°C*



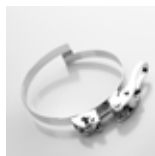
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,36	23	0,5	225-038-120	20
40	0,93	0,35	24	0,5	225-040-120	20
45	0,92	0,33	27	0,5	225-045-120	20
50	0,9	0,31	30	0,5	225-050-120	20
55	0,85	0,26	33	0,6	225-055-120	20
60	0,78	0,22	36	0,6	225-060-120	20
65	0,68	0,19	39	0,7	225-065-120	20
70	0,67	0,16	42	0,7	225-070-120	20
75	0,62	0,14	45	0,8	225-075-120	20
80	0,61	0,12	48	0,8	225-080-120	20
90	0,56	0,1	54	0,8	225-090-120	20
100	0,51	0,08	60	0,9	225-100-120	20
110	0,48	0,07	66	0,9	225-110-120	20
120	0,36	0,06	72	1	225-120-120	20
125	0,33	0,05	75	1	225-125-120	20
130	0,28	0,05	78	1,1	225-130-120	20
140	0,25	0,04	84	1,1	225-140-120	20
150	0,22	0,04	90	1,2	225-150-120	20
160	0,21	0,03	96	1,2	225-160-120	20
170	0,19	0,03	102	1,3	225-170-120	20
175	0,19	0,03	105	1,4	225-175-120	20
180	0,17	0,02	126	1,4	225-180-120	20
200	0,14	0,02	140	1,6	225-200-120	20
215	0,13	0,02	151	1,7	225-215-120	20
225	0,12	0,02	158	1,8	225-225-120	20
250	0,1	0,01	175	2	225-250-120	20
275	0,08	0,01	193	2,1	225-275-120	20
300	0,07	0,01	210	2,2	225-300-120	20
315	0,06	0,01	221	2,2	225-315-120	20
325	0,06	0,01	228	2,3	225-325-120	20
350	0,06	0,01	245	2,6	225-350-120	20
375	0,05	0,01	300	2,9	225-375-120	20
400	0,05	0,01	320	3,1	225-400-120	20
450	0,05	0,01	360	3,6	225-450-120	20
500	0,04	0,01	400	4,1	225-500-120	20
550	0,04	0,01	440	4,6	225-550-120	20
600	0,04	0,01	480	5,1	225-600-120	15
700	0,03	0,01	560	6	225-700-120	15
800	0,02	0,01	640	6,9	225-800-120	15
900	0,02	0,01	720	7,8	225-900-120	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



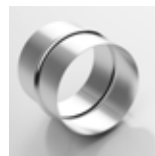
Hose Reducer, symmetrical



Clip-Grip quick action clamp



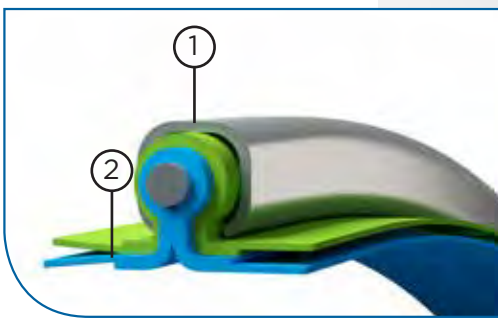
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip ISO-CAR

Medium and high temperature hose for temperatures up to +300°C, two layers



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: double-layered, inner layer with heat resistant impregnated glass fabric, outer layer special-coated, textile high-temperature fabric

Applications

- suction of engine exhaust fumes up to max.+300 °C acc. to exhaust guidelines and sufficient fresh air intake (approx. 50%)
- diesel engine test-benches with higher extraction performance
- machine manufacturing
- automotive manufacturing
- low pressure range
- extractor units
- hot air
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- primarily suitable as exhaust hose
- good vacuum resistance
- extremely compressable to approx. 1:4
- withstands high mechanical loads
- vibration-proof
- smallest bending radii
- highly flexible
- abrasion-resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- from -60°C to +300 °C (Exhaust temperatures) with appropriate use if exhaust regulators and sufficient air supply (approx. 50%)
- peaks to +350°C*



DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	0,94	0,44	23	0,55	226-038-120	20
40	0,93	0,43	24	0,55	226-040-120	20
45	0,92	0,41	27	0,6	226-045-120	20
50	0,9	0,38	30	0,6	226-050-120	20
55	0,85	0,33	33	0,7	226-055-120	20
60	0,78	0,29	36	0,7	226-060-120	20
65	0,67	0,26	39	0,8	226-065-120	20
70	0,67	0,22	42	0,9	226-070-120	20
75	0,62	0,21	45	1	226-075-120	20
80	0,61	0,19	48	1	226-080-120	20
90	0,56	0,16	54	1,2	226-090-120	20
100	0,51	0,13	60	1,3	226-100-120	20
110	0,48	0,11	66	1,3	226-110-120	20
120	0,36	0,09	72	1,4	226-120-120	20
125	0,33	0,08	75	1,4	226-125-120	20
130	0,28	0,08	78	1,6	226-130-120	20
140	0,25	0,07	84	1,6	226-140-120	20
150	0,22	0,06	90	1,8	226-150-120	20
160	0,21	0,05	96	1,8	226-160-120	20
170	0,19	0,05	102	2	226-170-120	20
175	0,19	0,04	105	2,1	226-175-120	20
180	0,17	0,04	126	2,1	226-180-120	20
200	0,15	0,03	140	2,4	226-200-120	20
215	0,13	0,03	151	1,9	226-215-120	20
225	0,12	0,03	158	2	226-225-120	20
250	0,1	0,02	175	2,2	226-250-120	20
275	0,08	0,02	193	2,3	226-275-120	20
300	0,07	0,02	210	2,4	226-300-120	20
325	0,06	0,01	228	2,5	226-325-120	20
350	0,06	0,01	245	2,9	226-350-120	20
375	0,05	0,01	300	3,2	226-375-120	20
400	0,05	0,01	320	3,4	226-400-120	20
450	0,05	0,01	360	4	226-450-120	20
500	0,04	0,01	400	4,5	226-500-120	20
550	0,04	0,01	440	5,1	226-550-120	20
600	0,04	0,01	480	5,6	226-600-120	15
700	0,03	0,01	560	6,6	226-700-120	15
800	0,02	0,01	640	7,6	226-800-120	15
900	0,02	0,01	720	8,6	226-900-120	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



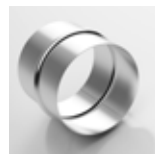
Hose Reducer, symmetrical



Clip-Grip quick action clamp



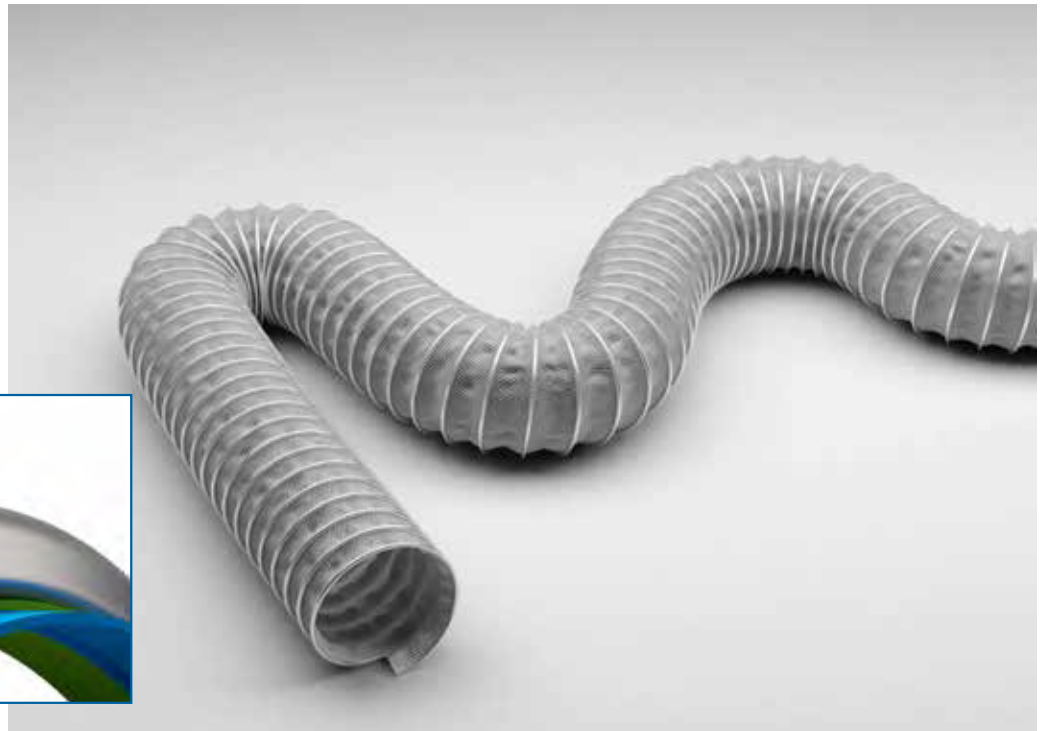
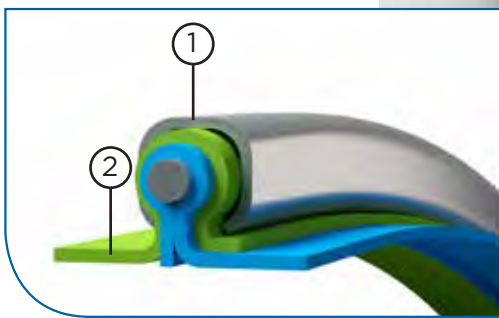
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 400

Medium and high temperature hose for temperatures up to +400°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: special-coated high-temperature fabric, reinforced with integrated VA wire

Applications

- oven manufacturing
- heat protection
- mining and steel industry
- primarily suitable as suction hose
- limited suitability for exhaust fume extraction
- machine manufacturing
- low pressure range
- extractor units
- hot air
- smoke extractors

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- increased vacuum resistance via integrated reinforcement components
- silicone-free
- limited suitability for long-term kink movements
- extremely compressible to approx. 1:6
- smallest bending radii
- extremely lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

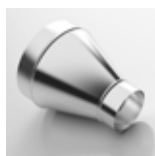
- -20°C to +400°C for vacuum applications
- peaks to +450°



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
38	on request	0,4	23	0,5	227-038-111	20
40	on request	0,39	24	0,5	227-040-111	20
45	on request	0,37	27	0,5	227-045-111	20
50	on request	0,35	30	0,5	227-050-111	20
55	on request	0,29	33	0,6	227-055-111	20
60	on request	0,24	36	0,6	227-060-111	20
65	on request	0,21	39	0,7	227-065-111	20
70	on request	0,17	42	0,7	227-070-111	20
75	on request	0,15	45	0,8	227-075-111	20
80	on request	0,14	48	0,8	227-080-111	20
90	on request	0,11	54	0,8	227-090-111	20
100	on request	0,09	60	0,8	227-100-111	20
110	on request	0,07	66	0,9	227-110-111	20
120	on request	0,06	72	0,9	227-120-111	20
125	on request	0,05	75	1	227-125-111	20
130	on request	0,05	78	1	227-130-111	20
140	on request	0,05	84	1	227-140-111	20
150	on request	0,04	90	1,1	227-150-111	20
160	on request	0,03	96	1,1	227-160-111	20
170	on request	0,03	102	1,1	227-170-111	20
175	on request	0,03	105	1,3	227-175-111	20
180	on request	0,03	108	1,3	227-180-111	20
200	on request	0,02	120	1,5	227-200-111	20
215	on request	0,02	151	1,6	227-215-111	20
225	on request	0,02	158	1,8	227-225-111	20
250	on request	0,02	175	2	227-250-111	20
275	on request	0,01	193	2,4	227-275-111	20
300	on request	0,01	210	2,6	227-300-111	20
325	on request	0,01	228	2,8	227-325-111	20
350	on request	0,01	245	3,1	227-350-111	20
375	on request	0,01	263	3,6	227-375-111	20
400	on request	0,01	280	3,9	227-400-111	20
450	on request	0,01	360	4,5	227-450-111	20
500	on request	0,01	400	5,1	227-500-111	20
550	on request	0,01	440	5,8	227-550-111	20
600	on request	0,01	480	6,4	227-600-111	15
700	on request	0,01	560	7,5	227-700-111	15
800	on request	0,01	640	8,6	227-800-111	15
900	on request	0,01	720	9,8	227-900-111	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



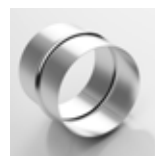
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip KAPTON®

Medium and high temperature hose for temperatures up to +400°C, excellent chemical resistance



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: one-sided KAPTON®-clad glass fabric

Applications

- suction of aggressive gases at high temperatures
- exhaust gas routing in gauge pressure and low pressure range
- vehicle and engine manufacturing
- exhaust gas extraction for high-performance engine test-benches in the automotive industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- very good chemical resistance (similar to Master-Clip PTFE hoses, but with much greater temperature range)
- good vacuum resistance
- high gas resistance in low pressure/vacuum range
- outer chafing protection spiral
- smallest bending radii
- highly flexible
- extremely lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- -260°C to +400°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	0,9	0,37	30	0,8	253-050-110	15
55	0,82	0,33	33	0,8	253-055-110	15
60	0,7	0,3	36	0,8	253-060-110	15
65	0,63	0,28	39	0,9	253-065-110	15
70	0,55	0,25	42	0,9	253-070-110	15
75	0,5	0,24	45	0,9	253-075-110	15
80	0,45	0,21	48	1	253-080-110	15
90	0,4	0,2	54	1	253-090-110	15
100	0,35	0,16	60	1	253-100-110	15
110	0,3	0,13	66	1,1	253-110-110	15
120	0,28	0,11	72	1,1	253-120-110	15
125	0,27	0,1	75	1,3	253-125-110	15
130	0,26	0,09	78	1,3	253-130-110	15
140	0,2	0,08	84	1,3	253-140-110	15
150	0,17	0,07	90	1,4	253-150-110	15
160	0,16	0,06	96	1,4	253-160-110	15
170	0,16	0,06	102	1,4	253-170-110	15
175	0,15	0,05	105	1,6	253-175-110	15
180	0,13	0,05	108	1,6	253-180-110	15
200	0,12	0,04	120	1,8	253-200-110	15
215	0,12	0,04	151	2	253-215-110	15
225	0,11	0,03	158	2,2	253-225-110	15
250	0,1	0,03	175	2,5	253-250-110	15
275	0,09	0,02	193	2,9	253-275-110	15
300	0,08	0,02	210	3,2	253-300-110	15
315	0,07	0,02	221	3,3	253-315-110	15
325	0,06	0,02	228	3,5	253-325-110	15
350	0,05	0,01	245	3,9	253-350-110	15
375	0,04	0,01	263	4,4	253-375-110	15
400	0,04	0,01	280	4,9	253-400-110	15
450	0,03	0,01	360	5,7	253-450-110	10
500	0,03	0,01	400	6,5	253-500-110	10
550	0,03	0,01	440	7,3	253-550-110	10
600	0,02	0,01	480	8,2	253-600-110	10
700	0,01	0,01	560	9,6	253-700-110	10
800	0,01	0,01	640	11	253-800-110	10
900	0,01	0,01	720	12,5	253-900-110	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



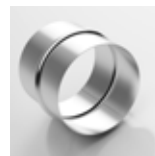
Hose Reducer, symmetrical



Clip-Grip quick action clamp



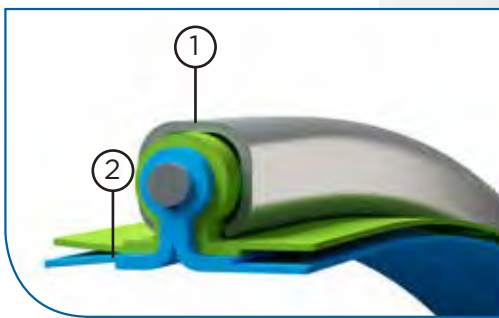
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 450

Exhaust gas hose for exhaust gas temperatures up to +450°C, two layers



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: double-layered, inner layer with heat resistant impregnated glass fabric and outer layer with special-coated high-temperature fabric reinforced with integrated VA wire

Applications

- diesel engine test-benches with higher extraction performance
- hot air conveyance
- engine manufacturing
- exhaust gas extraction
- machine manufacturing
- automotive manufacturing
- low pressure range
- smoke extractors
- defence systems
- aircraft manufacturing

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- extremely flexible
- hardly inflammable
- very good temperature resistance
- primarily suitable as exhaust hose
- increased vacuum resistance via integrated reinforcement components
- outer chafing protection spiral
- small bending radii
- withstands high mechanical loads
- super lightweight
- abrasion-resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- peaks to +500°C
- -20°C to +450°C for vacuum applications



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,35	30	0,59	231-050-111	15
55	on request	0,29	33	0,65	231-055-111	15
60	on request	0,24	36	0,63	231-060-111	15
65	on request	0,21	39	0,68	231-065-111	15
70	on request	0,17	42	0,73	231-070-111	15
75	on request	0,15	45	0,78	231-075-111	15
80	on request	0,14	48	0,83	231-080-111	15
90	on request	0,11	54	0,93	231-090-111	15
100	on request	0,09	60	1,2	231-100-111	15
110	on request	0,07	66	1,31	231-110-111	15
120	on request	0,06	72	1,43	231-120-111	15
125	on request	0,05	75	1,48	231-125-111	15
130	on request	0,05	78	1,54	231-130-111	15
140	on request	0,05	84	1,65	231-140-111	15
150	on request	0,04	90	1,76	231-150-111	15
160	on request	0,03	96	1,87	231-160-111	15
170	on request	0,03	102	1,99	231-170-111	15
175	on request	0,03	105	2,04	231-175-111	15
180	on request	0,03	108	2,1	231-180-111	15
200	on request	0,02	120	2,32	231-200-111	15
215	on request	0,02	151	2,78	231-215-111	15
225	on request	0,02	158	2,9	231-225-111	15
250	on request	0,02	175	3,21	231-250-111	15
275	on request	0,01	193	3,52	231-275-111	15
300	on request	0,01	210	3,83	231-300-111	15
315	on request	0,01	221	4,01	231-315-111	15
325	on request	0,01	228	4,14	231-325-111	15
350	on request	0,01	245	4,45	231-350-111	15
375	on request	0,01	263	4,78	231-375-111	15
400	on request	0,01	280	5,09	231-400-111	15
450	on request	0,01	360	5,71	231-450-111	15
500	on request	0,01	400	6,33	231-500-111	15
550	on request	0,01	440	6,94	231-550-111	10
600	on request	0,01	480	7,56	231-600-111	10
700	on request	0,01	560	8,8	231-700-111	10
800	on request	0,01	640	10,03	231-800-111	10
900	on request	0,01	720	11,27	231-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



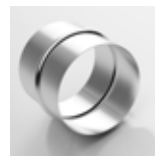
Hose Reducer, symmetrical



Clip-Grip quick action clamp



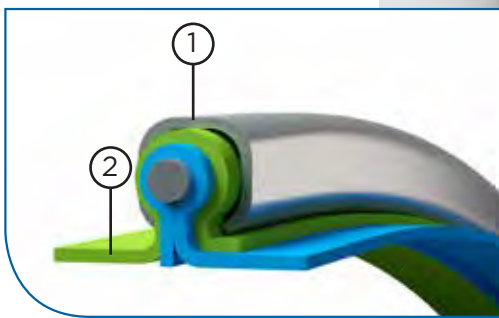
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 500

Medium- and high temperature hose for temperatures up to +500°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: special-coated high-temperature fabric, one-sided clad with stainless steel foil

Applications

- exhaust gas routing in gauge pressure and low pressure range
- vehicle and engine manufacturing
- exhaust gas extraction in automotive industry with higher temperature demands

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- flame-resistant
- flexible
- limited suitability for long-term kink movements
- good vacuum resistance
- high gas resistance in low pressure/vacuum range
- non-flammable
- small bending radii
- extremely lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- -20°C to +500°C
- peaks to +550°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
75	0,62	0,25	45	1,44	228-075-119	10
80	0,61	0,22	48	1,53	228-080-119	10
90	0,56	0,21	54	1,72	228-090-119	10
100	0,51	0,17	60	1,98	228-100-119	10
110	0,48	0,14	66	2,17	228-110-119	10
120	0,36	0,12	72	2,2	228-120-119	10
125	0,33	0,1	75	2,45	228-125-119	10
130	0,28	0,1	78	2,54	228-130-119	10
140	0,25	0,09	84	2,73	228-140-119	10
150	0,22	0,08	90	2,92	228-150-119	10
160	0,21	0,07	96	3,11	228-160-119	10
170	0,19	0,06	102	3,33	228-170-119	10
175	0,185	0,06	105	3,43	228-175-119	10
180	0,17	0,05	108	3,52	228-180-119	10
200	0,15	0,04	120	3,9	228-200-119	10
215	0,12	0,04	151	3,12	228-215-119	10
225	0,12	0,03	158	3,26	228-225-119	10
250	0,1	0,03	175	3,62	228-250-119	10
275	0,08	0,02	193	3,97	228-275-119	10
300	0,07	0,02	210	4,32	228-300-119	10
315	0,06	0,02	221	4,53	228-315-119	10
325	0,06	0,02	228	4,67	228-325-119	10
350	0,6	0,02	245	5,03	228-350-119	10
375	0,05	0,01	263	5,41	228-375-119	10
400	0,05	0,01	280	5,76	228-400-119	10
450	0,05	0,01	360	6,46	228-450-119	6
500	0,04	0,01	400	7,17	228-500-119	6
550	0,04	0,01	440	7,87	228-550-119	6
600	0,04	0,01	480	8,58	228-600-119	6
700	0,03	0,01	560	9,98	228-700-119	6
800	0,02	0,01	640	11,39	228-800-119	6
900	0,02	0,01	720	12,8	228-900-119	6

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



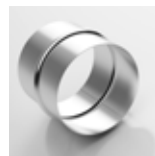
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HTP 500

Exhaust gas hose for exhaust gas temperatures up to +500°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: double hose made of special-coated high-temperature fabrics with additional reinforcements and diffusion barriers

Applications

- exhaust gas routing in gauge pressure range for combustion engines of all types
- manipulators
- compressors
- engine test-benches
- generators

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- pressure resistant to max. 0.3 bar at +500°C
- good structure-borne noise insulation
- temperature resistant to +500 °C
- flexible
- vibration-proof

Temperature Range

- -20°C to +500°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
80	0,3	200	104	2,88	243-080-119	3
100	0,25	250	124	3,55	243-100-119	3
125	0,2	310	149	4,59	243-125-119	3
150	0,15	375	174	5,12	243-150-119	3
200	0,1	500	224	6,41	243-200-119	3
250	0,07	625	274	7,96	243-250-119	3
300	0,05	750	324	9,49	243-300-119	3

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



Clip-Grip quick action clamp

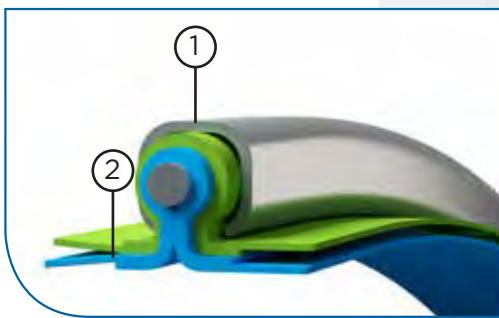


Clip-Grip Hose clamp, screwable

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Master-Clip HT 650

Medium- and high temperature hose for temperatures up to +650°C



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: double-layered, inner and outer layers with special-coated high-temperature fabric reinforced with integrated VA wire

Applications

- oven manufacturing
- exhaust gas extraction for high-performance engine test-benches in the automotive industry
- automotive and aircraft industry
- shipbuilding industry
- infrared drying units
- heat protection
- mining and steel industry
- machine manufacturing
- smoke extractors

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- flame-resistant
- increased vibration resistance via integrated reinforcement components
- silicone-free
- flexible
- limited suitability for long-term kink movements
- good vacuum resistance
- axial compressible
- small bending radii
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- -20°C to +650°C for vacuum applications
- peaks to +750°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
50	on request	0,39	30	1,1	229-050-111	15
55	on request	0,34	33	1,19	229-055-111	15
60	on request	0,31	36	1,29	229-060-111	15
65	on request	0,29	39	1,38	229-065-111	15
70	on request	0,26	42	1,47	229-070-111	15
75	on request	0,25	45	1,57	229-075-111	15
80	on request	0,22	48	1,66	229-080-111	15
90	on request	0,21	54	1,85	229-090-111	15
100	on request	0,17	60	1,57	229-100-111	15
110	on request	0,14	66	1,71	229-110-111	15
120	on request	0,12	72	1,85	229-120-111	15
125	on request	0,1	75	1,93	229-125-111	15
130	on request	0,1	78	2	229-130-111	15
140	on request	0,09	84	2,14	229-140-111	15
150	on request	0,08	90	2,29	229-150-111	15
160	on request	0,07	96	2,43	229-160-111	15
170	on request	0,06	102	2,57	229-170-111	15
175	on request	0,06	105	2,65	229-175-111	15
180	on request	0,05	108	2,72	229-180-111	15
200	on request	0,04	120	3,01	229-200-111	15
215	on request	0,04	151	3,22	229-215-111	15
225	on request	0,03	158	3,36	229-225-111	15
250	on request	0,03	175	3,72	229-250-111	15
275	on request	0,02	193	4,08	229-275-111	15
300	on request	0,02	210	4,44	229-300-111	15
315	on request	0,02	221	4,66	229-315-111	15
325	on request	0,02	228	4,8	229-325-111	15
350	on request	0,02	245	5,16	229-350-111	15
375	on request	0,01	263	5,55	229-375-111	15
400	on request	0,01	280	5,91	229-400-111	15
450	on request	0,01	360	6,63	229-450-111	15
500	on request	0,01	400	7,35	229-500-111	15
550	on request	0,01	440	8,07	229-550-111	10
600	on request	0,01	480	8,79	229-600-111	10
700	on request	0,01	560	10,23	229-700-111	10
800	on request	0,01	640	11,67	229-800-111	10
900	on request	0,01	720	13,11	229-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



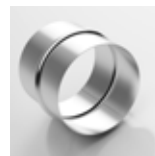
Hose Reducer, symmetrical



Clip-Grip quick action clamp



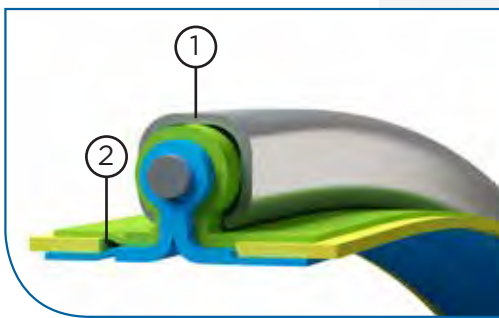
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HT 100

Medium- and high temperature hose for temperatures up to +1100°C



Material

- 1 clamp profile spiral: VA steel band (1.4512)
- 2 wall: three-layered, inner layer: stainless steel wire fabric, outer layer: high-temperature, special-coated with heat stabilisers reinforced with VA wire, intermediate layer: thermo-textile fabric

Applications

- oven manufacturing
- automotive and aircraft industry
- shipbuilding industry
- heat protection
- mining and steel industry
- exhaust gas extraction for high performance test-benches in the automotive industry
- suction/extraction of turbojet engine exhaust fumes
- exhaust gas extraction for larger capacity engines
- extreme temperature demands
- suction during spark formation
- machine manufacturing
- defence systems

Available on request

- available on request in other lengths, sizes, colours and spiral intervals

Properties

- very good temperature resistance
- outer chafing protection spiral
- flame-resistant
- silicone-free
- flexible
- limited suitability for long-term kink movements
- small bending radii
- high tension-proof connection of wall-lining and spiral via special clamp mechanism

Temperature Range

- 20°C to +1100°C for vacuum applications



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
75	on request	0,3	45	1,68	230-075-111	15
80	on request	0,27	48	1,78	230-080-111	15
90	on request	0,25	54	1,99	230-090-111	15
100	on request	0,2	60	1,78	230-100-111	15
110	on request	0,16	66	1,94	230-110-111	15
120	on request	0,14	72	2,11	230-120-111	15
125	on request	0,12	75	2,19	230-125-111	15
130	on request	0,12	78	2,27	230-130-111	15
140	on request	0,1	84	2,44	230-140-111	15
150	on request	0,09	90	2,6	230-150-111	15
160	on request	0,08	96	2,77	230-160-111	15
170	on request	0,07	102	2,93	230-170-111	15
175	on request	0,07	105	3,02	230-175-111	15
180	on request	0,06	126	3,1	230-180-111	15
200	on request	0,05	140	3,43	230-200-111	15
215	on request	0,05	151	3,68	230-215-111	10
225	on request	0,04	158	3,84	230-225-111	10
250	on request	0,03	175	4,25	230-250-111	10
275	on request	0,03	193	4,67	230-275-111	10
300	on request	0,02	210	5,08	230-300-111	10
315	on request	0,02	221	5,33	230-315-111	10
325	on request	0,02	228	5,49	230-325-111	10
350	on request	0,02	245	5,9	230-350-111	10
375	on request	0,02	300	6,35	230-375-111	10
400	on request	0,01	320	6,76	230-400-111	10
450	on request	0,01	360	7,59	230-450-111	10
500	on request	0,01	400	8,41	230-500-111	10
550	on request	0,01	440	9,24	230-550-111	10
600	on request	0,01	480	10,06	230-600-111	10
700	on request	0,01	560	11,72	230-700-111	10
800	on request	0,01	640	13,37	230-800-111	10
900	on request	0,01	720	15,02	230-900-111	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



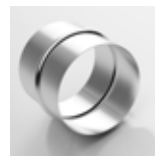
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector



9

Chemical-Resistant Hoses

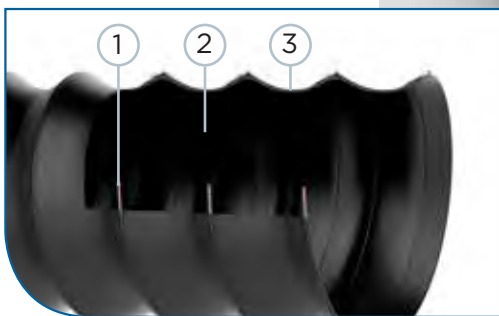
Suction & transport hoses for aggressive gases & fine-particled media such as dusts and powders in the chemicals industry



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PE L-F EL

PE foil hose, lightweight, highly flexible, electroconductive, surface resistance; $< 10^4$ Ohm



Material

- ① spiral: spring steel wire
- ② wall: electroconductive polyethylene
- ③ Film thickness between spirals approx. 0.5mm

Applications

- suction of chemical fumes and gases in ventilation and air conditioning

Available on request

- available on request in other lengths and sizes with print.

Properties

- very good chemical resistance
- surface resistance $< 10^4$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- especially resistant to solvent and other aggressive fumes
- super lightweight
- highly flexible
- smallest bending radii
- halogen and plasticizer-free

Temperature Range

- -40°C to $+60^{\circ}\text{C}$
- peaks to $+80^{\circ}\text{C}$



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. production length m
40	0,45	0,18	28	0,11	668-040-207	25
50	0,4	0,16	35	0,14	668-050-207	25
60	0,4	0,16	42	0,17	668-060-207	25
65	0,35	0,14	45	0,19	668-065-207	25
70	0,3	0,12	49	0,2	668-070-207	25
75	0,3	0,1	53	0,21	668-075-207	25
80	0,3	0,1	56	0,22	668-080-207	25
90	0,25	0,09	63	0,25	668-090-207	25
100	0,2	0,09	70	0,28	668-100-207	25
120	0,2	0,09	82	0,33	668-120-207	25
125	0,2	0,08	85	0,35	668-125-207	25
130	0,2	0,07	91	0,38	668-130-207	25
140	0,1	0,06	97	0,41	668-140-207	25
150	0,1	0,06	100	0,48	668-150-207	25
160	0,1	0,05	115	0,55	668-160-207	25
175	0,09	0,05	123	0,71	668-175-207	25
200	0,08	0,05	140	0,81	668-200-207	25
250	0,05	0,04	175	1,01	668-250-207	25
300	0,03	0,03	210	1,22	668-300-207	25
350	0,02	0,02	245	1,42	668-350-207	25
400	0,02	0,02	280	1,62	668-400-207	25

All data refers to a medium and ambient temperature of +20 °C
* Refers to the inner hose lining
Subject to technical changes and colour deviations.



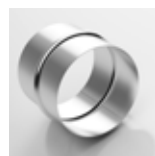
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



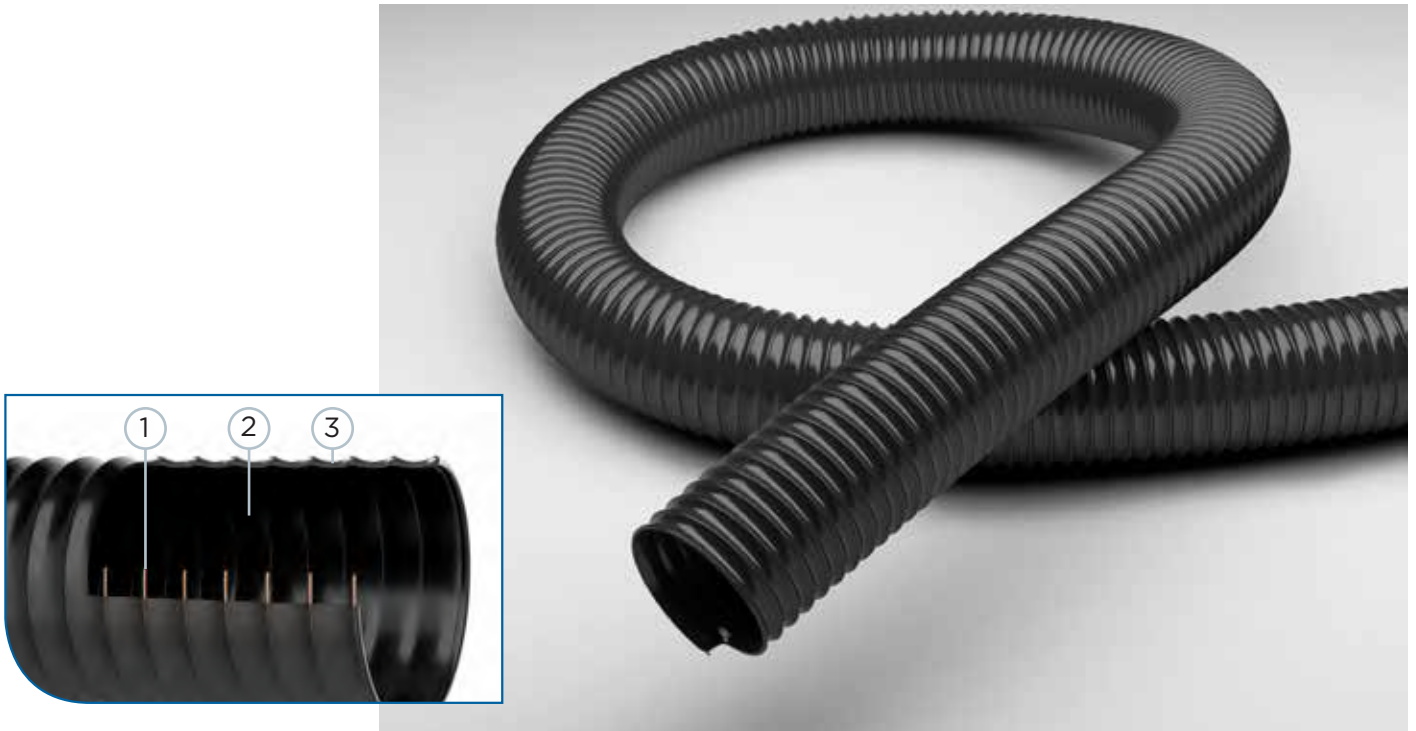
Master-Grip Quick-Fix Clamp



Hose Connector

Master-PE L-EL

PE Suction & Transport Hose, lightweight, highly flexible, electroconductive, surface resistance; 10^4 Ohm



Material

- ① spiral: spring steel wire
- ② wall: electroconductive polyethylene
- ③ wall thickness between spirals approx. 0.7 mm

Applications

- suction & Transport Hose for aggressive gases and liquids
- danger zones, which require electrically conductive hoses
- transport of fine-grained particles, such as dust and powder
- oil mist extraction/suction

Available on request

- available on request in other lengths and sizes with print.

Properties

- very good chemical resistance
- surface resistance $< 10^4$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- high tension/tear-proof
- light
- flexible
- halogen and plasticizer-free
- optimum flow characteristics
- mostly smooth inner lining
- generally good UV and ozone resistance
- oil/petroleum-proof

Temperature Range

- -35°C to $+80^{\circ}\text{C}$
- peaks to $+120^{\circ}\text{C}$



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	outer Ø mm	weight/m kg	article no.	max. production length m
25	1,39	0,94	31	31	0,23	180-025-207	25
32	1,09	0,85	40	40	0,32	180-032-207	25
38	0,91	0,79	46	46	0,35	180-038-207	25
40	0,91	0,79	48	48	0,36	180-040-207	25
45	0,79	0,71	53	53	0,38	180-045-207	25
51	0,72	0,62	58	58	0,41	180-051-207	25
55	0,66	0,53	63	63	0,46	180-055-207	25
60	0,6	0,53	68	68	0,48	180-060-207	25
65	0,54	0,44	73	73	0,58	180-065-207	25
70	0,48	0,44	78	78	0,62	180-070-207	25
76	0,48	0,35	84	84	0,65	180-076-207	25
80	0,42	0,35	88	88	0,69	180-080-207	25
90	0,36	0,26	99	99	0,8	180-090-207	25
102	0,36	0,26	110	110	0,86	180-102-207	25
110	0,3	0,26	119	119	0,93	180-110-207	25
115	0,3	0,26	124	124	0,96	180-115-207	25
120	0,3	0,26	129	129	1,01	180-120-207	25
127	0,3	0,26	135	135	1,07	180-127-207	25
130	0,24	0,26	139	139	1,09	180-130-207	25
140	0,24	0,18	149	149	1,25	180-140-207	25
152	0,24	0,18	161	161	1,34	180-152-207	25
160	0,24	0,18	170	170	1,58	180-160-207	25
170	0,18	0,18	180	180	1,63	180-170-207	25
175	0,18	0,18	185	185	1,68	180-175-207	25
180	0,18	0,18	190	190	1,72	180-180-207	25
203	0,18	0,18	214	214	2,08	180-203-207	25
225	0,12	0,09	235	235	2,31	180-225-207	25
250	0,12	0,09	260	260	2,74	180-250-207	25
275	0,12	0,09	284	284	2,82	180-275-207	25
280	0,12	0,09	290	290	2,84	180-280-207	25
300	0,11	0,08	310	310	2,9	180-300-207	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



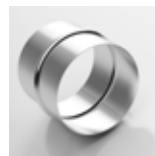
Hose Reducer, symmetrical



Master-Grip Hose Clamp, screwable



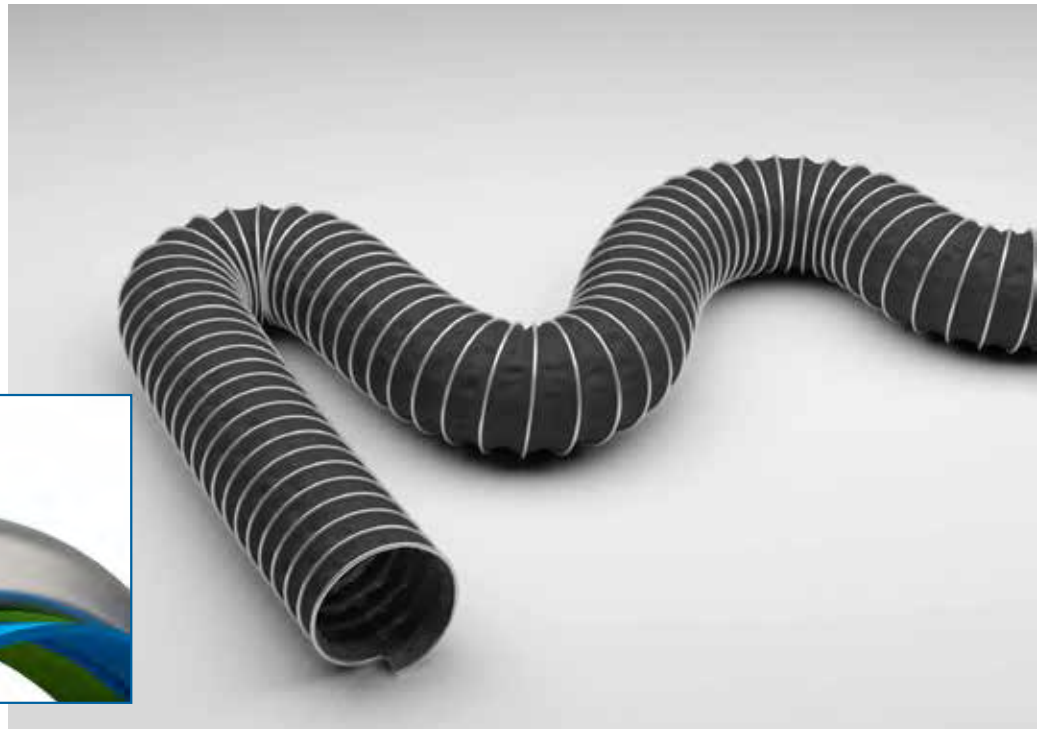
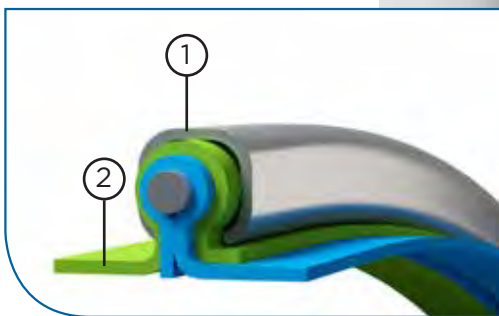
Master-Grip Quick-Fix Clamp



Hose Connector

Master-Clip VINYL EL

Suction & Blower hose made from PVC coated polyester fabric, electroconductive, surface resistance <math> < 10^6 </math> Ohm



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: PVC-coated polyester fabric, electrically conductive <math> < 10^6 </math> Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- suction and conveyance of aggressive media, explosive gases and fumes
- air supply and extraction in explosion-protected areas
- for greater mechanical demands
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- surface resistance <math> < 10^6 </math> Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- robust wall material
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- extremely lightweight

Temperature Range

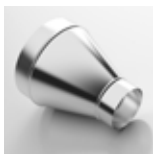
- -20°C to +70°C
- peaks to +80°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
50	0,9	0,31	30	0,55	260-050-207	20
55	0,85	0,26	33	0,6	260-055-207	20
60	0,78	0,22	36	0,64	260-060-207	20
65	0,68	0,19	39	0,69	260-065-207	20
70	0,67	0,16	42	0,74	260-070-207	20
75	0,62	0,14	45	0,79	260-075-207	20
80	0,61	0,12	48	0,84	260-080-207	20
90	0,56	0,11	54	0,94	260-090-207	20
100	0,51	0,1	60	0,77	260-100-207	20
110	0,48	0,08	66	0,85	260-110-207	20
120	0,36	0,07	72	0,93	260-120-207	20
125	0,33	0,06	75	0,97	260-125-207	20
130	0,28	0,06	78	1	260-130-207	20
140	0,25	0,05	84	1,1	260-140-207	20
150	0,22	0,04	90	1,16	260-150-207	20
160	0,21	0,04	96	3,14	260-160-207	20
170	0,19	0,03	102	3,33	260-170-207	20
175	0,185	0,03	105	3,43	260-175-207	20
180	0,172	0,03	108	3,52	260-180-207	20
200	0,148	0,03	120	3,9	260-200-207	20
215	0,128	0,02	151	4,8	260-215-207	20
225	0,115	0,02	158	4,73	260-225-207	20
250	0,1	0,02	175	4,84	260-250-207	20
275	0,08	0,01	193	5,31	260-275-207	20
300	0,07	0,01	210	5,78	260-300-207	20
315	0,06	0,01	221	6,1	260-315-207	20
325	0,06	0,01	228	6,25	260-325-207	20
350	0,06	0,01	245	6,72	260-350-207	20
375	0,05	0,01	263	7,19	260-375-207	20
400	0,05	0,01	280	7,66	260-400-207	20
450	0,05	0,01	360	8,6	260-450-207	20
500	0,04	0,01	400	9,55	260-500-207	20
550	0,04	0,01	440	10,49	260-550-207	20
600	0,04	0,01	480	11,43	260-600-207	15
700	0,03	0,01	560	13,31	260-700-207	15
800	0,02	0,01	640	15,2	260-800-207	15
900	0,01	0,01	720	17,1	260-900-207	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



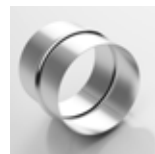
Hose Reducer, symmetrical



Clip-Grip quick action clamp



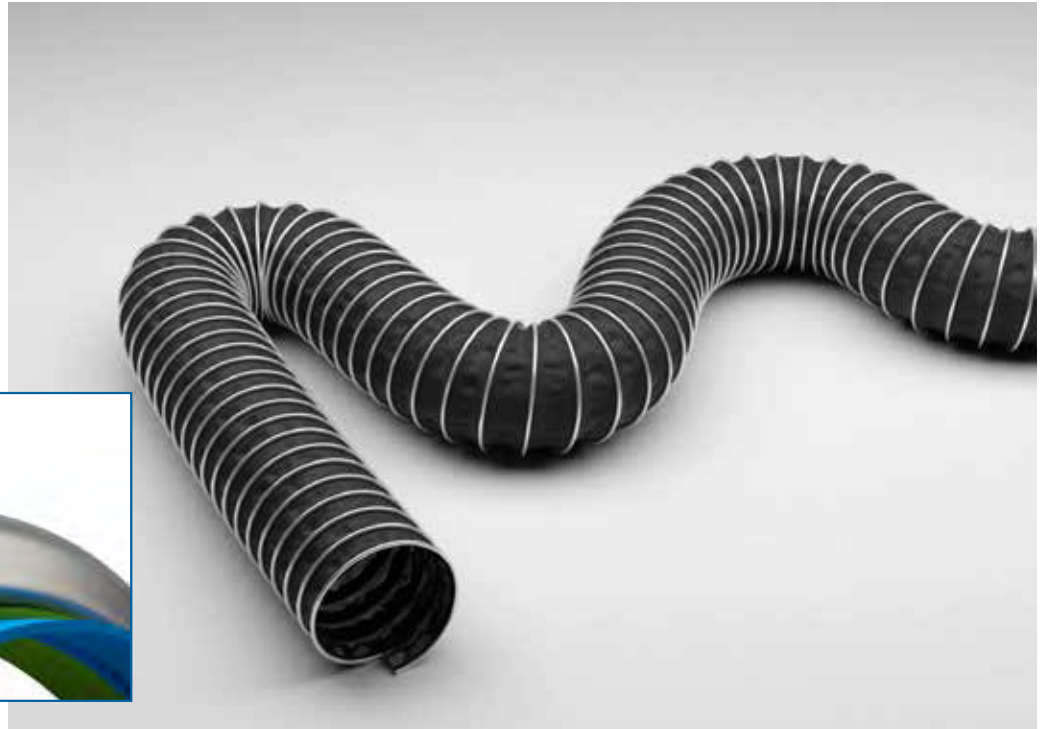
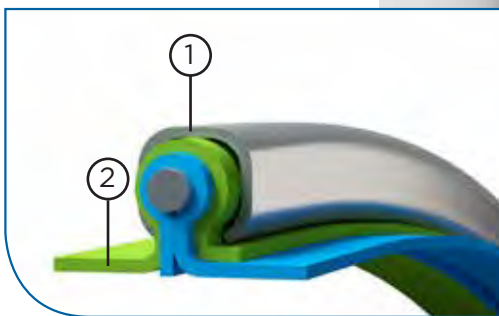
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip NEOPRENE

Medium and high temperature hose for temperatures up to +125°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: neoprene-coated polyester fabric

Applications

- air-conditioning and ventilation systems
- engine manufacturing
- exhaust gas extraction
- suction of aggressive media
- transport of hot and cold air
- automotive manufacturing
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- increased temperature resistance
- vibration-proof
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- good chemical resistance
- extremely lightweight

Temperature Range

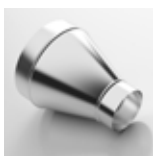
- -35°C to +125°C
- peaks to +150°C



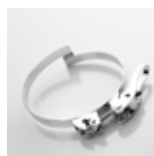
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
38	0,94	0,47	23	0,4	220-038-107	25
40	0,93	0,46	24	0,4	220-040-107	25
45	0,92	0,43	27	0,4	220-045-107	25
50	0,9	0,39	30	0,4	220-050-107	25
55	0,85	0,32	33	0,4	220-055-107	25
60	0,78	0,27	36	0,5	220-060-107	25
65	0,68	0,23	39	0,5	220-065-107	25
70	0,67	0,2	42	0,5	220-070-107	25
75	0,62	0,18	45	0,6	220-075-107	25
80	0,61	0,15	48	0,6	220-080-107	25
90	0,56	0,12	54	0,6	220-090-107	25
100	0,51	0,1	60	0,6	220-100-107	25
110	0,48	0,08	66	0,7	220-110-107	25
120	0,36	0,07	72	0,7	220-120-107	25
125	0,33	0,06	75	0,8	220-125-107	25
130	0,28	0,06	78	0,8	220-130-107	25
140	0,25	0,05	84	0,8	220-140-107	25
150	0,22	0,04	90	0,9	220-150-107	25
160	0,21	0,04	96	0,9	220-160-107	25
170	0,19	0,03	102	0,9	220-170-107	25
175	0,19	0,03	105	1	220-175-107	25
180	0,17	0,03	108	1	220-180-107	25
200	0,15	0,03	120	1,2	220-200-107	25
215	0,13	0,02	151	1,3	220-215-107	25
225	0,12	0,02	158	1,4	220-225-107	25
250	0,1	0,02	175	1,6	220-250-107	25
275	0,08	0,01	193	1,9	220-275-107	25
300	0,07	0,01	210	2,1	220-300-107	25
325	0,06	0,01	228	2,2	220-325-107	25
350	0,06	0,01	245	2,5	220-350-107	25
375	0,05	0,01	263	2,9	220-375-107	25
400	0,05	0,01	280	3,1	220-400-107	25
450	0,05	0,01	360	3,6	220-450-107	25
500	0,04	0,01	400	4,1	220-500-107	25
550	0,04	0,01	440	4,6	220-550-107	25
600	0,04	0,01	480	5,1	220-600-107	20
700	0,03	0,01	560	6	220-700-107	20
800	0,02	0,01	640	6,9	220-800-107	20
900	0,02	0,01	720	7,8	220-900-107	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



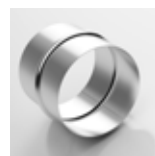
Hose Reducer, symmetrical



Clip-Grip quick action clamp



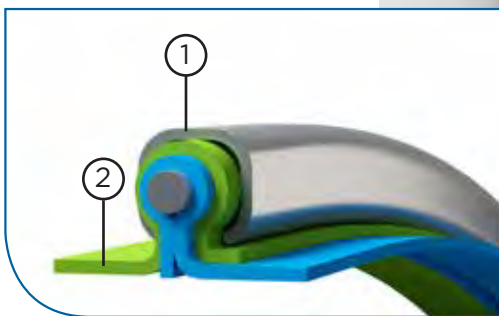
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip HYPALON

Medium and high temperature hose for temperatures up to +175°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: HYPALON®-coated polyester fabric

Applications

- air-conditioning and ventilation systems
- engine manufacturing
- exhaust gas extraction
- suction of aggressive media
- transport of hot and cold air
- granulate drying
- standard industrial hose
- automotive manufacturing
- low pressure range
- extractor units

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- hardly inflammable
- very good chemical resistance
- outer chafing protection spiral
- increased temperature resistance
- vibration-proof
- excellent UV / ozone resistance
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- extremely lightweight

Temperature Range

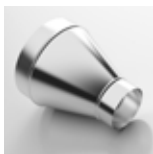
- -40°C to +175°C
- peaks to +190°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
38	0,94	0,47	23	0,4	221-038-107	25
40	0,93	0,46	24	0,4	221-040-107	25
45	0,92	0,43	27	0,4	221-045-107	25
50	0,9	0,39	30	0,4	221-050-107	25
55	0,85	0,32	33	0,4	221-055-107	25
60	0,78	0,27	36	0,5	221-060-107	25
65	0,68	0,23	39	0,5	221-065-107	25
70	0,67	0,2	42	0,5	221-070-107	25
75	0,62	0,18	45	0,6	221-075-107	25
80	0,61	0,15	48	0,6	221-080-107	25
90	0,56	0,12	54	0,6	221-090-107	25
100	0,51	0,1	60	0,6	221-100-107	25
110	0,48	0,08	66	0,7	221-110-107	25
120	0,36	0,07	72	0,7	221-120-107	25
125	0,33	0,06	75	0,8	221-125-107	25
130	0,28	0,06	78	0,8	221-130-107	25
140	0,25	0,05	84	0,8	221-140-107	25
150	0,22	0,04	90	0,9	221-150-107	25
160	0,21	0,04	96	0,9	221-160-107	25
170	0,19	0,03	102	0,9	221-170-107	25
175	0,185	0,03	105	1	221-175-107	25
180	0,172	0,03	108	1	221-180-107	25
200	0,148	0,03	120	1,2	221-200-107	25
215	0,128	0,02	151	1,3	221-215-107	25
225	0,115	0,02	158	1,4	221-225-107	25
250	0,1	0,02	175	1,6	221-250-107	25
275	0,08	0,01	193	1,9	221-275-107	25
300	0,07	0,01	210	2,1	221-300-107	25
325	0,059	0,01	228	2,2	221-325-107	25
350	0,056	0,01	245	2,5	221-350-107	25
375	0,05	0,01	263	2,9	221-375-107	25
400	0,047	0,01	280	3,1	221-400-107	25
450	0,045	0,01	360	3,6	221-450-107	25
500	0,043	0,01	400	4,1	221-500-107	25
550	0,042	0,01	440	4,6	221-550-107	25
600	0,039	0,01	480	5,1	221-600-107	20
700	0,031	0,01	560	6	221-700-107	20
800	0,022	0,01	640	6,9	221-800-107	20
900	0,016	0,01	720	7,8	221-900-107	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



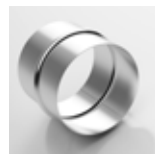
Hose Reducer, symmetrical



Clip-Grip quick action clamp



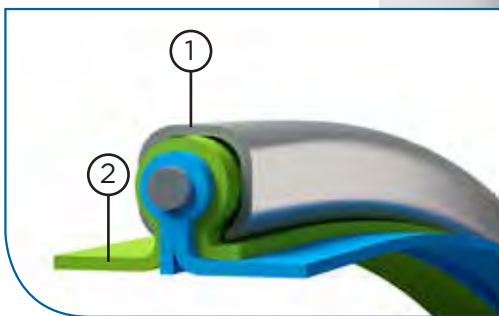
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip VITON

Medium and high temperature hose for temperatures up to +210°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: Viton®-coated polyester fabric

Applications

- paint mist extraction
- suction/extraction of aggressive media in medium temperature range
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good chemical resistance
- outer chafing protection spiral
- increased temperature resistance
- vibration-proof
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- smallest bending radii
- tear-proof
- extremely lightweight
- excellent UV / ozone resistance

Temperature Range

- -25°C to +210°C
- peaks to +240°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
38	0,94	0,47	23	0,4	222-038-119	25
40	0,93	0,46	24	0,4	222-040-119	25
45	0,92	0,43	27	0,4	222-045-119	25
50	0,9	0,39	30	0,4	222-050-119	25
55	0,85	0,32	33	0,4	222-055-119	25
60	0,78	0,27	36	0,5	222-060-119	25
65	0,68	0,23	39	0,5	222-065-119	25
70	0,67	0,2	42	0,5	222-070-119	25
75	0,62	0,18	45	0,6	222-075-119	25
80	0,61	0,15	48	0,6	222-080-119	25
90	0,56	0,12	54	0,6	222-090-119	25
100	0,51	0,1	60	0,6	222-100-119	25
110	0,48	0,08	66	0,7	222-110-119	25
120	0,36	0,07	72	0,7	222-120-119	25
125	0,33	0,06	75	0,8	222-125-119	25
130	0,28	0,06	78	0,8	222-130-119	25
140	0,25	0,05	84	0,8	222-140-119	25
150	0,22	0,04	90	0,9	222-150-119	25
160	0,21	0,04	96	0,9	222-160-119	25
170	0,19	0,03	102	0,9	222-170-119	25
175	0,19	0,03	105	1	222-175-119	25
180	0,17	0,03	108	1	222-180-119	25
200	0,15	0,03	120	1,2	222-200-119	25
215	0,13	0,02	151	1,3	222-215-119	25
225	0,12	0,02	158	1,4	222-225-119	25
250	0,1	0,02	175	1,6	222-250-119	25
275	0,08	0,01	193	1,9	222-275-119	25
300	0,07	0,01	210	2,1	222-300-119	25
325	0,06	0,01	228	2,2	222-325-119	25
350	0,06	0,01	245	2,5	222-350-119	25
375	0,05	0,01	263	2,9	222-375-119	25
400	0,05	0,01	280	3,1	222-400-119	25
450	0,05	0,01	360	3,6	222-450-119	25
500	0,04	0,01	400	4,1	222-500-119	25
550	0,04	0,01	440	4,6	222-550-119	25
600	0,04	0,01	480	5,1	222-600-119	20
700	0,03	0,01	560	6	222-700-119	20
800	0,02	0,01	640	6,9	222-800-119	20
900	0,02	0,01	720	7,8	222-900-119	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



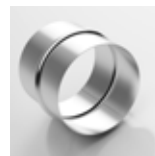
Hose Reducer, symmetrical



Clip-Grip quick action clamp



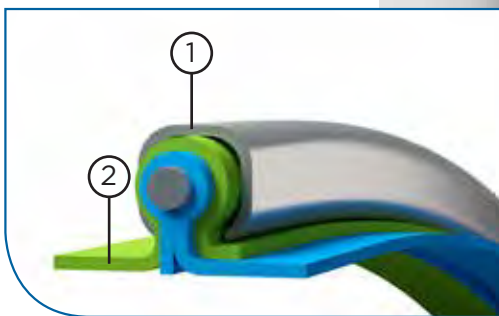
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip VITON EL

Suction & Blower hose made from VITON-coated Polyester fabric, for corrosive media up to +210 °C, electroconductive 10^4 Ohm



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: Viton®-coated polyester fabric, electrically conductive 10^4 Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- paint mist extraction
- suction/extraction of aggressive media in medium temperature range
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good chemical resistance
- outer chafing protection spiral
- high temperature resistance
- surface resistance 10^4 Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- robust wall material
- withstands high mechanical loads
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressible to approx. 1:6
- smallest bending radii
- tear-proof
- UV/ozone-proof
- extremely lightweight

Temperature Range

- -25°C to +210°C
- peaks to +240°C



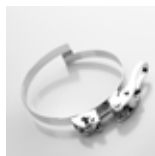
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
38	0,94	0,47	23	0,4	222-038-207	25
40	0,93	0,46	24	0,4	222-040-207	25
45	0,92	0,43	27	0,4	222-045-207	25
50	0,9	0,39	30	0,4	222-050-207	25
55	0,85	0,32	33	0,4	222-055-207	25
60	0,78	0,27	36	0,5	222-060-207	25
65	0,68	0,23	39	0,5	222-065-207	25
70	0,67	0,2	42	0,5	222-070-207	25
75	0,62	0,18	45	0,6	222-075-207	25
80	0,61	0,15	48	0,6	222-080-207	25
90	0,56	0,12	54	0,6	222-090-207	25
100	0,51	0,1	60	0,6	222-100-207	25
110	0,48	0,08	66	0,7	222-110-207	25
120	0,36	0,07	72	0,7	222-120-207	25
125	0,33	0,06	75	0,8	222-125-207	25
130	0,28	0,06	78	0,8	222-130-207	25
140	0,25	0,05	84	0,8	222-140-207	25
150	0,22	0,04	90	0,9	222-150-207	25
160	0,21	0,04	96	0,9	222-160-207	25
170	0,19	0,03	102	0,9	222-170-207	25
175	0,185	0,03	105	1	222-175-207	25
180	0,172	0,03	108	1	222-180-207	25
200	0,148	0,03	120	1,2	222-200-207	25
215	0,128	0,02	151	1,3	222-215-207	25
225	0,115	0,02	158	1,4	222-225-207	25
250	0,1	0,02	175	1,6	222-250-207	25
275	0,08	0,01	193	1,9	222-275-207	25
300	0,07	0,01	210	2,1	222-300-207	25
325	0,059	0,01	228	2,5	222-325-207	25
350	0,056	0,01	245	2,5	222-350-207	25
375	0,05	0,01	263	2,9	222-375-207	25
400	0,047	0,01	280	3,1	222-400-207	25
450	0,045	0,01	360	3,6	222-450-207	25
500	0,043	0,01	400	4,1	222-500-207	25
550	0,042	0,01	440	4,6	222-550-207	25
600	0,039	0,01	480	5,1	222-600-207	20
700	0,031	0,01	560	6	222-700-207	20
800	0,022	0,01	640	6,9	222-800-207	20
900	0,016	0,01	720	7,8	222-900-207	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



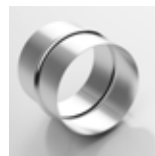
Hose Reducer, symmetrical



Clip-Grip quick action clamp



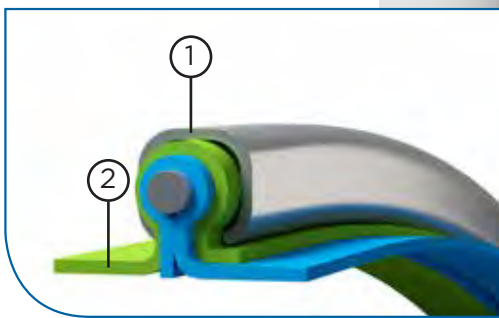
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE

Suction and blower hose for corrosive media up to +250°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: PTFE-coated glass fabric

Applications

- paint mist extraction
- paint, wood and paper industry
- solvent extraction
- suction of aggressive media
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- excellent chemical resistance
- PTFE: no health risk
- cold and heat resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressable to approx. 1:6
- weather-proof
- anti-adhesive wall lining material
- optimum medium flow characteristics
- extremely lightweight

Temperature Range

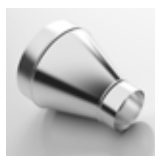
- -150°C to +250°C
- peaks to +270°C



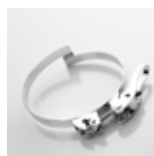
Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production lengthsm
40	0,94	0,35	24	0,4	250-040-113	20
45	0,93	0,33	27	0,4	250-045-113	20
50	0,92	0,31	30	0,4	250-050-113	20
55	0,9	0,26	33	0,4	250-055-113	20
60	0,85	0,22	36	0,5	250-060-113	20
65	0,78	0,19	39	0,5	250-065-113	20
70	0,68	0,16	42	0,5	250-070-113	20
75	0,67	0,14	45	0,6	250-075-113	20
80	0,62	0,12	48	0,6	250-080-113	20
90	0,61	0,1	54	0,6	250-090-113	20
100	0,56	0,08	60	0,6	250-100-113	20
110	0,51	0,07	66	0,6	250-110-113	20
120	0,48	0,06	72	0,7	250-120-113	20
125	0,36	0,05	75	0,7	250-125-113	20
130	0,33	0,05	78	0,7	250-130-113	20
140	0,28	0,04	84	0,8	250-140-113	20
150	0,25	0,04	90	0,8	250-150-113	20
160	0,22	0,03	96	0,9	250-160-113	20
170	0,21	0,03	102	0,9	250-170-113	20
175	0,19	0,03	105	1	250-175-113	20
180	0,19	0,02	108	1	250-180-113	20
200	0,17	0,02	120	1,1	250-200-113	20
215	0,15	0,02	151	1,2	250-215-113	20
225	0,13	0,02	158	1,3	250-225-113	20
250	0,12	0,01	175	1,4	250-250-113	20
275	0,1	0,01	193	1,7	250-275-113	20
300	0,08	0,01	210	1,9	250-300-113	20
315	0,07	0,01	221	2	250-315-113	20
325	0,06	0,01	228	2,1	250-325-113	20
350	0,06	0,01	245	2,3	250-350-113	20
375	0,05	0,01	263	2,7	250-375-113	20
400	0,05	0,01	280	2,9	250-400-113	15
450	0,05	0,01	360	3,5	250-450-113	15
500	0,04	0,01	400	3,9	250-500-113	15
550	0,04	0,01	440	4,4	250-550-113	15
600	0,04	0,01	480	4,9	250-600-113	15
700	0,03	0,01	560	5,8	250-700-113	15
800	0,02	0,01	640	6,7	250-800-113	15
900	0,02	0,01	720	7,6	250-900-113	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



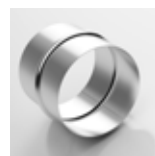
Hose Reducer, symmetrical



Clip-Grip quick action clamp



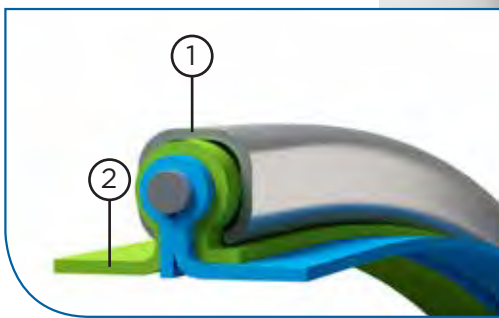
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE EL

Suction & Blower hose for corrosive media up to +280°C, electroconductive, surface resistance < 10⁶ Ohm



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: multi-layered, PTFE laminate, electrically conductive < 10⁶ Ohm

Applications

- danger zones, which requires electro-conductivity acc. to TRGS
- suction and conveyance of aggressive media, explosive gases and fumes
- paint mist extraction
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- excellent chemical resistance
- outer chafing protection spiral
- surface resistance < 10⁶ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- cold and heat resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- extremely compressible to approx. 1:6
- smallest bending radii
- weather-proof
- optimum medium flow characteristics
- extremely lightweight

Temperature Range

- -150°C to +280°C
- peaks to +300°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
55	0,58	0,13	33	0,4	263-055-207	10
60	0,55	0,12	36	0,5	263-060-207	10
65	0,5	0,11	39	0,5	263-065-207	10
70	0,4	0,11	42	0,5	263-070-207	10
75	0,35	0,1	45	0,5	263-075-207	10
80	0,3	0,09	48	0,5	263-080-207	10
90	0,26	0,08	54	0,6	263-090-207	10
100	0,23	0,07	60	0,6	263-100-207	10
110	0,2	0,06	66	0,6	263-110-207	10
120	0,18	0,05	72	0,7	263-120-207	10
125	0,17	0,05	75	0,7	263-125-207	10
130	0,15	0,05	78	0,8	263-130-207	10
140	0,14	0,04	84	0,8	263-140-207	10
150	0,14	0,04	90	0,9	263-150-207	10
160	0,13	0,04	96	0,9	263-160-207	10
170	0,12	0,03	102	0,9	263-170-207	10
175	0,11	0,03	105	1	263-175-207	10
180	0,11	0,03	108	1	263-180-207	10
200	0,1	0,03	120	1,1	263-200-207	10
215	0,09	0,02	151	1,1	263-215-207	10
225	0,08	0,02	158	1,2	263-225-207	10
250	0,08	0,02	175	1,4	263-250-207	10
275	0,07	0,01	193	1,7	263-275-207	6
300	0,06	0,01	210	1,9	263-300-207	6
315	0,06	0,01	221	1,9	263-315-207	6
325	0,05	0,01	228	2	263-325-207	6
350	0,05	0,01	245	2,2	263-350-207	6
375	0,04	0,01	263	2,6	263-375-207	6
400	0,03	0,01	280	2,8	263-400-207	6
450	0,03	0,01	360	3,3	263-450-207	3
500	0,03	0,01	400	3,8	263-500-207	3
550	0,02	0,01	440	4,4	263-550-207	3
600	0,02	0,01	480	4,9	263-600-207	3
700	0,02	0,01	560	5,6	263-700-207	3
800	0,02	0,01	640	6,2	263-800-207	3
900	0,01	0,01	720	7	263-900-207	3

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



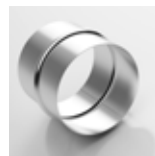
Hose Reducer, symmetrical



Clip-Grip quick action clamp



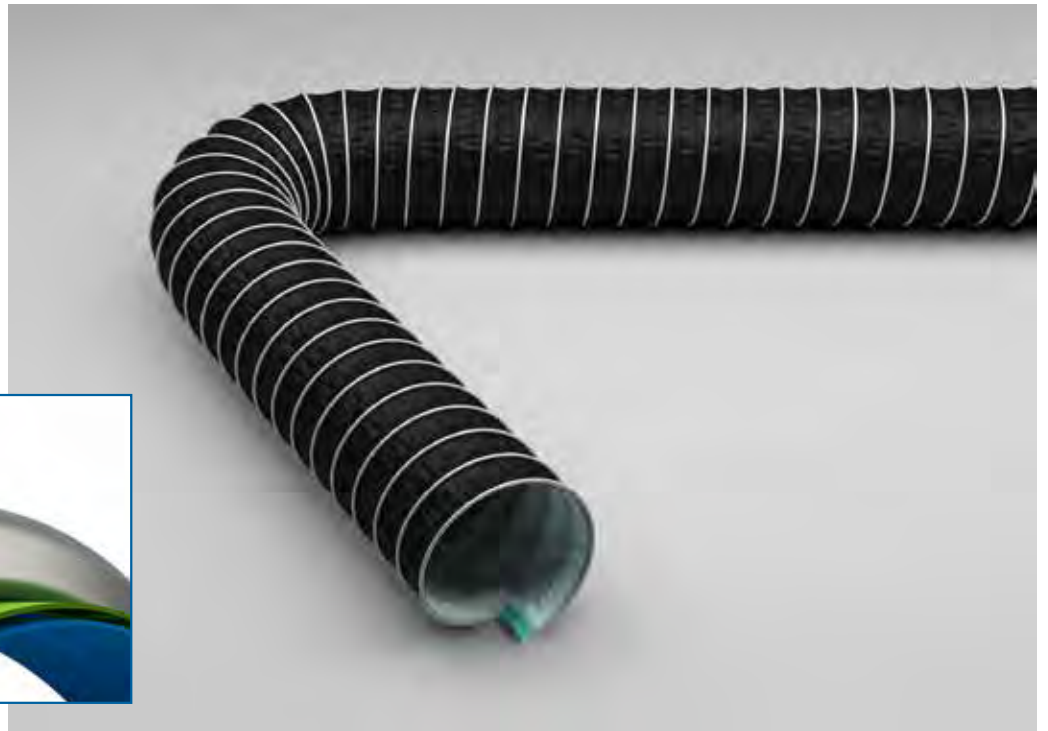
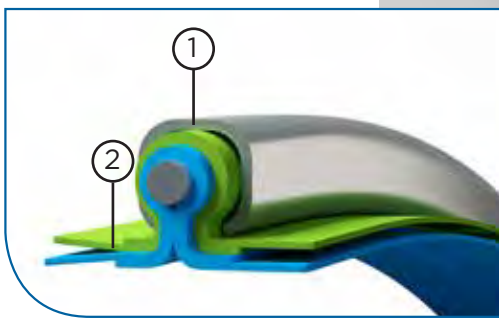
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE H

Suction and blower hose for corrosive media up to +175°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: inner layer: PTFE foil, outer layer: HYPALON®-coated polyester fabric

Applications

- paint mist extraction
- paint, wood and paper industry
- solvent extraction
- suction/extraction of aggressive media in medium temperature range
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- excellent chemical resistance
- PTFE: no health risk
- vibration-proof
- cold and heat resistant
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressable to approx. 1:4
- UV/ozone-proof
- weather-proof
- robust outer wall material
- anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

- -40°C to +175°C
- peaks to +190°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production lengths m
38	0,94	0,52	23	0,5	251-038-107	25
40	0,93	0,51	24	0,5	251-040-107	25
45	0,92	0,48	27	0,5	251-045-107	25
50	0,9	0,43	30	0,5	251-050-107	25
55	0,85	0,36	33	0,5	251-055-107	25
60	0,78	0,3	36	0,6	251-060-107	25
65	0,68	0,26	39	0,7	251-065-107	25
70	0,67	0,22	42	0,7	251-070-107	25
75	0,62	0,19	45	0,8	251-075-107	25
80	0,61	0,17	48	0,8	251-080-107	25
90	0,56	0,13	54	0,9	251-090-107	25
100	0,51	0,11	60	1	251-100-107	25
110	0,48	0,09	66	1,1	251-110-107	25
120	0,36	0,08	72	1,1	251-120-107	25
125	0,33	0,07	75	1,2	251-125-107	25
130	0,28	0,06	78	1,2	251-130-107	25
140	0,25	0,06	84	1,3	251-140-107	25
150	0,22	0,05	90	1,3	251-150-107	25
160	0,21	0,04	96	1,3	251-160-107	25
170	0,19	0,04	102	1,4	251-170-107	25
175	0,19	0,04	105	1,4	251-175-107	25
180	0,17	0,03	108	1,4	251-180-107	25
200	0,15	0,03	120	1,6	251-200-107	25
215	0,13	0,03	151	1,8	251-215-107	25
225	0,12	0,02	158	2	251-225-107	25
250	0,1	0,02	175	2,1	251-250-107	25
275	0,08	0,02	193	2,3	251-275-107	25
300	0,07	0,01	210	2,4	251-300-107	25
325	0,06	0,01	228	2,8	251-325-107	25
350	0,06	0,01	245	3,3	251-350-107	25
375	0,05	0,01	263	3,5	251-375-107	25
400	0,05	0,01	280	3,8	251-400-107	25
450	0,05	0,01	360	4,2	251-450-107	25
500	0,04	0,01	400	4,7	251-500-107	25
550	0,04	0,01	440	5,3	251-550-107	25
600	0,04	0,01	480	5,9	251-600-107	20
700	0,03	0,01	560	6,9	251-700-107	20
800	0,02	0,01	640	7,6	251-800-107	20
900	0,02	0,01	720	8,2	251-900-107	20

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



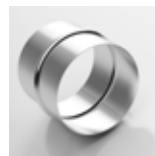
Hose Reducer, symmetrical



Clip-Grip quick action clamp



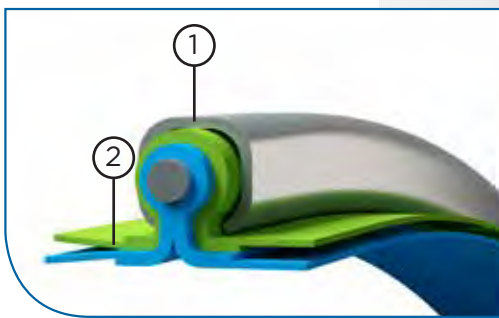
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE H-EL

Suction & Blower hose for corrosive media up to +175°C, electroconductive <math>< 10^6 \text{ Ohm}</math>



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: inner PTFE foil, electroconductive, outer layer: HYPALON®-coated polyester fabric

Applications

- danger zones, which require electrically conductive hoses
- suction and conveyance of aggressive media, explosive gases and fumes
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- excellent chemical resistance
- PTFE-foil: surface resistance $R_o < 10^6 \text{ Ohm}$
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- vibration-proof
- cold and heat resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressible to approx. 1:4
- UV/ozone-proof
- weather-proof
- anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

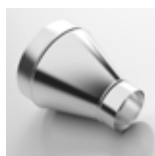
- -40°C to +175°C
- peaks to +190°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
38	0,94	0,52	23	0,5	261-038-207	20
40	0,93	0,51	24	0,5	261-040-207	20
45	0,92	0,48	27	0,5	261-045-207	20
50	0,9	0,43	30	0,5	261-050-207	20
55	0,85	0,36	33	0,5	261-055-207	20
60	0,78	0,3	36	0,6	261-060-207	20
65	0,68	0,26	39	0,7	261-065-207	20
70	0,67	0,22	42	0,7	261-070-207	20
75	0,62	0,19	45	0,8	261-075-207	20
80	0,61	0,17	48	0,8	261-080-207	20
90	0,56	0,13	54	0,9	261-090-207	20
100	0,51	0,11	60	1	261-100-207	20
110	0,48	0,09	66	1,1	261-110-207	20
120	0,36	0,08	72	1,1	261-120-207	20
125	0,33	0,07	75	1,2	261-125-207	20
130	0,28	0,06	78	1,2	261-130-207	20
140	0,25	0,06	84	1,3	261-140-207	20
150	0,22	0,05	90	1,3	261-150-207	20
160	0,21	0,04	96	1,3	261-160-207	20
170	0,19	0,04	102	1,4	261-170-207	20
175	0,19	0,04	105	1,4	261-175-207	20
180	0,17	0,03	108	1,4	261-180-207	20
200	0,15	0,03	120	1,6	261-200-207	20
215	0,13	0,03	151	1,8	261-215-207	20
225	0,12	0,02	158	2	261-225-207	20
250	0,1	0,02	175	2,1	261-250-207	20
275	0,08	0,02	193	2,3	261-275-207	20
300	0,07	0,01	210	2,4	261-300-207	20
325	0,06	0,01	228	2,8	261-325-207	20
350	0,06	0,01	245	3,3	261-350-207	20
375	0,05	0,01	263	3,5	261-375-207	20
400	0,05	0,01	280	3,8	261-400-207	15
450	0,05	0,01	360	4,2	261-450-207	15
500	0,04	0,01	400	4,7	261-500-207	15
550	0,04	0,01	440	5,3	261-550-207	15
600	0,04	0,01	480	5,9	261-600-207	15
700	0,03	0,01	560	6,9	261-700-207	15
800	0,02	0,01	640	7,6	261-800-207	15
900	0,02	0,01	720	8,2	261-900-207	15

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



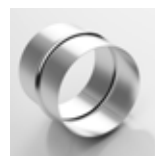
Hose Reducer, symmetrical



Clip-Grip quick action clamp



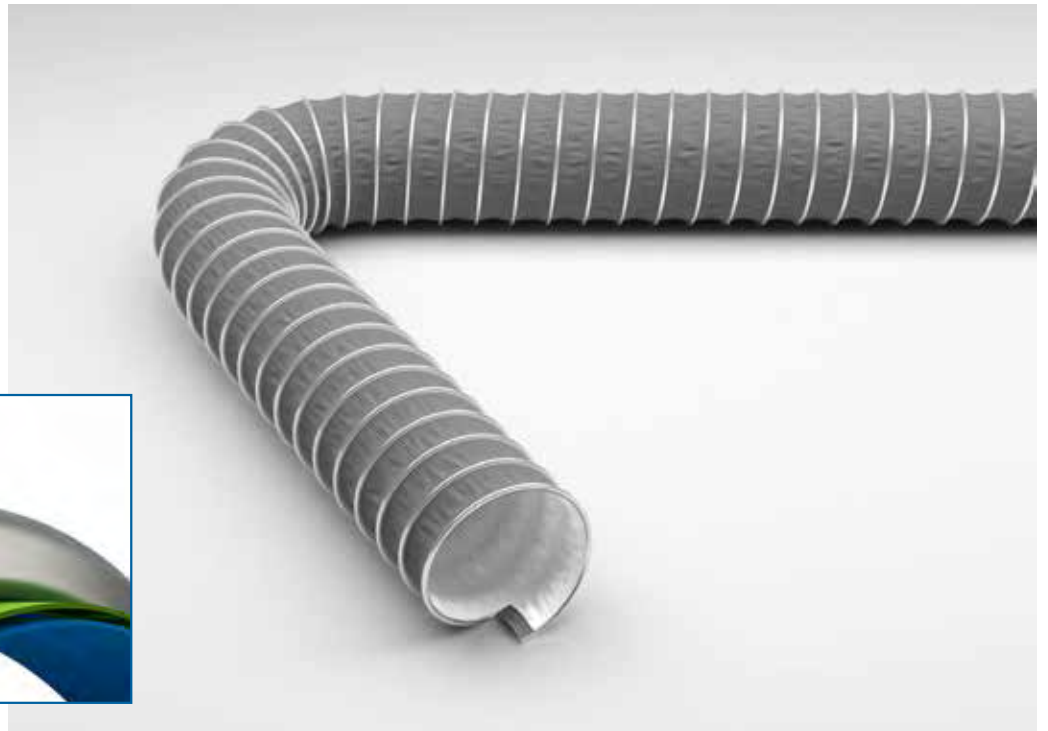
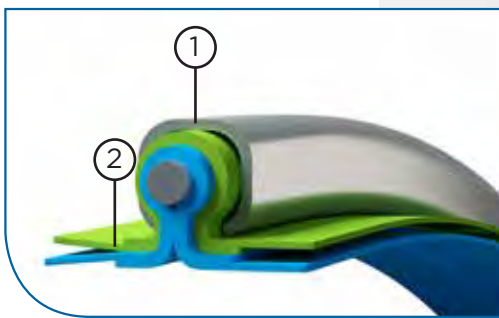
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE S

Suction and blower hose for corrosive media up to +250°C



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: inner layer: PTFE foil, outer layer: silicone-coated glass fabric

Applications

- paint mist extraction
- paint, wood and paper industry
- solvent extraction
- suction/extraction of aggressive media in medium temperature range
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- excellent chemical resistance
- PTFE: no health risk
- cold and heat resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressable to approx. 1:4
- UV/ozone-proof
- weather-proof
- robust outer wall material
- anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

- -70°C to +250°C
- peaks to +270°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
50	0,85	0,35	30	0,5	252-050-116	10
55	0,78	0,29	33	0,5	252-055-116	10
60	0,68	0,24	36	0,6	252-060-116	10
65	0,59	0,21	39	0,7	252-065-116	10
70	0,53	0,17	42	0,7	252-070-116	10
75	0,47	0,15	45	0,8	252-075-116	10
80	0,43	0,14	48	0,8	252-080-116	10
90	0,36	0,11	54	0,9	252-090-116	10
100	0,3	0,09	60	1	252-100-116	10
110	0,26	0,07	66	1,1	252-110-116	10
120	0,22	0,06	72	1,1	252-120-116	10
125	0,21	0,05	75	1,2	252-125-116	10
130	0,2	0,05	78	1,2	252-130-116	10
140	0,18	0,05	84	1,3	252-140-116	10
150	0,16	0,04	90	1,3	252-150-116	10
160	0,14	0,03	96	1,3	252-160-116	10
170	0,13	0,03	102	1,4	252-170-116	10
175	0,12	0,03	105	1,4	252-175-116	10
180	0,12	0,03	108	1,4	252-180-116	10
200	0,1	0,02	120	1,6	252-200-116	10
215	0,09	0,02	151	1,8	252-215-116	10
225	0,08	0,02	158	2	252-225-116	10
250	0,07	0,02	175	2,1	252-250-116	10
275	0,06	0,01	193	2,3	252-275-116	10
300	0,05	0,01	210	2,4	252-300-116	10
315	0,05	0,01	221	2,6	252-315-116	10
325	0,05	0,01	228	2,8	252-325-116	10
350	0,04	0,01	245	3,3	252-350-116	10
375	0,04	0,01	263	3,5	252-375-116	10
400	0,03	0,01	280	3,8	252-400-116	10
450	0,03	0,01	360	4,2	252-450-116	10
500	0,02	0,01	400	4,7	252-500-116	10
550	0,02	0,01	440	5,3	252-550-116	10
600	0,02	0,01	480	5,9	252-600-116	10
700	0,01	0,01	560	6,9	252-700-116	10
800	0,01	0,01	640	7,6	252-800-116	10
900	0,01	0,01	720	8,2	252-900-116	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



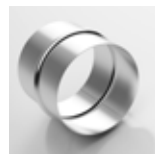
Hose Reducer, symmetrical



Clip-Grip quick action clamp



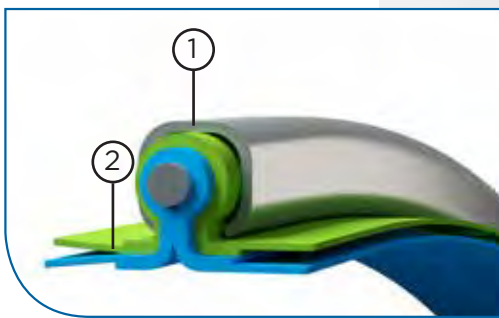
Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip PTFE S-EL

Suction & Blower hose for corrosive media up to +250°C, electroconductive <math> < 10^6 </math> Ohm



Material

- ① clip profile spiral: hot-dip galvanised steel band
- ② wall: inner PTFE foil, electroconductive, outer layer: silicone-coated glass fabric

Applications

- danger zones, which require electrically conductive hoses
- suction and conveyance of aggressive media, explosive gases and fumes
- paint, wood and paper industry
- solvent extraction
- pharmaceutical industry
- low pressure range
- chemicals industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- outer chafing protection spiral
- excellent chemical resistance
- PTFE-foil: surface resistance $R_o < 10^6$ Ohm
- approved acc. to TRGS 727 and ATEX 2014/34 EU. Details acc. to certificate
- cold and heat resistant
- super lightweight
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- extremely compressable to approx. 1:4
- UV/ozone-proof
- weather-proof
- robust outer wall material anti-adhesive internal wall lining material
- optimum medium flow characteristics

Temperature Range

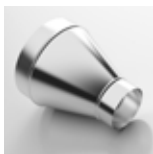
- -70°C to +250°C
- peaks to +270°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	max. Fertigungslängen m
50	0,85	0,35	30	0,5	262-050-216	10
55	0,78	0,29	33	0,5	262-055-216	10
60	0,68	0,24	36	0,6	262-060-216	10
65	0,59	0,21	39	0,7	262-065-216	10
70	0,53	0,17	42	0,7	262-070-216	10
75	0,47	0,15	45	0,8	262-075-216	10
80	0,43	0,14	48	0,8	262-080-216	10
90	0,36	0,11	54	0,9	262-090-216	10
100	0,3	0,09	60	1	262-100-216	10
110	0,26	0,07	66	1,1	262-110-216	10
120	0,22	0,06	72	1,1	262-120-216	10
125	0,21	0,05	75	1,2	262-125-216	10
130	0,2	0,05	78	1,2	262-130-216	10
140	0,18	0,05	84	1,3	262-140-216	10
150	0,16	0,04	90	1,3	262-150-216	10
160	0,14	0,03	96	1,3	262-160-216	10
170	0,13	0,03	102	1,4	262-170-216	10
175	0,12	0,03	105	1,4	262-175-216	10
180	0,12	0,03	108	1,4	262-180-216	10
200	0,1	0,02	120	1,6	262-200-216	10
215	0,09	0,02	151	1,8	262-215-216	10
225	0,08	0,02	158	2	262-225-216	10
250	0,07	0,02	175	2,1	262-250-216	10
275	0,06	0,01	193	2,3	262-275-216	10
300	0,05	0,01	210	2,4	262-300-216	10
315	0,05	0,01	221	2,6	262-315-216	10
325	0,05	0,01	228	2,8	262-325-216	10
350	0,04	0,01	245	3,3	262-350-216	10
375	0,04	0,01	263	3,5	262-375-216	10
400	0,03	0,01	280	3,8	262-400-216	10
450	0,03	0,01	360	4,2	262-450-216	10
500	0,02	0,01	400	4,7	262-500-216	10
550	0,02	0,01	440	5,3	262-550-216	10
600	0,02	0,01	480	5,9	262-600-216	10
700	0,01	0,01	560	6,9	262-700-216	10
800	0,01	0,01	640	7,6	262-800-216	10
900	0,01	0,01	720	8,2	262-900-216	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



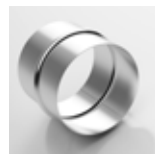
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector

Master-Clip KAPTON®

Medium and high temperature hose for temperatures up to +400°C, excellent chemical resistance



Material

- 1 clip profile spiral: hot-dip galvanised steel band
- 2 wall: one-sided KAPTON®-clad glass fabric

Applications

- suction of aggressive gases at high temperatures
- exhaust gas routing in gauge pressure and low pressure range
- vehicle and engine manufacturing
- exhaust gas extraction for high-performance engine test-benches in the automotive industry

Available on request

- available on request in other lengths, sizes, colours, spiral intervals, with stainless steel spirals.

Properties

- very good temperature resistance
- outer chafing protection spiral
- very good chemical resistance (similar to Master-Clip PTFE hoses, but with much greater temperature range)
- high tension-proof connection of wall-lining and spiral via special clamp mechanism
- highly flexible
- smallest bending radii
- good vacuum resistance
- high gas resistance in low pressure/vacuum range
- extremely lightweight

Temperature Range

- -260°C to +400°C



Stock lengths and technical data / www.masterflex.de/en

DN	op. pressure bar	vacuum bar	bend radius mm	weight/m kg	article no.	production length m
50	0,9	0,37	30	0,8	253-050-110	15
55	0,82	0,33	33	0,8	253-055-110	15
60	0,7	0,3	36	0,8	253-060-110	15
65	0,63	0,28	39	0,9	253-065-110	15
70	0,55	0,25	42	0,9	253-070-110	15
75	0,5	0,24	45	0,9	253-075-110	15
80	0,45	0,21	48	1	253-080-110	15
90	0,4	0,2	54	1	253-090-110	15
100	0,35	0,16	60	1	253-100-110	15
110	0,3	0,13	66	1,1	253-110-110	15
120	0,28	0,11	72	1,1	253-120-110	15
125	0,27	0,1	75	1,3	253-125-110	15
130	0,26	0,09	78	1,3	253-130-110	15
140	0,2	0,08	84	1,3	253-140-110	15
150	0,17	0,07	90	1,4	253-150-110	15
160	0,16	0,06	96	1,4	253-160-110	15
170	0,16	0,06	102	1,4	253-170-110	15
175	0,15	0,05	105	1,6	253-175-110	15
180	0,13	0,05	108	1,6	253-180-110	15
200	0,121	0,04	120	1,8	253-200-110	15
215	0,12	0,04	151	2	253-215-110	15
225	0,11	0,03	158	2,2	253-225-110	15
250	0,1	0,03	175	2,5	253-250-110	15
275	0,09	0,02	193	2,9	253-275-110	15
300	0,08	0,02	210	3,2	253-300-110	15
315	0,07	0,02	221	3,3	253-315-110	15
325	0,06	0,02	228	3,5	253-325-110	15
350	0,05	0,01	245	3,9	253-350-110	15
375	0,04	0,01	263	4,4	253-375-110	15
400	0,04	0,01	280	4,9	253-400-110	15
450	0,03	0,01	360	5,7	253-450-110	10
500	0,03	0,01	400	6,5	253-500-110	10
550	0,03	0,01	440	7,3	253-550-110	10
600	0,02	0,01	480	8,2	253-600-110	10
700	0,01	0,01	560	9,6	253-700-110	10
800	0,01	0,01	640	11	253-800-110	10
900	0,01	0,01	720	12,5	253-900-110	10

All data refers to a medium and ambient temperature of +20 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.



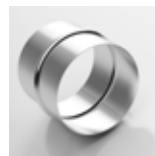
Hose Reducer, symmetrical



Clip-Grip quick action clamp



Clip-Grip Hose clamp, screwable



Hose Connector



10

Pneumatic Tubing

Pneumatic tubings for flexible solutions in automatisisation and mechanical engineering



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Polyethylene pneumatic tubing-low density



Applications

- Pneumatic control lines
- Machine manufacturing

Properties

- lightweight
- physiologically safe and tasteless (complies with FDA regulation 21 CFR 177.1520(c) 2.2 and EU, No 10/2011)
- low permeability for water, water vapor and gases
- resistant to various chemicals (see attached table of chemical resistance)
- sterilizable using ethylene oxide and gamma rays
- good dielectric characteristics
- low price
- easily fitted
- available in a range of colours

Temperature Range

- -30°C to +70°C

Standard colours

- nature
- black
- blue



Stock lengths and technical data / www.masterflex.de/en

ID* mm	Wall thickness mm	OD* mm	Tolerance ID & OD mm	Weight/m g	Max. op. pressure resistance at 23°C bar	Min. bending radius mm
2	1	4	± 0,10	8,7	24	20
3	1	5	± 0,10	11,6	18	25
4	1	6	± 0,10	14,5	14	30
5	1,5	8	± 0,10	28,3	16	40
6	1	8	± 0,10	20,3	10	40
6	2	10	± 0,10	46,4	18	50
7	1,5	10	± 0,10	37,0	12	50
8	1	10	± 0,10	26,1	8	40
9	1,5	12	± 0,10	45,7	10	60
10	1	12	± 0,10	31,9	6	60
10	2	14	± 0,15	69,7	12	80
12	2	16	± 0,15	81,3	10	90
14	2	18	± 0,15	92,9	9	120

All data refers to a medium and ambient temperature of +23 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16



Applications

- Pneumatic control lines
- Machine manufacturing

Properties

- lightweight
- high flexibility at low temperatures
- UV-resistant
- high elasticity
- good damping behaviour
- excellent abrasion resistance
- excellent resistance against tear propagation
- kink resistant
- oil and grease resistant
- ideally suited for push-in-connectors
- easily fitted
- available in a range of colours
- small bending radius
- unplasticized, no embrittlement

Temperature Range

- -40°C to +85°C

Standard colours

- nature
- black
- blue

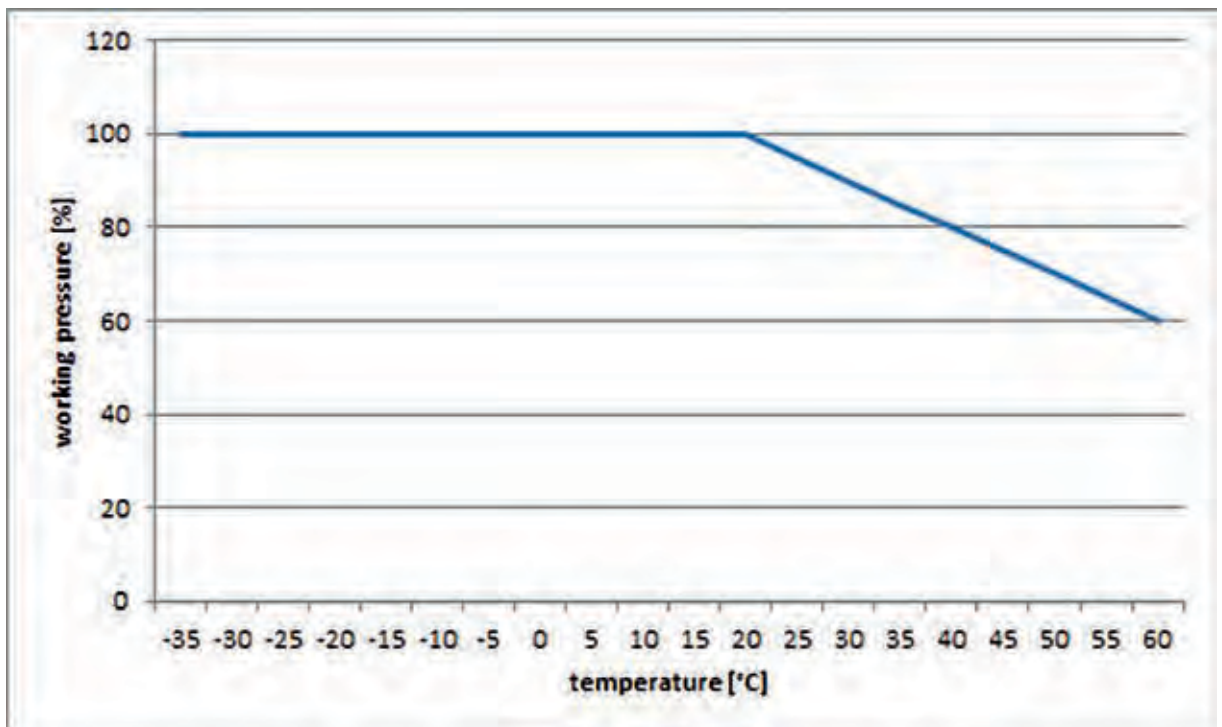


ID* mm	Wall thickness mm	OD* mm	Tolerance ID & OD mm	Weight/m g	Max. op. pressure resistance at 23°C bar	Min. bending radius mm
2	1	4	± 0,10	11	20	20
2,7	0,65	4	± 0,10	9	11	20
3	1	5	± 0,10	15	15	25
4	1	6	± 0,10	19	12	30
5	1,5	8	± 0,10	37	13	40
5,5	1,25	8	± 0,10	32	11	40
5,7	1,15	8	± 0,10	30	10	40
6	1	8	± 0,10	27	8	40
6,5	1,75	10	± 0,10	55	12	50
7	1,5	10	± 0,10	49	10	50
8	1	10	± 0,10	34	6	50
8	2	12	± 0,15	77	12	60
9	1,5	12	± 0,15	60	8	60
11	2,5	16	± 0,20	129	11	80

All data refers to a medium and ambient temperature of +23 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.

Diagramm of pressure for PUR 98 Shore A

Degree of utilisation of the permissible pressure resistance (%) in dependence on temperature (°C)



Nylon 11/12 soft pneumatic tubing



Applications

- Pneumatic control lines
- Automotive
- Machine manufacturing

Standard colours

- nature
- black
- blue

Properties

- lightweight
- material fully complies with DIN 73378 and DIN 74324
- good temperature resistance
- highly resistant to shock and impact
- excellent compressive strength
- resistance to oil, grease, fuels, solvent and hydraulic fuels
- excellent resistance to UV-rays
- highly resistant to stress cracking
- excellent abrasion resistance
- ideally suited for push-in-connectors
- water insentive
- easily fitted
- available in a range of colours
- calibrated

Temperaure Range

- - 40 °C to + 90 °C

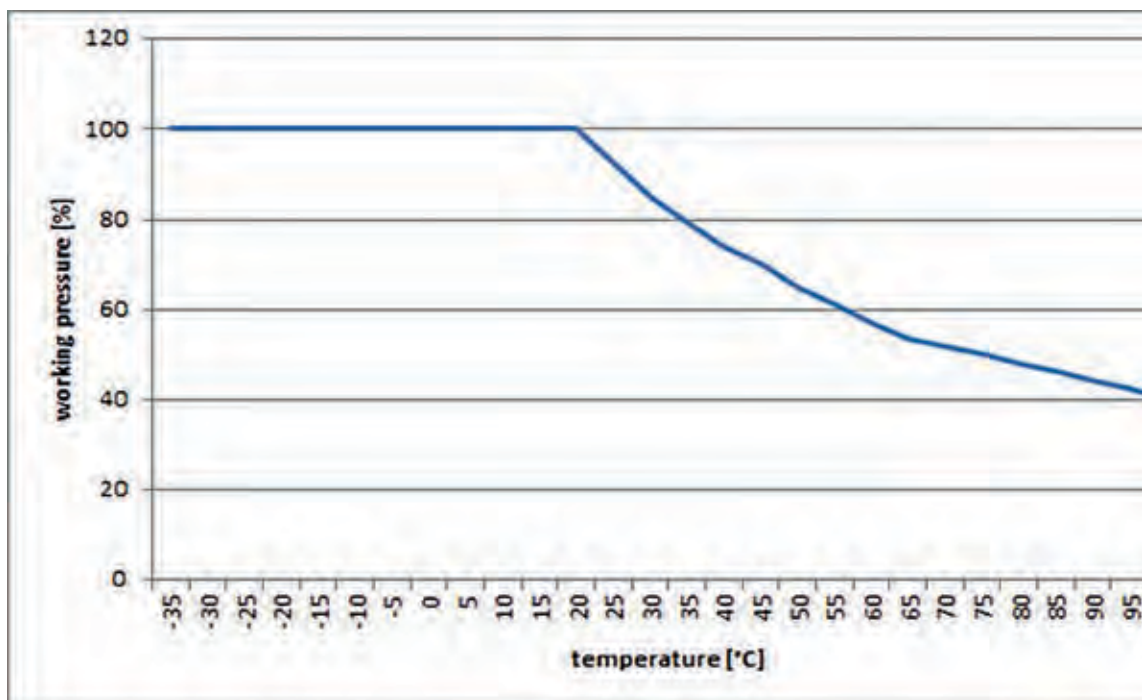


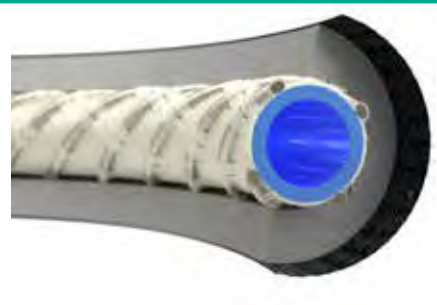
ID* mm	Wall thickness mm	OD* mm	Tolerance ID & OD mm	Weight/m g	Max. op. pressure re- sistance at 23°C bar	Min. bending radius mm
2	1	4	± 0,05	9,7	44	20
2,9	0,55	4	± 0,05	6,1	21	20
3	1	5	± 0,05	12,9	33	25
4	1	6	± 0,10	16,1	26	30
5	1,5	8	± 0,10	31,4	30	40
5,5	1,25	8	± 0,10	27,1	24	40
6	1	8	± 0,10	22,5	19	40
6	2	10	± 0,10	51,5	33	50
7	1,5	10	± 0,10	41,0	23	50
7,5	1,25	10	± 0,10	35,2	19	50
8	1	10	± 0,10	29,0	14	50
8	2	12	± 0,10	64,3	26	60
9	1,5	12	± 0,10	50,7	19	60
10	1	12	± 0,10	35,4	12	60
10	2	14	± 0,10	77,2	22	70
11	1,5	14	± 0,10	60,3	196	70
12	1,5	15	± 0,10	65,1	14	90
12	2	16	± 0,15	90,1	19	90
14	2	18	± 0,15	102,9	16	120
16	2	20	± 0,15	115,8	14	120
18	2	22	± 0,25	128,7	13	150

All data refers to a medium and ambient temperature of +23 °C
 * Refers to the inner hose lining
 Subject to technical changes and colour deviations.

Diagramm of pressure for PA 11/12W

Degree of utilisation of the permissible pressure resistance (%) in dependence on temperature (°C)





11

Electrically Heated Hoses (templine®)

Heated hoses with integrated temperature controller/limiter for application in industrial processes, automation & machine-building



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Electrically heated hose for power supply / temperature control



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- maintaining and increasing temperatures for gases, granules and liquids of varying viscosity
- sugar coating, chocolate production, beverage industry, gas analysis, adhesive technology, bitumen, etc.

Available on request

- patented braided templine® or wrapped templine®-Basic version

Properties

- homogenous heat distribution
- crush-resistant and antistatic constructions on demand
- possible connection to external temperature controllers or PLC
- templine® version: patented braiding with embedded heating conductors
- fittings made of steel or stainless steel
- applications up to 500 bar and vacuum
- low demand for energy
- high power density
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- metal hose up to +300°C (+572°F)
- other temperature profiles on demand



Stock lengths and technical data / www.masterflex.de/en

DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
25	59 ... 79	IP54 ... IP68	on demand	0,3
32	79 ... 99	IP54 ... IP68	on demand	0,3
40	79 ... 99	IP54 ... IP68	on demand	0,5
50	79 ... 99	IP54 ... IP68	on demand	0,5
65	90 ... 108	IP54 ... IP68	on demand	0,5
80	108 ... 129	IP54 ... IP68	on demand	0,5
100	129 ... 150	IP54 ... IP68	on demand	0,5

max. production length: 100 m

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Electrically heated hose with integrated temperature controller



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- maintaining and increasing temperatures for gases, granules and liquids of varying viscosity
- sugar coating, chocolate production, beverage industry, gas analysis, adhesive technology, bitumen, etc.

Available on request

- patented braided templine® or wrapped templine®-Basic version

Properties

- homogenous heat distribution
- crush-resistant and antistatic constructions on demand
- templine® version: patented braiding with embedded heating conductors
- possible connection to external temperature controllers or PLC
- fittings made of steel or stainless steel
- applications up to 500 bar and vacuum
- low demand for energy
- up to 1380W switching capacity
- high power density
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- metal hose up to +300°C (+572°F)
- other temperature profiles on demand



Stock lengths and technical data / www.masterflex.de/en

DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
25	59 ... 79	IP54 ... IP68	on demand	0,3
32	79 ... 99	IP54 ... IP68	on demand	0,3
40	79 ... 99	IP54 ... IP68	on demand	0,5
50	79 ... 99	IP54 ... IP68	on demand	0,5
65	90 ... 108	IP54 ... IP68	on demand	0,5
80	108 ... 129	IP54 ... IP68	on demand	0,5
100	129 ... 150	IP54 ... IP68	on demand	0,5

max. production length: 100 m

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Electrically heated hose for power supply / temperature control



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- maintaining and increasing temperatures for gases, granules and liquids of varying viscosity
- sugar coating, chocolate production, beverage industry, gas analysis, adhesive technology, bitumen, etc.

Available on request

- patented braided templine® or wrapped templine®-Basic version

Properties

- homogenous heat distribution
- crush-resistant and antistatic constructions on demand
- templine® version: patented braiding with embedded heating conductors
- fittings made of steel or stainless steel
- applications up to 500 bar and vacuum
- low demand for energy
- up to 1380W switching capacity
- high power density (up to 250 W/m)
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- metal hose up to +300°C (+572°F)
- other temperature profiles on demand



DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
25	59 ... 79	IP54 ... IP68	on demand	0,3
32	79 ... 99	IP54 ... IP68	on demand	0,3
40	79 ... 99	IP54 ... IP68	on demand	0,5
50	79 ... 99	IP54 ... IP68	on demand	0,5
65	90 ... 108	IP54 ... IP68	on demand	0,5
80	108 ... 129	IP54 ... IP68	on demand	0,5
100	129 ... 150	IP54 ... IP68	on demand	0,5

max. production length: 100 m

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Electrically heated hose with integrated temperature switch



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- maintaining temperature / frost protection for gases, granules and liquids of varying viscosity

Available on request

- patented braided templine® or wrapped templine®-Basic version

Properties

- homogenous heat distribution
- crush-resistant and antistatic constructions on demand
- templine® version: patented braiding with embedded heating conductors
- fittings made of steel or stainless steel
- applications up to 500 bar and vacuum
- low demand for energy
- maintaining the temperature of the medium at +5°C
- up to 690W switching capacity
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- other temperature profiles on demand



DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
25	59 ... 79	IP54 ... IP68	on demand	0,3
max. production length: 50 m				
All data refers to a medium and ambient temperature of +20 °C Subject to technical changes and colour deviations.				

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Insulated hose without electrical heating for simple temperature maintenance



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- sugar coating, chocolate production, beverage industry, gas analysis, adhesive technology, bitumen, etc.
- temperature maintenance of gases, granules and liquids of various viscosities

Available on request

- RFID labelling

Properties

- crush-resistant and antistatic constructions on demand
- fittings made of steel or stainless steel
- applications up to 500 bar and vacuum
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- metal hose up to +300°C (+572°F)
- other temperature profiles on demand



DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
25	59 ... 79	IP54 ... IP68	on demand	0,3
32	79 ... 99	IP54 ... IP68	on demand	0,3
40	79 ... 99	IP54 ... IP68	on demand	0,5
50	79 ... 99	IP54 ... IP68	on demand	0,5
65	90 ... 108	IP54 ... IP68	on demand	0,5
80	108 ... 129	IP54 ... IP68	on demand	0,5
100	129 ... 150	IP54 ... IP68	on demand	0,5

max. production length: 100 m

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Electrically heated hose with interchangeable internal hose



Material

- outer casing made of mechanically resilient and abrasion resistant materials
- single/double/multiple pressure-reinforced medium hose made of PTFE, high resistance to chemicals
- thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- maintaining and increasing temperatures for gases, granules and liquids of varying viscosity
- sugar coating, chocolate production, beverage industry, gas analysis, adhesive technology, bitumen, etc.

Available on request

- patented braided templine® or wrapped templine®-Basic version

Properties

- homogenous heat distribution
- crush-resistant and antistatic constructions on demand
- possible connection to external temperature controllers or PLC
- templine® version: patented braiding with embedded heating conductors
- applications up to 500 bar and vacuum
- low demand for energy
- fittings made of steel, stainless steel or open hose ends
- interchangeable medium hose
- good flexibility

Temperature Range

- single/double/multiple pressure-reinforced medium hoses made of PTFE up to +250°C (+482°F)
- other temperature profiles on demand



DN mm	outer diameter mm	protection number	article number	min. length m
4	22 ... 39	IP54 ... IP68	on demand	0,3
6	22 ... 39	IP54 ... IP68	on demand	0,3
8	22 ... 39	IP54 ... IP68	on demand	0,3
10	28 ... 39	IP54 ... IP68	on demand	0,3
13	28 ... 39	IP54 ... IP68	on demand	0,3
16	32 ... 59	IP54 ... IP68	on demand	0,3
20	39 ... 79	IP54 ... IP68	on demand	0,3
max. production length: 20 m				
All data refers to a medium and ambient temperature of +20 °C Subject to technical changes and colour deviations.				

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



12

PU-Lined Pipes & Pipe-Bends

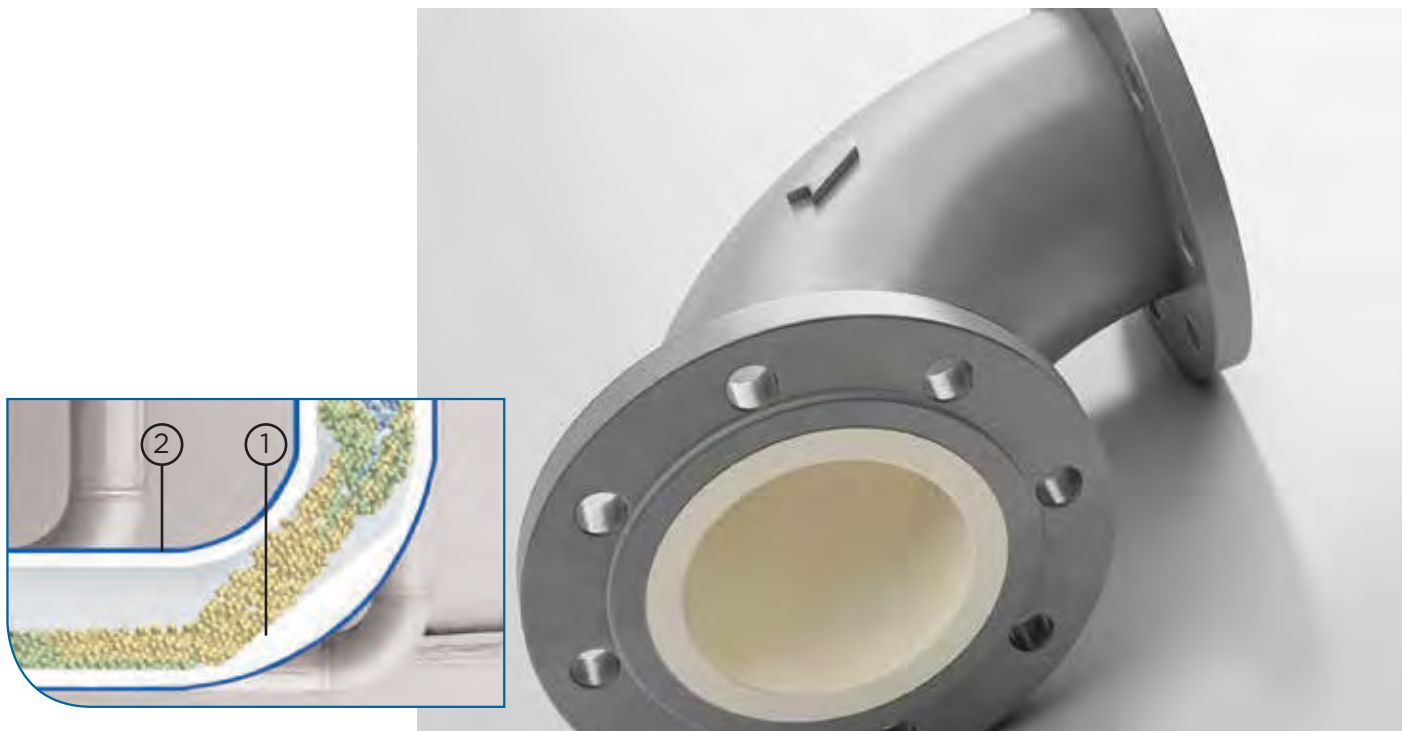
**Innovative wear protection for
pipes & pipe-bends**



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Master-PROTECT Pipe-Bend

PU-lined pipe-bend



Material

- ① lining: polyurethane
- ② bend: DIN 2448 St 37, primed
flange: R St 37, primed

Applications

- pneumatic conveying plants
- granule silos

Available on request

- available on request in other DN sizes
and in stainless steel

Properties

- extremely abrasion resistant
- reduced operating costs via longer maintenance intervals
- lower risk of blockages via uniform concentration distribution and a more constant speed of transported goods
- much greater wear resistance than steel pipe bends
- pressure level PN 6 and PN 10/16
- no displacement of transport media
- significantly lower pressure loss as in deflection / impact absorbers

Temperature Range

- -40°C to +80°C
- peaks to +110°C



Stock lengths and technical data / www.masterflex.de/en

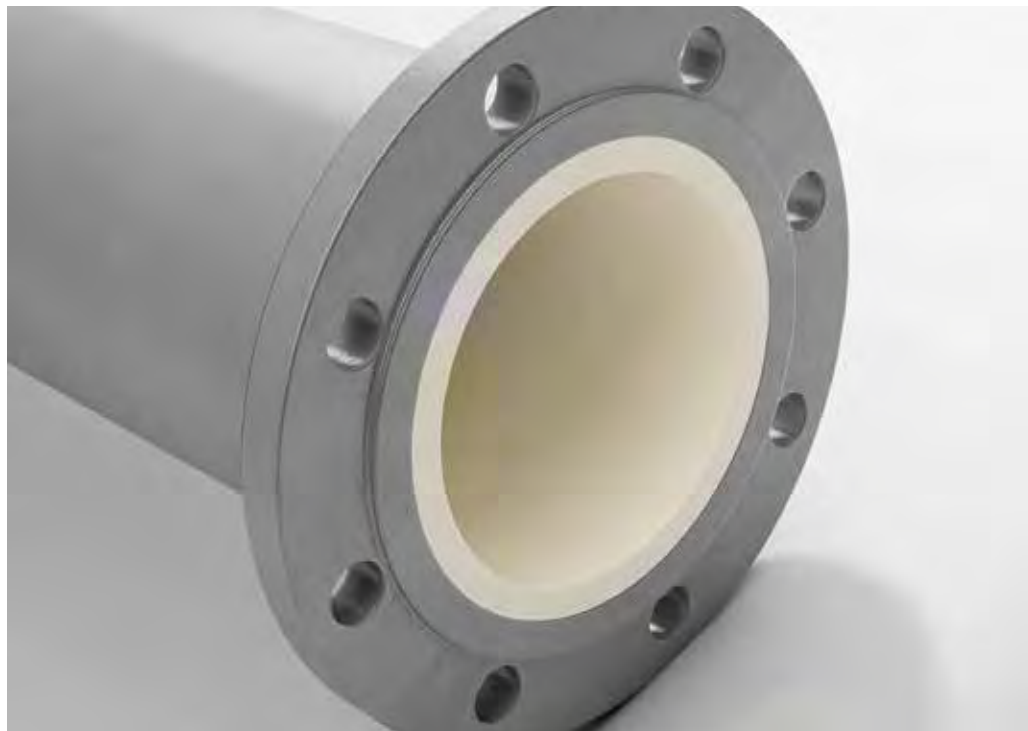
DN	d mm	PN	A mm	adapter outer Ø mm	hole circle	no. holes
40	43	10/16	99	150	110	4
50	54	6	114	140	110	4
50	54	10/16	121	165	125	4
65	70	6	133	160	130	4
65	70	10/16	140	185	145	4
80	82	6	157	190	150	4
80	82	10/16	165	200	160	8
100	107	6	198	210	170	4
100	107	10/16	205	220	180	8
125	131	6	239	240	200	8
125	131	10/16	246	250	210	8
150	159	6	277	265	225	8
150	159	10/16	284	285	240	8
200	207	6	360	320	280	8

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the above listed sizes, lengths and pressure steps
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Master-PROTECT Pipe

PU-lined Pipe



Material

- ① pipe: DIN 2448 St 37, primed
- ② lining: polyurethane
- ③ flange: R St 37, primed

Applications

- pneumatic conveying plants

Available on request

- available on request in other DN sizes, lengths and in stainless steel

Properties

- extremely abrasion resistant
- much greater wear resistance than steel piping
- reduced operating costs via longer maintenance intervals
- lower risk of blockages via uniform concentration distribution and a more constant speed of transported goods
- pressure level PN 6 and PN 10/16

Temperature Range

- -40°C to +80°C
- peaks to +110°C



Stock lengths and technical data / www.masterflex.de/en

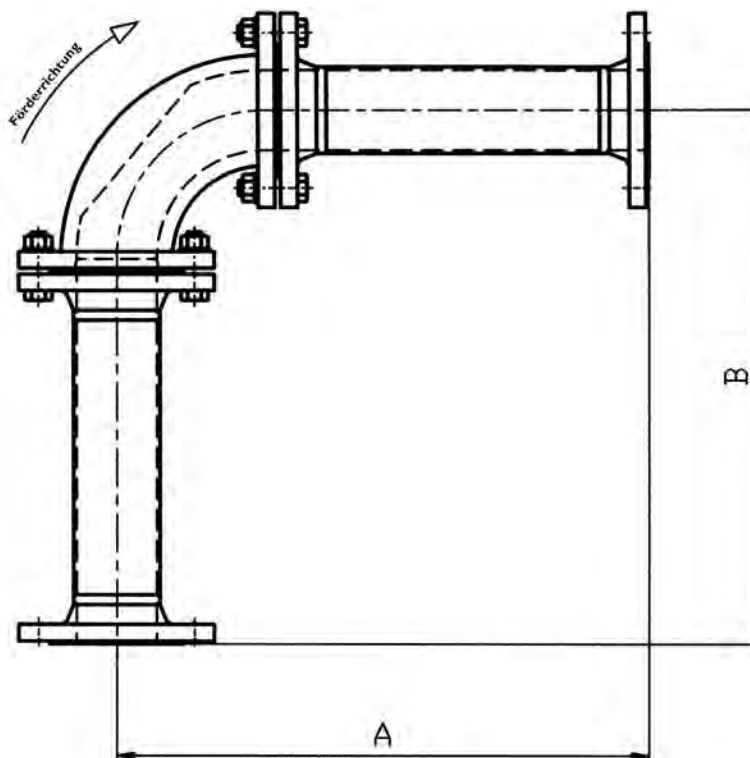
DN	d mm	PN	hole circle	no. holes	article no. 1m-length	article no. 2m-length
50	54	6	110	4	R11-050-006	R21-050-006
50	54	10/16	125	4	R11-050-010	R21-050-010
65	70	6	130	4	R11-065-006	R21-065-006
65	70	10/16	145	4	R11-065-010	R21-065-010
80	82	6	150	4	R11-080-006	R21-080-006
80	82	10/16	160	8	R11-080-010	R21-080-010
100	107	6	170	4	R11-100-006	R21-100-006
100	107	10/16	180	8	R11-100-010	R21-100-010
125	131	6	200	8	R11-125-006	R21-125-006
125	131	10/16	210	8	R11-125-010	R21-125-010
150	159	6	225	8	R11-150-006	R21-150-006
150	159	10/16	240	8	R11-150-010	R21-150-010
200	207	6	280	8	R11-200-006	R21-200-006

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the above listed sizes, lengths and pressure steps
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Master-PROTECT Assembly Set

Connector Pipes for Master-Protect Pipe-Bends



Material

- ① pipe: DIN 2448 St 37 (untreated)
- ② flange: R St 37 - 2, (untreated)

Applications

- pneumatic conveying plants

Available on request

- available on request in other DN sizes, lengths and in stainless steel

Properties

- installation sets for Master-PROTECT pipe bends instead of conventional wear-protection pipe bends with larger bedding radii in existing conveyance systems
- universally adjustable
- smooth inner intersections with existing piping and Master-PROTECT pipe-bend
- lower operating costs in connection with use of Master-PROTECT pipe bend
- longer service intervals
- no displacement of transport media
- pressure level PN 6 at DN 200 or PN 10/16 at all other DN

Temperature Range

- -40°C to +80°C
- peaks to +110°C



DN	PN	A/B mm	length in mm	hole circle	no. holes	article no.
50	10/16	545	422	125	4	M01-050-010
50	10/16	845	722	125	4	M02-050-010
50	10/16	1245	1122	125	4	M03-050-010
65	10/16	645	503	145	4	M01-065-010
65	10/16	1045	903	145	4	M02-065-010
65	10/16	1445	1303	145	4	M03-065-010
80	10/16	550	383	160	4	M01-080-010
80	10/16	1050	883	160	4	M02-080-010
80	10/16	1550	1383	160	4	M03-080-010
80	10/16	850	683	160	8	M04-080-010
80	10/16	1250	1083	160	8	M05-080-010
80	10/16	1750	1583	160	8	M06-080-010
100	10/16	952	745	180	8	M01-100-010
100	10/16	1452	1245	180	8	M02-100-010
100	10/16	1952	1745	180	8	M03-100-010
125	10/16	1055	807	210	8	M01-125-010
125	10/16	1555	1307	210	8	M02-125-010
125	10/16	2055	1807	210	8	M03-125-010
150	10/16	1055	769	240	8	M01-150-010
150	10/16	1805	1519	240	8	M02-150-010
150	10/16	2555	2269	240	8	M03-150-010
200	6	2055	1693	280	8	M01-200-006

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the above listed sizes, lengths and pressure steps
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16



13

Installation & Connections Clamps

Connection solutions for almost any application, from standard connectors through to customised customer-specific connections



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Clip-Grip Hose Clamp, screwable

Special clamp for Master-Clip hoses



Material

- ① band collar, bridge, housing: steel

Applications

- special clamp for all hose types from Master-Clip series for mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- easy to install
- robust
- rust-protected
- primarily tight and tear-proof connection via bridge profiles



Stock lengths and technical data / www.masterflex.de/en

for Master-Clip hoses in DN	clamping range mm	article no.
40	40-60	530-040-100
45	40-60	530-040-100
50	50-70	530-050-100
55	50-70	530-050-100
60	60-80	530-060-100
65	60-80	530-060-100
70	70-90	530-070-100
75	70-90	530-070-100
80	80-100	530-080-100
90	90-110	530-090-100
100	100-120	530-100-100
110	110-130	530-110-100
120	120-140	530-120-100
125	120-140	530-120-100
130	130-150	530-130-100
140	140-160	530-140-100
150	150-170	530-150-100
160	160-180	530-160-100
170	170-190	530-170-100
175	170-190	530-170-100
180	180-200	530-180-100
200	200-220	530-200-100
215	210-230	530-215-100
225	220-240	530-225-100
250	250-270	530-250-100
275	270-290	530-275-100
280	280-300	530-280-100
300	300-320	530-300-100
315	310-330	530-315-100
325	320-340	530-325-100
350	350-370	530-350-100
375	370-390	530-375-100
400	400-420	530-400-100
450	450-470	530-450-100
500	500-520	530-500-100
550	550-570	530-550-100
600	600-620	530-600-100
700	700-720	530-700-100
800	800-820	530-800-100
900	900-920	530-900-100

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Clip-Grip Quick-Fix Clamp

Special clamp for Master-Clip hoses



Material

- ① band collar, bridge, socket: stainless steel (1.4301)

Applications

- special clamp for all hose types from Master-Clip series for mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- rust-free
- robust
- very easy to install
- primarily tight and tear-proof connection via bridge profiles
- subsequent quick mounting also possible for pre-installed hoses
- adjustable clamping force via clamping screw



Stock lengths and technical data / www.masterflex.de/en

for Master-Clip hoses in DN	clamping range mm	article no.
75	75-82	532-075-888
80	80-87	532-080-888
90	90-97	532-090-888
100	100-107	532-100-888
110	110-117	532-110-888
120	120-127	532-120-888
125	125-132	532-125-888
130	130-137	532-130-888
140	140-147	532-140-888
150	150-157	532-150-888
160	160-167	532-160-888
170	170-177	532-170-888
175	175-182	532-175-888
180	180-187	532-180-888
200	200-207	532-200-888
215	215-222	532-215-888
225	225-232	532-225-888
250	250-257	532-250-888
275	275-282	532-275-888
300	300-307	532-300-888
315	315-332	532-315-888
325	325-332	532-325-888
350	350-357	532-350-888
375	375-382	532-375-888
400	400-407	532-400-888
450	450-457	532-450-888
500	500-507	532-500-888

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Master-Grip Hose Clamp, screwable

Special clamp for right-lay hoses



Material

- ① band collar, bridge, housing: steel

Applications

- special clamp for lighter and medium duty, right-handed spiral hoses such as Flamex B-se, Flamex B-F se, Master-PUR, Master-PVC and Master-SANTO

Available on request

- available on request in other sizes and materials.

Properties

- easy to install
- robust
- rust-protected
- primarily tight and tear-proof connection via bridge profiles



Stock lengths and technical data / www.masterflex.de/en

for right-hand hoses in DN	clamping range mm	article no.
38	35-44	533-040-100
40	35-44	533-040-100
45	45-55	533-050-100
50	45-55	533-050-100
55	55-65	533-060-100
60	55-65	533-060-100
65	65-75	533-070-100
70	65-75	533-070-100
75	70-80	533-080-100
80	75-80	533-080-100
90	90-110	533-090-100
100	100-120	533-100-100
110	110-130	533-110-100
120	120-140	533-125-100
125	120-140	533-125-100
130	130-150	533-130-100
140	140-160	533-140-100
150	150-170	533-150-100
160	160-180	533-160-100
170	170-190	533-175-100
175	170-190	533-175-100
180	180-200	533-180-100
200	200-220	533-200-100
215	210-230	533-215-100
225	220-240	533-225-100
250	250-270	533-250-100
275	270-290	533-275-100
300	300-320	533-300-100
315	310-330	533-315-100
325	320-340	533-325-100
350	350-370	533-350-100
375	370-390	533-375-100
400	400-420	533-400-100
450	450-470	533-450-100
500	500-520	533-500-100

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Master-Grip Quick-Fix Clamp

Special clamp for right-lay hoses



Material

- ① band collar, bridge, socket: stainless steel (1.4301)

Applications

- special clamp for lighter and medium duty, right-handed spiral hoses such as Flamex B-se, Flamex B-F se, Master-PUR, Master-PVC and Master-SANTO

Available on request

- available on request in other sizes and materials.

Properties

- rust-free
- robust
- very easy to install
- primarily tight and tear-proof connection via bridge profiles
- subsequent quick mounting also possible for pre-installed hoses
- adjustable clamping force via clamping screw



Stock lengths and technical data / www.masterflex.de/en

for right-hand hoses in DN	clamping range mm	article no.
75	75-82	534-075-888
80	80-87	534-080-888
90	90-97	534-090-888
100	100-107	534-100-888
110	110-117	534-110-888
120	120-127	534-120-888
125	125-132	534-125-888
130	130-137	534-130-888
140	140-147	534-140-888
150	150-157	534-150-888
160	160-167	534-160-888
170	170-177	534-170-888
175	175-182	534-175-888
180	180-187	534-180-888
200	200-207	534-200-888
215	215-222	534-215-888
225	225-232	534-225-888
250	250-257	534-250-888
275	275-282	534-275-888
300	300-307	534-300-888
315	315-322	534-315-888
325	325-332	534-325-888
350	350-357	534-350-888
375	375-382	534-375-888
400	400-407	534-400-888
450	450-457	534-450-888
500	500-507	534-500-888

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Car-Grip Hose Clamp, screwable

Special clamp for Carflex-Super and Master-PUR Step hoses



Material

- ① band collar, bridge, housing: steel

Applications

- special clamp for Carflex Super and Master-PUR STEP hoses for mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- easy to install
- robust
- rust-protected
- primarily tight and tear-proof connection via bridge profiles



Stock lengths and technical data / www.masterflex.de/en

for Carflex Super and Master-PUR Step in DN	clamping range mm	article no.
50	50-70	531-050-100
60	60-80	531-060-100
63	60-80	531-060-100
75	70-90	531-070-100
80	80-100	531-080-100
100	100-120	531-100-100
120	120-140	531-120-100
125	120-140	531-120-100
140	140-160	531-140-100
150	150-170	531-150-100
160	160-180	531-160-100
180	180-200	531-180-100
200	200-220	531-200-100
250	250-270	531-250-100

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Car-Grip Quick-Fix Clamp

Special clamp for Carflex-Super and Master-PUR Step hoses



Material

- ① band collar, bridge, socket: stainless steel (1.4301)

Applications

- special clamp for Carflex Super and Master-PUR STEP hoses for mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- rust-free
- robust
- very easy to install
- primarily tight and tear-proof connection via bridge profiles
- subsequent quick mounting also possible for pre-installed hoses
- adjustable clamping force via clamping screw



Stock lengths and technical data / www.masterflex.de/en

for Carflex Super and Master-PUR Step in DN	clamping range mm	article no.
75	75-82	535-075-888
80	80-87	535-080-888
90	90-97	535-090-888
100	100-107	535-100-888
110	110-117	535-110-888
120	120-127	535-120-888
125	125-132	535-125-888
130	130-137	535-130-888
140	140-147	535-140-888
150	150-157	535-150-888
160	160-167	535-160-888
170	170-177	535-170-888
175	175-182	535-175-888
180	180-187	535-180-888
200	200-207	535-200-888
250	250-257	535-250-888

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Hose Clamp with Worm-Gear

Standard clamp for universal requirements



Material

- ① screw: galvanised steel
- ② band collar: steel, galvanised

Applications

- mounting of light hose types onto connector brackets on mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- robust
- rust-protected
- bandwidth approx. 12 mm
- band thickness approx. 0.5 - 1 mm



Stock lengths and technical data / www.masterflex.de/en

clamping range mm	article no.
25-40	620-025-100
32-50	620-032-100
40-60	620-040-100
50-70	620-050-100
60-80	620-060-100
70-90	620-070-100
80-100	620-080-100
90-110	620-090-100
100-120	620-100-100
110-130	620-110-100
120-140	620-120-100
130-150	620-130-100
140-160	620-140-100
150-170	620-150-100
160-180	620-160-100
170-190	620-170-100
180-200	620-180-100
190-210	620-190-100
200-220	620-200-100
210-230	620-210-100
220-240	620-220-100
230-250	620-230-100
240-260	620-240-100
250-270	620-250-100
260-280	620-260-100
270-290	620-270-100
280-300	620-280-100
290-310	620-290-100
300-320	620-300-100
310-330	620-310-100
320-340	620-320-100
330-350	620-330-100
340-360	620-340-100
350-370	620-350-100
360-380	620-360-100
370-390	620-370-100
380-400	620-380-100
390-410	620-390-100
400-420	620-400-100
410-430	620-410-100
420-440	620-420-100
430-450	620-430-100
440-460	620-440-100
450-470	620-450-100
460-480	620-460-100
470-490	620-470-100
480-500	620-480-100
490-510	620-490-100
500-520	620-500-100

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Hose Clamp with Bolts

for heavier hoses



Material

- ① screw: galvanised steel
- ② band collar: steel, galvanised

Applications

- special clamp for connecting medium and heavy duty hoses to connectors on mobile and stationary units

Available on request

- available on request in other sizes and materials.

Properties

- Up to clamping range 214 - 226 mm with one clamping screw / from clamping range 230 mm: two clamping screws
- extremely robust
- rust-protected
- bandwidth approx. 20 - 26 mm
- band thickness approx. 0.8 - 1.6 mm



Stock lengths and technical data / www.masterflex.de/en

clamping range mm	width x thickness mm	article no.
32-35	20 x 1,0	621-032-115
36-39	20 x 1,0	621-036-115
40-43	20 x 1,0	621-040-115
44-47	22 x 1,0	621-044-115
48-51	22 x 1,0	621-048-115
52-55	22 x 1,0	621-052-115
56-59	22 x 1,0	621-056-115
60-63	22 x 1,0	621-060-115
64-67	25 x 1,5	621-064-115
68-73	25 x 1,5	621-068-115
74-79	25 x 1,5	621-074-115
80-85	25 x 1,5	621-080-115
86-91	25 x 1,5	621-086-115
92-97	25 x 1,5	621-092-115
98-103	25 x 1,5	621-098-115
104-112	25 x 1,5	621-104-115
113-121	25 x 1,5	621-113-115
122-130	25 x 1,5	621-122-115
131-139	25 x 1,5	621-131-115
140-148	25 x 1,5	621-140-115
149-161	25 x 1,8	621-149-115
162-174	25 x 1,8	621-162-115
175-187	25 x 1,8	621-175-115
188-200	25 x 1,8	621-188-115
201-213	25 x 1,8	621-201-115
214-226	25 x 1,8	621-214-115
225-243	25 x 1,8	621-225-115
250-268	25 x 1,0	621-250-115
305-323	25 x 1,0	621-305-115
320-335	25 x 1,0	621-320-115
350-365	25 x 1,0	621-350-115
398-422	25 x 1,0	621-398-115
455-473	25 x 1,0	621-455-115
500-518	25 x 1,0	621-500-115

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Master-Grip Double Wire Clamp, screw-fitting

Special clamp with double-wire system, stainless steel, for right-winding hoses/ducting



Material

- ① stainless steel 1.4301

Applications

- special clamp for attaching light and medium-weight, right-winding spiral hoses/ducting such as Flamex B se, Flamex B-F se, Master-PUR Trivolution, Master-PUR Food, Master-PVC and Master-SANTO

Available on request

- available on request in other sizes and materials.

Properties

- easy to install
- robust
- high sealing force
- extra tight connection via special double-wire system



Stock lengths and technical data / www.masterflex.de/en

Article No.	Clamping range mm
624-025-888	31 - 37
624-030-888	38 - 46
624-051-888	51 - 61
624-063-888	63 - 73
624-070-888	77 - 86
624-075-888	83 - 96
624-090-888	90 - 110
624-102-888	101 - 121
624-120-888	119 - 135
624-140-888	146 - 160
624-152-888	154 - 170
624-170-888	167 - 182
624-203-888	197 - 217
624-225-888	220 - 240
624-254-888	246 - 266

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Quick-Fix Clamp for Cone Flanges

in acc. with DIN 3016



Material

- ① stainless steel 1.4301

Applications

- for quick connectors from:
 - Metal columns with cone flanges
 - Reductions with cone flanges
 - Combiflex PU cone flanges
 - Steel piping with cone flanges
 - Pipe bends/elbows with cone flanges

Properties

- easy to install
- rust-free
- with safety pin to prevent from an inadvertent opening
- robust
- quick-fix clamps for cone flanges in acc.to DIN 3016



Stock lengths and technical data / www.masterflex.de/en

DN	D mm	R mm	weight/piece kg	article no.
50	147	103	0,2	623-050-900
65	158	103	0,26	623-065-900
80	169	103	0,29	623-080-900
100	212	170	0,46	623-100-900
125	241	186	0,78	623-125-900
150	266	202	0,86	623-150-900
160	275	207	0,91	623-160-900
180	289	215	0,97	623-180-900
200	313	228	1,05	623-200-900
250	360	254	1,24	623-250-900

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex Clamp Connection Hinged Clamp

for clamp Connections acc.to DIN 32676



Material

- ① stainless steel 1.4301

Applications

- fitting for solid, liquid and gaseous media in food, pharmaceuticals and chemicals industries
- for application for connectors to machines and piping

Available on request

- available on request in other sizes and materials.

Properties

- materials adhere to the food-grade regulations DIN 32676 series A
- provides watertight connections
- odourless/tasteless
- good chemical resistance
- can be steam-sterilized
- high tensile strength



Stock lengths and technical data / www.masterflex.de/en

DS	weight/piece kg	article no.
32	0,23	647-032-804
40	0,23	647-040-804
50	0,31	647-050-804
65	0,31	647-065-804
80	0,41	647-080-804
100	0,41	647-100-804
125	1,17	647-125-804
150	1,34	647-125-804

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



14

Installation & Connections Plastic Connectors

Connection solutions for almost any application, from standard connectors through to customised customer-specific connections



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Combiflex PU Cone Flange

acc. to DIN 3016



Material

- ① highly abrasion resistant polyurethane

Applications

- screwable quick connection system for the hose types Master-PUR L / H / HX sowie für den Master-PUR Performance

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- abrasion and microbe-resistant
- lightweight
- connection option without adjustable constriction of the cross-section
- high tension-proof
- reusable and exchangeable
- easy to install when using quick-fit clamp connectors
- shock-proof
- dissipation of electrostatic charge via integrated earthing plate available for prefixed version

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

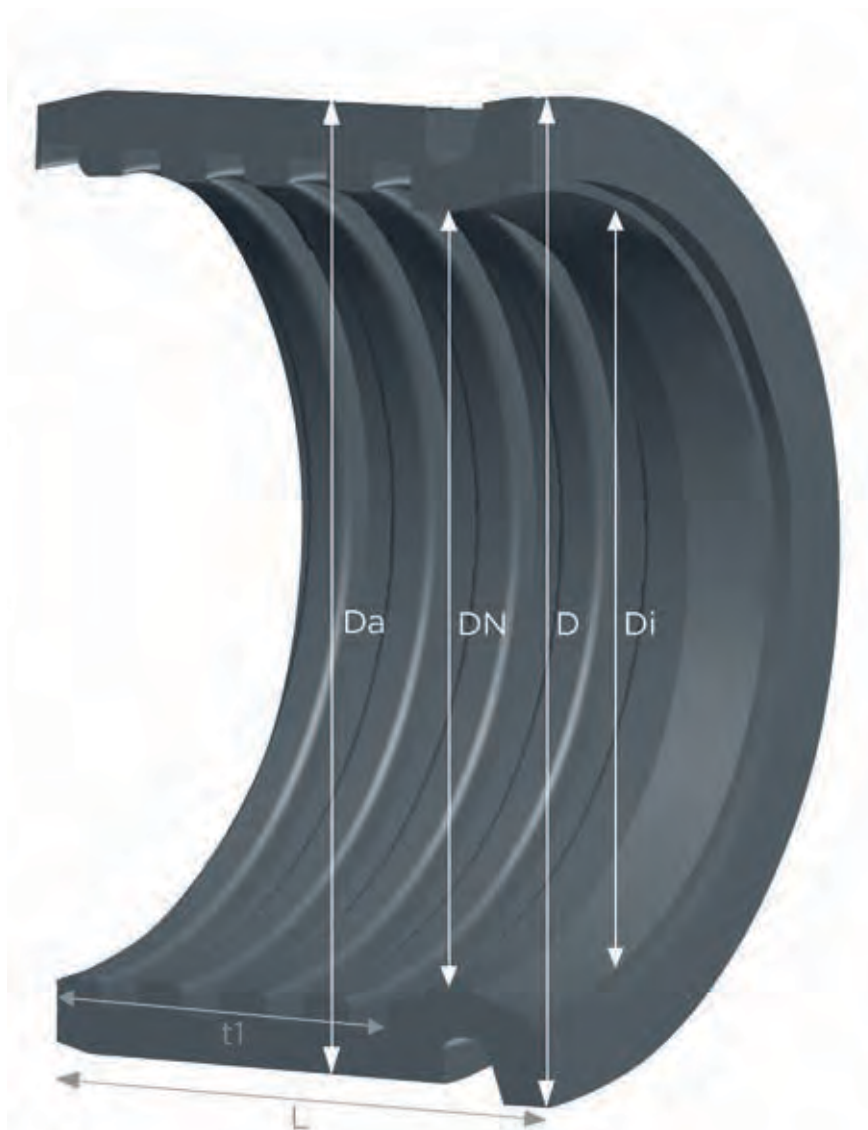
DN	length mm	weight/piece kg	Type	article no. male connection	article no. female connection	article no. male connection pre-fixed
50	68	0,1	L	521-050-10V	521-050-10M	520-050-10V
50	68	0,1	H	522-050-10V	522-050-10M	520-050-10V
50	68	0,1	HX	523-050-10V	523-050-10M	520-050-10V
51	68	0,1	Performance	523-051-1PV	523-051-1PM	520-050-10V
65	78	0,15	L	521-065-10V	521-065-10M	520-065-10V
65	78	0,15	H	522-065-10V	522-065-10M	520-065-10V
65	78	0,15	HX	523-065-10V	523-065-10M	520-065-10V
65	78	0,15	Performance	523-065-1PV	523-065-1PM	520-065-10V
80	83	0,18	L	521-080-10V	521-080-10M	520-080-10V
80	83	0,18	H	522-080-10V	522-080-10M	520-080-10V
80	83	0,18	HX	523-080-10V	523-080-10M	520-080-10V
80	83	0,18	Performance	523-080-1PV	523-080-1PM	520-080-10V
100	88	0,35	L	521-100-10V	521-100-10M	520-100-10V
100	88	0,35	H	522-100-10V	522-100-10M	520-100-10V
100	88	0,35	HX	523-100-10V	523-100-10M	520-100-10V
102	88	0,35	Performance	523-102-1PV	523-102-1PM	520-100-10V
125	95	0,42	L	521-125-10V	521-125-10M	520-125-10V
125	95	0,42	H	522-125-10V	522-125-10M	520-125-10V
125	95	0,42	HX	523-125-10V	523-125-10M	520-125-10V
127	95	0,42	Performance	523-127-1PV	523-127-1PM	520-125-10V
150	105	0,63	L	521-150-10V	521-150-10M	520-150-10V
150	105	0,63	H	522-150-10V	522-150-10M	520-150-10V
150	105	0,63	HX	523-150-10V	523-150-10M	520-150-10V
152	105	0,63	Performance	523-152-1PV	523-152-1PM	520-150-10V
160	105	0,7	L	521-160-10V	521-160-10M	520-160-10V
160	105	0,7	H	522-160-10V	522-160-10M	520-160-10V
160	105	0,7	HX	523-160-10V	523-160-10M	520-160-10V
180	110	0,8	L	521-180-10V	521-180-10M	520-180-10V
180	110	0,8	H	522-180-10V	522-180-10M	520-180-10V
180	110	0,8	HX	523-180-10V	523-180-10M	520-180-10V
200	110	0,87	L	521-200-10V	521-200-10M	520-200-10V
200	110	0,87	H	522-200-10V	522-200-10M	520-200-10V
200	110	0,87	HX	523-200-10V	523-200-10M	520-200-10V
250	120	1,4	L	521-250-10V	521-250-10M	520-250-10V
250	120	1,4	H	522-250-10V	522-250-10M	520-250-10V
250	120	1,4	HX	523-250-10V	523-250-10M	520-250-10V

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex PU Cone Flange

acc. to DIN 3016



- DN** Inner Diameter Hose
- D** Outer Diameter Flange
- Da** Outer Diameter Screw Thread
- L** Total Length
- t1** Hose Insertion Depth
- di** Pipe Inner Diameter



Stock lengths and technical data / www.masterflex.de/en

DN: inner-Ø hose mm	D: outer-Ø flange mm	Da: outer-Ø Screw Thread mm	L: Total length mm	t1: hose insertion depth mm	di: pipe inner-Ø mm
50	78	75	68	43,5	54,5
65	91	90	78	48,5	70,3
80	104	105	83	53,5	82,5
100	129	131	88	58,5	107,1
125	161	156	95	63,5	131,7
150	190	184	105	73,5	159,3
160	200	190	105	73,5	167,0
180	216	210	110	78,5	182,9
200	242	235	110	78,5	207,3
225	295	283	120	88,8	260,4

1

2

3

4

5

6

7

8

9

10

11

12

13

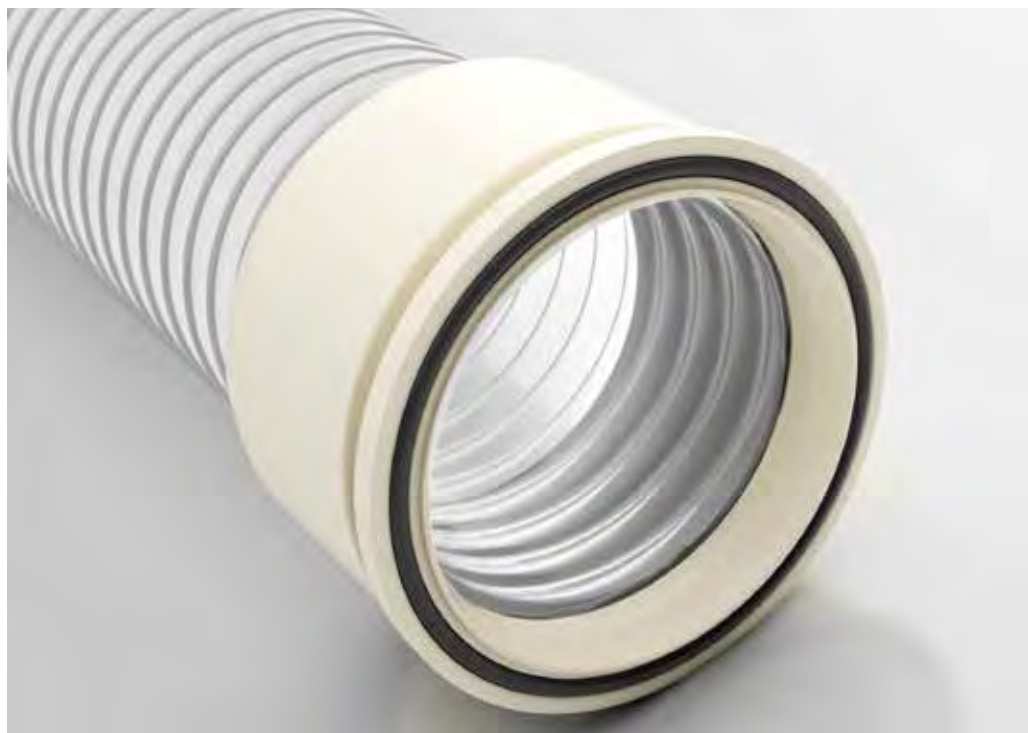
14

15

16

Combiflex PU Cone Flange Food

in acc. with DIN 3016



Material

- ① colour: white
- ② collar: food-grade polyurethane acc. to EU directive 10/2011 and BfR XXXIX

Applications

- cast-on quick connectors for all Master-PUR Food hose types

Properties

- lightweight
- connection option without adjustable constriction of the cross-section
- PU-sprue: approved for direct contact with foodstuffs acc. to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits)
- high tension-proof
- easy to install when using quick-fit clamp connectors
- shock-proof
- abrasion, microbe and hydrolysis resistant
- dissipation of electrostatic charge via integrated earthing plate available for prefixed version

Temperature Range

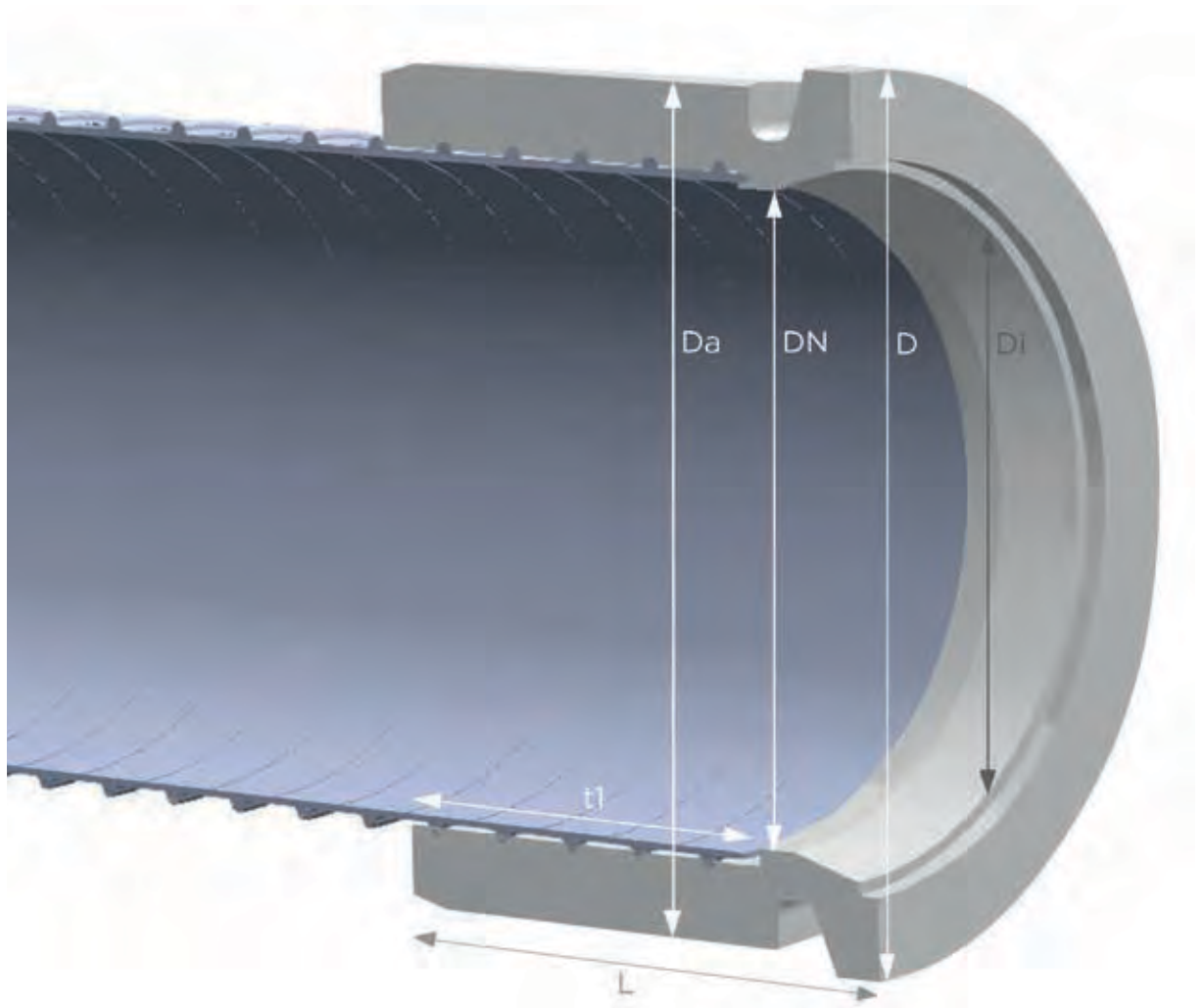
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	D: Außen-Ø Flansch	Da: Außen-Ø Schraubbereich	total length mm	d1: Rohr- innen-Ø	weight/piece kg	article no. female connec- tion	article no. fe- male connec- tion
50	78	75	68	54,5	0,1	520-050-50V	520-050-50M
65	91	90	78	70,3	0,15	520-065-50V	520-065-50M
80	104	105	83	82,5	0,18	520-080-50V	520-080-50M
100	129	131	88	107,1	0,35	520-100-50V	520-100-50M
125	161	156	95	131,7	0,42	520-125-50V	520-125-50M
150	190	184	105	159,3	0,63	520-150-50V	520-150-50M
160	200	190	105	167,0	0,7	520-160-50V	520-160-50M
180	216	210	110	182,9	0,8	520-180-50V	520-180-50M
200	242	235	110	207,3	0,87	520-200-50V	520-200-50M

All data refers to a medium and ambient temperature of +20 °C
 Order-specific production in above listed sizes, in White, pre-fixed, water-tight version for Master-PUR Food hoses
 Subject to technical changes and colour deviations.



Combiflex PU Fixed Flange

for counterflanges acc. to DIN 2632/DIN 2633



Material

- 1 highly abrasion resistant polyurethane
- 2 colour: black

Applications

- screwable plastic flange for for the hose types Master-PUR L / H / HX

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- abrasion and microbe-resistant
- lightweight
- connection option without adjustable constriction of the cross-section
- high tension-proof
- reusable and exchangeable
- simple mounting
- shock-proof
- pressure level PN 6 at DN 200 or PN 10/16 at all other DN
- dissipation of electrostatic charge via integrated earthing plate available for prefixed version

Temperature Range

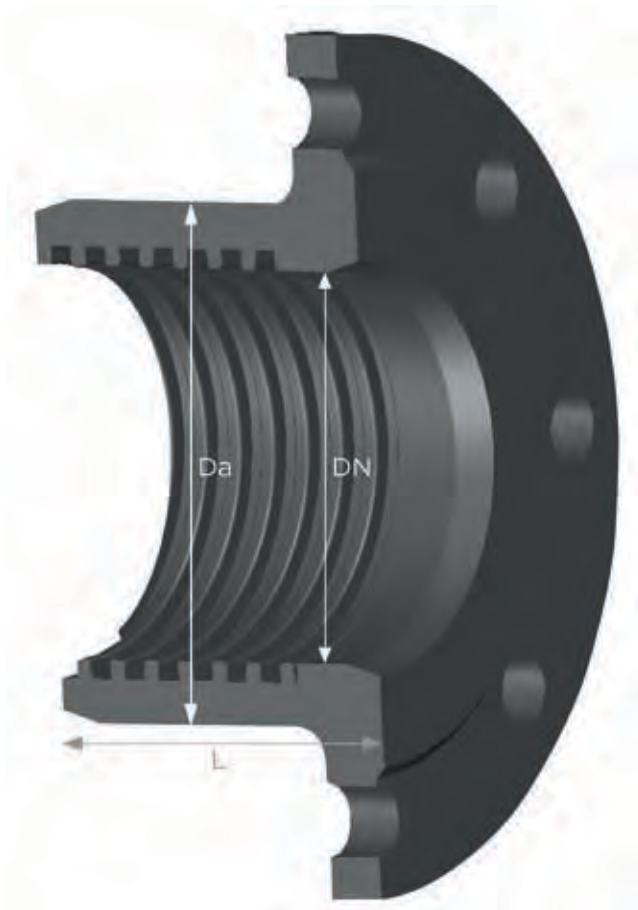
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

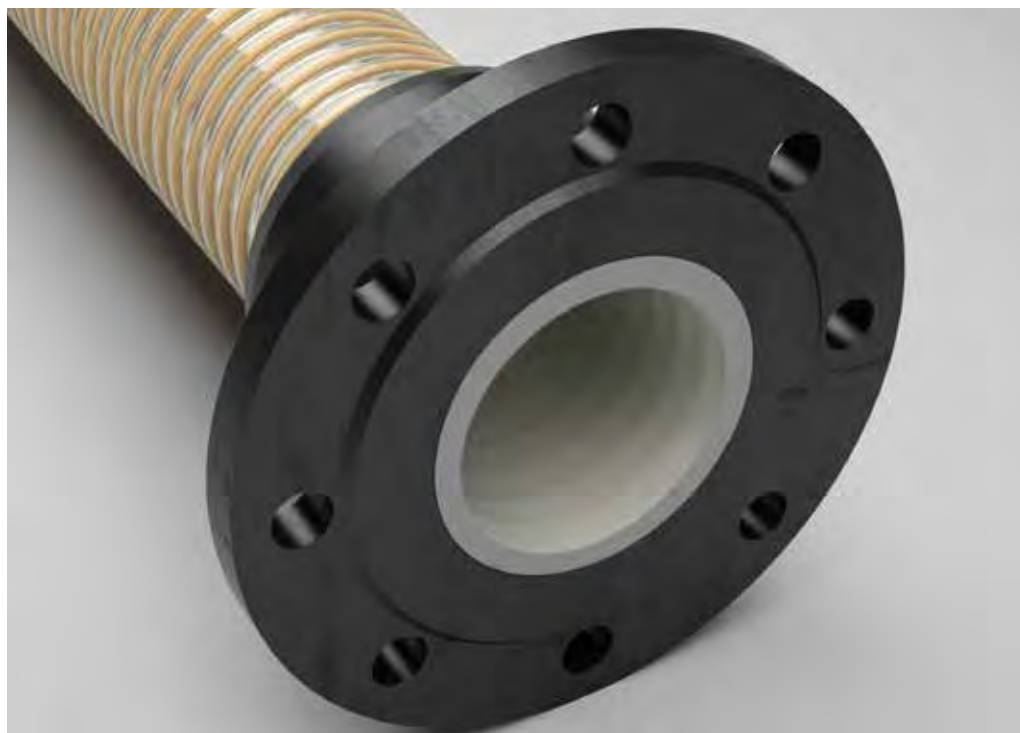
DN adapter	pipe external dimension mm	Da: Outer-Ø screw fixing area mm	DN hose	hole circle mm	length L mm	weight/ piece kg	article no. Type L	article no. Type H	article no. Typ HX	article no. Type Performance
50	57	75	50	125	66	0,4	560-050-057	561-050-057	563-050-057	565-051-057
50	60,3	75	50	125	66	0,4	560-050-060	561-050-060	563-050-060	565-051-060
65	76,1	90	65	145	76	0,5	560-065-076	561-065-076	563-065-076	565-065-076
65	76,1	90	70	145	76	0,55	560-070-076	561-070-076	563-070-076	565-070-076
80	88,9	105	75	160	76	0,6	560-075-088	561-075-088	563-075-088	565-076-088
80	88,9	105	80	160	76	0,65	560-080-088	561-080-088	563-080-088	565-080-088
100	108	131	100	180	86	0,8	560-100-108	561-100-108	563-100-108	565-102-108
100	114,3	131	100	180	86	0,8	560-100-114	561-100-114	563-100-114	565-102-114
125	133	156	120	210	92	0,95	560-120-133	561-120-133	563-120-133	565-120-133
125	139,7	156	120	210	92	0,95	560-120-139	561-120-139	563-120-139	565-120-139
125	133	156	125	210	92	1	560-125-133	561-125-133	563-125-133	565-127-133
125	139,7	156	125	210	92	1	560-125-139	561-125-139	563-125-139	565-127-139
150	159	184	140	240	98	1,2	560-140-159	561-140-159	563-140-159	565-140-159
150	159	184	150	240	98	1,4	560-150-159	561-150-159	563-150-159	565-152-159
150	168,3	184	150	240	98	1,4	560-150-168	561-150-168	563-150-168	565-152-168
150	177,8	184	160	240	98	1,5	560-160-168	561-160-168	563-160-168	565-160-168
175	193,7	210	180	270	103	1,8	560-180-193	561-180-193	563-180-193	/
200	219,1	235	200	295	108	2	560-200-219	561-200-219	563-200-219	/
250	267	292	250	350	118	3	560-250-267	561-250-267	563-250-267	/
250	273	292	250	350	118	3	560-250-273	561-250-273	563-250-273	/
300	323,9	344	300	400	123	4	560-300-323	561-300-323	563-300-323	/

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.



Combiflex Cast-on PU Fixed Flange

for counterflanges acc. to DIN 2632 / DIN 2633 / DIN 2673



Material

- ① highly abrasion resistant polyurethane
- ② colour: black

Applications

- cast-on PU flange for all Master-PUR Inline hose types

Properties

- lightweight
- high tension-proof connection
- microbe-resistant
- front-flush hose integration
- abrasion-resistant
- shock-proof
- pressure level PN 6 at DN 200 or PN 10/16 at all other DN
- dissipation of electrostatic charge via integrated earthing plate available for prefixed version
- gas-tight / watertight

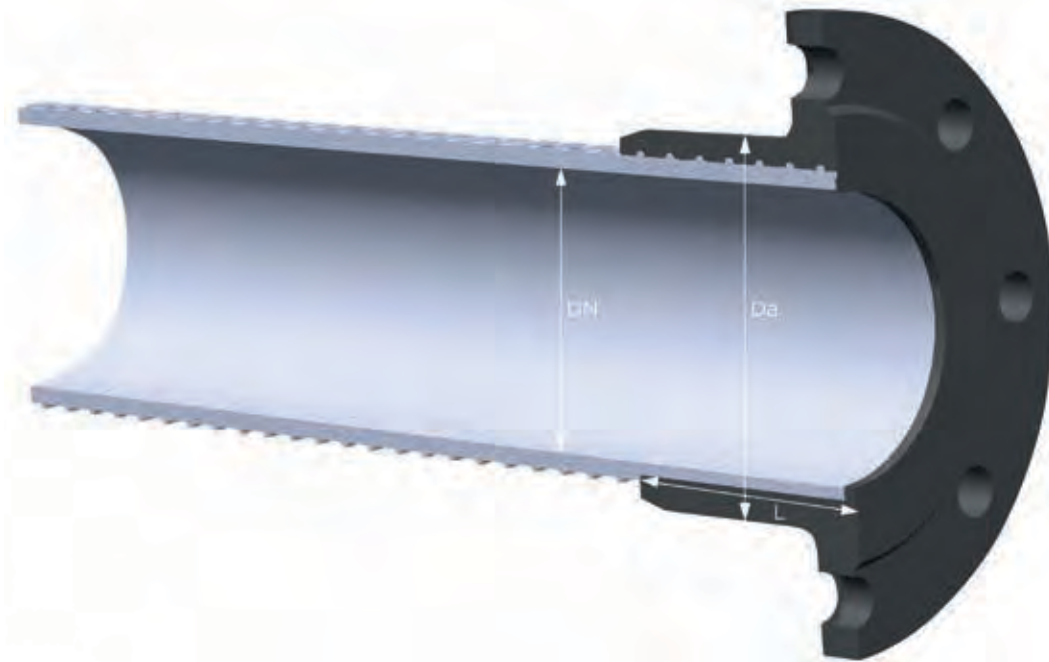
Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN	dA: pipe external dimension mm	DN hose	hole circle mm	weight/ piece kg	article no. type L/H/ HX/Performance	article no. type Inline
50	57	51	125	0,4	562-050-057	564-051-107
50	60,3	51	125	0,4	562-050-060	564-051-107
65	76,1	65	145	0,5	562-065-076	564-065-107
65	76,1	70	145	0,55	562-070-076	/
80	88,9	76	160	0,6	562-075-088	564-076-107
80	88,9	80	160	0,65	562-080-088	564-080-107
100	108	102	180	0,8	562-100-108	564-102-107
100	114,3	102	180	0,8	562-100-114	564-102-107
125	133	120	210	0,95	562-120-133	/
125	139,7	120	210	0,95	562-120-139	/
125	133	127	210	1	562-125-133	564-127-107
125	139,7	127	210	1	562-125-139	564-127-107
150	159	140	240	1,2	562-140-159	/
150	159	152	240	1,4	562-150-159	564-152-107
150	168,3	152	240	1,4	562-150-168	564-152-107
150	177,8	160	240	1,5	562-160-168	/
175	193,7	180	270	1,8	562-180-193	/
200	219,1	203	295	2	562-200-219	564-203-107
250	267	250	350	3	562-250-267	/
250	273	250	350	3	562-250-273	/
300	323,9	300	400	4	562-300-323	/

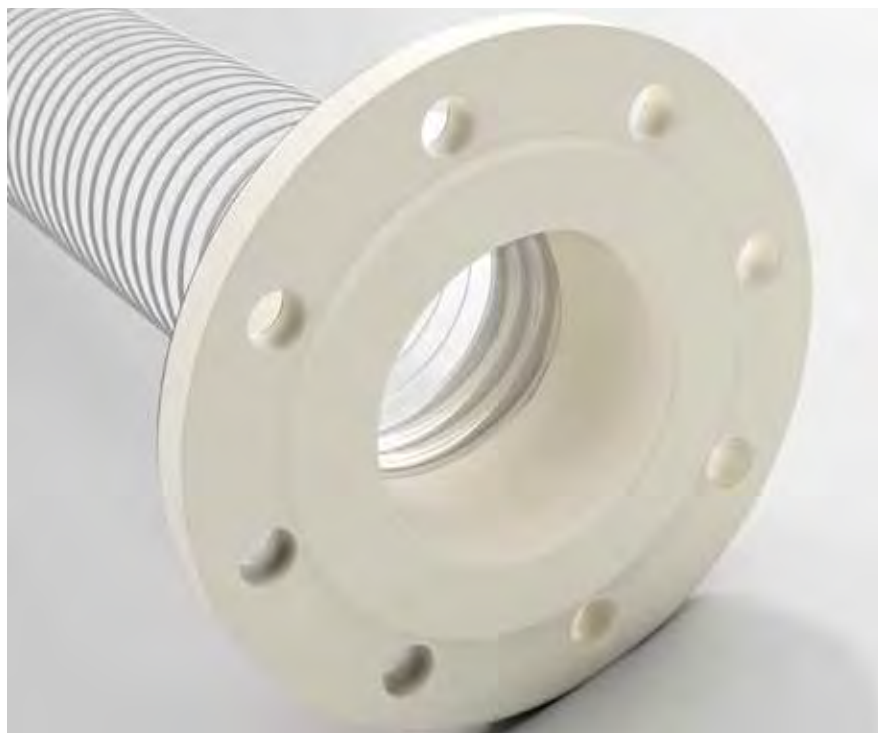
All data refers to a medium and ambient temperature of +20 °C
Order-specific production in above listed sizes, in black, only for Master-PUR Inline hoses.
Subject to technical changes and colour deviations.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex PU Fixed Flange Food

for counterflanges acc. to DIN 2633



Material

- ① food-grade polyurethane acc.to EU 10/2011 and BfR XXXIX

Applications

- cast-on plastic flange for all Master-PUR Food hose types

Properties

- lightweight
- connection option without adjustable constriction of the cross-section
- PU-sprue: approved for direct contact with foodstuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits)
- high tension-proof
- simple mounting
- shock-proof
- abrasion, microbe and hydrolysis resistant
- Pressure range PN 10/16
- dissipation of electrostatic charge via integrated earthing plate available for prefixed version

Temperature Range

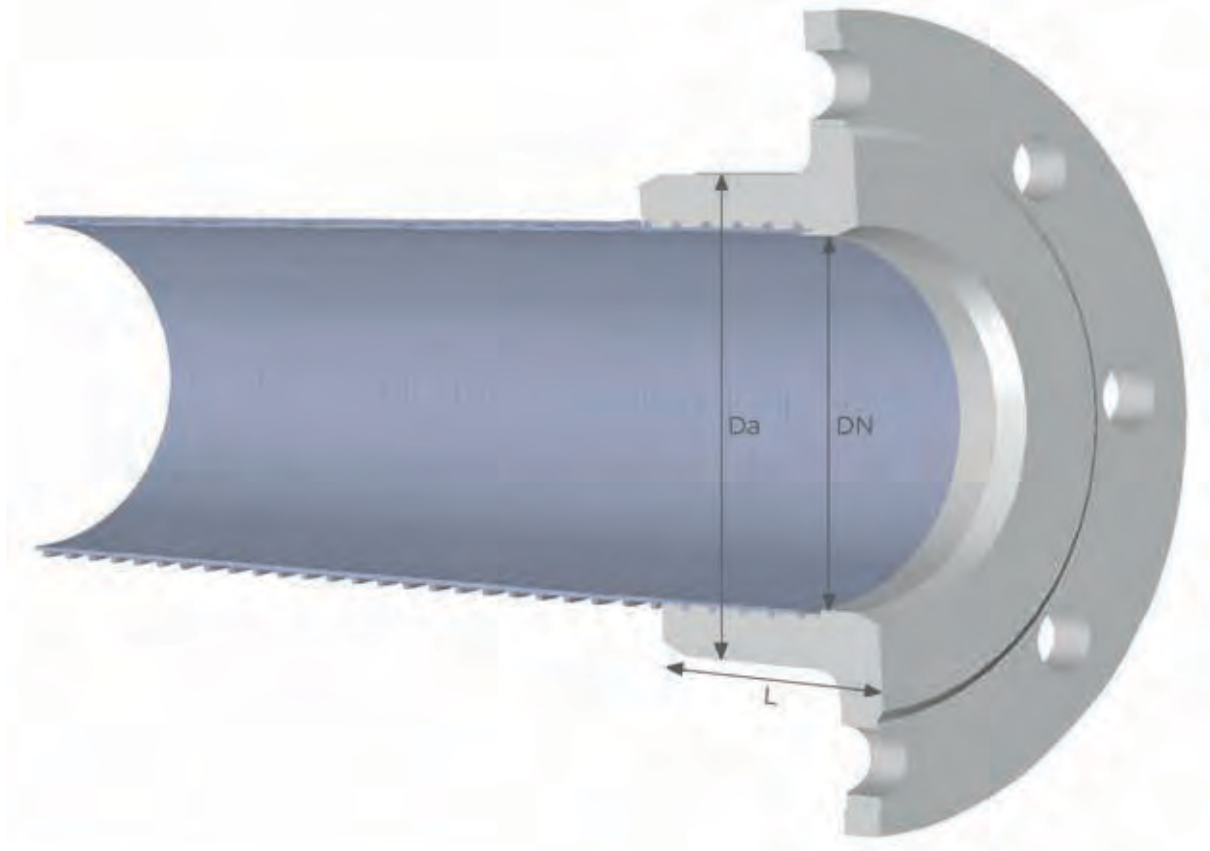
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN adapter	Da: pipe external dimension	DN hose	hole circle mm	length mm	weight/piece kg	article no.
50	57	50	125	66	0,55	562-050-501
50	60,3	50	125	66	0,55	562-050-502
65	76,1	65	145	76	0,69	562-065-501
65	76,1	70	145	76	0,69	562-070-501
80	88,9	75	160	76	0,85	562-075-501
80	88,9	80	160	76	0,85	562-080-501
100	108	100	180	86	1,13	562-100-501
100	114,3	100	180	86	1,13	562-100-502

All data refers to a medium and ambient temperature of +20 °C
 Order-specific production in above listed sizes, in White, pre-fixed, water-tight version for Master-PUR Food hoses
 Subject to technical changes and colour deviations.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex PU Swivel Flange

for counterflanges acc. to DIN 2632 / DIN 2632



Material

- ① loose flange: aluminium
- ② collar: abrasion-resistant polyurethane

Applications

- screwable plastic collar with loose flange for the hose types Master-PUR L / H / HX

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- abrasion and microbe-resistant
- connection option without adjustable constriction of the cross-section
- high tension-proof
- reusable and exchangeable
- simple mounting
- shock-proof
- pressure level PN 6 at DN 200 or PN 10/16 at all other DN

Temperature Range

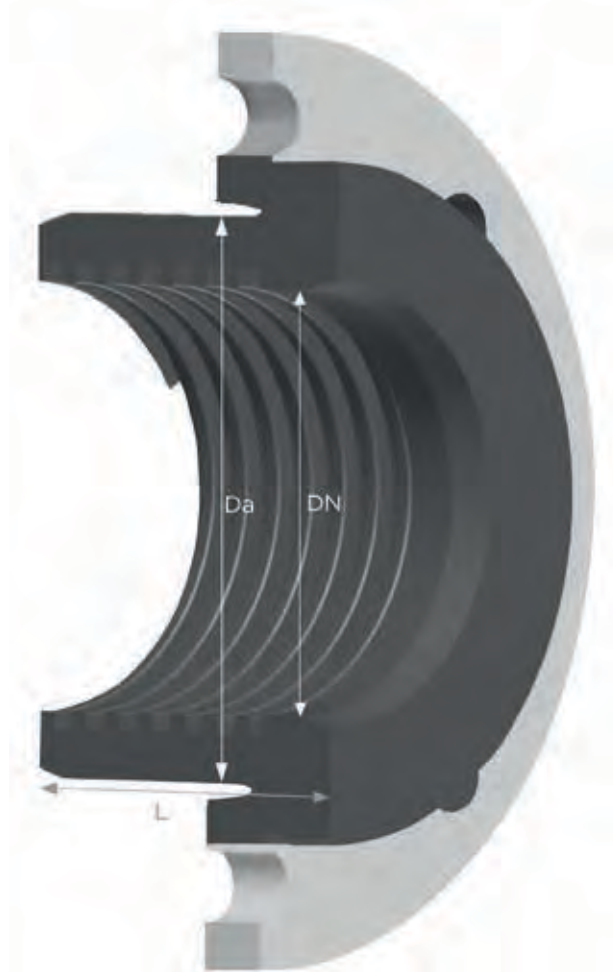
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN adapter	pipe external dimension mm	DN hose	hole circle mm	weight kg	article no. type L	article no. Type H	article no. type HX	article no. Type Performance
50	57	50	125	0,92	570-050-057-AL	571-050-057-AL	573-050-057AL	575-051-057
50	60,3	50	125	0,92	570-050-060-AL	571-050-060-AL	573-050-060-AL	575-051-060
65	76,1	65	145	1,19	570-065-076-AL	571-065-076-AL	573-065-076-AL	575-065-076
65	76,1	70	145	1,14	570-070-076-AL	571-070-076-AL	573-070-076-AL	/
80	88,9	75	160	1,48	570-075-088-AL	571-075-088-AL	573-075-088-AL	575-076-088
80	88,9	80	160	1,43	570-080-088-AL	571-080-088-AL	573-080-088-AL	575-080-088
100	108	100	180	1,74	570-100-108-AL	571-100-108-AL	573-100-108-AL	575-102-108
100	114,3	100	180	1,74	570-100-114-AL	571-100-114-AL	573-100-114-AL	575-102-114
125	133	120	210	2,37	570-120-133-AL	571-120-133-AL	573-120-133-AL	/
125	139,7	120	210	2,37	570-120-139-AL	571-120-139-AL	573-120-139-AL	/
125	133	125	210	2,26	570-125-133-AL	571-125-133-AL	573-125-133-AL	575-127-133
125	139,7	125	210	2,26	570-125-139-AL	571-125-139-AL	573-125-139-AL	575-127-139
150	159	140	240	3,09	570-140-159-AL	571-140-159-AL	573-140-159-AL	575-140-159
150	159	150	240	2,82	570-150-159-AL	571-150-159-AL	573-150-159-AL	575-152-159
150	168,3	150	240	2,82	570-150-168-AL	571-150-168-AL	573-150-168-AL	575-152-168
150	177,8	160	240	2,53	570-160-168-AL	571-160-168-AL	573-160-168-AL	/
200	219,1	200	295	4,18	570-200-219-AL	571-200-219-AL	573-200-219-AL	/
250	267	250	350	5,88	570-250-267-AL	571-250-267-AL	573-250-267-AL	/
250	273	250	350	5,88	570-250-273-AL	571-250-273-AL	573-250-273-AL	/
300	323,9	300	400	7,12	570-300-323-AL	571-300-323-AL	573-300-323-AL	/

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.



Combiflex Cast-on PU Swivel Flange

for counterflanges acc. to DIN 2632 / DIN 2633 / DIN 2673



Material

- 1 loose flange: aluminium
- 2 collar: abrasion-resistant polyurethane

Applications

- cast-on PU swivel flange for Master-PUR Inline hose types

Properties

- lightweight
- high tension-proof connection
- microbe-resistant
- front-flush hose integration
- abrasion-resistant
- shock-proof
- pressure level PN 6 at DN 200 or PN 10/16 at all other DN
- gas-tight / watertight

Temperature Range

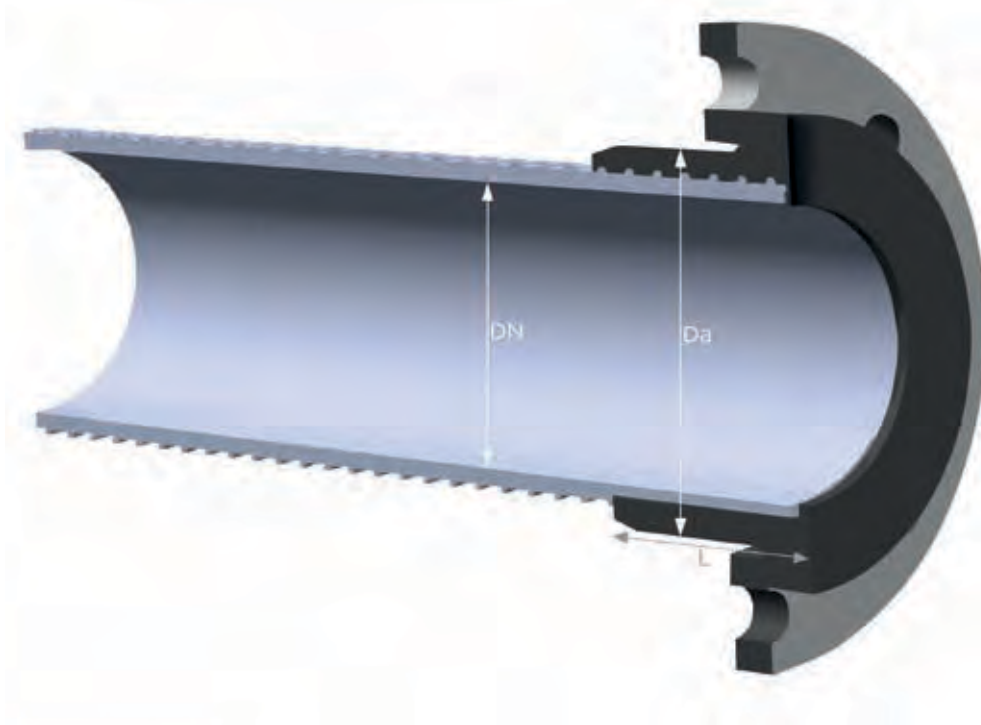
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

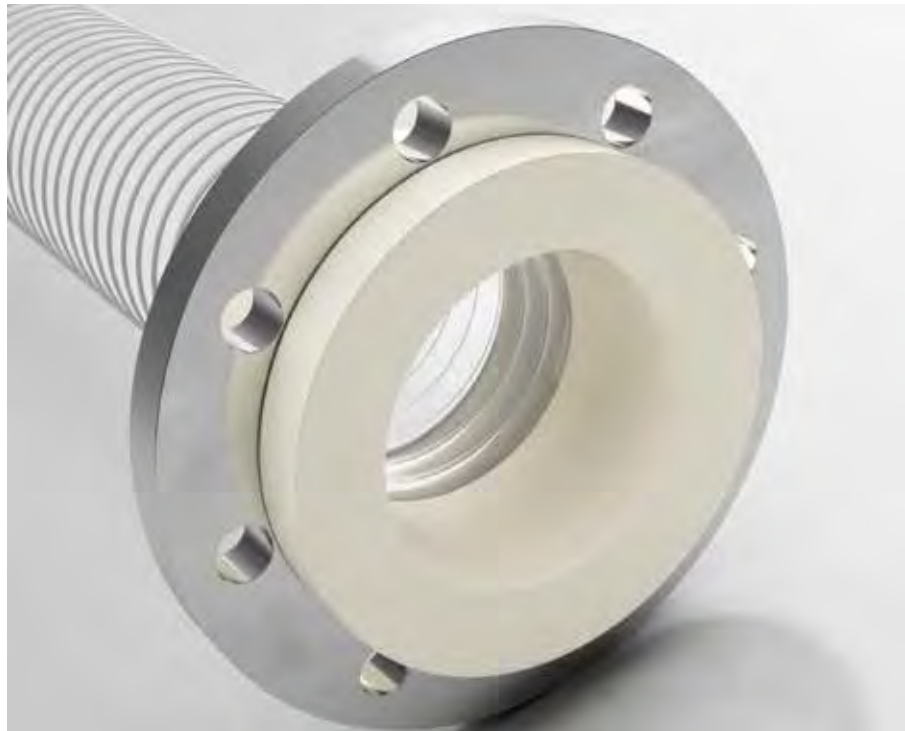
DN adapter	dA: pipe external dimension mm	Da: Outer-Ø Cast-on section mm	DN hose	hole circle mm	weight/piece kg	length L mm	article no. Type L/H/HX/Performance	article no. Type Inline
50	57	75	51	125	0,92	66	572-050-057-AL	574-051-107-AL
50	60,3	75	51	125	0,92	66	572-050-060-AL	574-051-107-AL
65	76,1	90	65	145	1,19	76	572-065-076-AL	574-054-107-AL
65	76,1	90	70	145	1,14	76	572-070-076-AL	/
80	88,9	105	76	160	1,48	76	572-075-088-AL	574-076-107-AL
80	88,9	105	80	160	1,43	76	572-080-088-AL	574-080-107-AL
100	108	131	102	180	1,74	86	572-100-108-AL	574-102-107-AL
100	114,3	131	102	180	1,74	86	572-100-114-AL	574-102-107-AL
125	133	156	127	210	2,26	92	572-125-133-AL	574-127-107-AL
125	139,7	156	127	210	2,26	92	572-125-139-AL	574-127-107-AL
150	159	184	152	240	2,82	98	572-150-159-AL	574-152-107-AL
150	168,3	184	152	240	2,82	98	572-150-168-AL	574-152-107-AL
150	177,8	184	160	240	2,53	98	572-160-168-AL	/
200	219,1	235	203	295	4,18	108	572-200-219-AL	574-204-107-AL
250	267	292	250	350	5,88	118	572-250-267-AL	/
250	273	292	250	350	5,88	118	572-250-273-AL	/
300	323,9	344	300	400	7,12	123	572-300-323-AL	/

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in above listed sizes, in black, only for Master-PUR Inline hoses.
Subject to technical changes and colour deviations.



Combiflex PU Swivel Flange Food

for counterflanges acc. to DIN 2633



Material

- ① colour: white
- ② collar: food-grade polyurethane acc. to EU directive 10/2011 and BfR XXXIX
- ③ loose flange: stainless steel

Applications

- cast-on plastic flange for all Master-PUR Food hose types

Properties

- lightweight
- connection option without adjustable constriction of the cross-section
- PU-sprue: approved for direct contact with foodstuffs acc. to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits)
- high tension-proof
- simple mounting
- shock-proof
- abrasion, microbe and hydrolysis resistant
- Pressure range PN 10/16

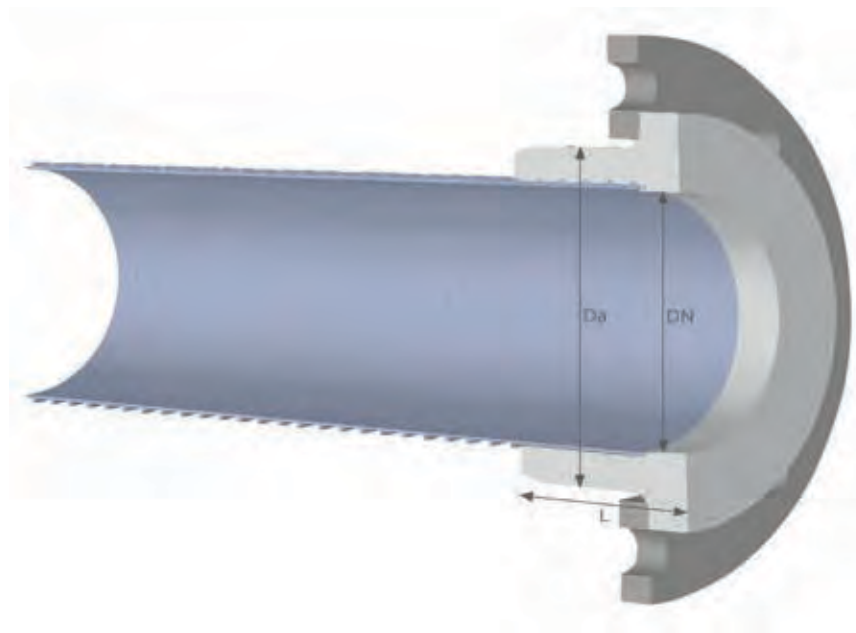
Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN adapter	pipe external dimension mm	Da: Outer-Ø Cast-on section mm	DN hose	hole circ- le mm	length mm	weight/piece kg	article no.
50	57	75	50	125	66	2,24	572-050-501
50	60,3	75	50	125	66	2,24	572-050-502
65	76,1	90	65	145	76	2,8	572-065-501
65	76,1	90	70	145	76	2,75	572-070-501
80	88,9	105	75	160	76	3,39	572-075-501
80	88,9	105	80	160	76	3,34	572-080-501
100	108	131	100	180	86	3,79	572-100-501
100	114,3	131	100	180	86	3,79	572-100-502
125	133	156	120	210	92	4,97	572-120-501
125	139,7	156	120	210	92	4,97	572-120-502
125	133	156	125	210	92	4,86	572-125-501
125	139,7	156	125	210	92	4,86	572-125-502
150	159	184	140	240	98	6,17	572-140-501
150	159	184	150	240	98	5,9	572-150-501
150	168,3	184	150	240	98	5,9	572-150-502

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in above listed sizes, in White, pre-fixed, water-tight version for Master-PUR Food hoses
Subject to technical changes and colour deviations.



Combiflex PU Threaded Sockets

in acc. with DIN ISO 228



Material

- ① abrasion resistant polyurethane

Applications

- screwable threaded connectors for Master-PUR L / H / HX

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- lightweight
- high tension-proof and primarily water-tight connection
- reusable and exchangeable
- simple mounting
- abrasion-resistant
- microbe and hydrolysis-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN hose	thread size (in.) inch	length mm	weight/ piece kg	article no. Type L	article no. Type H	article no. Type HX	artikel no. type Performance
50	2	83	0,16	524-050-107	525-050-107	526-050-107	526-050-P07
65	2,5	94	0,23	524-065-107	525-065-107	526-065-107	526-065-P07
75	3	102	0,26	524-075-107	525-075-107	526-075-107	526-075-P07
100	4	124	0,53	524-100-107	525-100-107	526-100-107	526-100-P07
125	5	100	0,65	524-125-107	525-125-107	526-125-107	526-125-P07
150	6	109	0,95	524-150-107	525-150-107	526-150-107	526-150-P07

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex PU Threaded Sockets Food

in acc. with DIN ISO 228



Material

- 1 food-grade polyurethane acc.to EU 10/2011 and BfR XXXIX
- 2 colour: white

Applications

- cast-on threaded connectors for all Master-PUR Food hose types

Properties

- lightweight
- PU-sprue: approved for direct contact with food-stuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits)
- simple mounting
- abrasion-resistant
- microbe and hydrolysis-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C



DN hose	connector thread size (in.) inch	length mm	weight/piece kg	article no.
50	2	83	0,15	527-050-510
65	2,5	94	0,22	527-065-510
75	3	102	0,25	527-075-510
100	4	124	0,51	527-100-510
125	5	100	0,6	527-125-510
150	6	109	0,9	527-150-510

All data refers to a medium and ambient temperature of +20 °C
 Order-specific production in above listed sizes, in White, pre-fixed, water-tight version for Master-PUR Food hoses
 Subject to technical changes and colour deviations.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Streetmaster Cuff

cast-on/pre-fixed



Material

- ① wall: polyurethane

Applications

- cast-on connector cuff for all Streetmaster hoses

Properties

- abrasion and microbe-resistant
- watertight
- flexible at cold temperatures
- shock-proof

Temperature Range

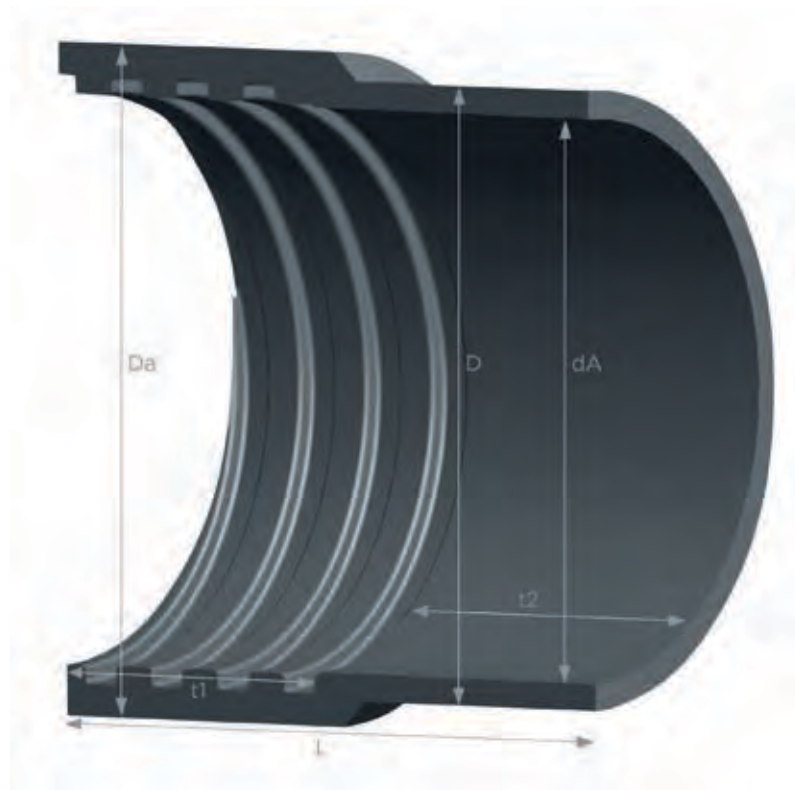
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	dA: outer diameter pipe mm	D: outer-Ø clamp range mm	Da: outer-Ø screw range mm	t1: hose screwing depth mm	t2: fitting insertion depth mm	total length mm	weight/ piece kg	article no.
200	206	220	220	75	50	125	1	510-200-107
225	226	240	247	75	50	125	1,15	510-225-107
250	255	269	275	75	50	125	1,4	510-250-107
280	281	295	302	75	50	125	1,4	510-280-107
400	404	418	422	95	55	150	2,35	510-400-107

All data refers to a medium and ambient temperature of +20 °C
 Order-specific production in above listed sizes, only in pre-fixed version on Streetmaster hoses
 Subject to technical changes and colour deviations.



PU Screw Cuff EL

Electroconductive <math> < 10^4 \text{ Ohm}</math>



Material

- ① polyurethane, electroconductive $R_o < 10^4 \text{ Ohm}$

Applications

- industrial vacuum cleaners
- suction and blower units
- special screw cuff for Master-PUR L/H and Master-PVC L/H hoses
- conveyance units

Properties

- dimensionally stable
- easy to install
- flexible at cold temperatures
- surface resistance <math> < 10^4 \text{ Ohm}</math>
- abrasion-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C

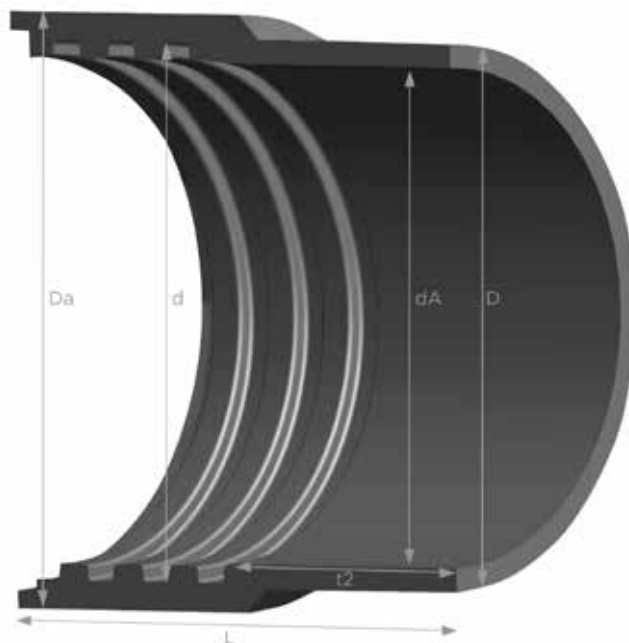


Stock lengths and technical data / www.masterflex.de/en

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

DN	dA mm	D: outer-Ø clamp range mm	d: inner-Ø screw range mm	Da: outer-Ø screw range mm	t1: hose screwing depth mm	t2: fitting insertion depth mm	length mm	weight/piece kg	article no.
32	32	39	42	47	37	35	72	0,06	650-032-207
38	38	45	48	54	42	38	80	0,06	650-038-207
40	40	48	51	56	42	43	85	0,07	650-040-207
50	50	59	60	67	47	42	89	0,1	650-050-207
60	60	68	72	78	43	47	90	0,11	650-060-207
70	70	78	80	89	48	46	94	0,15	650-070-207

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.



Combiflex PU Cuff

PU End Cuff for Master-PUR Hoses



Material

- ① highly abrasion resistant polyurethane

Applications

- screwable special coupling for all Master-PUR L and Master-PUR H hose types

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- abrasion and microbe-resistant
- flexible at cold temperatures
- lightweight
- high tension-proof
- reusable and exchangeable
- simple mounting
- shock-proof
- permanently anti-static, surface resistance $R_o < 10^9$, acc. to DIN IEC 60 167

Temperature Range

- -40°C to +90°C
- peaks to +125°C

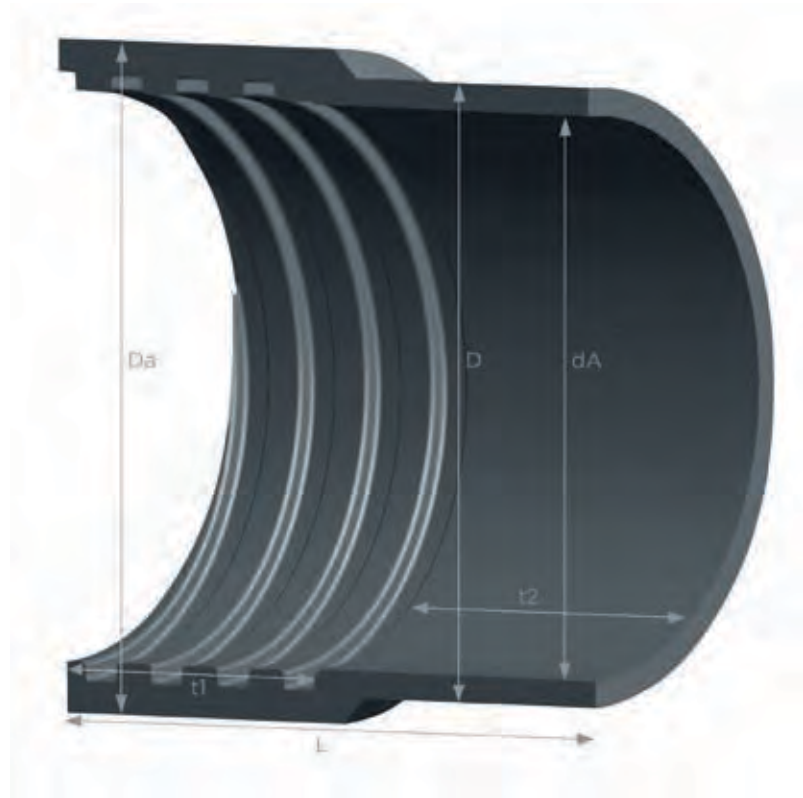


Stock lengths and technical data / www.masterflex.de/en

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

DN	dA connection size	D: outer-Ø clamp range mm	Da: outer-Ø screw range mm	t1: hose screwing depth mm	t2: fitting insertion depth mm	total length mm	weight/ piece kg	article no. Type L	article no. Type H
32	32,1	39	47	32,5	32,5	70	0,05	540-032-107	541-032-107
38	38,1	46	54	37,5	37,5	80	0,08	540-038-107	541-038-107
50	51,2	59	68	42,5	42,5	90	0,11	540-050-107	541-050-107
65	65,5	74	84	47,5	47,5	100	0,15	540-065-107	541-065-107
70	70,5	79	89	47,5	47,5	100	0,19	540-070-107	541-070-107
75	76,1	85	95	47,5	47,5	100	0,2	540-075-107	541-075-107
80	80,7	90	100	52,5	52,5	110	0,25	540-080-107	541-080-107
100	102,1	112	122	57,5	57,5	120	0,36	540-100-107	541-100-107
120	121	132	142	62,5	62,5	130	0,49	540-120-107	541-120-107
125	128	139	149	62,5	62,5	130	0,53	540-125-107	541-125-107
140	141	153	164	70	70	145	0,6	540-140-107	541-140-107
150	153,4	165	176	70	70	145	0,81	540-150-107	541-150-107
160	161	173	184	70	70	145	0,8	540-160-107	541-160-107
180	181	194	206	77,5	77,5	160	1,1	540-180-107	541-180-107
200	204,7	218	229	77,5	77,5	160	1,2	540-200-107	541-200-107
250	251,4	266	278	85	85	175	1,73	540-250-107	541-250-107
300	301,5	318	332	100	100	205	2,5	540-300-107	541-300-107

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.



Combiflex PU Cuff V

PU End Cuff for Master-PUR Hoses on pipe connection acc.to DIN 2448/DIN 2458



Material

- ① highly abrasion resistant polyurethane

Applications

- screwable special coupling for all Master-PUR L and Master-PUR H hose types

Available on request

- available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured.

Properties

- abrasion and microbe-resistant
- flexible at cold temperatures
- lightweight
- connection option without adjustable constriction of the cross-section
- high tension-proof
- reusable and exchangeable
- simple mounting
- shock-proof
- permanently anti-static, surface resistance $R_o < 10^9$, acc. to DIN IEC 60 167

Temperature Range

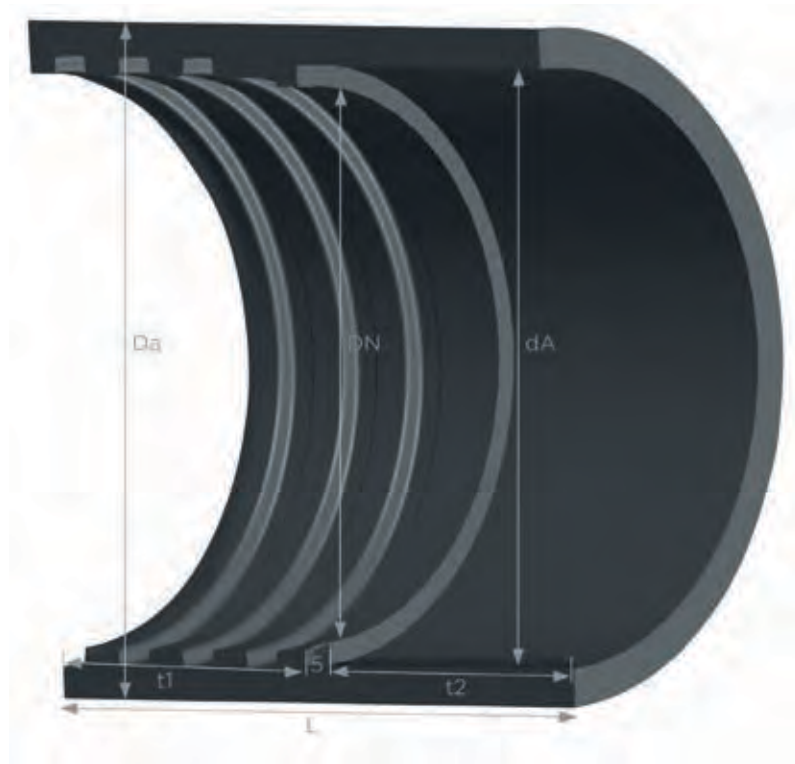
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

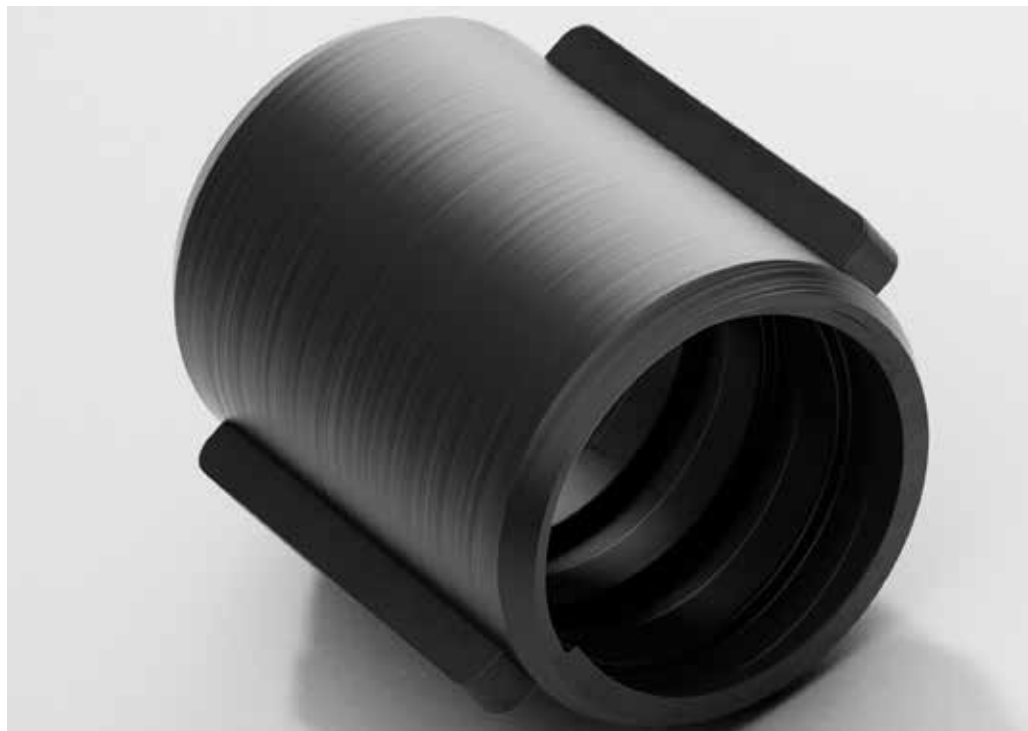
DN	dA pipe size mm	Da: outer-Ø screw range mm	t1: hose screwing depth mm	t2: fitting insertion depth mm	total length mm	weight/piece kg	article no. Type L	article no. Type H
32	33,0-42,4	47	32,5	32,5	70	ca. 0,05	550-032-...	551-032-...
38	39,0-48,3	54	37,5	37,5	80	ca. 0,08	550-038-...	551-038-...
50	52,0-61,0	68	42,5	42,5	90	ca. 0,12	550-050-...	551-050-...
65	66,0-76,3	84	47,5	47,5	100	ca. 0,15-0,16	550-065-...	551-065-...
70	71,0-81,5	89	47,5	47,5	100	ca. 0,18-0,19	550-070-...	551-070-...
75	78,0-87,5	95	47,5	47,5	100	ca. 0,20-0,21	550-075-...	551-075-...
80	82,0-91,6	100	52,5	52,5	110	ca. 0,22-0,24	550-080-...	551-080-...
100	103,0-114,3	122	57,5	57,5	120	ca. 0,33-0,36	550-100-...	551-100-...
120	122,0-133,0	142	62,5	62,5	130	ca. 0,48-0,52	550-120-...	551-120-...
125	129,0-139,7	149	62,5	62,5	130	ca. 0,51-0,55	550-125-...	551-125-...
140	142,0-152,6	164	70,0	70,0	145	ca. 0,58-0,62	550-140-...	551-140-...
150	155,0-164,8	176	70,0	70,0	145	ca. 0,67-0,71	550-150-...	551-150-...
160	162,0-173,0	184	70,0	70,0	145	ca. 0,82-0,86	550-160-...	551-160-...
180	182,0-193,7	206	77,5	77,5	160	ca. 0,98-1,02	550-180-...	551-180-...
200	206,0-219,1	229	77,5	77,5	160	ca. 1,15-1,20	550-200-...	551-200-...
250	253,0-273,0	285	85,0	85,0	175	ca. 1,94-2,00	550-250-...	551-250-...
300	303,0-324,0	336	100,0	100,0	205	ca. 3,40-3,50	550-300-...	551-300-...

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.



Combiflex PU Hose Connector

screwable PU hose connector for Master-PUR L and H hoses



Material

- ① abrasion resistant polyurethane

Applications

- screwable hose connector for the hose types Master-PUR L / H / HX

Properties

- lightweight
- high tension-proof and primarily water-tight connection
- reusable and exchangeable
- simple mounting
- abrasion-resistant
- microbe and hydrolysis-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN hose	D mm	weight/piece kg	article no.
25	65	0,09	580-025-107
32	70	0,1	580-032-107
38	75	0,13	580-038-107
50	90	0,2	580-050-107
65	100	0,23	580-065-107
80	115	0,39	580-080-107
100	125	0,58	580-100-107

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Cuff for Master-PVC-Flex

special cuff for Master-PVC Flex hoses



Material

- ① colour: black
- ② wall: soft PVC

Applications

- industrial vacuum cleaners
- suction and blower units
- conveyance units
- special screw cuff for Master-PVC Flex hoses

Available on request

- other DN

Properties

- dimensionally stable
- easy to install
- light

Temperature Range

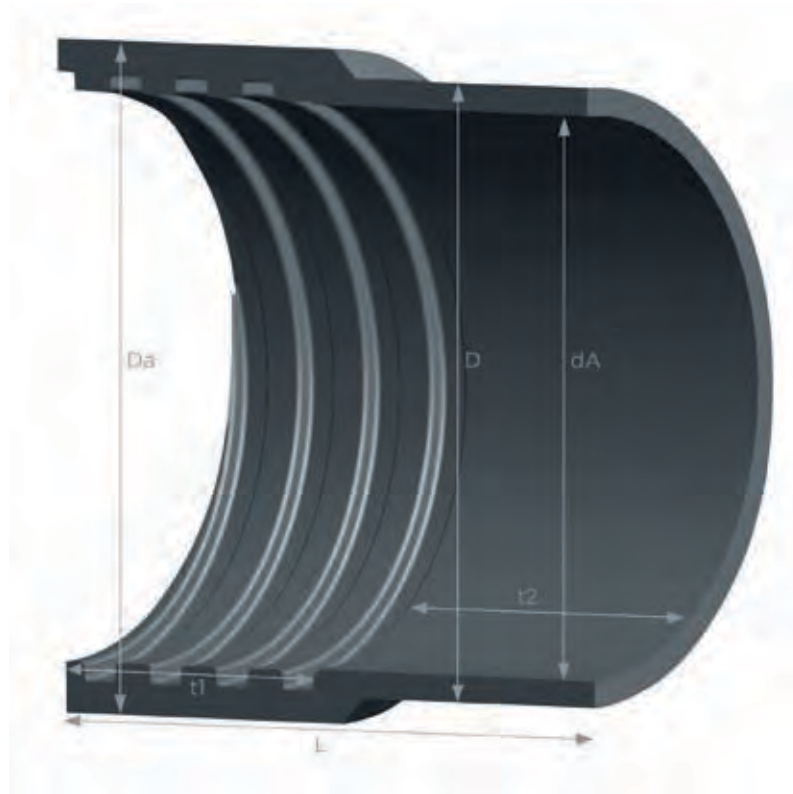
- 0°C to +70°C



Stock lengths and technical data / www.masterflex.de/en

DN Hose	dA: outer Ø pipe mm	D: outer Ø clamp range mm	Da: outer Ø screw range mm	t1: hose screw depth mm	t2: fitting insertion depth	L: total length mm	article no.
25	25	32	38	44	54	98	652-025-107
32	32	40	43	44	54	98	652-032-107
38	38	47	49	48	50	98	652-038-107
44	44	53	59	48	50	98	652-044-107
51	51	59	63	48	50	98	652-051-107
63	63	70	73	48	50	98	652-063-107
70	70	78	86	54	44	98	652-070-107
76	76	84	93	54	44	98	652-076-107
102	100	108	118	65	48	113	652-102-107

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.



Cuff for Master-VAC

Special Cuff for connecting Master-VAC hoses, electroconductive



Material

- 1 colour: black
- 2 wall: electroconductive polyethylene

Applications

- industrial vacuum cleaners
- suction and blower units
- conveyance units

Available on request

- other DN

Properties

- dimensionally stable
- easy to install
- surface resistance <math>< 10^6 \text{ Ohm}</math>
- light

Temperature Range

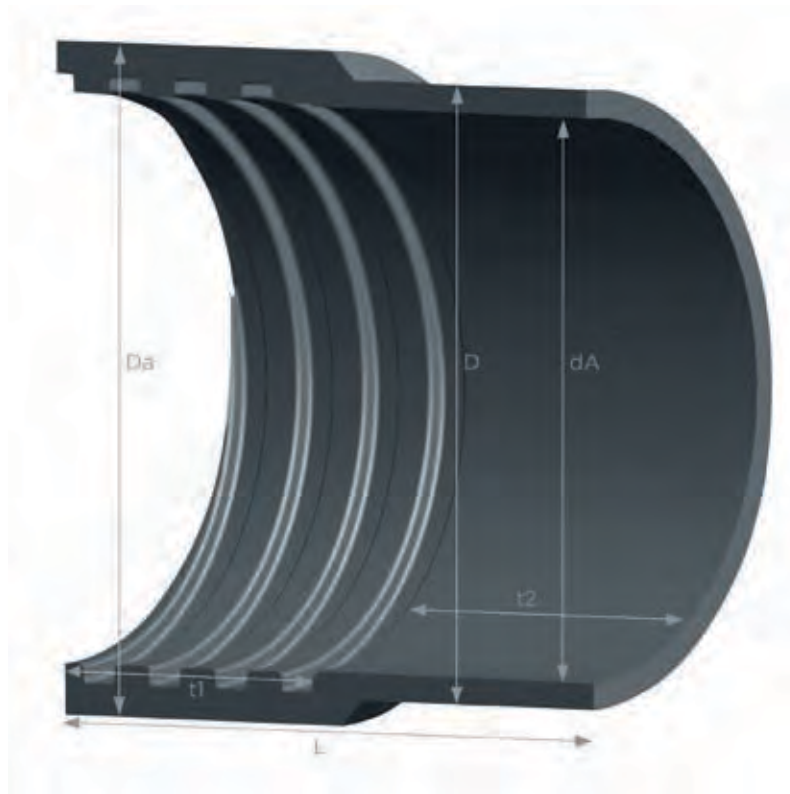
- 0°C to +70°C



Stock lengths and technical data / www.masterflex.de/en

DN hose	dA: pipe outer Ø mm	D: outer Ø clamp range mm	Da: outer Ø screw range mm	t1: hose screw depth mm	t2: fitting insertion depth mm	L: total length mm	article no.
32	32	37,5 - 38,5	44,5	38	55,5	93,5	651-032-308
38	38	44,5 - 45,75	52	38	55,5	93,5	651-038-308
45	45	50 - 51	58,5	38	55,5	93,5	651-045-308
50	50	57 - 58,5	66	38	55,5	93,5	651-050-308

All data refers to a medium and ambient temperature of +20 °C
 Available from stock in the above listed sizes in black.
 Subject to technical changes and colour deviations.



PU Hose Sleeve

Special sleeve for use with clamp collars



Material

- ① abrasion resistant polyurethane

Applications

- reusable special sleeve for connecting spiral hoses from Masterflex SE hose range

Properties

- lightweight
- microbe-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de/en

DN	Da: outer Ø screw range mm	L: total length mm	article no. Type L	article no. Type H	article no. Type HX	article no. Type Inline
38	59	25	500-038-107-L	500-038-107-H	.	.
38	61	25	.	.	.	500-038-107-I04
40	64	25	.	.	.	#500-040-107-I04
51	67	37	500-050-107-L	#500-050-107-H	.	.
51	74	37	.	.	500-050-107-HX	.
51	70	37	.	.	.	#500-050-107-I04
65	86	43	.	.	.	#500-065-107-I04
65	91	43	500-065-107-L	500-065-107-H	500-065-107-HX	.
75	101	43	500-075-107-L	500-075-107-H	500-075-107-HX	.
76	105	43	.	.	.	500-076-107-P
80	105	43	500-080-107-L	.	500-080-107-HX	.
80	101	43	.	500-080-107-H	.	#500-080-107-I04
102	118	80	500-100-107-L	500-100-107-H	.	.
102	128	80	.	.	.	500-102-107-I04
102	132	80	.	.	500-100-107-HX	.
127	147	115	500-125-107-L	500-125-107-H	.	.
127	155	115	.	.	500-127-107-HX	500-127-107-I04
152	173	133	500-150-107-L	500-150-107-H	.	.
152	182	133	.	.	500-150-107-HX	#500-150-107-I04
204	239	180	500-200-107-L	500-200-107-H	500-200-107-HX	#500-200-107-I04

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

Heat Shrink Cuff

for easy connection and sealing of hoses



Material

- ① cross-linked polyolefine

Applications

- tight connection of spiral hoses or connector brackets with no technical effort required

Available on request

- available on request with hot-melt adhesive coating, special lengths, other shrink ranges.

Properties

- shrink ratio 3, 5:1
- flame-retardent
- cold resistant
- good UV resistance
- good chemical resistance
- easily adjustable to desired length

Temperature Range

- -55°C to +110°C



Stock lengths and technical data / www.masterflex.de/en

shrink range	length mm	article no.
54 / 18	1200	655-054-018
75 / 22	1000	655-075-025
95 / 26	1200	655-095-030
120 / 34	1000	655-120-040
160 / 50	1000	655-160-050
280 / 135	300	655-280-135
308 / 215	300	655-308-215
375 / 265	300	655-375-265

All data refers to a medium and ambient temperature of +20 °C
Deliverable from stock in black, shrinking range from 54/18mm to 375/265mm
Subject to technical changes and colour deviations.

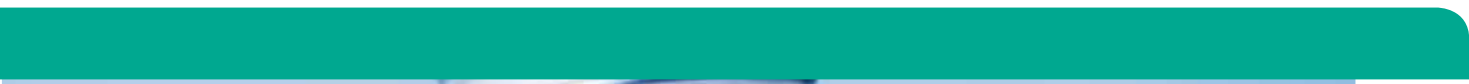
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16



15

Installation & Connections Metal Connectors

Connection solutions for almost any application, from standard connectors through to customised customer-specific connections



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Cone Flange with Metal Sockets

in acc. with DIN 3016



Material

- ① steel (St 37)

Applications

- for quick connectors from hoses to
 - Reductions with cone flanges
 - Combiflex PU cone flanges
 - Steel piping with cone flanges
 - Pipe bends/elbows with cone flanges

Available on request

- Available on request in stainless steel

Properties

- watertight
- good flow characteristics
- easy to install when using quick-fit clamp connectors
- cone flange in accordance with DIN 3016
- connection options to pipes and piping acc. to DIN 2448 and DIN 2458



Stock lengths and technical data / www.masterflex.de

DN	Da: outer Ø screw range mm	di kg	L: total length mm	t1: hose screw depth
50	104	0,54	641-050-10V	641-050-10M
65	108	0,68	641-065-10V	641-065-10M
80	108	0,9	641-080-10V	641-080-10M
100	128	1,41	641-100-10V	641-100-10M
125	133	2,02	641-125-10V	641-125-10M
150	133	3,07	641-150-10V	641-150-10M
160	133	3,47	641-160-10V	641-160-10M
180	133	4,09	641-180-10V	641-180-10M
200	133	5,09	641-200-10V	641-200-10M
250	133	6,08	641-250-10V	641-250-10M

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

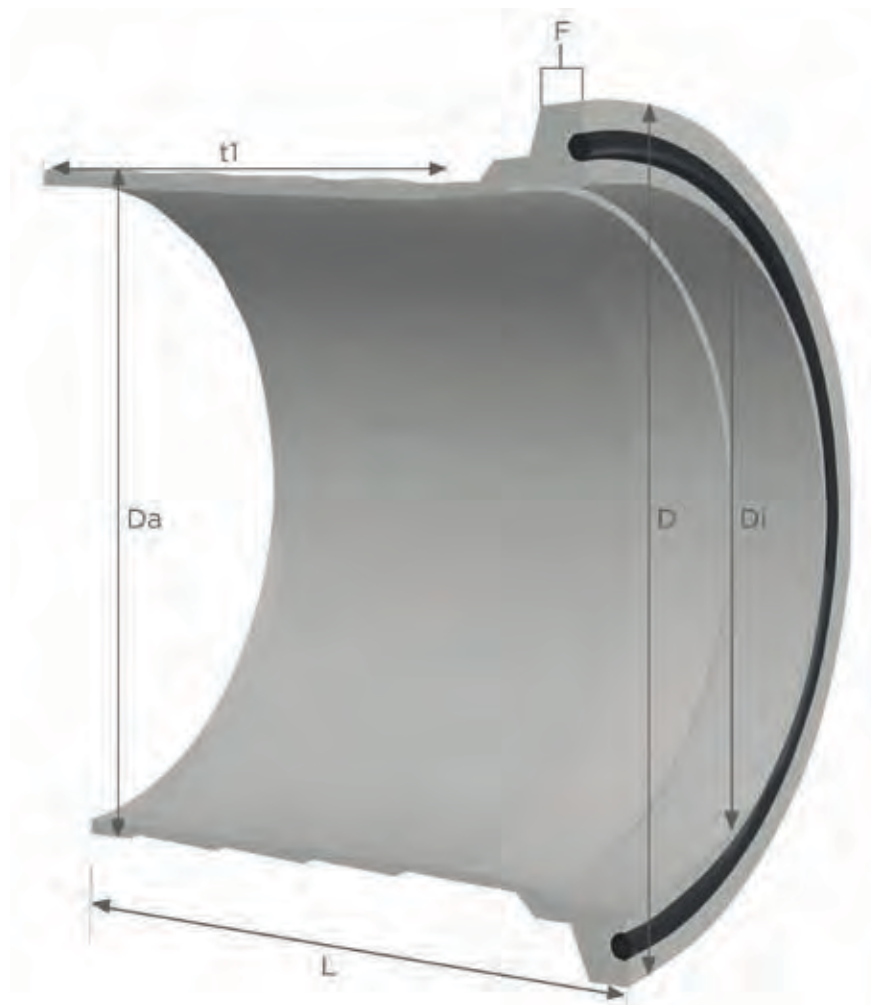
14

15

16

Cone Flange with Metal Sockets

in acc. with DIN 3016



- DN** Inner Diameter Hose
- D** Outer Diameter Flange
- Da** Outer Diameter Clamp Range
- dI** Inner Diameter
- L** Total Length
- t1** Hose Insertion Depth
- F** Flange Height



Stock lengths and technical data / www.masterflex.de

inner-Ø hose	D: outer-Ø flange mm	outer-Ø clamp range mm	Di: inner-Ø mm	L: total length mm	t1: hose inserti- on depth mm	F: flange height mm
50	78	50	54,5	104	84	2,5
65	91	65	70,3	108	84	5,1
80	104	80	82,5	108	84	5,1
100	129	100	107,1	128	104	5,1
125	161	125	131,7	133	104	8,6
150	190	150	159,3	133	104	8,6
160	200	160	167,8	133	104	8,6
180	216	180	182,9	133	104	8,6
200	242	200	207,3	133	104	8,6
250	295	250	260,4	133	104	8,6

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Cast-on Cone Flange

in acc. with DIN 3016



Material

- ① steel (St 37)

Applications

- Machines
- for quick connectors from Combiflex PU cone flange to
- Steel piping
- Pipe bends/elbows
- Reductions
- Metal columns

Available on request

- Available on request in stainless steel and as screw element with internal or external thread.

Properties

- watertight
- good flow characteristics
- easy to install when using quick-fit clamp connectors
- versatile applications in connection with steel parts, e.g. pipe bends, reducers and branch connections
- cone flange in accordance with DIN 3016
- connection options to pipes and piping acc. to DIN 2448 and DIN 2458



Stock lengths and technical data / www.masterflex.de

DN hose	total length mm	weight/piece kg	article no. male part	article no. female part
50	15	0,12	640-050-10V	640-050-10M
65	20	0,19	640-065-10V	640-065-10M
80	20	0,23	640-080-10V	640-080-10M
100	20	0,31	640-100-10V	640-100-10M
125	25	0,71	640-125-10V	640-125-10M
150	25	0,9	640-150-10V	640-150-10M
160	25	1,04	640-160-10V	640-160-10M
180	25	1,17	640-180-10V	640-180-10M
200	25	1,4	640-200-10V	640-200-10M
250	25	1,75	640-250-10V	640-250-10M

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

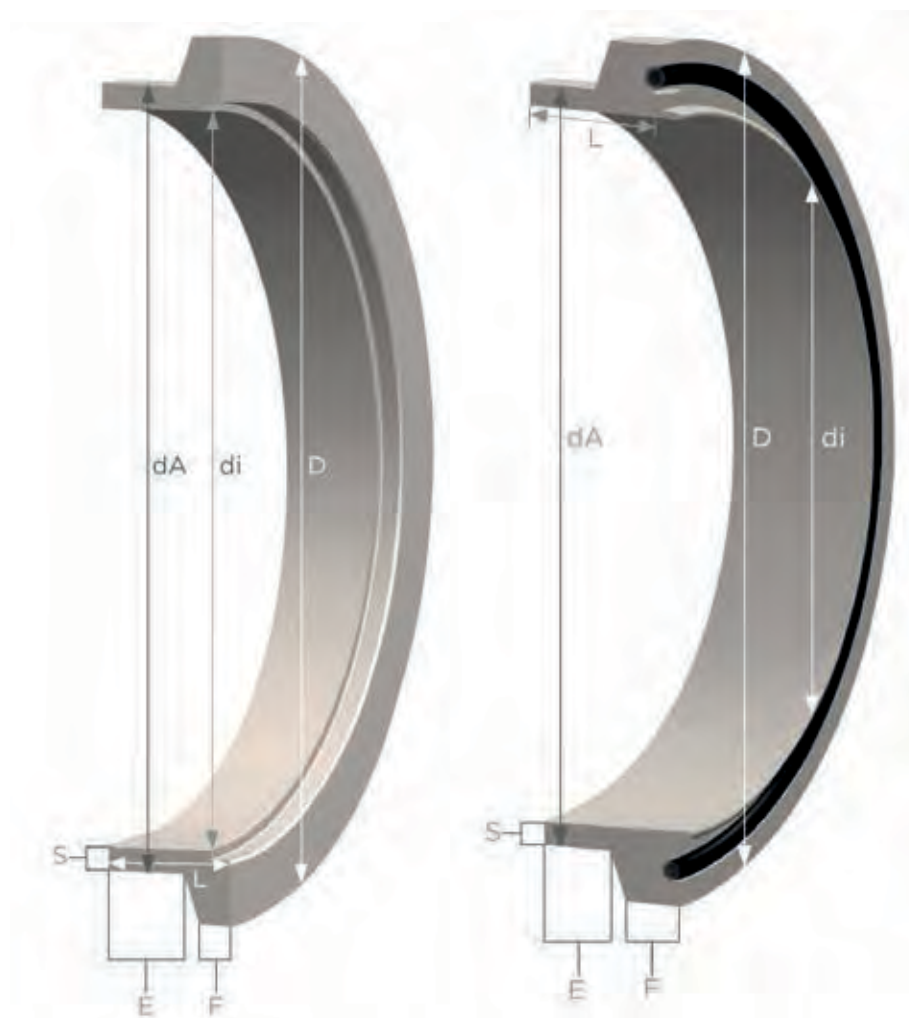
14

15

16

Cast-on Cone Flange

in acc. with DIN 3016



- DN** Inner Diameter Hose
- D** Outer Diameter Flange
- dA** Pipe Outer Diameter
- S** Wall Thickness
- di** Inner Diameter Flange
- L** Total Length
- E** Fitting Length
- F** Flange Height



Stock lengths and technical data / www.masterflex.de

inner-Ø hose	outer-Ø flange mm	pipe outer-Ø mm	S: wall thickness mm	di: inner-Ø flange mm	L: total length mm	E: fitting length mm	F: flange height mm
50	78	60,3	2,9	54,5	15	9,5	2,5
65	91	76,1	2,9	70,3	20	11,9	5,1
80	104	88,9	3,2	82,5	20	11,9	5,1
100	129	114,3	3,6	107,1	20	11,9	5,1
125	161	139,7	4,0	131,7	25	13,4	8,6
150	190	168,3	4,5	159,3	25	13,4	8,6
160	200	177,8	5,0	167,8	25	13,4	8,6
180	216	193,7	5,4	182,9	25	13,4	8,6
200	242	219,1	5,9	207,3	25	13,4	8,6
250	295	273,0	6,3	260,4	25	13,4	8,6

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Quick-Fix Clamp for Cone Flanges

in acc. with DIN 3016



Material

- ① stainless steel 1.4301

Applications

- for quick connectors from:
 - Metal columns with cone flanges
 - Reductions with cone flanges
 - Combiflex PU cone flanges
 - Steel piping with cone flanges
 - Pipe bends/elbows with cone flanges

Properties

- easy to install
- rust-free
- with safety pin to prevent from an inadvertent opening
- robust
- quick-fix clamps for cone flanges in acc.to DIN 3016



Stock lengths and technical data / www.masterflex.de

DN	D (min. space) mm	R (space to open) mm	weight/piece kg	article no.
50	147	103	0,2	623-050-900
65	158	103	0,26	623-065-900
80	169	103	0,29	623-080-900
100	212	170	0,46	623-100-900
125	241	186	0,78	623-125-900
150	266	202	0,86	623-150-900
160	275	207	0,91	623-160-900
180	289	215	0,97	623-180-900
200	313	228	1,05	623-200-900
250	360	254	1,24	623-250-900

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex Metal Threaded Sockets

with outer thread acc.to DIN ISO 228 - cast-on



Material

- 1 colour: black
- 2 metal threaded sockets: aluminium
- 3 PU-sprue: abrasion resistant polyurethane

Applications

- for application for connectors to machines and piping
- for mounting of valves for solid, liquid and gaseous media
- Cast-on metal screw connectors with external thread acc. to DIN ISO 228 for all Master-PUR hoses

Available on request

- Available on request in other sizes and materials.

Properties

- watertight
- rust-free
- good flow characteristics
- odourless/tasteless
- good chemical resistance
- dissipation of electrostatic charges via grounding connection between hose and valve/fitting
- high tensile strength

Temperature Range

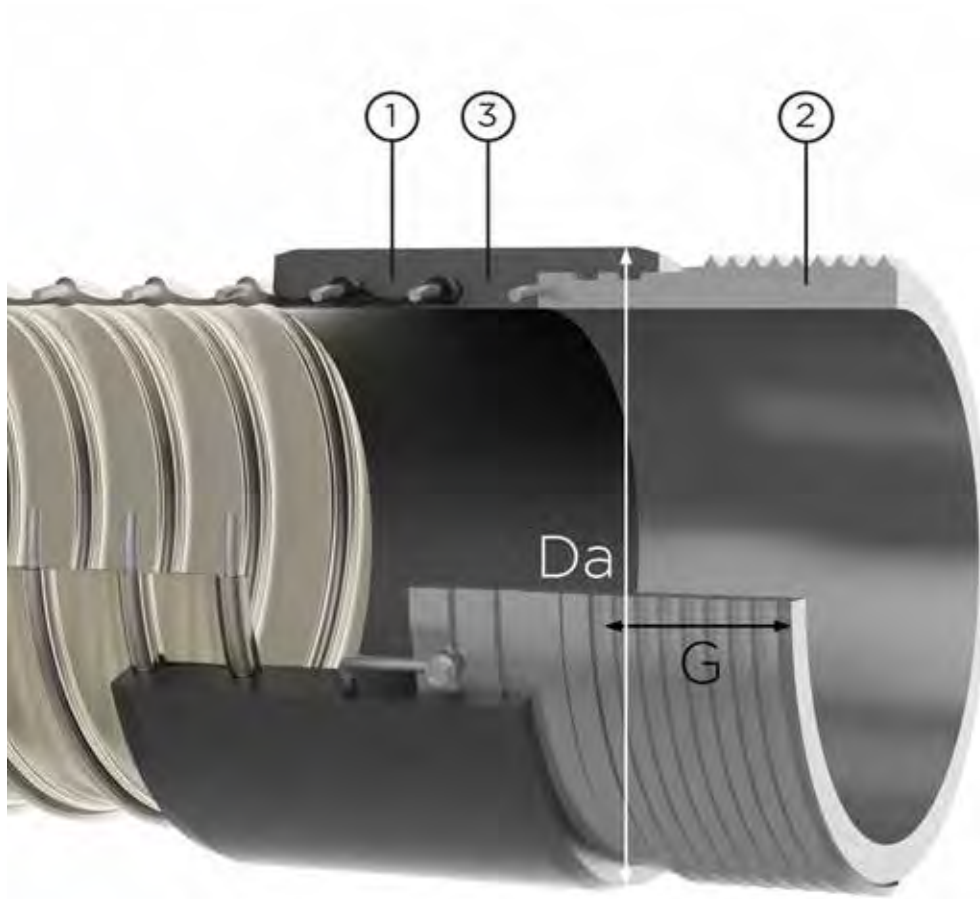
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de

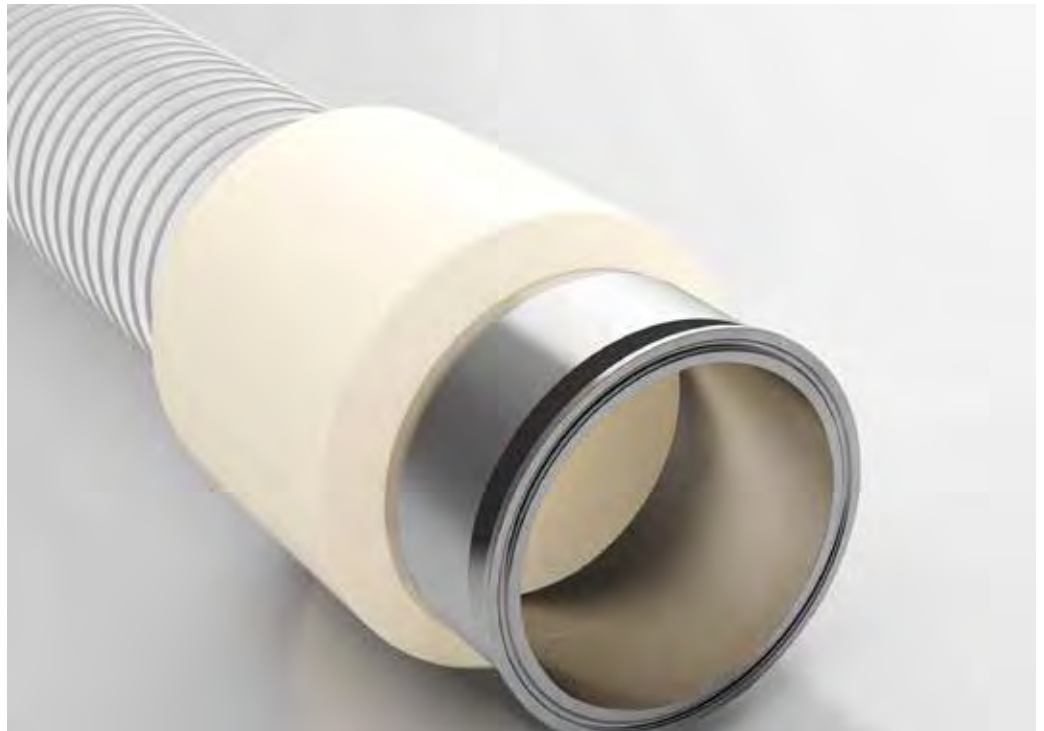
DN	connector thread size (in.) inch	outer diameter gate mm	weight/piece incl. gate kg	article no. gate	article no. threaded socket
25	1	42	0,09	528-025-107	648-025-701
32	1 1/4	52	0,16	528-032-107	648-032-701
38	1 1/2	60	0,21	528-038-107	648-038-701
40	1 1/2	60	0,21	528-040-107	648-040-701
50	2	71	0,29	528-050-107	648-050-701
65	2 1/2	90	0,46	528-065-107	648-065-701
75	3	106	0,78	528-075-107	648-075-701
80	3 1/2	106	0,6	528-080-107	648-080-701
100	4	130	1,12	528-100-107	648-100-701
125	5	155	1,39	528-125-107	648-125-701
150	6	184	1,74	528-150-107	648-150-701

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.



Combiflex Clamp Connection Clamps

pre-fixed acc.to DIN 32676



Material

- ① colour: white
- ② collar: food-grade polyurethane
acc. to EU directive 10/2011 and BfR
XXXIX
- ③ clamp collars: stainless steel
- ④ ring seal: NBR, colour: white

Applications

- Fitting for solid, liquid and gaseous media in food, pharmaceuticals and chemicals industries
- Cast-on clamp connector acc. to DIN 32676 series A for all Master-PUR Food hoses

Available on request

- Available on request as aseptic version acc. to DIN 11863-3, as weld-on or pressed version, made from other materials.

Properties

- watertight
- rust-free
- „PU-sprue: approved for direct contact with foodstuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits), acc. to certificate“
- good flow characteristics
- clamp flange end: materials adhere to food-grade regulations DIN 32676
- odourless/tasteless
- good chemical resistance
- dissipation of electrostatic charges via grounding connection between hose and valve/fitting
- high tensile strength

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de

DN	DS	outer Ø gate (Da) mm	weight/piece incl. gate kg	article no. gate	article no. clamp-connection
32	32	52	0,41	528-032-510	648-032-803
38	40	60	0,5	528-038-510	648-038-803
40	40	60	0,48	528-040-510	648-040-803
50	50	71	0,64	528-050-510	648-050-803
65	66	91	1,06	528-065-510	648-065-803
75	80	106	1,5	528-075-510	648-080-803
80	80	106	1,43	528-080-510	648-080-803
100	100	130	2,05	528-100-510	648-100-803
125	125	156	1,48	528-125-510	648-125-803
150	150	184	1,78	528-150-510	648-150-803

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in listed sizes for Master PUR Food hoses from DN 32 - DN 150
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex Clamp Connection Hinged Clamp

for clamp Connections acc.to DIN 32676



Material

- ① stainless steel

Applications

- Fitting for solid, liquid and gaseous media in food, pharmaceuticals and chemicals industries
- for application for connectors to machines and piping

Available on request

- Available on request in other sizes and materials.

Properties

- materials adhere to the food-grade regulations DIN 32676 series A
- provides watertight connections
- odourless/tasteless
- good chemical resistance
- can be steam-sterilized
- high tensile strength



Stock lengths and technical data / www.masterflex.de

DS	weight/piece kg	article no.
32	0,23	647-032-804
40	0,23	647-040-804
50	0,31	647-050-804
65	0,31	647-065-804
80	0,41	647-080-804
100	0,41	647-100-804
125	1,17	647-125-804
150	1,34	647-125-804

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex Clamp Ring Seal

for clamp connections acc.to DIN 32676



Material

- ① NBR, Colour. white

Applications

- for application for connectors to machines and piping
- Sealing rings for solid, liquid and gaseous media in food, pharmaceutical and chemicals industries
- Sealing rings for hose brackets with clamp connector acc. to DIN 32676 series A

Available on request

- Available on request in other sizes and materials.

Properties

- materials adhere to the food-grade regulations DIN 32676 series A
- provides watertight connections
- odourless/tasteless
- good chemical resistance
- high tensile strength

Temperature Range

- -25°C to +120°C
- peaks to +150°C



Stock lengths and technical data / www.masterflex.de

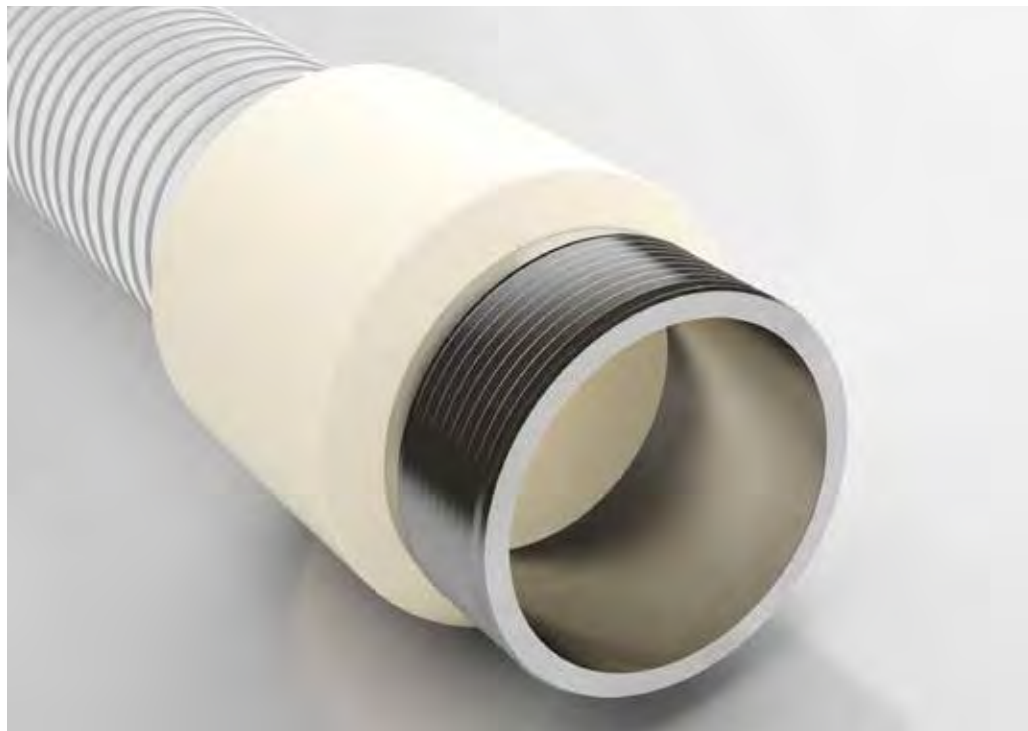
DS	inner Ø Di mm	outer Ø Da mm	article no.
32	32,2	52,7	647-032-806
40	38,2	52,7	647-040-806
50	50,2	66,2	647-050-806
65	66,2	93,2	647-065-806
80	81,2	108,2	647-080-806
100	100,2	121,2	647-100-806
125	125,2	155	647-125-806
150	150,2	183	647-150-806

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Combiflex VA Threaded Sockets Food

with outer thread, acc.to DIN ISO 228 - cast-on



Material

- ① colour: white
- ② collar: food-grade polyurethane
acc. to EU directive 10/2011 and BfR
XXXIX
- ③ VA threaded sockets

Applications

- for application for connectors to machines and piping
- for mounting of valves for solid, liquid and gaseous media
- Cast-on VA (stainless steel) screw connectors with external thread acc. to DIN ISO 228 for all Master-PUR-Food hoses
- Pharmaceutical industry
- Chemicals industry
- Food industry

Properties

- watertight
- rust-free
- „PU-sprue: approved for direct contact with foodstuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits), acc. to certificate“
- good flow characteristics
- odourless/tasteless
- good chemical resistance
- dissipation of electrostatic charges via grounding connection between hose and valve/fitting
- high tensile strength

Temperature Range

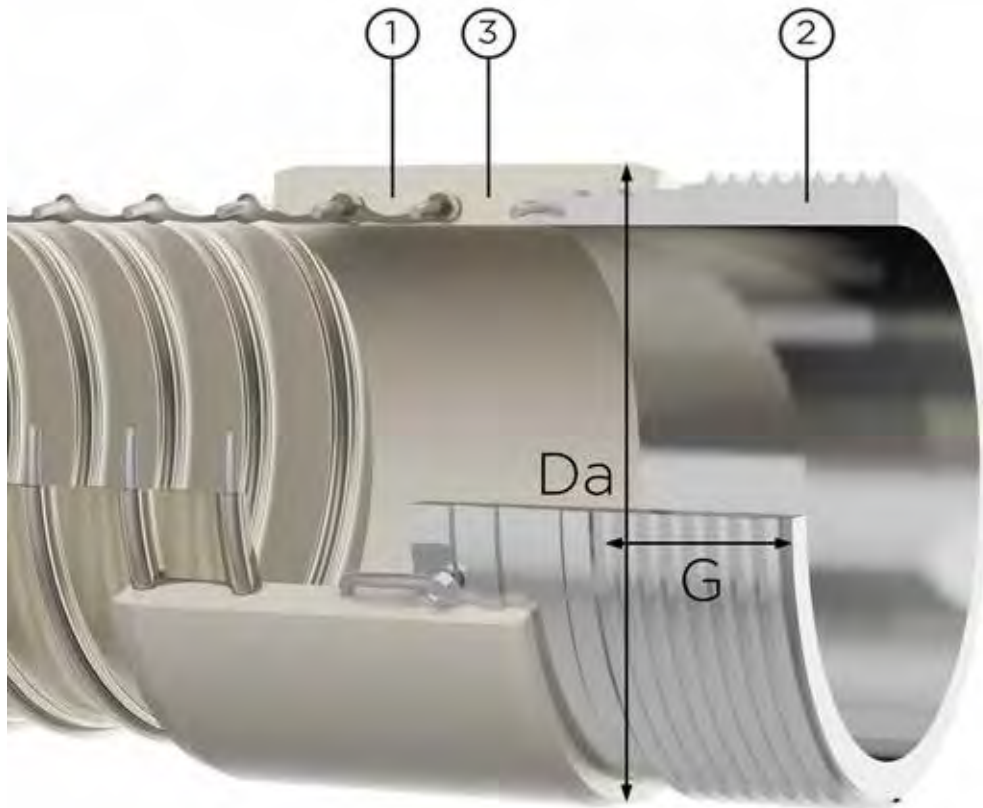
- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de

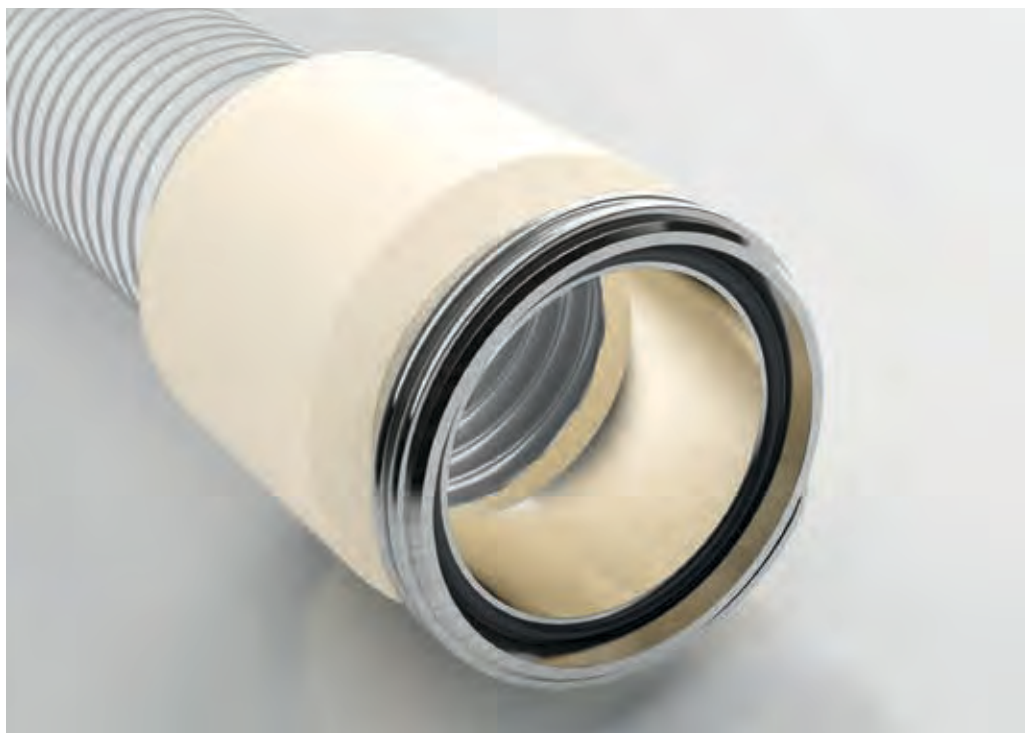
DN hose	connector thread size (in.) Inch	outer diameter gate mm	weight/piece incl. gate kg	article no.gate	article no. threaded socket
25	1	42	0,19	528-025-510	648-025-804
32	1 1/4	52	0,34	528-032-510	648-032-804
38	1 1/2	60	0,42	528-038-510	648-038-804
40	1 1/2	60	0,42	528-040-510	648-040-804
50	2	71	0,55	528-050-510	648-050-804
65	2 1/2	90	0,82	528-065-510	648-065-804
75	3	106	1,34	528-075-510	648-075-804
80	3 1/2	106	0,96	528-080-510	648-080-804
100	4	130	1,94	528-100-510	648-100-804
125	5	155	2,43	528-125-510	648-125-804
150	6	184	2,98	528-150-510	648-150-804

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in above listed sizes, in White, pre-fixed, water-tight version for Master-PUR Food hoses
Subject to technical changes and colour deviations.



Combiflex Dairy Fitting Threaded Hose Sockets

acc.to 11851 - cast-on/pre-fixed



Material

- ① colour: white
- ② collar: food-grade polyurethane
acc. to EU directive 10/2011 and BfR XXXIX
- ③ threaded hose sockets acc.to DIN 11851: stainless steel
- ④ ring seal: NBR, colour: blue

Applications

- Cast-on pipe screw connection acc. to DIN 11851 for Master-PUR Food hoses
- Fitting for solid, liquid and gaseous media in food, pharmaceuticals and chemicals industries

Available on request

- Available on request in aseptic version acc. to DIN 11864-1, as weld-on version, pressed, other materials

Properties

- watertight
- rust-free
- „PU-sprue: approved for direct contact with foodstuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits), acc. to certificate“
- good flow characteristics
- threaded supports: materials acc.to food industry regulations DIN 11851
- odourless/tasteless
- good chemical resistance
- dissipation of electrostatic charges via grounding connection between hose and valve/fitting
- high tensile strength

Temperature Range

- -40°C to +90°C
- peaks to +125°C



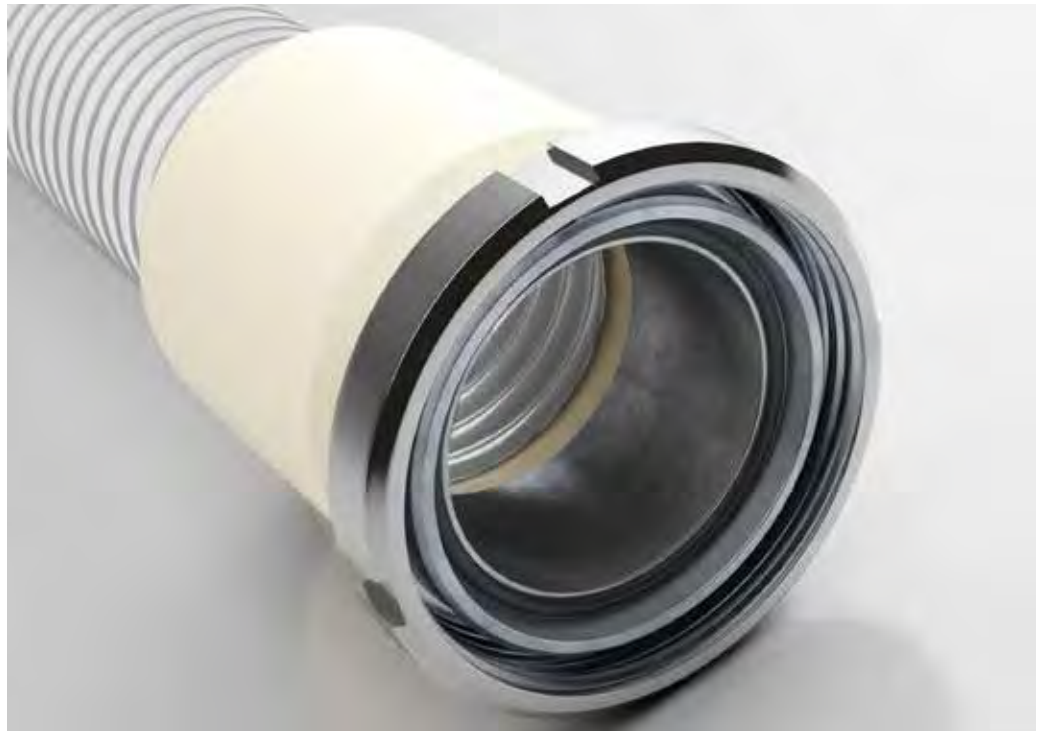
Stock lengths and technical data / www.masterflex.de

DN	access DS	thread (DG) acc.to DIN 405-1	weight/piece incl. gate kg	article no. gate	article no. threaded socket	article no. cone socket
32	32	RD 58x1/6	0,46	528-032-510	648-032-801	648-032-802
38	40	RD 65x1/6	0,5	528-038-510	648-038-801	648-038-802
40	40	RD 65x1/6	0,58	528-040-510	648-040-801	648-040-802
50	50	RD 78x1/6	0,72	528-050-510	648-050-801	648-050-802
65	65	RD 95x1/6	0,97	528-065-510	648-065-801	648-065-802
75	80	RD 110x1/4	1,2	528-075-510	648-075-801	648-075-802
80	80	RD 110x1/4	1,3	528-080-510	648-080-801	648-080-802
100	100	RD 130x1/4	2,1	528-100-510	648-100-801	648-100-802
125	125	RD 160x1/4	2,63	528-125-510	648-125-801	648-125-802
150	150	RD 190x1/4	3,4	528-150-510	648-150-801	648-150-802

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in listed sizes for Master PUR Food hoses from DN 32 - DN 150
Subject to technical changes and colour deviations.

Combiflex Dairy Fitting Cone Sockets

with locknut acc.to DIN 11851 - cast-on/pre-fixed



Material

- ① colour: white
- ② collar: food-grade polyurethane
acc. to EU directive 10/2011 and BfR
XXXIX
- ③ locknut: stainless steel
- ④ conical hose sockets, stainless steel

Applications

- Cast-on pipe screw connection acc. to DIN 11851 for Master-PUR Food hoses
- Fitting for solid, liquid and gaseous media in food, pharmaceuticals and chemicals industries

Available on request

- Available on request in aseptic version acc. to DIN 11864-1, as weld-on version, pressed, other materials

Properties

- watertight
- rust-free
- „PU-sprue: approved for direct contact with foodstuffs acc.to EU directives 10/2011, 1935/2004 (German Consumer Goods Board) and their latest amendments 1282/2011, 1183/2012, 202/2014 and 2015/174 suitable for dry, watery, acidic, fatty as well as alcoholic foodstuffs (excluding spirits), acc. to certificate“
- good flow characteristics
- threaded supports: materials acc.to food industry regulations DIN 11851
- odourless/tasteless
- good chemical resistance
- dissipation of electrostatic charges via grounding connection between hose and valve/fitting
- high tensile strength

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de

DN	access DS	thread (DG) acc.to DIN 405-1	weight/piece incl. gate kg	article no. gate	article no. cone socket	article no. threaded socket
32	32	RD 58x1/6	0,46	528-032-510	648-032-801	648-032-802
38	40	RD 65x1/6	0,5	528-038-510	648-038-801	648-038-802
40	40	RD 65x1/6	0,58	528-040-510	648-040-801	648-040-802
50	50	RD 78x1/6	0,72	528-050-510	648-050-801	648-050-802
65	65	RD 95x1/6	0,97	528-065-510	648-065-801	648-065-802
75	80	RD 110x1/4	1,2	528-075-510	648-075-801	648-075-802
80	80	RD 110x1/4	1,3	528-080-510	648-080-801	648-080-802
100	100	RD 130x1/4	2,1	528-100-510	648-100-801	648-100-802
125	125	RD 160x1/4	2,63	528-125-510	648-125-801	648-125-802
150	150	RD 190x1/4	3,4	528-150-510	648-150-801	648-150-802

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in listed sizes for Master PUR Food hoses from DN 32 - DN 150
Subject to technical changes and colour deviations.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

Combiflex Dairy Fitting Ring Seal

for threaded sockets acc.to DIN 11851



Material

- ① NBR, colour: white

Applications

- Chemicals industry
- for application for connectors to machines and piping
- Sealing rings for screw connectors acc. to DIN 11851
- Sealing rings for solid, liquid and gaseous media in food, pharmaceutical and chemicals industries
- Pharmaceutical industry
- Food industry

Properties

- materials adhere to the food-grade regulations DIN 11851
- odourless/tasteless
- good chemical resistance
- can be steam-sterilized
- high tensile strength

Temperature Range

- -25°C to +120°C
- peaks to +150°C



Stock lengths and technical data / www.masterflex.de

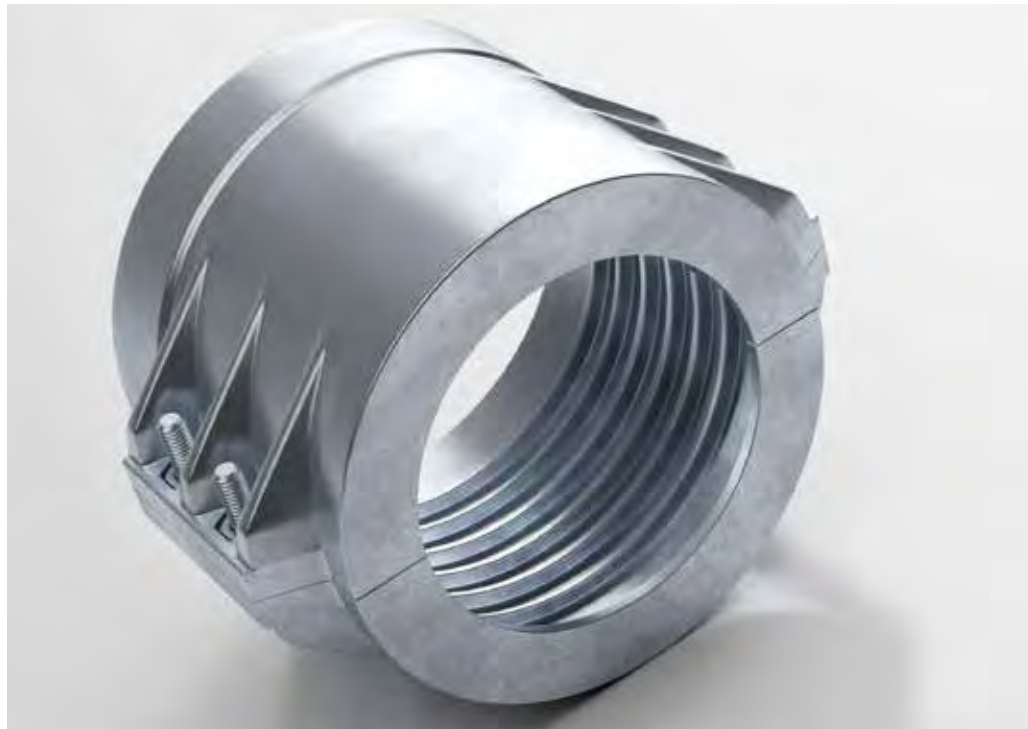
DS	inner diameter Di mm	thickness S mm	article no.
32	36	5	647-032-805
40	42	5	647-040-805
50	54	5	647-050-805
65	71	5	647-065-805
80	85	5	647-080-805
100	104	6	647-100-805
125	130	7	647-125-805
150	155	7	647-150-805

All data refers to a medium and ambient temperature of +20 °C
 Deliverable from stock for sockets with Dairy Fitting outer threads acc. to DIN 11851 from DS 32 - DS 150
 Subject to technical changes and colour deviations.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Clamp Collars, screwed

acc. to DIN EN 14420-3



Material

- ① screws and nuts: galvanised steel
- ② clamp collar: aluminium

Applications

- Versatile applications for spiral hoses from the Masterflex SE hose range when using PU hose sleeves

Properties

- robust
- light
- simple mounting



Stock lengths and technical data / www.masterflex.de

DN	clamping range mm	extent	no. screws	weight/piece kg	article no.	for hose types
38	57-60	38x10	4xM6x20	0,18	625-038-700	Inline/Value
40	58-61	40x10	4xM6x20	0,19	625-040-700	Inline/Performance
50	64-67	50x8	4xM8x25	0,27	625-050-701	L/H
50	69-71	50x10	4xM8x25	0,31	625-050-702	HX/Inline/Performance
65	84-87	65x10	4xM8x25	0,45	625-065-700	L/H/HX/Inline/Performance
75	98-101	75x12	4xM8x25	0,52	625-075-700	L/H/HX/Inline/Performance
80	99-102	80x10	4xM8x25	0,51	625-080-700	L/H/HX/Inline/Performance
100	114-119	100x8	4xM10x40	1,19	625-100-701	L/H
100	126-130	100x14	4xM10x40	1,35	625-100-702	HX/Inline/Performance
125	143-148	125x10	6xM10x40	1,4	625-120-700	L/H
125	149-154	125x13	6xM12x50	2,65	625-125-700	HX/Inline/Performance
150	168-174	150x10	6xM12x50	3,75	625-140-700	L/H
150	174-180	150x13	6xM12x50	3,3	625-150-700	HX/Inline/Performance
200	230-239	200x16	8xM12x60	6,75	625-200-700	L/H/HX/Inline

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

PU Hose Sleeve

Special sleeve for use with clamp collars



Material

- ① abrasion resistant polyurethane

Applications

- Reusable special sleeve for connecting spiral hoses from Masterflex SE hose range

Properties

- lightweight
- microbe-resistant
- shock-proof

Temperature Range

- -40°C to +90°C
- peaks to +125°C



Stock lengths and technical data / www.masterflex.de

DN	Da: outer Ø screw range mm	L: total length mm	article no. Type L	article no. Type H	article no. Type HX	article no. Type Inline
38	59	25	500-038-107-L	500-038-107-H	.	.
38	61	25	.	.	.	500-038-107-I04
40	64	25	.	.	.	#500-040-107-I04
51	67	37	500-050-107-L	#500-050-107-H	.	.
51	74	37	.	.	500-050-107-HX	.
51	70	37	.	.	.	#500-050-107-I04
65	86	43	.	.	.	#500-065-107-I04
65	91	43	500-065-107-L	500-065-107-H	500-065-107-HX	.
75	101	43	500-075-107-L	500-075-107-H	500-075-107-HX	.
76	105	43	.	.	.	500-076-107-I04
80	105	43	500-080-107-L	.	500-080-107-HX	.
80	101	43	.	500-080-107-H	.	#500-080-107-I04
102	118	80	500-100-107-L	500-100-107-H	.	.
102	128	80	.	.	.	500-102-107-I04
102	132	80	.	.	500-100-107-HX	.
127	147	115	500-125-107-L	500-125-107-H	.	.
127	155	115	.	.	500-127-107-HX	500-127-107-I04
152	173	133	500-150-107-L	500-150-107-H	.	.
152	182	133	.	.	500-150-107-HX	#500-150-107-I04
204	239	180	500-200-107-L	500-200-107-H	500-200-107-HX	#500-200-107-I04

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Hose Connector

Sheet steel connectors for lightweight and medium-weight hoses



Material

- ① sheet steel, galvanised

Applications

- Extension, coupling and connection of light to medium weight hoses

Available on request

- Available on request in other sizes and materials.

Properties

- easy to install
- light
- rust-protected



Stock lengths and technical data / www.masterflex.de

DN	material thickness S	L1 mm	L mm	weight/piece kg	article no.
50	0,6	40	90	0,06	630-050-100
55	0,6	40	90	0,06	630-055-100
60	0,6	40	90	0,06	630-060-100
65	0,6	40	90	0,07	630-065-100
70	0,6	40	90	0,07	630-070-100
75	0,6	40	90	0,08	630-075-100
80	0,6	40	90	0,08	630-080-100
90	0,6	40	90	0,09	630-090-100
100	0,6	40	90	0,12	630-100-100
110	0,6	40	90	0,13	630-110-100
120	0,6	40	90	0,14	630-120-100
125	0,6	40	90	0,15	630-125-100
130	0,6	40	90	0,16	630-130-100
140	0,6	40	90	0,17	630-140-100
150	0,6	40	90	0,18	630-150-100
160	0,6	40	90	0,2	630-160-100
170	0,6	40	90	0,22	630-170-100
175	0,6	40	90	0,23	630-175-100
180	0,6	40	90	0,24	630-180-100
200	0,6	40	90	0,26	630-200-100
215	0,6	40	90	0,3	630-215-100
225	0,6	40	90	0,35	630-225-100
250	0,6	60	130	0,42	630-250-100
275	0,6	60	130	0,49	630-275-100
300	0,6	60	130	0,57	630-300-100
315	0,7	60	130	0,66	630-315-100
350	0,7	60	130	0,86	630-350-100
400	0,7	80	170	1,15	630-400-100
450	0,7	80	170	1,24	630-450-100
500	0,7	80	170	1,33	630-500-100
550	0,7	80	170	1,62	630-550-100
600	0,7	80	170	1,91	630-600-100
700	0,9	100	210	2,2	630-700-100
800	0,9	100	210	2,55	630-800-100
900	1	100	210	2,82	630-900-100

All data refers to a medium and ambient temperature of +20 °C
Subject to technical changes and colour deviations.

Hose Reducer, symmetrical

Reducer for lightweight and medium-weight hoses



Material

- ① sheet steel, galvanised

Applications

- Extension, coupling and connection of light to medium weight hoses

Available on request

- Available on request in other sizes and materials.

Properties

- easy to install
- light
- rust-protected



Stock lengths and technical data / www.masterflex.de

DN 1	DN 2	S mm	L1 mm	L2 mm	weight/piece kg	article no.
80	50	0,63	50	55	0,2	632-080-050
80	70	0,63	50	45	0,2	632-080-070
100	70	0,63	50	70	0,2	632-100-070
100	80	0,63	50	60	0,2	632-100-080
125	80	0,63	50	95	0,3	632-125-080
125	100	0,63	50	65	0,3	632-125-100
150	80	0,63	50	125	0,4	632-150-080
150	100	0,63	50	95	0,3	632-150-100
150	125	0,63	50	65	0,3	632-150-125
200	100	0,63	50	165	0,6	632-200-100
200	125	0,63	50	135	0,6	632-200-125
200	150	0,63	50	95	0,5	632-200-150
250	125	0,63	50	200	1	632-250-125
250	150	0,63	50	170	0,9	632-250-150
250	200	0,63	50	100	0,8	632-250-200
300	150	0,63	50	235	1,3	632-300-150
300	200	0,63	50	165	1,2	632-300-200
300	250	0,63	50	95	1	632-300-250

All data refers to a medium and ambient temperature of +20 °C
Order-specific production in the DN sizes listed above
Subject to technical changes and colour deviations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16



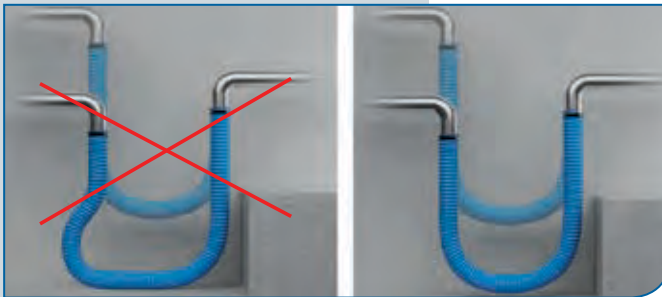
16

Technical Appendix

The technical information guide
for our entire product range

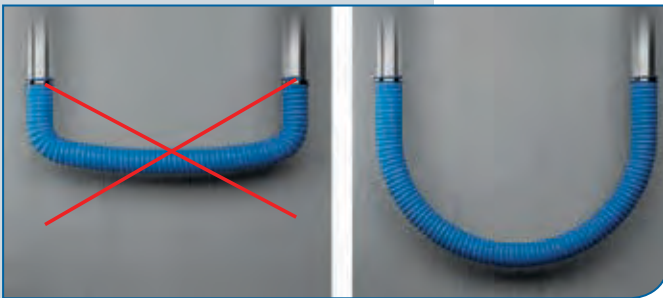
16.1 Professional Installation of Hoses

The length of certain hose types may alter due to the influence of variable factors such as pressure, vacuum, media temperature and ambient temperature. This must be taken into account when installing hoses in order to prevent mechanical damage. Case studies are in accordance with DIN 20 066, section 4.



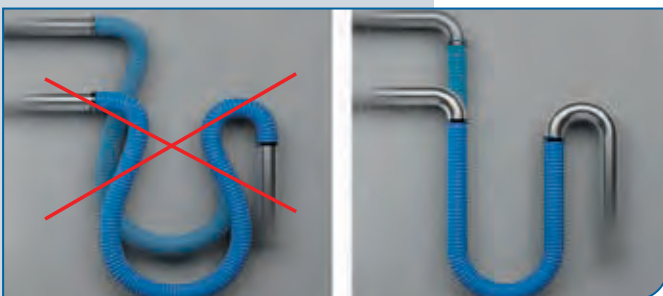
Example 1

Arrange hoses as freely suspended bends so that they do not come into contact with either the wall, the ground or with other objects when extended.



Example 2

Install hoses as a 180° bend allowing sufficient straight ends on the hoses. Determine the installation length in accordance with the required bend radius.

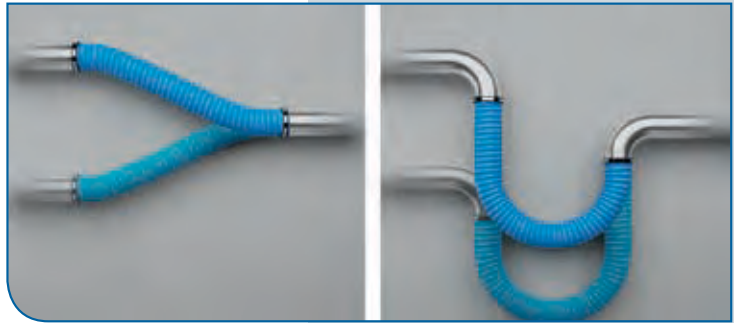


Example 3.1

Non-permitted bends directly adjacent to the connection fittings should always be avoided. The minimum bending radius should be observed at all times.

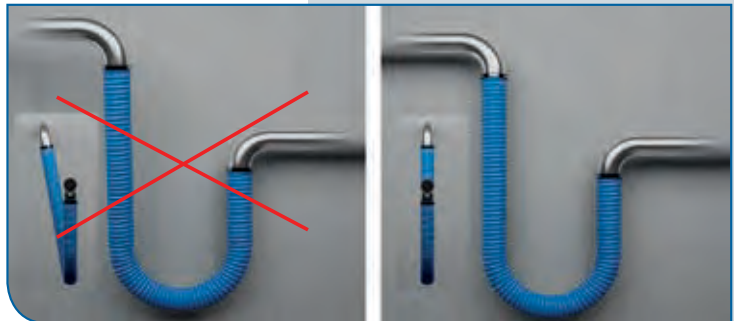
Example 3.2

Install hoses with sufficient length. The required bending radius should be observed.



Example 4

The direction of movement and the hose axis must be on the same level. This prevents potential torsional strain damage.



Example 5

Slight lateral movements are permissible.



16.2 Cutting Masterflex Hoses to Length

16.2.1 Professional trimming of hoses with a clip helix (all Master-Clip hose types, as well as Carflex 200 and Carflex 300)

First, cut the helix (clip) using wire cutters.



Using a sharp knife, cut the hose material through to both adjacent helices.



Finally, cut the hose material cleanly along the clip helix.



16.2.2 Instructions for the Grounding of Clip-Hoses

For the transport of flammable dust particles and bulk solids, hoses must meet special demands to avoid any danger of ignition. Antistatic or electrically conductive hose versions are often applied. In order to guarantee

Take the end of the hose and place it on a non-slip surface.

Cut the wall material to approx. 30 mm along the metal clip helix spiral.

Peel the end of the metal helix, so that it is free from the wall material. Remove the material with a sharp instrument. Please ensure that you cut away from your body, in order to avoid any injuries.

Bend the metal clip profile forward at a 90° angle to the hose.

optimum safety with regards to avoiding electrostatic ignition hazards, the correct grounding of the hoses during assembly and installation is imperative. In this case, the metal helix must be grounded on both sides of the hose.



16.3 Pressure & Vacuum Behaviour of Masterflex Hoses



Remove any remaining material from the metal clip profile.



Now attach the hose connection clamp.
Push the hose onto the pipe.



Now attach the appropriate clamp and pull tight so that the metal clip profile is pressed firmly onto the pipe and the hose is fixed in place. There must be contact between the metal clip profile and the pipe.

As is shown in images 8 - 9, the metal clip profile sits on the pipe and is fixed in place by the separate clamp, metal on metal. This type of connection is recommended. Other methods of grounding are also possible, however, we would like to point out the following:

Excerpt from Regulation EN 60335-1:2002-A2:2006
Electrical connections and grounding conductors must be carried out in such a way that the contact pressure is not transferred via insulation material, which may shrink or become deformed.

An exception applies if the metal parts possess enough elasticity to compensate any shrinking or deformation of the insulation material.

Metal screws may only be applied for electrical connections if the parts clamp together. Thread-cutting screws and thread-forming screws may only be applied for electrical connections if they create a fully-formed standard thread.

16.2.3 Instructions for the Grounding of Hoses

For the transport of flammable dust particles and bulk solids, hoses must meet special demands to avoid any danger of ignition. Antistatic hose versions are often applied, as these contain a permanent antistatic agent as an additive, which offers both permanent electrical conductivity as well as adherence to international food

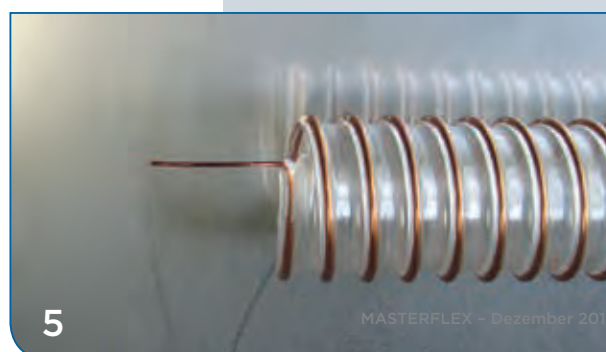
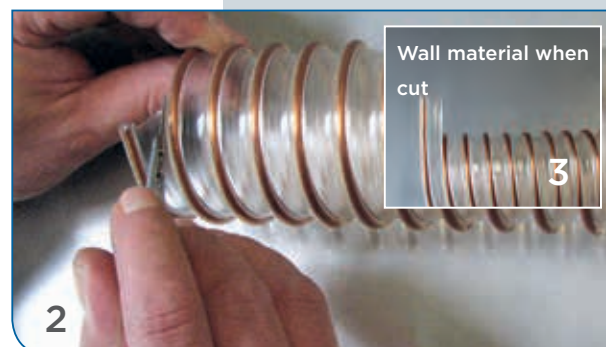
Take the end of the hose and place it on a non-slip surface

Cut the wall material to approx. 30mm along the helix spiral

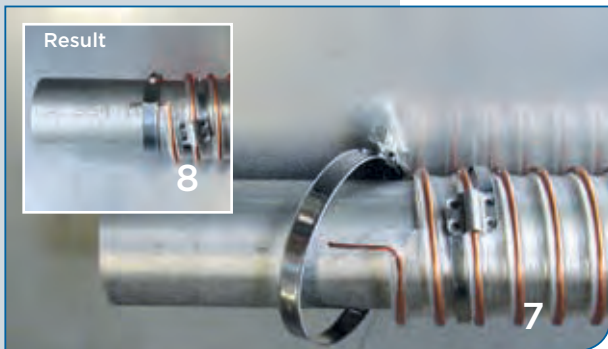
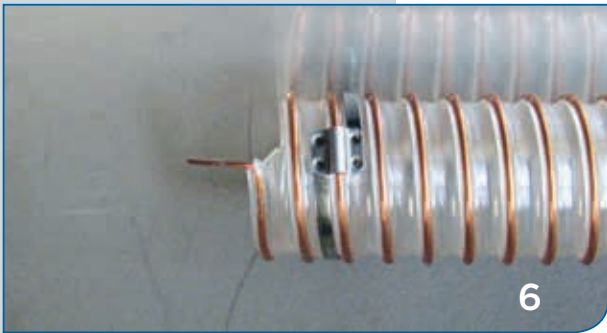
Peel the end of the wire, so that it is free from the wall material. Remove the plastic with a sharp instrument. Please ensure that you cut away from your body, in order to avoid any injuries.

Bend the wire 90° outwards

industry standards. However, in order to guarantee optimum safety with regards to avoiding electrostatic ignition hazards, the correct grounding of the hoses during assembly and installation is imperative. In this case, the metal helix must be grounded on both sides of the hose. These instructions are designed to help you do this quickly and easily. Please follow the instructions accordingly to ground your hoses correctly and safely.



16.3 Pressure & Vacuum Behaviour of Masterflex Hoses



As is shown in images 8-10, the wire sits on the pipe and is fixed in place by the separate clamp, metal on metal. This type of connection is recommended. Other methods of grounding are also possible, however we would like to point out the following:

Excerpt from Regulation EN 60335-1:2002-A2:2006
Electrical connections and grounding conductors must be carried out in such a way that the contact pressure is not transferred via insulation material, which may shrink or become deformed.

Now attach the hose connection clamp

Push the wire connection clamp and the hose onto the pipe. Now pull the clamps tight so that the wire is pressed firmly onto the pipe and the hose is fixed in place. There should be contact between the wire and the pipe

Image: Tightened wire connection clamp and hose clamp with screw/worm drive, clamping range 40-60 (Art. No.: 620-040-100) as well as tightened hose connection clamp Master-Grip Clamp DN 50 (Art. No.: 533-050-100).

Image: Tightened wire connection clamp and hose clamp with bolts.
Clamping range 52-55 (Art. No.: 621-052-115)

An exception applies if the metal parts possess enough elasticity to compensate any shrinking or deformation of the insulation material.

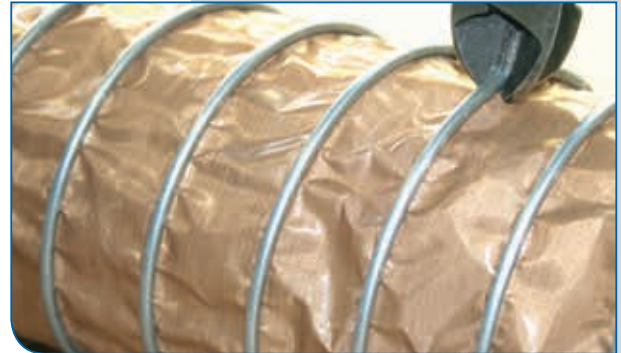
Metal screws may only be applied for electrical connections if the parts clamp together.

Thread-cutting screws and thread-forming screws may only be applied for electrical connections if they create a fully-formed standard thread.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

16.2.2 Professional trimming of hoses with integrated reinforcement helix

Using a sharp knife, cut the hose material through to both adjacent reinforcement spirals.



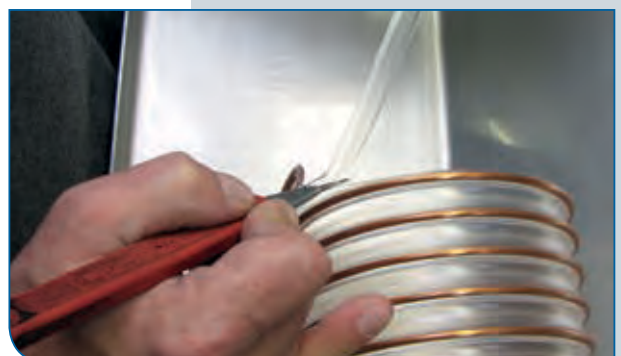
Pull both ends of the hose apart and cut the reinforcement helix using wire cutters.



The hose should now look like this.



Finally, cut off the hose material cleanly along the reinforcement spiral.



16.3 Pressure & Vacuum Behaviour of Masterflex Hoses

General

All catalogue details are the result of internal tests and experimentation in accordance with international standardisation recommendations and relate to a media and ambient temperature of + 20 °C. Different temperatures may alter the pressure and vacuum details. Depending on the construction design, the effects of the pressure, vacuum, media temperature and ambient temperature may alter the length of certain hose types. This change in length must be taken into account by the user during operation. (See also Chapter 16.1 “Professional Installation of Hoses”).

Operating Pressure

The operating pressure is the maximum permitted overpressure of a hose, at which it can be used. The definition of the operating pressure is in accordance with DIN EN ISO 7751.

Test Pressure

The test pressure is up to 50 % above the operating pressure, depending on the hose construction design. At test pressure, the hose must not have any leaks and/or permanent deformations. The definition of the test pressure is in accordance with DIN EN ISO 7751.

Burst Pressure

The burst pressure is the pressure at which the hose is destroyed. The burst pressure is used to determine the operating pressure taking into account the usual safety factors. The definition of the burst pressure is in accordance with DIN EN ISO 7751.

Vacuum (Negative Pressure)

The definition of the vacuum details for Masterflex hoses is in accordance with DIN 20024, point 15.

Testing the Vacuum Resistance

During the vacuum tests, the hoses are placed in a 90° arc in compliance with the minimum bending radius. Vacuum is then applied until they show signs of indentations or collapse. The permitted vacuum in continuous operation is determined by taking into account the usual general safety factors.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

16.4 Pressure Loss of Masterflex Hoses

16.4 Pressure Loss of Masterflex Hoses

16.4.1

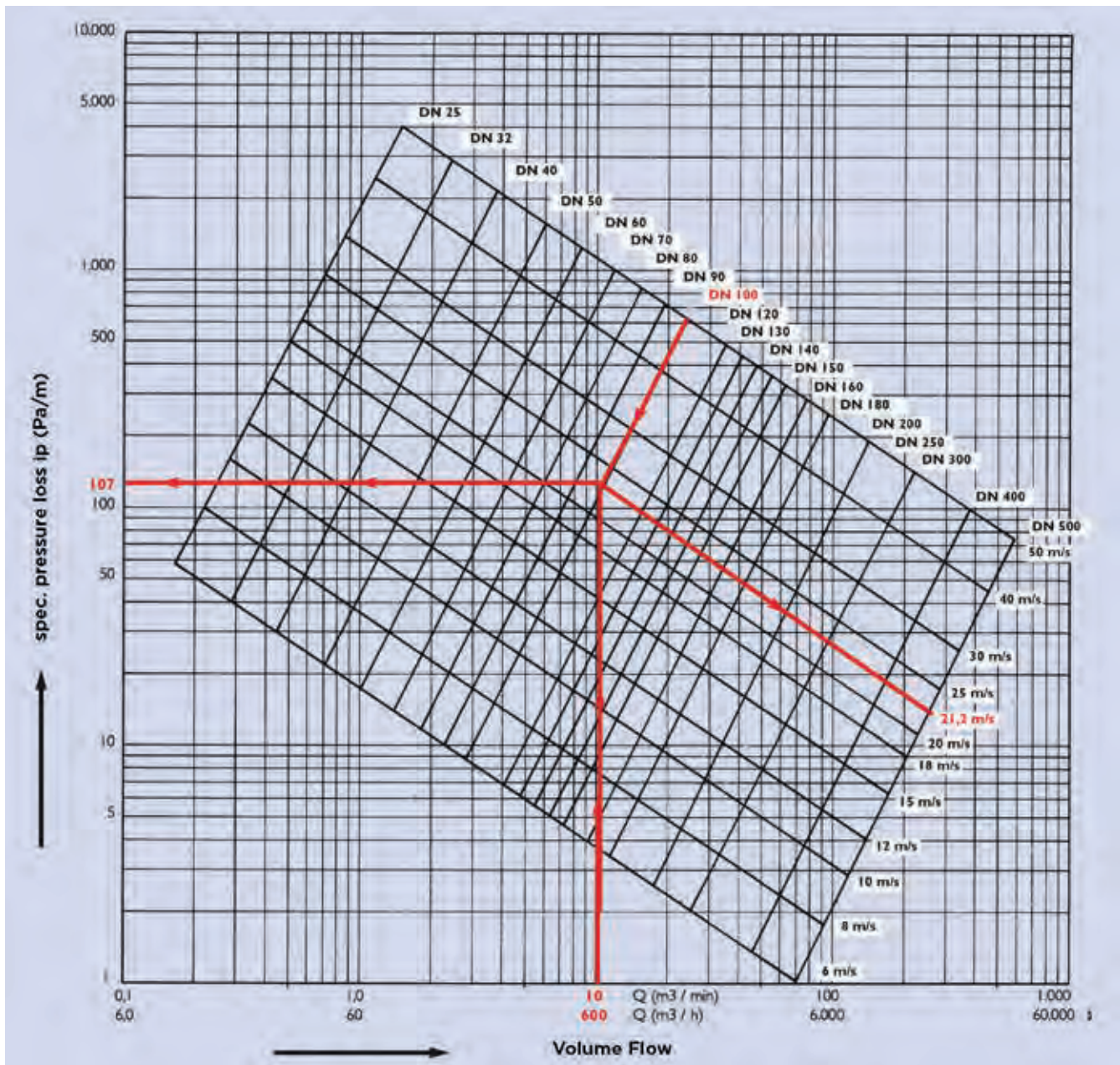
Pressure loss of hoses in extended form

The pressure loss is the air resistance in a hose or pipe system. When planning and installing a ventilation system, the unavoidable air resistance must be taken into account. In order to simplify the determination of the specific pressure loss for the Masterflex hoses, please refer to the following diagrams to. The details are mean values for hoses in their extended form at 20°C.

Diagram 1

DN 25 - DN 500 for the following hose types:

- Master-PE L-EL
- Master-PUR L (also: L-A se, L-MHR, L Food, L Food A, L-EL)
- Master-PUR H (also: H-A se, H-MHR, H Food, H Food A, H-EL)
- Master-PUR HÜ
- Master-PUR HX (also: HX Food, HX Food A, HX-EL)
- Master-PUR HX-S
- Flamex B se
- Flamex B-H se
- Master-PVC L
- Master-PVC H
- Master-SANTO L (also: L-AR, L se)
- Master-SANTO H (also: H-AR, H se)
- Polderflex
- Inline
- Master-NEO 2
- Master-SIL 2
- Master-SIL HD Food, SD Food

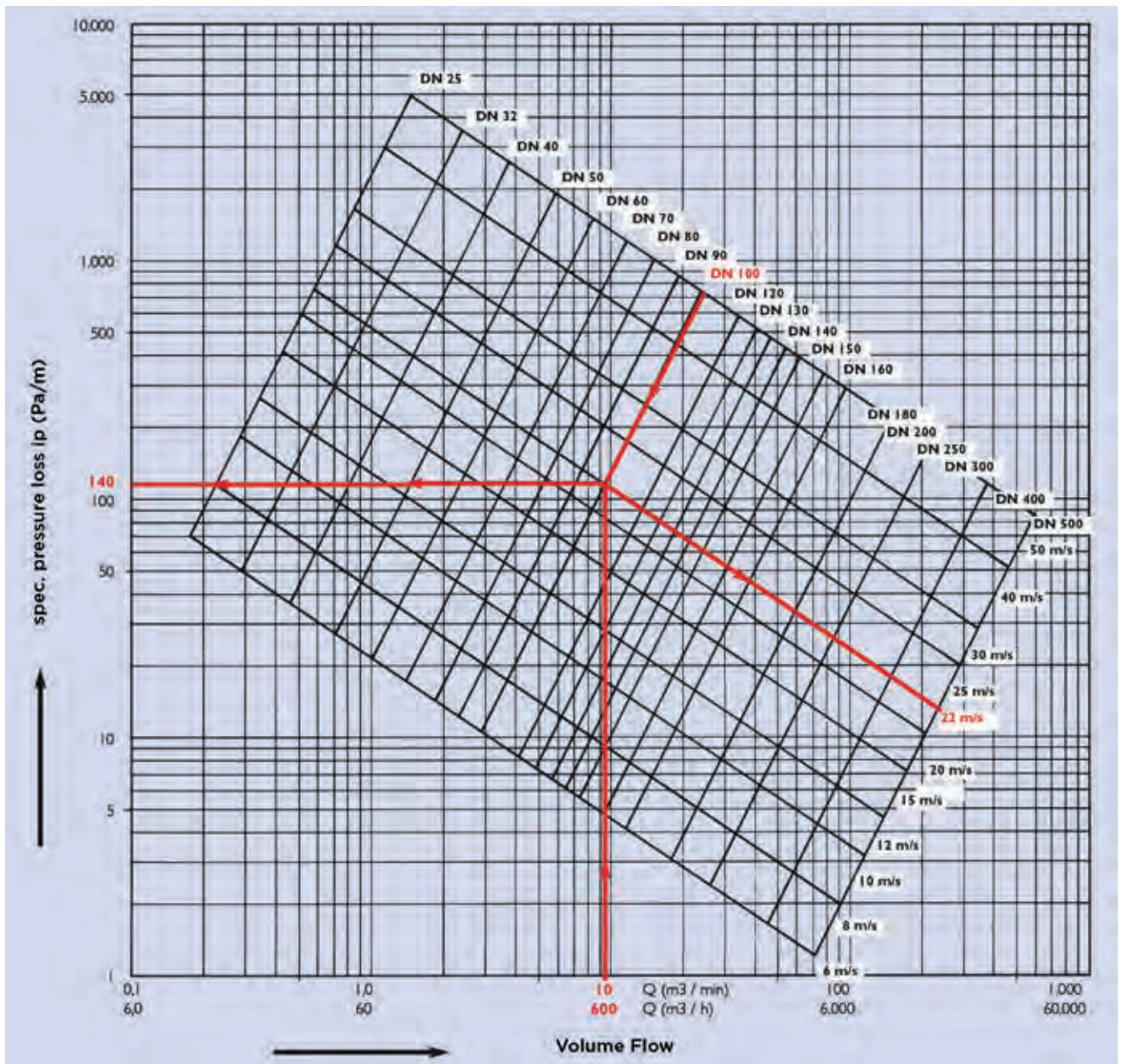


16.4 Pressure Loss of Masterflex Hoses

Diagram 2

DN 25 - DN 500 ribbed for the following hose types:

- Cargoflex
- Flamex B-F se
- Master-PVC L-F
- Master-PVC H-F
- Master-PUR L-F Food
- Miniflex PU (also: PU-AE)
- Miniflex PVC
- Miniflex TPV se
- Master-VAC
- Master-PVC FLEX
- Streetmaster GKS
- Streetmaster GKH
- Streetmaster KKS
- Streetmaster GLG
- Master-NEO 1
- Master-SIL 1
- Carflex Super
- Master-SANTO SL
- Master-PUR STEP



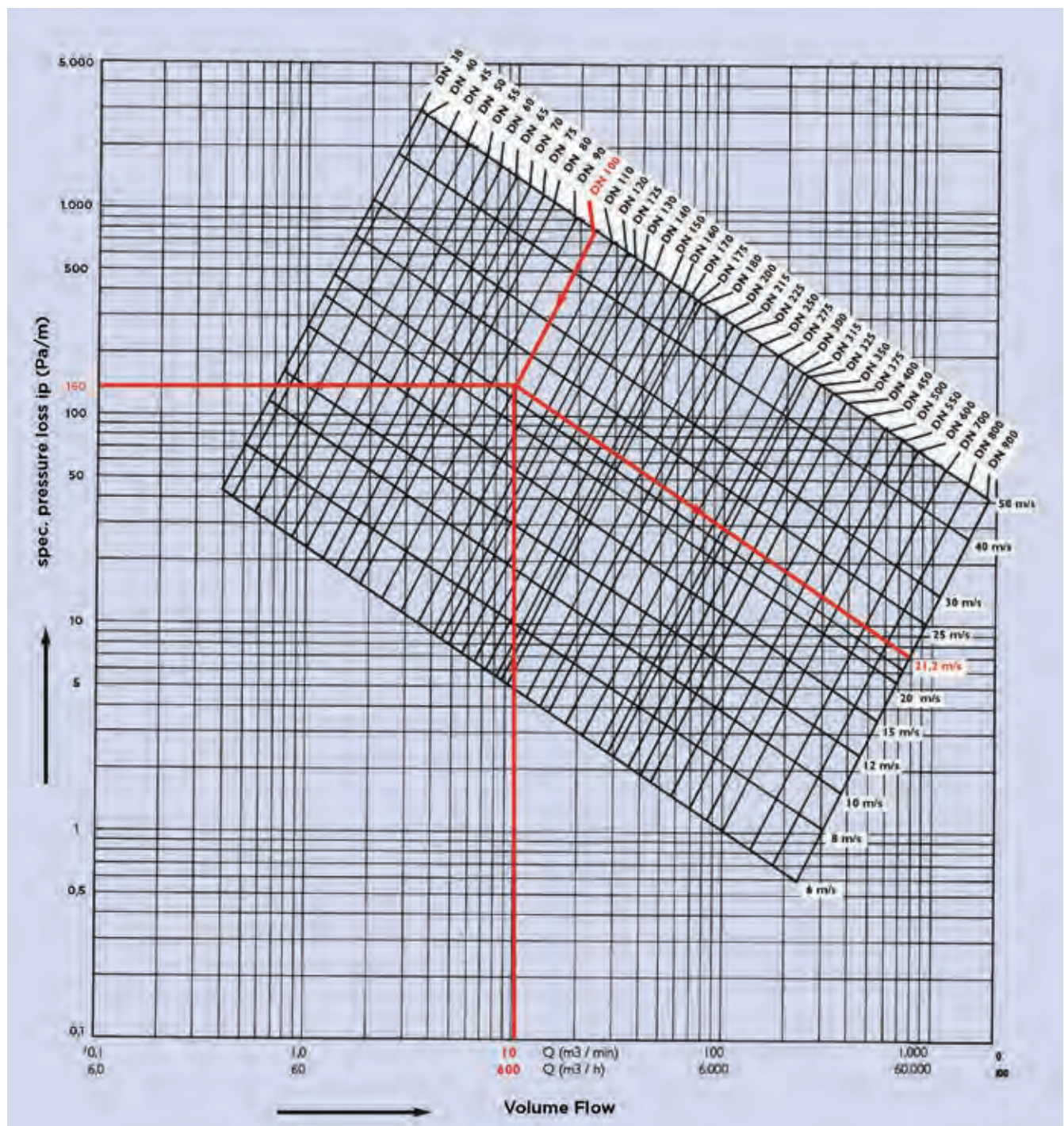
16.4 Pressure Loss of Masterflex Hoses

Diagram 3

DN 38 - DN 900

for the following hose types:

- Master-VENT 2
- Carflex 200
- Carflex 300
- all Master-Clip hoses except scaled hose construction designs



16.4 Pressure Loss of Masterflex Hoses

16.4.2

Pressure loss in hose bends

In addition to the specific pressure losses of hoses in extended form, the pressure loss in the hose bends can be determined using the following formula:

$$\Delta p_v = \zeta \frac{\rho \cdot v^2}{2} \left[\frac{N}{m^2} \right] \text{Pa}$$

(Rho) ρ = Density of medium (for air at 1013,2 mbar and $t = 20 \text{ }^\circ\text{C}$: 1,21 kg/m³)

v = flow rate m/s

(Zeta) ζ = resistance coefficient for hose bends

For circular arc bends $\zeta = 90^\circ$

R/d	1	2	4	6	10
ζ_{90°	0.36	0.22	0.17	0.13	0.15

Factor K for circular arc bends $\neq 90^\circ$:

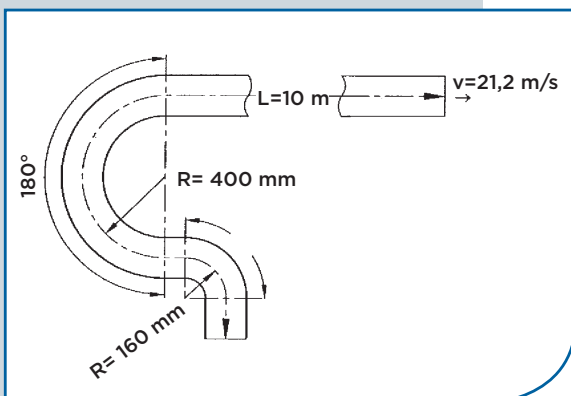
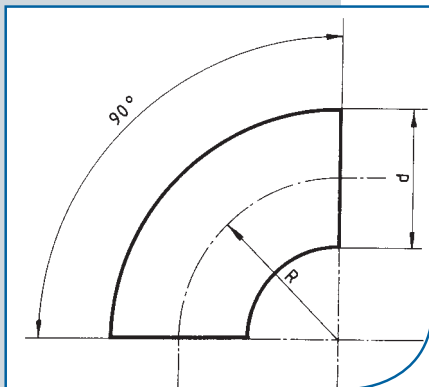
$$\zeta = \zeta_{90^\circ} \cdot K$$

ζ	30°	60°	90°	120°	150°	180°
K	0.4	0.7	1.0	1.25	1.5	1.7

Example calculation:

Hose type:	Master-PUR L
Air flow:	10 m ³ /min.
Hose DN:	100
Flo rate (from diagram I):	21,2 m/s
Specific pressure loss (from diagram I):	107 Pa/m
Pipe/Hose length:	L = 10 m
• 1 x 180° bend at bending radius	R = 400
• 1 x 90° bend at min. permissible bending radius	
(R = DN : 2 + perm. bending radius)	R = 160

(Bend radius / DN) 4 → $\zeta = 0.17$
 (Bend radius / DN) 2 → $\zeta = 0.22$



$$\begin{aligned} \Delta P_{\Sigma} &= (L \cdot \Delta P_{\text{Diagramm}}) + \frac{\zeta_{90^\circ\text{-Bogen}} \cdot \rho \cdot v^2}{2} + \frac{\zeta_{180^\circ\text{-Bogen}} \cdot \rho \cdot v^2}{2} \\ &= (L \cdot \Delta P_{\text{Diagramm}}) + \left[\zeta_{90^\circ} + (\zeta_{90^\circ} \cdot K) \right] \cdot \frac{\rho \cdot v^2}{2} \\ &= (10 \cdot 107) + \left[0,22 + (0,17 \cdot 1,7) \right] \cdot \frac{1,21 \cdot 21,2^2}{2} \\ &= 1208,5 \text{ Pa} \end{aligned}$$

16.5 Installation Aid for Hoses

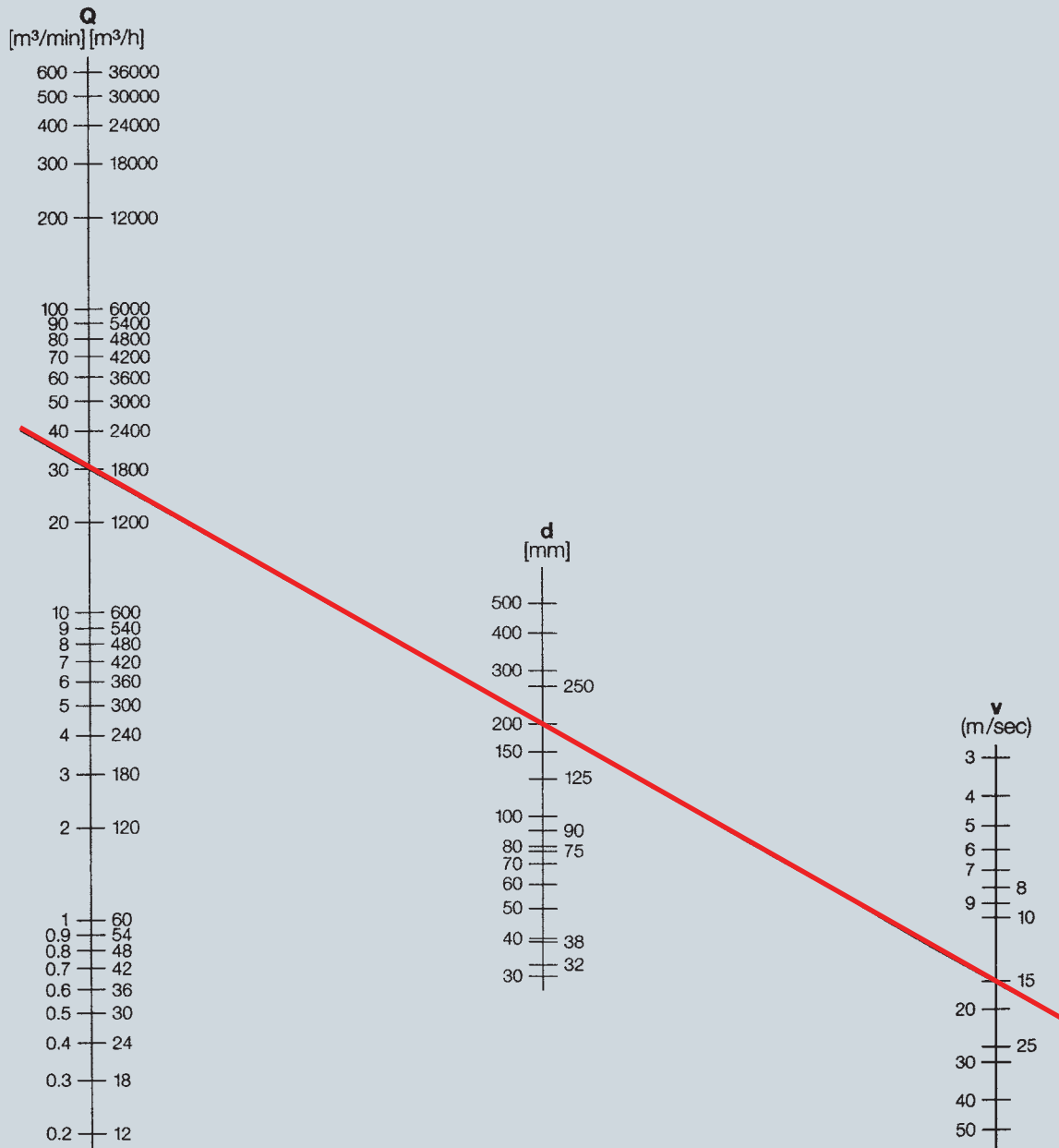
16.5 Installation Aid for Hoses

Where there are two known design parameters, the third point can be read off through a straight line at the intersection of the third parameter line.

Q = volume flow rate

d = hose DN

v = flow rate



16.6 Material description Polyurethane (TPU)

16.6.1 Material description of Polyurethane (TPU)

The majority of the Masterflex suction and transport hoses for abrasive solids are made from high performance polyurethane.

Polyurethane is essentially created by the reaction of three components with each other:

1. Polyole (long-chain diols)
2. Diisocyanates
3. Short-chain diols

The type of raw materials, the reaction conditions and the proportions of the starting materials are responsible for the product characteristics. The applied polyols have a significant effect on specific properties of the thermoplastic polyurethane. Either polyester polyols or polyether polyols are used as polyols. Thermoplastic polyurethane elastomers, also known as TPU, have the quality and properties to meet the most varied requirements such as:

- Flexibility within a wide temperature range
- Great durability
- Kink/tear-resistant (high level of split and tear resistance)
- Good resilience and recoverability
- Good dynamic stability under load
- Hydrolysis and/or microbe resistance (for polyether types or for modified polyester-types)
- Good to very good resistance to atmospheric corrosion
- Resistance to oil, grease and solvents

16.6.2 Colour

The inherent colour is between yellowish and whitish opaque or also translucent, although the wall thickness is also a factor here. With increasing ageing of the material, the yellowish discoloration increases without adversely affecting the mechanical, thermal and chemical properties. Colouring is possible.

16.6.3 Mechanical properties

Resistance to further tearing

Resistance to further tearing means the resistance of a notched test object to further tearing. The test is carried out in accordance with DIN ISO 34-1. For hoses made of polyurethane, this means that even damaged hoses are less likely to tear further in comparison to other thermoplastic hoses (e.g. PVC, TPV, etc.).

Abrasion resistance

Abrasion in rubbers and elastomers is determined in accordance with DIN ISO 4649. Here, a test sample is forced with a certain pressure onto a rotating roller, which is covered with a test emery paper. The full friction length is approximately 40 m. The loss of mass due to abrasive wear is measured with due consideration of the thickness of the test sample and the abrasive power of the test emery sheet. This is indicated as a loss of volume in mm³. The standard PUR material applied has an abrasion level of approximately 25 - 30 mm³.

Comparative values of the raw materials used:

- | | |
|------------|----------------------------------|
| ● Rubber | approx. 60 - 150 mm ³ |
| ● Soft-PVC | approx. 100 mm ³ |
| ● TPV | approx. 200 mm ³ |
| ● PUR-EL | approx. 45 mm ³ |

For further data, see 17.9.

Field tests have produced even greater differences compared with the above materials, due to the increased dampening and rebound elasticity of the polyurethane material. The standardised test methods do not fully reveal these differences.

16.6 Polyurethane (TPU)

16.6.4 Thermal properties

Like all materials, TPU is subject to temperature dependent, reversible alterations in length. This is indicated by the coefficient of linear thermal expansion α [1/K] and calculated in accordance with DIN 53 752 in dependence of the temperature. Shore hardness is also an influencing factor. It is therefore advisable in many applications to take account of the temperature dependence when selecting PUR hoses. These hoses can be applied in temperatures up to +125 °C for short periods, but a temperature of +90 °C should not be exceeded for longer periods. Soft polyether-based types are flexible in temperatures down to -40 °C. Long-term tests of our processed materials have shown that even with a permanent temperature load in the limit range of +90 °C, only insignificant effects on the mechanical properties (heat ageing) occur.

16.6.5 Electrical properties

Surface resistance

The processed polyurethane material has a surface resistance of approx. 10^{10} Ohm and can therefore be used as electrically insulating protective hosing.

Dissipation of electrostatic charges

Please refer to chap. 17.10

16.6.6 Media resistance

The suitability of a plastic for a particular application often depends on its resistance to chemicals. The reaction of thermoplastic polyurethanes to the effects of chemical substances can vary greatly. The resistance of TPU to certain materials, e.g. cooling and lubricating agents, depends on the additives in these agents. The mechanical properties can change when in contact with such agents.

Swelling of the polyurethane material is often due to the effects of the media.

For the media resistance of TPU, please refer to the resistance list at the end of this catalogue.

Microbe resistance, see chapter 17.12.

16.6.7 Weathering resistance

The general resistance of TPU to ozone and ultra-violet radiation is good (for further details, please see chapter 16.12). The resistance of TPU to high-energy radiation such as α -, β -, γ -radiation is superior to that of most other plastics. The resistance to these kinds of radiation depends among other things on the dosage of the radiation, the form and dimensions of the product, as well as the climate and atmosphere in the location of the application. Certain properties, such as resistance to thermo-forming and chemicals, can be positively influenced by deliberate cross-linking as a result of high-energy irradiation with the aid of cross-linking agents.

16.6.8 Fire resistance

Plastics, like all organic materials, are combustible. The standard TPU we use is also inherently classifiable as such. The fire resistance of a material is not, however, a material property and it is influenced by different criteria. The complexity of the influencing factors makes it impossible to give a comprehensive and generally applicable description of the fire resistance of plastics, as the risk of combustion depends on factors such as the wall thickness, form, quantity and layout of combustible objects together with other circumstances of use.

For this reason, the fire resistance of plastics should not be described using words or phrases which may be misinterpreted, such as "self-extinguishing" or "non-flammable", but preferably by the relevant DIN standard. Hoses with flame-inhibiting additives are "hardly inflammable" acc. to DIN 4102 B1 and are - unlike most of our competitors' hoses - manufactured from highly abrasion-resistant polyester TPU (and not from polyether TPU).

16.6.9 Health assessment

The raw materials used to produce the PUR hoses comply with the statutory requirements for foodstuffs (see chapter 16.11).

16.7 Thermoplastic Vulcanisate

16.6.10 Hydrolysis resistance of PUR

The polyurethanes processed by Masterflex are permanently resistant to warm water up to max. +40 °C. At higher temperatures, polyester-polyurethane displays an increasing impairment of its mechanical material properties. Polyether-polyurethane, however, is permanently resistant to hydrolytic degradation.

16.6.11 Microbe resistance of PUR

As result of our consistent state-of-the-art product development, we have achieved a market first: not only does our polyester polyurethane now have a greater abrasion resistance, but is now also microbe-resistant thanks to the use of special additives. Microbes can quickly develop where there is extended contact with earth-like substances or deposits of grass, foliage, sludge etc.. Moisture combined with heat accelerates this process. The enzymes released by the microbes result - without appropriate treatment - in the splitting of the ester compounds and the embrittlement of the plastic until it falls apart. Polyether types are also resistant to microbial attack, but their resistance to abrasion is not as good - as described elsewhere.

16.7 Material Description

Thermoplastic Vulcanisate (TPV)

The hoses manufactured by Masterflex from the material TPV are produced from a thermoplastic rubber.

Thermo-plastic rubber belongs to a group of elastomers, which excellently combine the performance characteristics of vulcanisable rubbers, such as heat resistance and low compression set, with the easy processibility of thermo-plastics.

Thermo-plastic vulcanisate is a fully vulcanised polyolefin material. Production is carried out in a special dynamic vulcanisation procedure, which produces fully cross-linked rubber particles which in turn are distributed in a continuous matrix of thermo-plastic material.

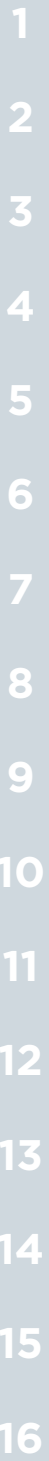
The average rubber particle size of one micron or less results in extremely good physical material properties.

TPV has a resistance to environmental conditions corresponding to the standard EPDM rubber mixtures, whilst the chemical resistance is comparable to that of chloroprene rubber mixtures.

The performance characteristics of thermoplastic vulcanisates include:

- mechanical properties over a temperature range of -40 °C to +130 °C, peaks up to +150 °C
- resistance to chemicals in the chloroprene class for aqueous fluids, oils and hydrocarbons
- low compression set and tension set
- excellent hot air ageing behaviour at temperatures of up to +150 °C at periods of up to two weeks and up to +130 °C for longer periods
- excellent dynamic fatigue resistance
- outstanding resistance to ozone and weathering

The standard hoses are manufactured from black raw materials, but can also be coloured in accordance with customer requirements for appropriate delivery quantities.



16.8 Soft PVC (Polyvinyl Chloride)

16.8 Material Description Soft PVC (Polyvinyl Chloride)

PVC is one of the amorphous plastics. Nevertheless, this material has excellent media resistance. For this reason PVC hoses are frequently used for applications with problematical media or environments. Only a number of solvents (aromatics, esters, ketones, chlorinated hydrocarbons) attack it.

PVC is a cost-effective, versatile material, which does, however, have the following disadvantages:

The temperature load capacity and the abrasion resistance of PVC are significantly inferior to that of PUR. Moreover, slow embrittlement of the material arises on flexible hoses as a result of plasticiser migration, which can lead to premature failure.

Note:

Highly toxic hydrochloric acid vapours and dioxins are formed from PVC in the event of fire. These can then constitute a significant health hazard, which may even be fatal, and can destroy electronic equipment through its corrosive effect.

16.9 Specifications of Applied Thermoplastic Raw Material

16.9 Specifications of Applied Thermoplastic Raw Materials

	Standard	Unit	Polyester PUR	Polyester PUR-AE (+ microbe protection)	Polyether PUR	Polyester PUR-EL (electroconductive)	Polyester PUR se	Thermoplastic Vulcanisate	Thermoplastic Vulcanisate hardly inflammable	Thermoplastic Vulcanisate abrasion resistant	Soft PVC
Abbreviation			TPU	TPU	TPU	TPU	TPU	TPV	TPV	TPV	PVC-P
Density	DIN EN ISO 1183-1	g/cm ³	1,20	1,20	1,19	1,19	1,20	0,98	1,12	0,95	1,22
Temp. Range permanent peaks to		°C °C °C	-40 to +90 +125	-40 to +90 +125	-40 to +90 +125	-40 to +90 +125	-40 to +90 +125	-40 to +130 +150	-40 to +130 +150	-40 to +110 +120	-20 to +70 +80
Hardness	DIN 53505	Shore A	78	78	80	84	78	73	80	80	74
Tensile Strength	DIN 53504	N/mm ²	45	45	53	19	45	8,5	8,7	15	16
Break Elongation	DIN 53504	%	650	650	530	500	650	420	520	700	350
Tear-growth Resistance	DIN-ISO 34-1	N/mm	60	60	90	65	60	24	33	25,5	43
Abrasion	DIN-ISO 4649	mm ³	25	25	30	54	25	200	158	49	92
Heat Ageing			++	++	++	++	++	+++	+++	++	---
UV-Resistance*			++	++	++	+++	++	+++	+++	+++	++
Weathering Resistance*			++	++	+++	++	++	++	++	++	++
Microbe Resistance			---	+++	+++	---	---	++	++	++	+++
Hydrolysis Resist.			+	+	+++	+	+	+++	+++	+++	+++
Temp. limit of h.s.		°C	<+40	<+40		<+40	<+40				
Inflammability							DIN 4102-B1		UL 94 V-0		

+++ = excellent

+ = limited suitability

* see chapter 16.6.7

++ = good

--- = not suitable

16.10 Dissipation of Electrostatic Charges on Masterflex Hoses

16.10 Dissipation of Electrostatic Charges on Masterflex Hoses

16.10.1 General

Hose lines can be a potential source of danger in pneumatic suction and conveying plants due to the build-up of electrostatic charges. The capacity to dissipate such charges is therefore mandatory in many areas of application to ensure safe operation. Hoses are used to transport solids (e.g. in the form of granular materials, chippings, dust, sand, cement, etc.) as well as liquids and gases. Electrostatic charges occur wherever solids, which are non-conductive have poor conductivity, come into contact with other materials and then separated again. As a result of this friction and the subsequent separation process, one material has fewer electrons than the other, which leads to one being positively and the other negatively charged. In the area of the common boundary surface, the so-called "interfacial potential" is formed, which enables the discharging of sparks. There are a number of ways to avoid such discharges and these are described in more detail below.

16.10.2 Regulations

A series of directives and regulations exist for evaluating and avoiding the risk of ignition as well as the appropriate safety precautions to be taken. At this point, we refer primarily to the German Technical Rule for Occupational Safety, TRGS 727 (ATEX) "Avoidance of ignition hazards due to electrostatic charges". TRGS 727 (ATEX) was prepared by the German Committee on Occupational Safety and published in the Joint Ministerial Gazette by the German Federal Ministry of Labour and Social Affairs.

The TRGS 727 replaces the former TRBS 2153 and updates it.

Masterflex products also fulfill the relevant regulation of harmonisation by the union: guideline 94/9/EG (until 19. April 2016) and guideline 2014/34/EU (from 20. April 2016)

16.10.3 Causes of electrostatic charges

During the transportation of solids, liquids or gases, the "interfacial potential" previously described is generated

by the friction on the inside of the hose. Depending on the degree of charge, this leads to sparks, electrical breakdown or in some cases the ignition of flammable materials. Aside from the intensity of the contact (friction) between the medium and the inner sides of the hose, the "dielectric permittivity" of the hose and medium is decisive for the extent to which charging is possible. This is considered to be a measure of the polarisability. Even conductive materials can become charged if not earthed.

16.10.4 Ways of avoiding electrostatic charges

The surface resistance of the hose wall materials can be reduced to values between 10^3 and 10^4 Ohm. These additives (e.g. conductive soot or "carbon black") form a network of conductive particles touching each other in the plastic (volume conductivity). Such plastics are, however, only available in black due to the colour of the additives.

Another possibility is the addition of anti-static agents to obtain a surface resistance of $<10^9$ Ohm and to maintain the transparent colour of the basic material. In certain anti-static agents, resistance is established by humidity absorption in the hose wall surface. This can be a disadvantage in some applications, e.g. the transport of dry powders, since the humidity absorbed from the air causes poor or insufficient anti-static properties. Furthermore, the application-specific abrasion may impair the establishment of the required surface resistance. This is why anti-static hoses should be used in the appropriate zones/applications. Ideally, these should be equipped with permanent anti-static additives, which are not dependent on any additional external aspects.

For secondary applications, such as "gases and liquids of low conductivity" in Zone 1 and "non-combustible dusts/bulk goods" in Zone 21, spiral/clip hoses can be applied, if their wall material specifically offers a surface resistance of $> 10^9$ Ohm. Here, it is important to note that the helix/clip interval must be < 30 mm and the helix overlap must be < 2 mm.

All of the applications mentioned above require both helix/clip ends to be earthed to the connector to ensure static dissipation. For further information on the possible applications of Masterflex hoses, please refer to the specific product data sheets.

16.10.5 Limit determination & definition

In general, the following can become electrostatically charged:

16.10 Dissipation of Electrostatic Charges on Masterflex Hoses

- Hoses with a wire spiral
- Solids with a surface resistance of $>10^9$ Ohm
- All non-earthed objects made from electro-conductive materials

In general, the following are not capable of becoming electrostatically charged:

- All solids and liquids, which fall short of the above critical resistance values
- All conductive materials which are earthed.

In practice, when using hose lines with a wire helix/clip, this means the following:

1. Wire-reinforced hoses / clip hoses may be used for “gases and liquids of low conductivity” in Zone 1 and “non-combustible dusts/bulk goods” in Zone 21 if their wall surface resistance is $> 10^9$ Ohm, the helix/clip interval is < 30 mm and the overlap of the helix/clip is < 2 mm. For the mounting and installation of the hoses, it is important to ensure that both helix/clip ends have an earthed connection.
2. Increased protection can be obtained by using non-chargeable hoses, such as anti-static hoses with a surface resistance of $< 10^9$ Ohm. Again, the exposed helix/clip ends must have an earthed connection.
3. Electroconductive hoses with a surface resistance of $< 10^6$ Ohm offer optimum safety. However, even these hoses require an earthed connection between the exposed ends of the wire and the electroconductive connection socket for safety reasons. Tested Masterflex hoses with the addition “EL” comply fully with these requirements and are electroconductive to $< 10^4$ Ohm.

16.10.6 Measurement method

The determination of the surface resistance depends on the relevant measurement method and is determined for non-conductive solids in accordance with DIN IEC 60093 / VDE 0303, Section 30 (Test method for electrically insulating materials, flow resistance and specific surface resistance of solid, electrically insulating materials). For rubber/plastic hoses and hose lines, the standard DIN EN ISO 8031 - “Rubber and plastic hoses and hose lines” describes the determination of the electrical resistance.

This standard describes:

- Procedures for hoses with conductive inner layers (e.g. the method of measuring Masterflex hose types Master-Clip ...)
- Procedures for hoses with a conductive outer layer
- Procedures for hoses made from a mixture of materials, which are conductive throughout (e.g. the measurement method for the profile-extruded Masterflex hose types with “EL”).

16.10.7 Note

The addition of conductive additives or anti-static agents reduces the mechanical properties of the material (e.g. resistance to abrasion and tearing) and thus reduces service life. The information summarised under points 1 to 6 is based on internal and external field research and on the currently applicable regulations. It serves as a guideline for using Masterflex hose types in areas of potential danger but no guarantee is given for its entirety.

The catalogue details relating to surface resistance are based on official test results, details supplied by our raw material suppliers and internal measurements. In case of doubt, we recommend that users test the hoses under operating conditions or similar circumstances before final installation.

16.11 Food Law Requirements & Certifications

16.11 Food Law Requirements & Certifications

In order for hoses to be authorized for use within the food industry, they must adhere to and fulfil the appropriate "food law regulations". Masterflex produces hose systems made from polyurethane and hoses made from polyolefin, which fulfil all requirements:

16.11.1 Polyurethane hoses:

Hose Types:

Master-PUR Flat L Food, Master-PUR Flat H Food, Master-PUR Flat SH Food, Master-PUR L-F Food, Master-PUR L Food, Master-PUR H Food, Master-PUR HX Food, Polderflex PUR Food

or all hoses, which are made from the same material as the hoses listed above with a wall thickness of < 5.5 mm and an inner diameter of < 20 mm.

The raw materials used to produce Master-PUR Food hoses comply with the following statutory requirements for foodstuffs:

EU

The Master-PUR Food range has been tested and certified by an independent institute.

The hoses included in the Master-PUR Food range fulfil and are in accordance under certain conditions with the requirements of the regulation (EU) No. 1935/2004, as well as the regulation (EU) No. 10/2011 and 1282/2011, the German Food and Feed Code (LFGB, from 15th March 2012) and the Consumer Goods Ordinance (from 13th Dec. 2011).

For further information on the conditions, please refer to the test certificate H-224987-12-Bg.

The raw materials applied are also listed in Chapter 2 of the recommendation "XXXIX. Consumer Goods based on Polyurethanes" (from 1st Jan. 2012).

USA

The raw materials and additives used (excluding stabilisers) are listed in 21 CFR (Code of Federal Regulations) § 177.2600 "Rubber articles intended for repeated use" of the FDA dated 01.04.2009. The antioxidants/stabilisers used are listed in FDA 21 CFR § 178.2010 "Antioxidants and/or stabilizers for polymers".

16.11.2 Hoses made from antistatic polyurethane

Hose Types:

Master-PUR L-F Food A, Master-PUR L Food A, Master-PUR H Food A, Master-PUR HX Food A, Master-PUR HX-S Food A, Polderflex PUR Food A

or all hoses, which are made from the same material as the hoses listed above with a wall thickness of > 0.4 mm and an inner diameter of > 20 mm.

The raw materials used to produce Master-PUR Food A hoses comply with the following statutory requirements for foodstuffs:

EU

The Master-PUR Food A range has been tested and certified by an independent institute.

The monomers used in the production of the raw materials are listed in the commodities' regulation as disclosed on 23.12.1997 (Official Federal Gazette 1998 1 S.5), amended on 23.09.2009 (Official Federal Gazette IS 3130).

The monomers used are listed in the annexes to EC Directive 2002/72/EC as amended in the amending directive 2007/19/EC dated 30.03.2007 and 2008/39/EC dated 07.03.2008 as well as the EC directive 975/2009 dated 20.10.2009.

The additives used (excluding catalysts) are listed in annex III of EC Directive 2002/72/EC, amended by directive 2007/19/EC and 2008/39/EC as well as the EC directive 975/2009 dated 20.10.2009. For further information on the conditions, please refer to the test certificate H-192339K-10-Bg. The certificate will be shown on request of the user.

16.11 Food Law Requirements & Certifications

USA

The applied additives (excluding stabilisers) are listed in 21 CFR (Code of Federal Regulations) § 177.2600 and 21 CFR § 178.2010 "Rubber articles intended for repeated use" of the FDA dated 01.04.2009, as well as in the Effective Food Contact Substance Notifications (FCS).

16.11.2.1 TRGS 727

Technical Regulations for Operating Safety (ATEX/TRGS) 727 "Avoidance of Ignition Hazards from Electrostatic Charges". For further details, please refer to section 16.10.

16.11.3 Connection elements

The raw materials used to produce Master-GS Food connecting elements comply with the following statutory requirements for foodstuffs:

EU

The monomers used in the production of the raw materials are listed in the commodities' regulation as disclosed on 23.12.1997 (Official Federal Gazette 1998 I S.5), last amended on 23.03.2009 (Official Federal Gazette IS 3130) as well as the EC directive 975/2009 dated 20.10.2009. The starting materials applied are also listed under No 2.1, category 1, of recommendation XXXIX, "Commodities based on polyurethane" of the Federal Institute for Risk Assessment. The monomers used are listed in the annexes to EC Directive 2002/72/EC as amended in the latest amending directive 2004/19/EC dated 01.03.2004.

The additives used (excluding catalysts) are listed in annex III of the EC directive 2002/72/EC, last amended by the directive 2004/19/EC, in appendix 3a of the Commodities Directive, listed in the Synoptic Document No. 7 (with a classification of 0 - 3 in the SCF lists). Catalysts are not regulated by the EC directives.

The connecting system Master GS-70D Food has been tested and approved by an independent institute. For the conditions of the requirements listed in the regulations, please refer to the certificate. The certificate will be presented upon request by the user.

Notes:

Product Selection

It is the responsibility of the user to check whether the selected hose type is suitable for the application in contact with foodstuffs.

BFR, Regulations, Directives

The hoses supplied by Masterflex correspond to the regulation (EC) 1935/2004 from 27th Oct. 2004, the BfR recommendations for the applied materials and, depending on the product, the directive 2002/72/EC or the regulation (EU) No. 10/2011 for plastics.

Note on new Regulation (EU) No. 10/2011:

All current certifications acc. to regulation 2002/72/EC are valid until 13th Jan. 2016, as listed in section 46 (page 7) of the regulation (EU) No. 10/2011.

GMP

The hoses produced by Masterflex are manufactured according to the regulation 2023/2006 dated 22nd Dec. 2006 (GMP = "Good Manufacturing Practice").

Other Notes

Please note that disinfectant containing active chlorine, independent of the contact conditions and the frequency of the contact, can damage our products. We advise against sterilisation via steam. This may damage the product material.

16.12 Terminology & Definitions

16.12 Terminology & Definitions

Abrasion

Undesirable alteration of the surface due to the detachment of small particles as a result of mechanical strain. This erosion process is generally referred to as wear in plastics (and many other materials). (Also see section 16.6 Material Description Polyurethane).

Additives

All constituents in synthetic mixtures which are not polymers or their primary products or which are only added in relatively low quantities (e.g. conductive carbon black, flame retardants, UV stabilising agents, etc.).

Ageing

The entirety of all irreversible chemical and physical processes occurring in a material over the course of time. This usually leads to a deterioration in performance characteristics. Often caused by: heat, light, high-energy radiation, chemicals, weather, oxygen (ozone), plasticiser migration in PVC, etc.

Bend Radius

The bend radius is given in mm. All figures refer to the inside of the hose bend at maximum operating pressure.

Elasticity

The ability of a material to reverse alterations in shape or volume caused by outside forces or moments.

Elastomers

Designation for loosely cross-linked, macro-molecular materials which can be extended to at least double their original length under the influence of a small force at ambient temperature and above and can resume their original shape quickly and practically completely once the deforming force has been removed.

Flame Retardants

These are synthetic additives which reduce the flammability of plastics.

Flexibility

Expenditure of energy necessary to attain the minimum bend radius (the greater the expenditure of force, the lower the flexibility).

Gas Permeability

See Permeation

Halogens

The elements fluorine (F), chlorine (Cl), bromine (Br) and iodine (I) form the group of halogens.

Hardness

The resistance of one body to the penetration of another. In rubber-type materials the Shore hardness is determined in accordance with DIN 53 505. A needle (truncated taper for Shore A and conical for Shore D) is pressed into the sample with a certain spring tension. The hardness is measured by the depth of penetration (scale range 0 to 100 in Shore).

Hydrolysis Resistance

Hydrolysis = irreversible splitting of the polyester chains in polyester polyurethanes. It occurs after a long period in hot water, saturated steam or a tropical climate (moisture combined with heat). The result of hydrolysis is a decrease in mechanical strength properties. Hardly any hydrolytic decomposition is observed in polyester polyurethanes at ambient temperature.

Lining

Application of a surface layer with particular properties onto foil/film or plates as well as the application of foil/film or onto fabric sheeting.

Microbe Resistance

Polyester-based thermoplastic polyurethanes without additional protection against microbes are at risk of decomposition caused by microbial attack. Moisture combined with heat (e.g. in nutritive environments such as grass, foliage, agriculture, etc.) can accelerate this process. In such surroundings the micro-organisms multiply very rapidly. The enzymes they release split ester compounds and destroy the synthetic part. Localised attack is evident initially, in contrast to hydrolytic decomposition which occurs over the entire surface. Polyether-based polyurethanes are to a large extent resistant to decomposition by microbial attack but their mechanical properties are not as good as those of comparable polyester polyurethanes.

Permeation

Passage of a gas through a test sample. This occurs in three stages:

16.12 Terminology & Definitions

1. Dissolution of the gas in the test body.
2. Diffusion of the dissolved gas through the test sample.
3. Evaporation of the gas from the test body.

The permeation coefficient is a material constant, which indicates the volume of gas which passes through a test sample of known surface and thickness at a given partial pressure difference in a particular time. It depends on the temperature and is calculated in accordance with DIN 53 536.

Swelling

Absorption of liquid or gaseous matter in solids without a chemical reaction occurring between them. The results are an increase in volume and weight accompanied by a corresponding decrease in mechanical properties. Once the absorbed matter has been exhausted and swelling has decreased accordingly, the original properties of the product are almost completely restored. Swelling is therefore a reversible process.

Peak Pressure Resistance

Resistance to the collapsing of suction and pressure hoses through outer peak loads.

Tear-Growth Resistance

Resistance of a notched test sample to further tearing. The test is carried out in accordance with DIN 53 515 on corner samples with a cut in one side.

UV Radiation

Plastics can be chemically broken down by the effects of UV radiation depending on the duration and intensity (ageing). The resistance of polyurethanes to UV radiation is good in general, but over the course of time the material turns yellow and the surface becomes slightly brittle. This results in a slight reduction in the mechanical properties. Stabilisation against ageing can be attained by using UV stabilisers and/or through colour pigmentation.

Ozone Resistance

Ozone is the combination of three oxygen atoms into one molecule (O₃). It is formed by the action of high-energy UV radiation on the oxygen in the atmosphere. Due to its composition, ozone is very reactive and reacts easily with organic substances. The resistance of polyurethanes to ozone is good in general.

Temperature Range

Definition of the range, in which the temperature of the transport medium can be found. The term "peaks to ... °C", depending on the material, refers to a temperature impulse of 10-20 seconds, where no significant damage can occur to the product.

16.13 Material & Testing Standards

The following section lists the most important material testing standards from the standards DIN and EN:

16.13.1 Pressure & Vacuum

DIN EN ISO 1402 (PRESSURE)

Rubber and plastic hoses and hose lines - hydrostatic tests

16.13.2 Electroconductivity

DIN EN ISO 8031

Rubber and plastic hoses and hose lines

- Determination of electrical resistance and the electroconductivity DIN IEC 60093
- Test method for electrically insulating materials, volume resistivity and specific surface resistance of solid, electrically insulating materials DIN VDE 0303-8
- VDE requirements for the electrical testing of insulating materials, evaluation of electrostatic behaviour

DIN 54345-1

Testing of Textiles

- Electrostatic behaviour, determination of electrical resistance variables

16.13.3 Flammability

DIN 4102-1

- Fire resistance of building materials and components

DIN EN ISO 6941

Textiles, Burn Behaviour

- Determination of burning behaviour, perpendicular method, burning due to ignition at the lower edge

16.13 Material & Testing Standards

DIN 66083

- Characteristic values for the burning behaviour of textile products, textile fabric for working and protective clothing

16.13.4 Mechanical Tests

DIN ISO 4649

- Elastomers or thermoplastic elastomers
 - Requirements of abrasion resistance using a device with rotating cylinder drums

DIN 26057

Requirements on spiral hoses made of TPU

DIN 53752

Testing of Plastics

- Requirements of linear thermal expansion coefficients

DIN 53505

Testing of Rubber & Elastomers

- Hardness testing acc. to Shore A and D

DIN 53359

Testing of imitation leather and similar fabrics

- Permanent buckling test

DIN 53863-2

Testing of Textiles

- Abrasion test of textile fabrics, rotary abrasion test (Schopper-Test)

DIN ISO 34-1

Elastomers or Thermoplastic Elastomers

- Tear growth test - Part 1: strip/angle/bend-shaped test objects

DIN 53504

Testing of Rubber & Elastomers

- Requirements of tear resistance, tensile strength, elongation of break and tensile values in tensile test

DIN EN ISO 1183-1

Plastics

- Procedure for determination of density of non-foam plastics - Part 1: dip method, procedure with liquid pycnometer and titration

16.13.5 Ambient Influences

DIN EN ISO 4892

Plastics

- Artificial weathering or radiation in devices
 - Part 1: General instructions

16.14 Conversion Table

16.14 Conversion Tables

16.14.1 Powers of Ten (10)

G Giga-	=	10 ⁹	=	1 000 000 000	Thousand Million
M Mega-	=	10 ⁶	=	1 000 000	Million (M.)
k Kilo-	=	10 ³	=	1 000	Thousand (K)
h Hecto-	=	10 ²	=	100	Hundred
da Deca-	=	10 ¹	=	10	Ten
	=	10 ⁰	=	1	One
d Deci-	=	10 ⁻¹	=	0.1	Tenth
c Centi-	=	10 ⁻²	=	0.01	Hundredth
m Milli-	=	10 ⁻³	=	0.001	Thousandth
μ Micro-	=	10 ⁻⁶	=	0.000 001	One Millionth
n Nano-	=	10 ⁻⁹	=	0.000 000 001	One Thousand Millionth

16.14.2

Conversion of Pressure Units (p)

	Pa	bar	mm WG	PSI	kp/cm ²
1 Pa =	1 N/m ²	0.00001 10 ⁻⁵	0.102	0.00015	0.0000102 1.62 • 10 ⁻⁵
1 bar	100000 10 ⁵	1	10200 1.02 • 10 ⁴	14.514	1.02
1 mm Ws	9.807	0,00009807 9.81 • 10 ⁻⁵	1	0.00142	0.0001
1 PSI	6.895	0.0689	703.2	1	0.07028
1 kp/cm ²	98.100 9.81 • 10 ⁴	0.981	10.000	14.22	1

16.14.3

Temperature

$$\text{Celsius: } \text{°Celsius} = \frac{5}{9} (\text{°Fahrenheit} - 32) \times \frac{9}{5}$$

$$\text{Fahrenheit: } \text{°Fahrenheit} = \text{°Celsius} \times \frac{9}{5} + 32$$

16.14 Conversion Tables

16.14.4 Conversion of Units of Length

	m	cm	mm	µm	in	ft	yd
1 m	1	100	1000	1,000,000	39.37	3.28	1.094
1 cm	0.01	1	10	10,000	0.3937	0.0328	0.01094
1 mm	0.001	0.1	1	1000	0.03937	0.00328	0.001094
1 µm	0.000001	0.0001	0.001	1	$3,937 \times 10^{-6}$	3.28×10^{-6}	1.094×10^{-6}
1 in = 1 inch	0.0254	2.54	25.4	25,400	1	0.083	0.0278
1 ft = 1 foot	0.3048	30.48	304.8	304,800	12	1	0.333
1 yd = 1 yard	0.9144	91.44	914.4	914,00	36	3	1

16.14.5 Conversion of Volume Flow Rates

	l/s	l/min	l/h
1 m ³ /s	1000	60,000	3.6×10^6
1 m ³ /min	16.67	1000	60,000
1 m ³ /h	0.278	16.67	1000

16.14.6 Conversion of Weights

	Pounds	Kilograms	Ounces	Grams
1 Pfund	1	0.4536	16.282	453.6
1 Kilogramm	2.205	1	35.3	1000
1 Unze	0.062	0.0284	1	28.35
1 Gramm	0.0022	0.0001	0.0353	1

16.15 CE Accreditation of Masterflex Products

The CE accreditation (Conformité Européenne) stands for “compliance with EU directives” and is a EU product safety marking for certain products. By affixing the CE mark, manufacturers attest the conformity with one or several EU directives applicable to the respective product. This marking has meanwhile become mandatory for certain product groups. There are no trade restrictions for CE marked products within the EU member states whereas products without the CE mark, which are subject to marking, may not be placed on the market from a specific date onwards (e.g. machinery requires marking since 1st January 1995).

Masterflex hoses are not included in those product groups subject to mandatory marking. This is due to the fact that, as per EC Machinery Directive 89/392/EEC, hoses are neither considered machinery, safety components nor products regulated under the low-voltage or EMC directives, medical products directive etc. Hoses are components that may not bear the CE mark.

As a consequence, the CE mark may not be affixed to hoses and the Masterflex SE is not allowed to issue declarations of conformity (manufacturer’s declarations).

If requested, it is possible though to provide data safety sheets acc. to DIN EN 292 and works certificates acc. to EN 10204 that attest the characteristics of Masterflex products. Masterflex SE is certified in accordance with DIN EN ISO 9001. We assure the high quality of our products.

The data provided by Masterflex is considered general information. Since individual applications, local conditions and hose designs differ, no liability or guarantee can be derived from the given information.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
accumulator acid (sulphuric acid 30%)	x	2	x	1	1	1	1	1	2	1	1	
acetaldehyde	3	2	2	3	2	x	2 to 3	1	3	1	1	1
acetamide	x	x	2	2	1 to 2	x	1	1	1		1	1
acetic acid 10%	3	2	2	1	2	3	1	1	1	1	1	1
acetic acid 100% (conc.)	x	x	2 to 3	3	x	x	x	1	x	1	1	1
acetic acid 25%	x	3	2 to 3	1 to 2	2	x	1	1	1 to 2	1	1	1
acetic acid 3%	2	1	1	1	2	1	1	1	1	1	1	1
acetic acid 50%	x	x	2 to 3	2	2	x	3	1	2 to 3	1	1	1
acetic acid anhydride 50%	x	x	1	1	x	x	3	1	2	1	1	
acetic acid ethyl ester (ethyl acetate)	x	x	2	x	x	x	2	1	3	1	1	1
acetone	3	x	2	2 to 3	x	3	1 to 2	1	3	1	1	1
acetyl salicylic acid (aspirin)					1	1	1					1
acetylacetone	3	x	x		x	x	x	1		1	1	x
acetylene gas	2-3	2-3	2	2	1	1	3	1	2	1	1	1
acids see spec. designation, applicable in general	x	3	2	2-3	1-2	1-2	2	1	3	1	1-2	
acrylic acid ethyl ester (ethyl acrylate)	x	x	2	1	x	x	x	1	x	1	1	x
acrylonitrile	x	x	2	3	2	x	1	1	3	1	1	1
adipic acid (hexane diacid)	3	1 to 3	x	1	1	1	1	1	2	1		
adipic acid diethyl ester				1	x	x		1		1	1	
adipose (animal grease)	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	1
air, atmospheric, oil-free, to +°C	85	80	175	120	200	70	90	200		200	125	1
air, oil-saturated, to +°C	85	80	175	120	200	70	90	200		200	125	1
alcohols see specific designations, applicable in general	2-3	2-3	1-2	1-2	1-2	1-2	1-2	1	2	1	2	1
aliphatics see gasoline low aromatic												
applicable in general	1-2	2	3-x	3	1	2-3	3-x	1	3	1	2-x	1
aldehyde see specific designations, applicable in general	3	3	2-3	2-3	2-x	3	1-2	1	3	1	2	
allyl alcohol (propenol)	3	3	x	1 to 3	3	3	1	1			1	1
allyl chloride (3-chloropropene)	x	x	1		x	x	x	1		1		x
alum (potassium aluminium sulphate)	2	1	1 to 2	1	1	1	1	1	2	3	1	1
aluminium acetate, aqu. (basic aluminium acetate)	x	3	x	1	x	1	1	1	1	1	1	1
aluminium chloride, aqu.	3	1 to 2	2	1 to 2	1	1	1 to 2	1	1	1	1	1
aluminium fluoride	3	3	2	1	1	1	1	1	1	1	1	1
aluminium hydroxide	3	2	1	1	1	1	1	1	1	1	1	1
aluminium nitrate, aqu.	3	2	2	1	1	2	1	1	1	1	1	1
aluminium phosphate, aqu.	2	1	1	1	1	1	1	1	1	1	1	1
aluminium sulphate, aqu.	3	2	1	1	1	1	1	1	1	1	1	1
amines see specific designations, applicable in general	x	x	3	3	2-3	x	2-3	1	2-x	1	2	
amino acetic acid (glycine)	x	x	2 to 3	2 to 3	1	1		1			1	
ammonia nitrate, aqu.	3	2	1	3	3	2	1	1	2	1	1	1
ammonia, aqu. 25% (ammonia water)	x	x	1	3	1	1	1	1	2	x	1	1
ammonia, gaseous 20°C	x	3	1	2	1	1	1	1	1	1	1	1
ammonia, liquid 100%	x	x	3	2	x	3	2	1	1	1	1	1
ammonium acetate, aqu.	x	x	3-x	1	x	1	2	1			1	1
ammonium carbonate, aqu.	x	x	2 to 3	1	1	1	1	1	1	1	1	1
ammonium chloride, aqu. 3%	3	1	1	2	1	1	1	1	1	1	1	1
ammonium diphosphate, aqu.	3	1	1 to 2	1	1	1	1	1	1	1	1	1
ammonium fluoride, aqu.	x	x		1	1 to 2	1 to 3	1	1			1	1
ammonium hydroxide, aqu. (ammonia, aqu.)	x	x	1	3	1	1	1	1	2	x	1	
ammonium metaphosphate	2	1	1	1	1	1	1	1	1	1	1	2
ammonium nitrate	1	1	2	1	1	2		1	1	1	1	1
ammonium persulphate, aqu.	3	2	2 to 3	2	1	1	1	1	2	1	1	
ammonium phosphate, aqu.	3	1	1	2	1	2	1	1	1	1	1	2
ammonium sulphate	2	1	1	1	1	1	1	1	1	1	1	1
ammonium thiocyanate	3	2	1		1	1	1	1		1	1	1
ammonium-urea-solution (liquid nitrogen fertiliser)	x	x				2	2	1				

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
amyl acetate* ¹ (acetic acid pentyl ester, banana oil)	x	x	3	x	x	x	2	1	3	1	1	1
amyl alcohols (pentanols)	3	3	3	1	2	1	1 to 2	1	1	1	1	1
amyl borate	x	x	x	1	1			1	1	1	1	
amyl chloride	x	x	3	x	2	x	x	1	x	1	2	x
aniline (aminobenzene)	x	x	2	3	1 to 2	2 to 3	2 to 3	1	x	1	1	2
aniline dyes	x	x	2 to 3	2 to 3	1	1	3	1	2	1	1	
aniline hydrochloride	x	x	x	x	x	x	2 to 3	1	x			1
animal fats (oils and greases, adipose)	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	1
anise seed oil						x	3-x	1	x			1
anol (cyclohexanol)	3	x	2 to 3	1 to 2	1	x	1	1	2	1	2	1
anone (cyclohexanone)	3	x	x	x	x	x	2 to 3	1	x	1	2 to 3	1
anthraquinone sulfonic acid, aqu.	x	x	x	1	1	1	1	1			1	1
antichlorine (sodium thiosulphate)	3	2	1	1	1	1	1	1	1	1	1	
antifreeze see precise chem. designation												
antimony chloride 50%	3	2	x	1	1	1	1	1	1	1	1	1
antimony chloride, anhydrous	x	x	3	1	1 to 2	1	1	1			1	1
apple acid, aqu. * ¹ (apple juice)	x	3	1	1	1	1	1	1	1	1	1	1
aqua fortis (nitric acid 50%)	x	x	x	3	1 to 2	2 to 3	2 to 3	1	x	1	1 to 2	
aqua regia (nitrohydrochloric acid)	x	x	3	3	2	2 bis 3	2	1	3	1	3	
arctones = ICI freontypes	ask for our detailed advice											
argon gas	1	1	1	1	1	1	1	1	1	1	1	1
aromatics see benzene, toluene, xylene												1
homologues, applicable in general	3-x	3-x	x	3-x	1-2	x	x	1	3	1	3-x	
arsenic acid	3-x	3-x	1	1	1	1	1	1	1	1	1	1
ascorbic acid (vitamin C)	2-3	1			1	1	1					
asphalt (pitch)	2	2	2	2	1	2	1	1	2	1	2 to 3	1
ASTM fuel A (isooctane, free of aromatics)	1	1	x	1	1	3-x		1	1		x	
ASTM fuel B	x	x	x	x	1	3-x		1	x		x	
ASTM fuel C	x	x	x	x	1	3-x		1	x		x	
ATS-brake fluid	x	x	3	1	1	1	1	1			2 to 3	1
avgas, aviation gasoline (kerosene)	1	1-2	x	2	1	3	2	1	2	1	x	1
bacon fat * ¹	1	1	2	3	1		1	1	x	1	1	
baking soda (sodium bicarbonate, aqu.)	x	2	1	1	1	1	1	1	1	2	1	
barium chloride, aqu.	2	1	1	1	1	1	1	1	1	1	1	1
barium hydroxide	3-x	2	1	1	1	1	1	1	1	1	1	1
barium sulphate (barite)	1	1	1	1	1	1 to 2	1	1	1	1	1	1
barium sulphide	2	2	1	1	1	1	1 to 2	1	1	1	1	1
barm (yeast), aqu.	x	1	1	1	1	1	1	1			1	1
bases (lyes) see exact designation, applicable in general	x	2	2	1	2	1	1 to 2	1	1 to 2	1	1 to 2	
beer * ¹	2	1	1	1	1	1	1	1	1	1	1	1
benzaldehyde (oil of bitter almonds, benzoic aldehyde)	3	3	2 to 3	x	2 to 3	3	2	1	x	1	2	1
benzene see also gasoline	x	x	x	3-x	2-3	3-x	3-x	1	x	1	x	1
benzoic acid, aqu.	x	x	3-x	x	1	1	1	1	x	1	1	1
benzyl alcohol	x	x	1	2 to 3	1	3	3	1	3	1	2	1
benzyl benzoate	x	x	1	1	1			1	x	1	2	
benzyl chloride	x	x	2	x	1	x	2 to 3	1	x	1	x	2
bicarb, bicarbonate of soda (sodium bicarbonate)	x	2	1	1	1	1	1	1	1	2	1	
bio-gas clean	2	3	3-x	2-3	1	2	1	1	2-3	1		
bio-gas (marsh-gas)	ask for detailed advice and give exact chem. designation											
biphenyl (diphenyl)	x	x	x	3	1	x	2	1	x	1	3	2
biphenyls, polychlorinated (pyranols, transformer oils)	2	2	x	x	1	3	3	1	2-3	1	x	3
bis (2-hydroxyethyl) ether	3	3	2	2	1	3	1-2	1	1	1	1	
bismuth carbonate	1	1	1		1	1	1	1	1	1	1	1
bisulphite lye containing SO ₂					1	1	1	1	1	1	1	1

*) at +20 °C ambient temperature

*¹⁾ as foodstuff, please order food-grade quality versions

*²⁾ please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
bitter-salt (magnesium sulphate)	1	1	1	1	1	1	1	1	1	1	1	1
bitumen 20°C (see also hot bitumen)	2	2	3	3	1	x	1	1	x	1	2 to 3	1
black lye (cellulose extraction)	x	x	x	1	1			1				
blanc-fixe (barium sulphate)	1	1	1	1	1	1	1	1	1	1	1	1
bleaching lye (javelle-lye, potassium hypochlorite)	3	2	2	2 to 3	1	1	3	1	2 to 3	3	1 to 2	3
blood						1	1	1				1
bone oil	1	1	2 to 3	x	1	2		1	x		x	
borax (sodium borate)	1	1	2	2	1	1	1	1	1	2	1	1
boric acid, aqu.	3	1	1	1	1	1	1	1	x	1	1	1
brake fluid, ATS-	x	x	3	1	1	1	1	1			2 to 3	1
brake fluid, glycol-ether-based	x	x								1	1	
brandy, all kinds*1	2	1	1	1	1	1	1	1	1	1	1	1
brine (table or common salt solution)*1	3	1	1	1	1	1	1	1	1	1	1	1
bromine	x	x	x	x	1	3	x	1	x	1	3	x
bromine water	x	x	x	2 to 3	1	x	x	1	x	1	3	x
bromobenzene	x	x	x	x	1	x	x	1	x	1	x	1
butadiene	2	1 to 2	x	2	2	3	2 to 3	1	2	1	2	2
butan diols (butylene glycols)	1	1		1	2	3	1	1			1 to 2	1
butane diacid	x	3	3	1	1	1	1	1			1	
butane gas	1	1	3-x	2	1	2	3-x	1	2	1	2	3
butane, liquid	1	1	3	1	1	2	1	1	1	1	2	1
butanol (butyl alcohol)	3	3	2	1	2 to 3	1	1 to 2	1	1	1	1	1
butanone (methyl ethyl ketone MEK)	x	x	x	x	x	x	2	1	3	1	1	1
butine diol	1	1		2	3			1				
butter milk*1	1	1	1	1	1	1	1	1	2 to 3	1	1	1
butter*1	1	2	2	2	1	2	1	1	2	1	2	1
butyl acetate (acetic acid butyl ester)	x	x	3	3	x	x	3-x	1	x	1	2	1
butyl benzoate	1	1	x	x	1			1	x	1	2	
butyl carbitol	x	x	2 to 3	2	1			1	3	1	2	
butyl ether	x	3	3		x	1	1	1	2 to 3	1	2	
butyl glycol	3	3	2		1	x	1	1	x	1	2	1
butyl oleate	x	x	1	x	1			1	x	1	2	
butyl phenols	x	x		x	3	x	1 to 2	1				1
butyl stearate	1	1	1	2 to 3	1	1	x	1	x	1	2	x
butylamine	2 to 3	2 to 3	2 to 3	x	x	x	3	1	3	1	1	3
butylene, liquid (butene)	2 to 3	2 to 3	2 to 3	3	1	1	x	1	x	1	1	2
butyraldehyde	x	x	3	3	x		1	1	3	1	1	1
butyric acid, aqu.*1	x	x	3	2 to 3	2	2	x	1	x	1	1	1
calcinated soda (sodium carbonate anhydrous)	2	2	1	1	1	1	1	1	1	2	1	
calcium acetate	2	2	2	2	x		1	1	2	1	1	1
calcium bisulphate, aqu.	3	1	3	1	1	1	1	1	1	1	1	1
calcium bisulphite, aqu.	3	2	1	1	1	2	1	1	1	1	1	1
calcium carbonate	1	1	1	1	1	1	1	1	1	1	1	1
calcium chloride, aqu.	3	1	1	1	1	1	1	1	1	1	1	1
calcium hydroxide, aqu. (slaked lime)	3	2	1	1	1	2	1	1	1	1	1	1
calcium hypochlorite, aqu.	x	x	2 to 3	1 to 2	1	1	1	1	3	1	1 to 2	1
calcium nitrate	1	1	2	1	1	1	1	1	1	1	1	1
calcium oxide = calcinated lime	1	1	1	1	1	1	1	1	1	1	1	1
calcium phosphate, aqu.	2	2	1	1	1		1	1			1	1
calcium sulphate (gypsum), aqu.	3	1	1	1	1	1 to 2	1 bis 2	1	2	1	1	1
calcium sulphide	2	1	2	1	1			1	1	1	1	
camphor (camphor oil)	x	x		3-x	3-x		3	1				1
cane sugar (sugar), aqu.	3	1	1	1	1	1	1	1	1	1	1	
carbamide, urea, aqu.	x	x	x	1	1	2	1	1			1	
carbitol (diethylene glycol monoethyl ether)	x	x	2	2	2	3	1	1	3	1	1	
carbolic acid (phenol)	3-x	3-x	3	2 to 3	1	x	x	1	3	1	2 to 3	1
carbolineum, aqu.	x	x	x	1	1	3	1	1	1	1		
carbon bisulphide	3	2	x	x	1	2 to 3	x	1	x	1	2	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
carbon dioxide solid (dried ice -80°C) resistant, but elastomers and plastomers become stiff to brittle												1
carbon dioxide, gaseous, wet and dry	1	1	1	1	1	1	1	1	1	1	1	1
carbon monoxide	1	1	1	2 to 3	1	1	1	1	2	1	1	
carbon tetrachloride (tetrachloromethane)	x	3	x	x	1	x	x	1	x	1	x	
carbonic acid see carbon dioxide												
Caro`s acid (peroxymonosulphuric acid)				2-3		1	x		x	1		x
castor oil, ricinus oil*1	1	1	1	1	1		2 to 3	1	2	1		1
caustic lime (calcium oxide)	1	1	1	1	1	1	1	1	1	1	1	
caustic potash see potassium hydroxide												
caustic soda see sodium hydroxide												
cellulose acetate (acetyl cellulose)	2	1	1				1	1	1	1	1	1
cellulube (hydraulic oil, phosphate ester based)	x	x	2 to 3	x	1	x	x	1	x	1	1	
ceolithe	x	x	1	x	1			1	1		1	
chile salpêtre (sodium nitrate)	2	1	3	1	1	1	1	1	2	1	1	1
china wood oil (wood oil)	3	2	3	3	1	3	2	1	x	1	2	2
chloral hydrate (trichloroacetaldehyde hydrate)	x	x		2	3	x	1	1	2	2		
chloramine	2	2		1	1						1	
chloric acid, aqu.				1	x	1	1	1	1	1	1	1
chlorinated hydrocarbons see specific desig.												x
applicable in general	x	x	x	x	2	x	x	1	x	1	x	
chlorinated lime (calcium hypochlorite)	x	x	2 to 3	1 to 2	1	1	1	1	3	1	1 to 2	1
chlorinated water 3%	x	3	2 to 3	3	1	1	2	1	x	1	1 to 2	2
chlorine dioxide	x	x	3	1	1	2 to 3	x	1	1	1		x
chlorine, dry	x	x	x	2-3	1	3-x	x	1	3-x	1	2-3	x
chlorine, wet	x	x	x	2-3	1	x	x	1	x	1	2-3	x
chloroacetic acid (monochloroacetic acid)	x	x	x	2	x	2	x	1	3	1	2	1
chlorobenzene (monochlor benzene)	x	x	x	x	1	x	3	1	x	1	x	1
chlorobiphenyl (clophen)	x	x	2	x	1	x	1	1	x	1	3	
chlorobromomethan	x	3	x	x	1	x	2	1	x	1	3	2
chlorocalcium (calcium chloride)	3	1	1	1	1	1	1	1	1	1	1	1
chloroethanol (ethylene chlorhydrine)	x	x	x	2	x	x	3	1	x	x	2	
chloroethyl (ethyl chloride)	x	x	x	x	1-2	3-x	3-x	1	3	1	2-3	1
chloroform (trichloromethane)	x	x	x	x	1	x	x	1	x	1	x	3
chloromethane (methyl chloride)	x	x	x	x	2	x	3	1	x	1	2	3
chloroprene (chlorinated butadiene)	x	x	x	2	1	x	3	1	x	1	3	3
chlorosulfonic acid	x	x	x	x	x	x	x	1	x	1	1 to 2	
chlorothene (trichloroethane)	x	x	x	x	1	3	x	1	x	1	2	
chromic acid 10%	x	3	3	2 to 3	2	1	3	1	3	1	1	3
chromic acid 25%	x	x	x	2 to 3	1	2	x	1	x	1	1	x
chromic acid 50%	x	x	x	2 to 3	1	x	x	1	x	1	2	x
chromium trioxid see chromic acid												
citric acid aqu.*1	3	1	1	1	1	1	1	1	1	1	1	
clophen (chlorobiphenyl)	x	x	2	x	1	x	1	1	x	1	3	
coal tar (see also hot tar, creosote)	3	3	x	x	1	2 to 3	2 to 3	1	3	1	2	
coconut grease and oil*1	2	2	1	3	1	1	1	1	2	1	2	1
cod-liver oil*1	1	1	2	2	1	1	1	1	2	1	2	1
common salt (sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	1
compressed air, oil-saturated, to +°C	85	80	175	120	200	70	90	200		200	125	
copper acetate	x	x	x	2	x		1	1	2	1		1
copper chloride, aqu.	3	1	1	2	1	1	1	1	2	1	1*	1
copper cyanide	3	1	1	1	1	1	1	1	1	1	1*	1
copper fluoride	x	x	3	1	1		1	1			1	1
copper hydroxide	1	1	1				1	1		1	1*	1
copper nitrate, aqu.	x	3	1	1	1	2	2	1	1	1	1*	1
copper sulphate, aqu. (blue vitriol)	2	1	1	2	1	1	1	1	1	1	1*	1
corn oil*1	1	1	1	2	2	2	1	1	2	1	2 to 3	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
corn sugar (glucose, dextrose, grape sugar)*1	2	1	1	1	1	1	1	1	1	1	1	
cottonseed oil*1	1	1	1 to 2	1 to 2	1	1 to 2	1	1	2 to 3	1	2	1
cow suet	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	
creosote	3	3	x	x	1	2-3	2-3	1	3	1	2	2
cresols, cresylic acids	x	x	x	x	1	x	2 to 3	1	3	1	2	2
crotonaldehyde (2-butenal)	3-x	2 to 3		1	1	x	1	1	1		1	1
crude oil, high aromatic	2	2	x	2	1	3	3	1	3	1		
cumene (isopropylbenzene)	3	3-x	x	x	1	x	x	1	x	1	x	x
cupric hydroxide (mountain blue)	1	1	1				1	1		1	1*	1
cyankali (potassium cyanide)	3	2	1	1	2	1	1	1	1 to 2	3	1	1
cyclohexane (hexahydrobenzene)	2	2	x	x	1	x	2	1	x	1	3-x	1
cyclohexanol (hexaline)	3	x	2 to 3	1 to 2	1	x	1	1	2	1	2	1
cyclohexanone	3	x	x	x	x	x	2 to 3	1	x	1	2 to 3	1
cyclohexylamine	x	x	x	3-x	x	1		1			x	
decalin (decahydronaphthalene)	1	1	x	x	1	1	2	1	x	1	x	
detergents, synth. 20°C	3	2	1	1	1	1	1	1	2	1	1	
dextrose (glucose, corn sugar, grape sugar)*1	2	1	1	1	1	1	1	1	1	1	1	1
diacetone alcohol	3	2	2	2	x	x	1	1	3	1	1	1
dibenzyl ether	2 to 3	2 to 3	2	x	1	x		1	x	1	3	
dibutyl amine	x	x	3	x	x		x	1	x	1	2	x
dibutyl phthalate	x	3	2	3-x	2	3	2	1	x	1	2	
dibutyl sebacate	x	x	2	x	2	3	1	1	x	1	2	1
dichlorobenzene	x	x	x	x	2 to 3	x	3	1	x	1	3	1
dichloroethane	x	x	x	x	2-3	x	2-3	1	x		3	1
dichloroethylene (dichloroethene)	x	x	x	x	2	x	x	1	x	1	3	x
dichloro-isopropyl ether	2	2	x	x	3		3	1	x	1	2	x
dichloromethane (methylene chloride)	x	x	x	x	2	x	x	1	x	1	3	3
diesel oil	1	2	3	3	1	3	2	1	x	1	3	1
diethanolamine			2 to 3				1	1		1	2	1
diethyl ether (ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	1
diethyl sebacate			2	x	2			1	x	1	2	1
diethylamine	x	3	2	3	2	x	3-x	1	2	1	1	1
diethylbenzene	x	x	x	x	1	1	x	1	x	1	x	1
diethylene glycol monoethyl ether (carbitol)	x	x	2	2	2	3	1	1	3	1	1	1
diethylene glycol (diglycol)	3	3	2	2	1	3	1 to 2	1	1	1	1	1
diglycolic acid, aqu.	x	x	3	2	1	2	1	1			1	1
dilutions for paints and lacquers determine composition												
dimethyl ether (methyl ether)	2	2		3	3	x	2	1	x	1	1	2
dimethyl formamide (DMF)	x	3	2 to 3	3	3	x	1	1	x	1	1	1
dimethyl heptanone (diisobutyl keton)	x	x			x			1				
dimethyl phthalate	3	3	3	x	2	3		1	x	1	2	
dimethyl sulphoxide (DMSO)	x	x	x		x	x	2	1	2-3		1	
dimethylamine			2	x	x	x	3	1	x	1	1	3
dimethylaniline (xylidine)	x	x	2 to 3	3	1	x		1	x	1	2	x
dioctyl phthalate (DOP)	2 to 3	2 to 3	3	x	1 to 2	3	2	1	x	1	2	1
dioctyl sebacate	2	2	3	x	2			1	x	1	2	1
dioxane (diethylene dioxide)	x	x	x	x	x	x	1	1	x	1	2	1
dipentene (limonene)	x	x	x	3	1			1	2		x	
diphenyl	x	x	x	3	1	x	2	1	x	1	3	2
diphenyl oxid (diphenyl ether)	x	x	2	x	2 to 3	x	2 to 3	1	x	1	2	1
dipropylene glycol			2	1	1		1	1	1	1	1	1
dodecyl alcohol (lauryl alcohol)			2 to 3		1		2	1	1	1	3	1
DOWTHERM A (glycole)	x	3-x	x	2 bis 3				1	2 to 3		x	
drilling oil: determine chem. composition												
Eau de Javelle (potassium hypochlorite)	3	2	2	2 to 3	1	1	3	1	2 to 3	3	1 to 2	
epichlorohydrin, liquid	x	x	x	x	x	x	1	1	x	1	1	1
epsom salt (magnesium sulphate)	1	1	1	1	1	1	1	1	1	1	1	1

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
esters see specific designations, applicable in general	2	2	x	3-x	3-x	2-3	2-3	1	2	1	2	
ethane (gas)	2	2	3	2 to 3	1	1	1	1	2	1	2	
ethanol (ethyl alcohol)	2	2	2	1	1	2-3	1-2	1	1	1	1	1
ethanolamine (2-aminoethanol)	x	x	2 to 3	2 to 3	3	3	1	1	2 to 3	1		
ethene (ethylene)	1	1	2	x	1	1	1	1	2 to 3	1	2	1
ethers see specific designations, applicable in general	2	2	x	3-x	3-x	2-3	2-3	1	2	1	2	
ether (ethyl ether, diethyl ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	1
etheric oils *1	2	2	x	3	1	x	x	1	x	1	2	1
ethyl acetate	x	x	2	x	x	x	2	1	3	1	1	1
ethyl acrylate (acryl acid ethyl ester)	x	x	2	1	x	x	x	1	x	1	1	1
ethyl alcohol (denatured = spirits)*1	2	2	2	1	2 to 3	1 to 3	1	1	1	1	1	1
ethyl benzene	x	x	x	x	2	x	x	1	x	1	x	1
ethyl bromide (bromomethane)	2	2	x	x	1	x	2	1	x	1	2 to 3	2
ethyl chloride (chloroethane)	x	x	x	x	1 to 2	3-x	x	1	3	1	2 to 3	1
ethyl dichloride (dichloroethylene)	x	x	x	x	2	x	x	1	x	1	3	x
ethyl ether (ether)	2	2	x	3-x	3-x	3	x	1	3	1	2	1
ethyl glycol acetate	x	x			x		1	1		1	2	
ethyl mercaptan	x	x	3	2	x			1	x	1	2	
ethylene chloride (dichloroethylene)	x	x	x	x	2	x	x	1	x	1	3	1
ethylene chlorhydrine (chloroethanol)	x	x	x	2	x	x	3	1	x	x	2	1
ethylene diamine	x	x	2	2	2	x	1	1	2	1	1	1
ethylene (gas) (ethene)	1	1	2	x	1	1	1	1	2 to 3	1	2	1
ethylene glycol (glycol, ethane-1,2-diol)	2 to 3	2 to 3	1	1	1	1	1	1	1	1	1	1
ethylene oxid (1,2-epoxy methane), liquid	x	x	3-x	x	x	x	2 to 3	1	x	1	1	2
fats in general see oils and greases	x	x	x	x	x	x	1-2	1	x	1		
fatty acids, with >7 C-atoms, in general	2	1	3	2 to 3	1	1	3	1	3	1	2	2
fatty acids, with 1-7 C-atoms, in general	3-x	2 to 3	3	2 to 3	1	1	3	1	3	1	2	2
fatty alcohols (longchain, aliphatic alcohols)	3	2	2	2	2	2	1	1			3	1
fermented fruit juice*1	3	1	1	1	1	1	1	1	1	1	1	1
ferric chloride (ferri), aqu.	2 to 3	2	2	2	1	1	1	1	1	1	1	1
ferric sulphate, ferric vitriol, aqu.	2 to 3	2	2	1	1	1	1	1	1	1	2	1
fertilizing salt, aqu.	x	3		1	1	1	1	1			1	1
fish-liver oil*1	2	2	1	3	1	2	1	1	1		2	1
fluorhydric acid see hydroflouric acid												
fluorine, liquid	x	x	x		2	2 to 3	x	1	x	1	x	1
fluorobenzene	x	x	x	x	1			1	x	1	x	
fluoroboric acid 65%		x	x	1 to 2	2	1	1	1	2	1	x	1
fluorosilicic acid, aqu.	x	x	2 to 3	1 to 2	1	2 to 3	2	1	2	1	1	
formaldehyd (methanal)	2 to 3	2 to 3	1 to 2	1 to 2	2 to 3	2	1	1	2	1	1	1
formaline (30-40% aqu. formaldehyd solution with 8 -12 % methyl alcohol additive)	3	2	2	2	1	1	1	1	2	1	1	
formamide	x	x		1	2 to 3	x	1	1			1	1
formic acid:												
0,03	2	1	1	1	2	1	1	1	1		1	1
0,1	3	2	2	1 to 2	3	1 to 2	1	1	1		2	1
1	x	x	x	x	x	2 to 3	1	1	1	2-x		1
freons and frigenes ask for detailed advisory												
frost protection agents s. exact chem. designation												
fruit juices*1	3	1	1	1	1	1	1	1	1	1	1	1
fruit pulp*1	3	1	1	1	1	1	1	1	1	1	1	1
fuel see gasoline												
fuming sulphuric acid: (oleum)	x	x	x	x	1	x	x	1	x	1	x	x
fungi (microbes)	x	1	3	1	1	1	2 to 3	1			2 to 3	2
furan	x	x	x	x	x	1	x	1	x	x		x
furfural alcohol (furfurol)	x	x	2	3	3	1	x	1	3	x	2	1
gallic acid	3	3	2 to 3	2	1	1 to 2	1	1 to 2	2 to 3	1	2	
gasoline in general (see specific designations)	1-2	1-2	3-x	2-x	1	3-x		1	1-2		x	1

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene®	Kapton®	TPV	PE-EL
gasoline, lead-free	1	1	x	2-3	1	2-3	1	1	2-3		2-3	
gasoline, super	2-3	2-3	x	2-3	1	1	1	1	2-3		2-3	
gasoline, ASTM fuel A (isooctan, free of aromatics)	1	1	x	1	1	3-x		1	1		x	
gasoline, ASTM fuel B	x	x	x	x	1	3-x		1	x		x	
gasoline, ASTM fuel C	x	x	x	x	1	3-x		1	x		x	
gasoline, diesel, heating oil	1	1	3	2	1	3-x	2	1	x	1	x	1
gasoline, aviation (kerosene)	1	1 to 2	x	2	1	3	2	1	2	1	x	1
gasoline, high aromatic	3	2 to 3	x	2 to 3	1	2 to 3	2 bis 3	2	1	1	x	
gasoline, low aromatic	2	2	x	x	1	3	x	1	1	1	x	
gasoline, test- (heavy g., white spirit, mineral turpentine)	1-2	1-2	x	x	1	3	1-2	1			x	
gasoline/benzene (50/50)	3	3	x	x	2	3		1			x	
gasoline/benzene (60/40)	2	2	x	x	2	3		1			x	
gasoline/benzene (70/30)	2	2	3	x	1	3		1			x	
gasoline/benzene (80/20)	2	3	3	x	1	3	3	1			x	3
gasoline/benzene/ethanol (50/30/20)	3	3	x	3-x	x	3		1			3-x	
gelatins, aqu.*1	3	1	1	1	1	1	1	1	1	1	1	1
glacial acetic acid (acetic acid pure)	x	x	2 to 3	3	x	x	x	1	x	1	1	1
Glauber's salt (sodium sulphate)	3	1	1	1	1	1	1	1	1	1	1	1
glucose (dextrose, corn sugar, grape sugar)*1	2	1	1	1	1	1	1	1	1	1	1	1
glue, animal	2	2	1	1	1	1	1	1	1	1	1	1
glycerine (glycerine, propane-1,2,3-triol)	1	1	1	1	1	1	1	1	1	1	1	1
glycine (amino acetic acid), aqu. 10%	x	x	2 to 3	2 to 3	1	1		1			1	
glycols determine exact designation, applicable in general	2	2	1-2	1	1	2	1	1	2	1	1	
glycolic acid (hydroxy acetic acid), 30%	x	3-x	1	1	1	1	1	1			1	1
grape juice unfermented*1	3	1	1	1	1	1	1	1	1	1	1	1
grape sugar (glucose, corn sugar, dextrose)*1	2	1	1	1	1	1	1	1	1	1	1	1
greases in general, see oils and greases	x	x	x	x	x	x	1-2	1	x	1		
gypsum (calcium sulphate)	3	1	1	1	1	1 to 2	1 bis 2	1	2	1	1	
halogenes (look at: fluorine, chlorine, bromine, iodine)												
halogenated hydrocarbons see spec. design. applicable in general	x	x	x	x	1-2	x	x	1	x	1	3	
heavy gasoline (white spirit or mineral turpentine)	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	
helium	1	1	1	1	1	1	1	1	1	1	1	1
heptane	2	2	x	2	1	2 to 3	2 to 3	1	2 to 3	1	x	1
hexahydrobenzene (cyclohexane)	2	2	x	x	1	x	2	1	x	1	3-x	
hexaldehyde	2	3	3	2	x		1	1	2	1	2	1
hexaline (cyclohexanol)	3	x	2 to 3	1 to 2	1	x	1	1	2	1	2	
hexane (n-hexane)	2	2	x	1 to 2	1	1 to 2	3	1	1 to 2	1	x	1
hexanol (hexyl alcohol)	3	x	2 to 3	2	2	2	1	1	1	1	2	1
hexane-triol	x	x	1	1	1	1	1	1			1	
hexene	1	1	x	3	1		1	1	2			1
hot air see air												
hot bitumen to °C	x	x	x	x	180	x	x	200	x	200	x	
hydraulic oils and -liquids:												
-glycol based	1	1 to 2	2					1		1	1	1
-mineral oil based	1	1	3	2	1	3	3	1	2	1	3	3
-phosphate ester based (pydraul)	x	x	2 to 3	x	1	x	x	1	x	1	1	1
hydrazines (diamides)	x	x	3	2	2 to 3	1	1	1	2 to 3	1	1	1
hydrazine hydratee, aqu.	x	x	3	1	1	1	1	1	2	1	1	1
hydrobromic acid	x	3	3	1	1	2 to 3	1 bis 2	1	1	1	1	1
hydrocarbons aliphatic general (see spec. designation.)	1-2	2	3-x	3	1	2-3	3-x	1	3	1	2-x	
hydrocarbons aromatic general (see spec. designation.)	3-x	3-x	x	3-x	1-2	x	x	1	3	1	3-x	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
hydrocarbons halogenated general (see spec. designation.)	x	x	x	x	1-2	x	x	1	x	1	3	
hydrochloric acid 15%	3	2	3	1 to 2	1	1	1	1	3	1	1	
hydrochloric acid 38% (conc.)	x	x	3	1 to 2	1	2	1 to 2	1	3	1	1	
hydrochloric acid, (hydrochlorous) gaseous	3	2	1	1 to 2	1	1	1	1	2	1	1	
hydrocyanic acid see prussic acid												1
hydrofluoric acid 10%	x	2	2 to 3	1	1 to 2	1 to 2	1 to 2	1	2	1	1	1
hydrofluoric acid 30%	x	2	3	1 to 2	1 to 2	2	1 to 2	1	3	1	2	1
hydrofluoric acid 75%	x	3	x	2	2	3	3	1	x	1	3	x
hydrofluoricsilicic acid, aqu.	x	x	2 to 3	1 to 2	2 to 3	2 to 3	2	1	2	1	1	
hydrogen (gaseous)	1	1	3	1	1	1	1	1	1	1	1	1
hydrogen cyanide see prussic acid												1
hydrogen peroxide 10%	x	2	1	2	1 to 2	1	2	1	x	1	1 to 2	1
hydrogen peroxide 30%	x	2	1 to 2	2	1	2	2 to 3	1	x	1	2 to 3	1
hydrogen sulphide, dry	x	3	2 to 3	1 to 2	1	x	1	1	2 to 3	1	1	1
hydrogen sulphide, wet	x	3-x	1	1 to 2	1	x	1	1	2 to 3	1	1	1
hydroquinone, aqu.	x	x	3	2 to 3	2	2	1	1	3		3	1
hydroxylamine sulphate, aqu.	x	x	1	1	1	1		1			1	
ink	1	1	1	1	1	3	1	1			1	1
iodine tincture (5-10% alcohol iodine solution)	x	x	x	2	1	2 to 3	2 bis 3	1	3	1	1	2
isobutanol (isobutyl alcohol)	3	x	1	1	1	1	1	1	1	1	2	1
isooctane	2	2	3	2	1	1	3	1	3	1	x	1
isooctanol (isooctyl alcohol)	3	3	2	2	1	1	1	1	3	1	2	1
isophoron	3-x	3-x	3-x	x	x			1	x	1	3	
isopropanol (isopropyl alcohol)	2	3	1	1	1	2	1	1	2	1	1	1
isopropyl acetate	3	3	3	x	x	3	2 to 3	1	x	1	1	1
isopropyl benzene (cumen)	3	3-x	x	x	1	x	x	1	x	1	x	x
isopropyl chloride	3	3	x	x	1			1	x	1	2	
isopropyl ether	2	2	x	3	3	2 to 3	2 bis 3	1	x	1	2	1
Javelle lye (potassium hypochlorite)	3	2	2	2 to 3	1	1	3	1	2 to 3	3	1 to 2	n.a.
jet fuel DPI-IPS			x	x	1	2 to 3	x	1	2 to 3	1		
kerosene	2	1	3	2 to 3	1	1	3	1	2	1	x	1
ketones see specific designations, applicable in general	3-x	x	2-x	x	x	x	2-3	1	3-x	1	2-3	1
lacquers, composition must always be determined												
lactic acid* ¹	x	2	2	2	1	3	2	1	3	1		1
lanolin (wool grease)	1	1	3	3	1	2	1 to 2	1	3	1	2	1
lard (oils, animal)	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	1
laughing-gas (nitrous oxide)	1	1	1	1	1	1	1	1	1	1	1	1
lauryl alcohol (dodecyl alcohol)			2 to 3		1		2	1	1	1	3	
lavender oil* ¹	x	x	x	2 to 3	1			1	2 to 3			
lead acetate, aqu.	3	1	1	1	1	1	1	1	2	1	1	1
lead arsenate, aqu.	3	1	1			1	1	1	1	1	1	1
lead nitrate	2	1	2	1	1	1	1	1	1	1	1	1
lead sulphate	1	1	1	1	1	1	1	1	1	1	1	1
lignite tar oil (see coal tar)	3	3	x	x	1	2 to 3	2 to 3	1	3	1	2	2
lime, quick (calcium oxide)	1	1	1	1	1	1	1	1	1	1	1	
lime, slaked (calcium hydroxide)	3	2	1	1	1	2	1	1	1	1	1	
limestone (calcium carbonate)	1	1	1	1	1	1	1	1	1	1	1	
limonene 90% (citric oil)	2	2	x			x	2-3	1			2	
linseed oil* ¹	1	2	1	2	1	2	2	1	2	1	2 to 3	1
liquefied petroleum gases (LPG) see chem. identification of the gases												
lithium chloride, aqu.	x	x	1	1	1	x	1	1	1		1	1
lubricants and greases see mineral oils, attend additives												
lyes see exact designation, applicable in general	2-x	2	1-2	1-2	2	1-2	1-2	1	2	2	1	1

¹) at +20 °C ambient temperature

^{*)} as foodstuff, please order food-grade quality versions

^{*)} please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
machine oil, see oils, mineral												
magnesium chloride, aqu.	3	1	1	1 to 2	1	1 to 2	1	1	1 to 2	1	1	1
magnesium hydroxide	3	1	1	1	1	1	1	1	1	1	1	1
magnesium silicate (talc)	1	1	1	1	1	1	1	1	1	1	1	1
magnesium sulphates	1	1	1	1	1	1	1	1	1	1	1	1
magnesium sulphite, aqu.	3	1	1	1	1	1	1	1	1	1	1	1
maize oil*1	2	2	2	1	1	2	2	1	1			1
maleic acid, aqu.	x	x		x	1	1	2	1	3-x	1	1	1
maleic anhydride				x	3				x		2	
manure	x	1	1	1	1	1	1	1	1	1	1	
margarine-greases and oils*1	1	1	3	1 to 2	1	2	37714	1	2	1	2	1
marsh gas (mine damp, methane)	2	3	3-x	2-3	1	1-2	1	1	2-3	1	2	1
mash*1	3	1	1	1	1	1	1	1	1	1	1	1
MEK (methyl ethyl ketone)	x	x	x	x	x	x	2	1	3	1	1	1
melamine			3		1	x		1	x			
menthol	3	3	x	1	1		1	1			1 to 2	1
mercury	1	1	1	1	1	2	1	1	1 to 2	1	1	1
mercuric chloride (sublimite)	1	1	1	1 to 2	1	2	1	1	1 bis 2	1	1	1
mercurious nitrate	2	1	1		1	1	1	1		1	1	1
mesityl oxide	x	x	x	x	x	x	3	1	x	1	3	3
methane (gas)	2	3	3-x	2 to 3	1	1 to 2	1	1	2 to 3	1	2	1
methanol (methyl alcohol)	2	3	1	1	2	1	1	1	1	1	1	1
methyl acetate (acetic acid methyl ester)	x	x	x	x	x	x	2	1	2	1	1	1
methyl acrylate	x	x	x	x	x	x		1	2			
methyl alcohol	2	3	1	1	2	1	1	1	1	1	1	1
methyl bromid (bromomethane)	x	x	x	3	2	x	3	1	x		x	3
methyl chloride (chloromethane)	x	x	x	x	2	x	3	1	x	1	2	3
methyl chloroform (trichloroethane)	x	x	x	x	1	3	x	1	x	1	2	1
methyl ethyl ketone (MEK)	x	x	x	x	x	x	2	1	3	1	1	1
methyl glycol (methylcellosolve)	x	x	x	3	x	x	2	1	2 to 3	1	1	
methyl glycol acetate	x	x	x		x			1	x	1	1	
methyl isobutyl keton	x	x	3	x	x	x	2 to 3	1	x	1	2	2
methyl oxiran (propylene oxide)	x	x	x	x	x		2	1	x	1	1	
methyl phthalate (dimethyl phthalate)				x	2			1	x	1	2	
methylamine, aqu.	x	x	x	1	2 to 3	3	1	1	2	1	1	1
methylated spirits (ethanol denaturated)	2	2	2	1	1	2-3	1-2	1	1	1	1	
methylene chloride (dichloromethane)	x	x	x	x	2	x	x	1	x	1	3	3
microbes	x	1	3	1	1	1	2 to 3	1			2 to 3	2
milk of lime (lime water) see calcium hydroxide												1
aqu. milk*1	3	2	1	1	1	1	1	1	1	1	1	1
mineral oil see oils, mineral												
mixed acid II (sulphuric acid/phosphoric acid/water)	x	x		1	1	1	3	1	2	1	2	1
mixed acid I (sulphuric acid/nitric acid/water)	x	x	x	x	x	x	x	1	1 to 2	1	3	1
molasses*1	1	1	1	1	1	1	1	1	1	1	1	1
monochloroacetic acid	x	x	x	2	x	2	x	1	3	1	2	1
monochlorobenzene	x	x	x	x	1	x	3	1	x	1	x	
monochloromethane (methyl chloride)	x	x	x	x	2	x	3	1	x	1	2	
mono ethylene glycol	1											
monostyrol (styrol, styrene, monomeric)	x	3	x	x	2	x	x	1	x	1	x	
morpholine	x	x	x	2	2	x	1	1	3		1	1
motor oil see oil and greases, clarify mineral additives												
mountain blue (cupric hydroxide)	1	1	1				1	1		1	1*	1
must fermented (fermented fruit juice)	3	1	1	1	1	1	1	1	1	1	1	
must, unfermented*1	3	1	1	1	1	1	1	1	1	1	1	1
mustard	1	1		1	x	1 to 2	1	1	1			1
myristyl alcohol, myristic alcohol (tetradecanol)	1	1	2	1	1	1		1	1	1	2	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon®	Viton®	PVC	PE	PTFE	Neoprene®	Kapton®	TPV	PE-EL
naphtha	2	2	3	x	1	2 to 3	2 to 3	1	3	1	3-x	1
naphthalene (stone oil)	2	2	3	2-3	1	x	x	1	x	1		1
natron (sodium bicarbonate)	x	2	1	1	1	1	1	1	1	2	1	
natural gas, wet	2	1-2	2-3	1	1	1	2	1	1	1	2	1
natural gas, dry	1	1	2-3	1	1	1	1	1	1	1	2	1
n-hexane	2	2	x	1 to 2	1	1 to 2	3	1	1 to 2	1	x	
nickel acetate	3	2	2	x	x		1	1	2		2	1
nickel chloride, aqu.	3	2	1 to 2	1 to 2	1	1	1	1	2	1	2	1
nickel sulphate, aqu.	2 to 3	2	1	1	1	1	1	1	1	1	1	1
nitrate (nitrate of sodium)	2	1	3	1	1	1	1	1	2	1	1	1
nitric acid (mixed acid I)	x	x	x	x	x	x	x	1	x	1	3	
nitric acid 10%	3	3	3	1 to 2	1	1	2	1	2	1	1	1
nitric acid 25%	x	x	x	2	1 to 2	1	2 to 3	1	3	1	1	1
nitric acid 50% (aqua fortis)	x	x	x	3	1 to 2	2 to 3	2 to 3	1	x	1	1 to 2	2
nitric acid 60%	x	x	x	3-x	2	2 to 3	x	1	x	1	3-x	
nitric dilution	2	2	x	1		x	2 to 3	1	1		2 to 3	
nitro-benzene	x	x	x	x	2	x	3	1	x	1	1	1
nitrogen	1	1	1	1	1	1	1	1	1	1	1	1
nitrogen oxides (nitrous gases)	x	x	x	3	3	x	1	1	x		x	1
nitro-glycerin	x	x	x	1	1	2	2	1			x	1
nitrohydrochloric acid (aqua regia)	x	x	3	3	2	2 to 3	2	1	3	1	3	
nitro-methane	x	x	x	2 to 3	x	2 to 3	1	1	3			1
nitro-propane	x	x	x	x	x			1	x	1	1	
nitro-toluole	x	x		x	3	x	1	1	x	1	x	
nitrous fumes (nitrogen oxides)	x	x	x	3	3	x	1	1	x		x	1
nitrous oxide (laughing gas)	1	1	1	1	1	1	1	1	1	1	1	
N-methylpyrrolidone (NMP)	3	3			3	3		1				
nonyl alcohol (nonanol)	x	x	2	2	1		2	1	3	1	2	1
octane	1	1	x	x	1		1	1	x	1	x	1
octanol = octyl alcohol	x	x	2	1	1	x	1	1	1	1	2	1
oils and greases:												
-animal*1	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	1
-ASTM-oil Nr. 1 20°C	1	1	2	1	1	2	2	1	1	1	3	
-ASTM-oil Nr. 2 20°C	1	2	3	2	2	2	3	1	1	1	x	
-ASTM-oil Nr. 3 20°C	1	2	3	2	2	2	3	1	x	1	x	
-crude oil, high aromatic	2	2	x	2	1	3	3	1	3	1		
-diesel oil	2	2	3	3	1	3	2	1	x	1	3	
-heating oil	2	2	3	3	1	3	2	1	x	1	3	
-hydraulic oils and -liquids:												
-glycol based	1	1 to 2	2					1		1	1	
-mineral oil based	1	1	3	2	1	3	3	1	2	1	3	
-phosphate ester based (pydraul)	x	x	2 to 3	x	1	x	x	1	x	1	1	
-mineral, without additives, at 20°C	1	1	2 to 3	2 to 3	1	2	2	1	x	1	2 to 3	
-mineral, without additives, to °C	60	60	x	150	200	x	30	200		200	100	
-silicon based	1	1	2 bis 3	1	1	1	1	1	2 to 3	1	1	
-transformer oils (pyranols)	2	2	x	x	1	3	3	1	2 to 3	1	x	
-vegetable *1	1-2	1-2	2-3	2	1	2	2-3	1	2-3	1	2	
oil of bitter almonds (benzaldehyde)	3	3	2 to 3	x	2 to 3	3	2	1	x	1	2	1
oleic acid, olein	1	1	x	3-x	2	2	2 to 3	1	x	1	2	
oleum (fuming sulphuric acid)	x	x	x	x	1	x	x	1	x	1	x	x
oleum vapours	x	x	x	3	3	3	x	1	x	1	x	x
olive oil*1	1	1	2	1 to 2	1	1	1	1	2	1	2	1
oxalic acid, aqu.	x	x	2	2	1	2	1	1	3	1	1	1
oxidant see specific designations, applicable in general	2-3	2-3	2-3	2	1	2	2-3	1	3	1	1	
oxirane (ethylene oxide)	x	x	3-x	x	x	x	2 to 3	1	x	1	1	2
oxygen pure to +°C	80	80	175	120	200	70	70	200		200	100	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
ozone (atmospherical concentrations)	1-2	2-3	1	1	1	2	3	1	2-3	1	1	x
ozone 100%	3	3-x	1	2-3	1	3	x	1	x	1	2	x
palm oil, palm pip oil*1	1	2	1	3	1	1 to 2	1 to 2	1	x	1	2	1
palmitic acid	1	1	3	3	2	2	1	1	3	1	1	1
paraffin, paraffin oils	1	2	2	3	1 to 2	1 to 2	2 to 3	1	2 to 3	1	2	1
paraformaldehyde	2	1	1		2		1	1	2	1	1	1
pectine	1	1		1	1	1		1			1	
pentachlorophenol	x	x	3				1 to 2	1		1	2	
pentane	3	x	x	2	1	1	x	1	2	1	3	x
pentanols (amyl alcohols)	3	3	3	1	2	1	1 to 2	1	1	1	1	1
peracetic acid (mixture, cold disinfection)						3-x	2	1			2-3	
perborate (sodium borate)	1	1	2	2	1	1	1	1	1	2	1	
perchloric acid, aqu.	x	x	x	1 to 2	1	2 to 3	2	1	2	1	1	2
perchloroethylene (tetrachloroethylene)	x	x	x	x	1	3	x	1	x	1	x	
perhydrol see hydrogen peroxide												
permanganate (potassium permanganate) 10 %	3	1	1	1	1	1	1	1	2	2	1	1
peroxomonosulphuric acid				2 to 3		1	x		x	1		
petrol see gasoline												
petroleum, without additives, at 20°C	1	1	2 to 3	2 to 3	1	2	2	1	3	1	2 to 3	
petroleum, without additives, to °C	65	60	x	150	200	x	30	200		200	100	
petroleum spirit (white spirit, solvent naphta)	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	
phenol (carbolic acid), aqu.	3-x	3-x	3	2 to 3	1	x	x	1	3	1	2 to 3	1
phenyl ether (diphenyl oxide)	x	x	2	x	2 to 3	x	2 to 3	1	x	1	2	1
phenylbenzene (biphenyl)	x	x	x	x	1	x		1	x		1	
phorone (diisopropylidene acetone)	x	x	x	x	x			1	x		1	
phosphoric acid 3%	2 to 3	2	2	2	1	1	1	1	1	1	1	1
phosphoric acid 50%	3	2	3	2	1	1	2	1	2	1	1	1
phosphoric acid 85%	x	x	3	2	1	1	2	1	3	1	1	
phosphoric alumina (aluminium phosphates, aqu.)	2	1	1	1	1	1	1	1	1	1	1	
phosphorus oxychloride	x	x	x	3	1	x	2 to 3	1	3	1	1	x
photo-emulsions, in general (see exact chem. designation)	x	x	2	1	2	1 to 2	1	1	1 to 2	1	1	
phthalic acid			2	1	x	2	1	1	1		1	
phthalic acid anhydride, aqu.				1	x	3	1	1	1	1	1	
phthalic acid ester (phthalates)	x	3	x	1	1	1	1	1			2 to 3	1
picric acid	2 to 3	2 to 3	3	2	1 to 2	2 to 3	1	1	2	1	1	1
pigs fat (oils, animal)	1	1	3	1 to 2	1	2	2 to 3	1	3	1	2	1
pine oil*1	1	1	x	x	1	3	3	1	x	1		
polychlorinated biphenyls (pyranols, transformer oils)	2	2	x	x	1	3	3	1	2 to 3	1	x	
potash (potassium carbonate)	3	2	1	1	1	1	1	1	1	3	1	
potassium acetate, aqu.	x	x	x	x	2 to 3	1	1	1	2 to 3	1	1	
potassium aluminium sulphate (alum)	2	1	1 to 2	1	1	1	1	1	2	3	1	1
potassium bicarbonate (potassium hydrogen carbonate)	2	2	1	1	1	1	1	1	1	3	1	1
potassium bichromate (potassium dichromate)	3	2	2	1 to 2	1	1	1	1	1	3	1	
potassium bisulphate, aqu.	x	3-x	2	1	1		1	1			1	1
potassium borate, aqu.	3	1	1	1	1	1	1	1	1	3	1	1
potassium bromate, aqu., 10%	x	x	2 to 3	1	1	1	1	1			1	1
potassium bromide, aqu.	2 to 3	1	1	1	1	1	1	1	1	3	1	1
potassium carbonate (potash)	3	2	1	1	1	1	1	1	1	3	1	1
potassium chlorate, aqu.	3	2	2	1	1	1	1	1	1	3	1	1
potassium chloride, aqu.	2	1	1	1	1	1	1	1	1	3	1	1
potassium chromate, aqu., 40%	x	x	2 to 3	1	1	1 to 2	1	1	1		1	1
potassium cyanide (cyankali), aqu.	3	2	1	1	2	1	1	1	1 to 2	3	1	1
potassium dichromate, aqu.	3	2	2	1 to 2	1	1	1	1	1	3	1	1
potassium hydroxide (caustic potash, -lye) 10%	2 to 3	2	3	1 to 2	1	2	1	1	1	3	1	

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
potassium hydroxide (caustic potash, lye) 50%	x	3	x	1 to 2	2 to 3	2 bis 3	1	1	1	x	1	
potassium hypochlorite (Javelle)	3	2	2	2 to 3	1	1	3	1	2 to 3	3	1 to 2	3
potassium iodide, aqu.	3	2	2	1	1	1 to 2	1 to 2	1	1	2	1	1
potassium nitrate, aqu.	2 to 3	1	1	1	1	1	1	1	1	3	1	1
potassium perchlorate, aqu.	x	x	2	1	1	1		1			1	
potassium permanganate 10%, aqu.	3	1	1	1	1	1	1	1	2	2	1	1
potassium peroxy disulphate (potassium persulphate)	x	3-x	3-x	1	1	2	1	1			1	1
potassium phosphate (mono and dibasic)	1	1	x	1	1		1	1	1	3	1	1
potassium sulphate	1	1	1	1	1	1	1	1	1	3	1	1
potassium sulphite	1	1	1	1	1	1	1	1	1	3	1	1
propane gas	1	1	x	2 to 3	1	1	2	1	1	1	1	
propane, liquid	1	1	3	3	1	1	x	1	2 to 3	1	1	x
propanol (propyl alcohol)	2	3	1 to 2	1 to 2	1	1 to 2	1	1	1 to 2	1	1	
propargyl alcohol, aqu. 7%	x	x	2	2	1		1	1	1		2	1
propionic acid (propane acid)	x	x	x	3	1	1	1	1	x	1	1	1
propyl acetates (acetic acid propyl esters)	x	x	x	x	x		2	1	x	1	1	2
propyl alcohol (propanol)	2	3	1 to 2	1 to 2	1	1 to 2	1	1	1 to 2	1	1	
propylamine	x	x	x	x	x			1	x	1	1	
propylene (propene)	x	x	x	x	1	2		1	x	1	1	
propylene dichloride			x				x	1		1	2	x
propylene glycols (propandiols)	x	x	1	1	1	3	1 to 2	1	2 to 3	1	1	1
propylene oxide (methyloxiran)	x	x	x	x	x		2 to 3	1	x	1	1	2
prussic acid 20%	3	2	2 to 3	1 to 2	1 to 2	1 to 2	1	1	2 to 3	1	1	1
prussic acid 98% (conc.)	3	2	2 to 3	1 to 2	1 to 2	1 to 2	1	1	2 to 3	1	1 to 2	1
pydraul (hydraulic liquids phosphate ester based)	x	x	2 to 3	x	1	x	x	1	x	1	1	
pyranols (oils, transformer oils)	2	2	x	x	1	3	3	1	2 to 3	1	x	
pyrantone (diacetone alcohol)	3	2	2	2	x	x	1	1	3	1	1	
pyridine	x	x	x	3	3	x	1	1	x	1	2 to 3	1
pyrrol	x	x	2	3	3			1	3		1	
quick lime (calcium oxide)	1	1	1	1	1	1	1	1	1	1	1	1
radiation, radioactive	2	2	x	1		3	x	x	1		2	x
radiation, UV	2	2	2	1	1	2	3	1			x	3
radioactive radiation: applicable in general	2	3	x	x	x	x	3	x	x	x	1 to 2	x
rapeseed oil ^{*)}	2	2	x	2 to 3	1		x	1	2 to 3	1	2	x
raw sugar sap	x	3	1	1	1	1	1	1	2	1	1	1
redoil (aniline)	x	x	2	3	1 to 2	2 to 3	2 to 3	1	x	1	1	
ricinus oil, castor oil ^{*)}	1	1	1	1	1		2 to 3	1	2	1		1
rock salt	3	2	1	1	1	1	1	1	1	3	1	2
saccharose (sugar) aqu.	3	1	1	1	1	1	1	1	1	1	1	
sal ammoniac (ammonium chloride) aqu. 3%	3	1	1	2	1	1	1	1	1	1	1	1
salicylic acid (spiric acid), aqu.	2	1	1	1	1	2	1	1	2	1	1	1
salmiac (ammonium chloride)	3	1	1	2	1	1	1	1	1	1	1	1
salpêtre (potassium nitrate)	2 to 3	1	1	1	1	1	1	1	1	3	1	1
salt (table or common salt, sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	1
salted water (brine, sea water)	3	2	1	1	1	1	1	1	1-2	1	1	1
sangajol = turpentine oil substitue, mineral	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	
seawater	3	2	1	1	1	1	1	1	1-2	1	1	1
sebacic acid ester	x	x		x	3-x	x		1			2	1
sewage	x	ask for advice	2	1	1	1	1	1	1	1	2	1
silicon dioxide (silicic acid, chert, silica)	1	1	1	1	1	1	1	1	1	1	1	
silicon oils and -greases	1	1	3	1	1	1	1	1	2-3	1	1	1
silver nitrate, aqu.	1	1	1	1	1	2	1	1	1 to 2		1	1
skydrol (hydraulic liquids, phosphate ester based)	x	x	2 to 3	x	1	x	x	1	x	1	1	
slaked lime (calcium hydroxide, aqu.)	3	2	1	1	1	2	1	1	1	1	1	1
soapsuds, -solution, detergents)	x	2	1	1	1	1	1	1	1	1	1	

*) at +20 °C ambient temperature

*) as foodstuff, please order food-grade quality versions

*) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
soda ash (sodium carbonate anhydrous)	2	2	1	1	1	2	1	1	1	2	1	1
soda lye see sodium hydroxide												
soda salpetre (sodium nitrate)	2	1	3	1	1	1	1	1	2	1	1	1
soda, calcinated (sodium carbonate anhydrous)	2	2	1	1	1	1	1	1	1	2	1	1
soda, crystallised (sodium carbonate aqu.)	x	2-3	1	1	1	2	1	1	1	2	1	1
sodium bicarbonate (sodium-hydrogencarbonate), aqu.	x	2	1	1	1	1	1	1	1	2	1	
sodium bisulphate (sodium-hydrogensulphate)	x	x	1	1	1	1	1	1	1	2	1	
sodium bisulphite (sodium-hydrogensulphite), aqu.	x	x	1	1	1	1	1	1	1	2	1	
sodium borate (borax)	1	1	1 to 2	1 to 2	1	1	1	1	1	2	1	
sodium bromide				1 to 2	1	1 to 2	1	1	1		1	1
sodium carbonate (soda) aqu.	x	2-3	1	1	1	2	1	1	1	2	1	1
sodium chlorate, aqu.	3	2	1	1	1	1	1	1	1	3	1	
sodium chloride (muriate of soda, common or table salt)* ¹	3	2	1	1	1	1	1	1	1	3	1	1
sodium chlorite				1	1	3	2 to 3	1			2	2
sodium cyanide	3	3	1	1	1	1	1	1	1	3	1	1
sodium dichromate	3	3	2	1	1		1	1	1	3	1	1
sodium fluoride	3	2	2	1	1	1	1	1	1	3	1	1
sodium fluoroaluminate 10%	3	2 to 3	2		1	1	1	1	1	3	1	
sodium hydroxide (sod lye) 25%, 100°C	x	x	x	3	x	x	x	1	x	3	1	
sodium hydroxide (sod lye) 25%, 20°C	x	2	2	1	3	1	x	1	2	2	1	
sodium hypochlorite 10%	3	2	2	1	1	1	2	1	2 to 3	1	2 to 3	1
sodium hypochlorite 30%	x	3	3	1	2 to 3	1	2	1	1	1	x	
sodium metaphosphate	1	1	1	2	1	1	1	1	2	1	1	1
sodium nitrate, aqu.	2	1	3	1	1	1	1	1	2	1	1	1
sodium nitrite	2	1	1	1	1	1	1	1	1	1	1	1
sodium perborate	x	x	2	2	1	2	1	1	2	1	1	1
sodium percarbonate (bleaching agent)			2-3		1		1	1			1	
sodium peroxide	3	2	3	2	1 to 2	2	1	1	2 to 3	1	1	
sodium phosphate (see also trisodium phosphate)	2	2	x	2	1	1	1	1	2	1	1	1
sodium silicate, aqu.	x	3	1	1	1	1	1	1	1	1	1	1
sodium sulphide, aqu.	2	2		1	x	1	1	1	1	1	1	1
sodium sulphate (Glauber's salt), aqu.	3	1	1	1	1	1	1	1	1	1	1	1
sodium sulphite, aqu.	2	1	1	1	1	1	1	1	1	1	1	1
sodium thiosulphate (antichlorine)	3	2	1	1	1	1	1	1	1	1	1	1
solvent naphta (petroleum spirit, white spirit)	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	
solvents see specific designations												
soyabean oil* ¹	2	2	1	2 to 3	1	1	1 to 2	1	2 to 3	1	2	1
spindle oil (oils, mineral)												
spirits (ethanol, denaturated)	2	2	2	1	1	2-3	1-2	1	1	1	1	
spirits of ammonia (ammonia 25% in water)	x	x	1	3	1	1	1	1	2	x	1	
spruce needle oil	2	2	2	x	1 to 2	x	2	1				1
staining solution (20% nitric acid 4% hydrofluoric acid)	x	x		1				1	x		x	
starch syrup* ¹	2	2	1	1	1	1	1	1	1	1	1	1
starch, aqu.* ¹	1	1	1	1	1	1	1	1	2	1	1	1
steam of water to °C	x	x	120	100	150	x	x	200		200	135	90
stearin (stearic acid)	3	2	1 to 2	2 to 3	2	1 to 2	1 to 2	1	2	1	1	1
stone oil (naphthalene, liquid paraffine)	2	2	3	3	1	x	2 to 3	1	x	1		
styrene, monomer	x	3	x	x	2	x	x	1	x	1	x	
sublimate (mercury chloride)	1	1	1	1 to 2	1	2	1	1	1 to 2	1	1	
sugar aqu. * ¹ (see also raw sugar juice)	3	1	1	1	1	1	1	1	1	1	1	1
sulfonic acids, in general	x	x	1	1	2	1		1			2 to 3	1
sulfur dioxide see sulphuric acid												
sulfur trioxide (sulphuric acid anhydride)	3	2	2 to 3	3	1	1	1	1	x	1	1	3
sulfur, molten, 90°C	3	2	1	1	1	x	x	1	2	1	2 to 3	
sulphuric acid 10%	3	2	3	1	1	1	1	1	2	1	1	1
sulphuric acid 30%	x	2	x	1	1	1	1	1	2	1	1	1

^{*)} at +20 °C ambient temperature

^{*)} as foodstuff, please order food-grade quality versions

^{*)} please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

	PUR-Ester	PUR-Ether	Silicone	Hyalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
sulphuric acid 50%	x	2	x	1	1	1	1	1	2	1	1	1
sulphuric acid 75%	x	x	x	1 to 2	1	2	2	1	2 to 3	1	1	2
sulphuric acid 90%	x	x	x	2	1	x	3	1	3	1	1	2
sulphuric acid conc. (oleum, fuming sulphuric acid)	x	x	x	3-x	1	x	3	1	x	1	x	2
sulphuric ether see ether												
sulphuric acid 10%, moist	3	2	2	1 to 2	2	2	1	1	3	1	1	1
sulphuric acid 75%, moist	x	x	3	2 to 3	2	2 to 3	2	1	3	1	1	2
table salt (sodium chloride)	3	2	1	1	1	1	1	1	1	3	1	1
talc (magnesium silicate)	1	1	1	1	1	1	1	1	1	1	1	1
tallow	1	1	1	1	1	1	1	1	1	1	2	1
tannic acid (tannin)	2 to 3	2	2	1 to 2	1 to 2	1	1	1	1 to 2	1	1	1
tar (see also hot tar)	x	x	2	x	1	2	2	1	3	1	x	1
tartaric acid, aqu.*1	3	1	1	1	1	1	1	1	1 to 2	1		1
tensides (washing or cleaning agents, synth.)	3	2	1	1	1	1	1	1	2	1	1	
test gasoline = white spirit	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	1
tetrachlorocarbon (tetrachloromethane, tetra, carbon tetra chloride)	3	3	x	x	1	x	x	1	x	1	x	
tetrachloroethans	x	x	x	x	2	3	x	1	x		x	1
tetrachloroethylene (perchloroethylene)	3	3	x	x	1	x	2 to 3	1	x	1	x	1
tetrahydrofurane (THF)	3	3	x	x	x	x	3	1	x	1	2	1
tetraline = tetrahydronaphthalene	x	x	x	x	1	1	3	1	x	1	x	1
thionyl chloride	x	x	x	x	3	x	x	1	x		x	x
thiophene	x	x	x	x	x	x	1	1			x	1
tin-II-chloride, aqu.	3	1	1	2	1	1	1	1	1	1	1	1
toluol	x	x	x	x	1	x	3-x	1	x	1	x	1
tooth pasts						1	1	1				
town gas, coal gas, illuminated gas (natural gas see later)		3	3	3	1	1	1	1	x	1	2	1
train-oil	1	1	2	2	1	1	1	1	2	1	2	
transformer oils	2	2	x	x	1	3	3	1	2 to 3	1	x	1
tributyl phosphate (TBP)	x	x	x	x	x	x	1	1	x	1	1	1
trichloro acetic acid (TCA)	x	x	x	x	3	2	1 to 2	1	x		3	1
trichloroethane (methylchloroform)	x	x	x	x	1	3	x	1	x	1	2	1
trichloroethylene (ethylene trichloride)	x	x	x	x	1 to 2	x	x	1	x	1	2	1
trichloromethane (chloroform)	x	x	x	x	1	x	x	1	x	1	x	3
tricresyl phosphate	x	x	3	x	1 to 2	x	3	1	3	1	1	3
triethanolamine	x	x	1	2 to 3	1	x	1	1	2	1	1	1
triethylamine	2	2	x		x	2	1	1	2	1	1	1
triethylene glycol (triglycol)	2	2	2	1	1			1			1	
trioctyl phosphate	x	x	3	x	x	x	1	1	x	1	1	1
trisodium phosphate	3	3	1	1	1	1	1	1	1	1	1	1
tung oil	3	2	3	3	1	3	2	1	x	1	2	
turpentine (-oil)	3	x	x	x	1	x	x	1	x	1	3-x	1
turpentine, surrogate, mineral	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	
urine	3	1	1	1	1	1	1	1	1	1	1	1
varnish	3	2	x	x	1	x	1	1	x		x	
vaseline see oils u. greases, mineral												1
vegetable oils	1-2	1-2	2-3	2	1	2	2-3	1	2-3	1	2	1
vinegar*1	x	3	1	1	1	2	1	1	2	1	1	1
vinyl acetate (acetic acid vinyl ester)	x	x	x	1	2	x	1	1	x	1	1	1
vinyl chloride (chloroethene), monomer	x	x	x	x	1	x	x	1	x	1	2	x
vitamin C	2-3	1			1	1	1					
vitriol oil (oleum)	x	x	x	x	1	x	x	1	x	1	x	x
vitriol blue (copper sulphate)	2	1	1	2	1	1	1	1	1	1	1*	
washing agent synth. (detergent) 20°C	3	2	1	1	1	1	1	1	2	1	1	
water:	3	2	1	1	1	1	1	1	1	1	1	1

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Chemical Resistance

1 = excellent resistance

3 = medium resistance

2 = good resistance

x = non-resistant

	PUR-Ester	PUR-Ether	Silicone	Hypalon*	Viton*	PVC	PE	PTFE	Neoprene*	Kapton*	TPV	PE-EL
-aqua regia	x	x	3	3	2	2 to 3	2	1	3	1	3	
-condensed, distilled, desalinated or demineralised does not effect polymers but polymers effect water												
-drinking- or mineral water, without additives*1 to°C	25	60	120	100	150	70	80	200		200	100	
-mineral water CO2 saturated*1	3	1	1	1	1	1	1	1	1	1	1	
-seawater	x	2	1	1	1	1	1	1	1	1	1	1
weathering	2	1	1	1	1	1	2	1	1	1	1 bis 2	
white spirit (petroleum spirit, solvent naphta)	1 to 2	1 to 2	x	x	1	3	1 to 2	1			x	1
wines red and white*1	3	1	1	1	1	1	2	1	2 to 3	1	1	1
wood oil	3	2	3	3	1	3	2	1	x	1	2	2
wool grease (lanoline)	1	1	3	3	1	2	2	1	3	1	2	1
xylamon (wood protection)	3	3	x	x	2			1			x	
xylene	x	x	x	x	1 to 2	x	2 to 3	1	x	1	x	1
xylidine (dimethyl aniline)	x	x	1	1	1			1	1		3	
zinc acetate, aqu.	x	x	x	x	x		1	1	x	1	1	1
zinc chloride, aqu.	2 to 3	2	1	1	1 to 2	1	1	1	1	1	1	1
zinc sulphate, aqu.	2 to 3	2	1	1	1	1	1	1	1	1	1	1

The values listed in the table "Chemical Resistance" are based on the qualified listings of various raw materials suppliers, our own tests, as well as customer experience reports. These are explicitly intended as a guideline only and have been compiled according to the best of our knowledge; they are, however - especially in consideration of third parties - non-binding. Risks in regard to applicability, proper use and suitability remain the responsibility of the purchaser.

*) at +20 °C ambient temperature

*1) as foodstuff, please order food-grade quality versions

*2) please ask for our detailed consultation

* registered trademark of El du Pont des Nemours and Company or one of its subsidiaries



Locations

Germany

Masterflex SE
 Willy-Brandt-Allee 300
 45891 Gelsenkirchen
 Tel +49 209 97077-0
 Fax +49 209 97077-33
www.Masterflex.de

Germany

Matzen & Timm GmbH
 Nordportbogen 2
 22848 Norderstedt
 Tel +49 40 853212-0
 Fax +49 40 8587-23
www.Matzen-Timm.de

Czech Republic

Masterflex Česko s.r.o.
 Průmyslová 917
 34815 Planá
 Czech Republic
 Tel +420 374 6294-69
 Fax +420 374 6310-31
www.Masterflex.cz

USA

Masterduct, Inc.
 5235 Ted Street
 P.O. Box 40727, ZIP 77240
 Houston, TX 77040, USA
 Tel +1 713 46257-79
 Fax +1 713 93984-41
www.Masterduct.com

China

Masterflex Hoses (Kunshan) Co. Ltd.
 395 Jiande Road
 Zhangpu Town, Kunshan,
 Jiangsu Province
 P.R. China, 215321
 Tel +86 512 5795-2886
 Fax +86 512 5795-2787
www.Masterflex.cn

Germany

Novoplast Schlauchtechnik GmbH
 In den Langen Stücken 6
 38820 Halberstadt
 Tel +49 3941 6869-0
 Fax +49 3941 6869-40
www.Schlauchtechnik.de

Germany

APT
 Advanced Polymer Tubing GmbH
 Borsigstr. 13-15
 41469 Neuss
 Tel +49 2137 109737-0
www.APTubing.de

Sweden

Masterflex Scandinavia AB
 Kabelgatan 13
 43437 Kungsbacka
 Sweden
 Tel +46 300 1717-0
www.Masterflex.se

Brazil

Masterduct Brasil
 Comercio de Dutos LTDA.
 Rua dos Estados,
 18-Villa Industrial
 06516-310- Santana de
 Parnaíba-SP, Brasil
 Tel +55 11 415151-00
 Fax +55 11 415125-96
www.Masterduct.com.br

Asia-Pacific

Masterflex Asia Pte. Ltd.
 German Centre for Industry
 and Trade Pte Ltd.
 25 International Business Park
 04-60A German Centre
 Singapore 609916
 Tel +65 6897 45-85
 Fax +65 6897 45-81
www.Masterflex.asia

Germany

FLEIMA-PLASTIC GmbH
 Neustadt 2
 69483 Wald-Michelbach
 Tel +49 6207 92412-0
 Fax +49 6207 92412-30
www.Fleima-Plastic.de

France

Masterflex SARL
 Z.A. des 2B
 01360 Béligneux, France
 Tel +33 4 780602-02
 Fax +33 4 780621-56
www.Masterflex.fr

UK

Masterflex Technical Hoses Ltd.
 Prince of Wales Business Park,
 Vulcan Street, Oldham,
 OL 1 4ER, Lancashire, UK
 Tel +44 161 62680-66
 Fax +44 161 62690-66
www.Masterflex-UK.com

