

Image Copyrights: © aykulerd - Fotolia.com, Page 3; centre © Deyan Georgiev - Fotolia.com, Page 13; top right © Kevin - Fotolia.com, right centre © popov48 - Fotolia.com, bottom, left to right: © umberio leporini - Fotolia.com, © Alterfaller - Fotolia.com, © ilastro - Fotolia.com, © Alterfaller - Fotolia.com, © Alterfaller - Fotolia.com



Masterflex SE
Willy-Brandt-Allee 300
45891 Gelsenkirchen, Germany
Tel. +49 209 97077-0
Fax +49 209 97077-33
info.masterflex@MasterflexGroup.com

www.MasterflexGroup.com

A MASTERFLEX GROUP COMPANY

 **MASTERFLEX GROUP**



Hoses for the Plastics Industry

Hoses & Connectors for the
Entire Production Process

 **MASTERFLEX**
Connecting Values

A MASTERFLEX GROUP COMPANY



Masterflex – Your partner for high-tech hose systems

The field of plastics processing is a multifaceted process with the end-results being form-moulded components, semi-finished products, fibres, films or foils. During processing, granules and powders are often conveyed over long distances, placing increased demands on hoses and pipelines. Masterflex products leave nothing else to be desired when it comes to fulfilling the greatest demands and most stringent requirements for quality, abrasion-resistance, flexibility, durability and reliability.

Here, we provide you with an overview of our products, which are specifically designed for conquering the daily challenges in the world of plastics processing: from highly abrasion-resistant hoses for granule transport, temperature-proof hoses for granule drying, Master-PROTECT Pipe-Bends, electrically heated hoses for the transport of liquid plastics and adhesives, right through to all of the corresponding fittings and connectors. Here you can find everything you need for achieving greater success throughout the entire production process.

Contents

1	Hoses for the Plastics Industry - Silo Filling / Distribution Station / Transport	3
	Master-PUR HX Trivolution®	4
	Master-PUR Performance®	5
	Master-PUR Inline®	6
	Master-PROTECT Pipe-Bend	7
2	Hoses for the Plastics Industry - Granule Drying	8
	Master-NEO 1	9
	Master-NEO 2	10
	Master-SIL 1	11
	Master-SIL 2	12
3	Hoses for the Plastics Industry - Production Process	13
	Master-PUR L Trivolution®	14
	Master-PUR H Trivolution®	15
	Master-PUR HX Trivolution®	16
	Master-PUR Performance®	17
	Polderflex PUR	18
	Master-SANTO SL	19
	Master-SANTO L	20
	templine® heated hose	21
4	Connectors & Fittings	22
	Master-Grip Hose Clamp, screwable	23
	Master-Grip Quick-Fix Clamp	24
	Hose Clamp with Word-Gear	25
	Hose Clamps with Bolts	26
	PU Hose Sleeve	27
	Clamp Collars, screwed	28
	PU-Cuff EL	29
	Combiflex PU Swivel Flange	30
	Combiflex PU Swivel Flange Inline/Performance	31

Hoses for the Plastics Industry / Silo Filling

Plastic is delivered in the form of granules. These plastic granules are transported pneumatically into large silo containers via long hoses before being forwarded onto the distribution stations (hose stations). Once there, they are distributed to the granule drying stations.

Silo Filling

The pneumatic transport places great demands on the durability of the hoses applied. The transport medium is conveyed through the hoses using high-pressure or vacuum from the trucks and into the silos. Signs of wear and tear often appear, as the impact of the plastic particles on the inner hose wall has a hugely abrasive effect.

Further along in the process, the plastic granules are sent from the silos to the distribution stations. Long transport distances are often bridged using pipelines. For shorter distances, such as between the pipes and the distribution stations themselves, hoses, connectors and pipe-bends are applied. Once at the distribution station, the raw material is then forwarded on to the granule drying process.

The highly abrasive suction & transport hoses from Masterflex are specifically designed for application in these areas. The hoses consist of polyester-polyurethane, which in comparison to the otherwise conventional and widely-applied polyether-polyurethane or PVC, offers greatly improved durability and service life. This is highlighted even more when transporting granules with a high GFRP ratio (glass-fibre reinforced plastic).

The transparent hose wall guarantees a constant view of the media being transported. Thanks to their unique and innovative design, the hoses are extremely flexible and can therefore be installed quickly and easily, no matter how tight the installation space.

Excellent flow properties, unbeatable abrasion-resistance and extreme flexibility - these features and many more are what make Masterflex hoses the perfect choice for these applications. Have a look at our products in the following pages to find out more.



Master-PROTECT Pipes & Pipe-Bends in silo applications



Delivery of plastic granules & filling of silos using pneumatic conveyors



Distribution station (hose station), forwarding of raw materials for granule drying

Master-PUR HX Trivolution®

PU Transport hose & Suction Hose, highly abrasion resistant and vacuum proof, with reinforcement underneath the spiral, antistatic, surface resistance < 10⁹ Ohm, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- wall thickness between spirals approx. 2.0 mm, depending on DN
- spiral: spring steel wire

Applications

- For greater requirements on abrasion resistance and durability
- Suction & transport hose for extremely abrasive media
- Flat-roof gravelling
- Working hose for silo vehicles and cargo depots
- Transport hose for problematic media, e.g. sand, gravel, etc.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

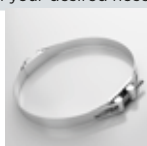
Properties

- hardly inflammable acc. to DIN 4102 B1
- permanently antistatic, surface resistance < 10⁹ Ohm acc. to DIN EN iso 8031
- acc. to TRGS 727 and ATEX 2014/34 EU
- microbe-resistant
- extremely abrasion resistant via specific reinforcements underneath the spiral
- good resistance to chemicals, oil and fuel
- flexible
- halogen and plasticizer-free
- smooth inner lining, optimum flow characteristics
- high vacuum and apex pressure resistance
- highly durable, long service lives
- generally good UV and ozone

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	4,39	0,94	95	48	0,78	000158:38:x	20
40	4,27	0,94	100	50	0,83	000158:40:x	20
51	4	0,94	125	61	1,04	000158:51:x	20
55	3,75	0,89	140	65	1,1	000158:55:x	20
60	3,6	0,89	150	70	1,2	000158:60:x	20
65	3,3	0,89	165	75	1,29	000158:65:x	20
70	3,15	0,89	175	80	1,38	000158:70:x	20
76	2,92	0,89	190	87	1,5	000158:76:x	20
80	2,77	0,89	200	93	1,93	000158:80:x	20
90	2,4	0,89	225	103	2,16	000158:90:x	20
102	2,1	0,87	250	115	2,6	000158:102:x	20
115	1,8	0,87	290	129	2,94	000158:115:x	20
120	1,65	0,87	300	134	3,07	000158:120:x	20
127	1,65	0,87	315	140	3,44	000158:127:x	20
152	1,5	0,82	450	167	4,13	000158:152:x	10m/15m

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. ** Please replace "x" with your desired hose length.

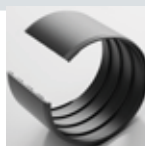
Possible Connections:



Hose Clamp with Bolts



Combiflex PU Swivel Flange



PU Hose Sleeve



Clamp Collars, screwed

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page 22 onwards.

Master-PUR Performance®

PU suction hose & transport hose, extremely abrasion-resistant & vacuum-proof, seamless smooth inner lining, antistatic and microbe-resistant, surface resistance < 10⁹ Ohm



Material

- spiral: spring steel wire
- wall: pure polyurethane
- wall thickness min. 2.5 mm
- 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

Properties

- flexible
- permanently antistatic, surface resistance < 10⁹ Ohm acc. to DIN EN iso 8031
- acc. to TRGS 727 and ATEX 2014/34 EU
- microbe-resistant
- good resistance to chemicals, oil and fuel
- completely smooth internal lining, therefore ideal flow characteristics
- high tensile strength
- excellent vacuum-resistance and good pressure-resistance
- halogen and plasticizer-free
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	4,35	0,94	130	50	0,8	000210:38:x	10
40	4,25	0,94	135	52	0,8	000210:40:x	10
45	4,12	0,94	155	57	1	000210:45:x	10
51	4	0,94	170	66	1,2	000210:51:x	10
55	3,8	0,94	175	72	1,3	000210:55:x	10
60	3,7	0,94	185	77	1,5	000210:60:x	10
65	3,5	0,94	190	82	1,6	000210:65:x	10
76	3,15	0,94	250	93	1,9	000210:76:x	10
80	2,9	0,94	270	97	2,1	000210:80:x	10
90	2,7	0,94	285	107	2,4	000210:90:x	10
102	2,5	0,94	300	119	2,6	000210:102:x	10
115	2,3	0,94	325	132	3	000210:115:x	10
127	2	0,94	350	144	3,3	000210:127:x	10
152	1,5	0,94	400	169	3,7	000210:152:x	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. ** Please replace "x" with your desired hose length.

Possible Connections:



Hose Clamp with Bolts



PU Hose Sleeve



Clamp Collars, screwed

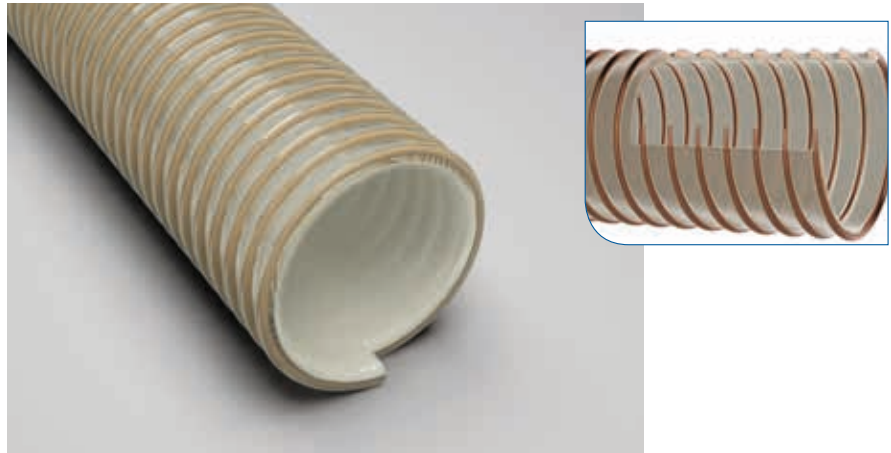


Combiflex PU Swivel Flange Inline & Performance

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page 22 onwards.

Master-PUR Inline

PU Suction hose & Transport Hose, extremely abrasion resistant, vacuum proof, seamless, very smooth inner lining, antistatic, surface resistance <math> < 10^9 \text{ Ohm}</math>, microbe-resistant



Material

spiral: spring steel wire

wall: pure polyurethane

Inline: application-optimised polyurethane, **4mm thick**, 60 ° Shore A

Applications

- Transport Hose for problematic media, e.g. sand, gravel, grain, granulates
- Everywhere where easy-to-clean surfaces are required
- Special hose for transport of extremely abrasive media
- Transport hose for feeding and cleaning of glass works, mineral processing plants, steelworks, quarries, ship-yards and docks, cement works, flat roof gravelling
- Other conveyer and loading plants

Properties

- high vacuum and good pressure resistance
- extremely abrasion-resistant, extra strong PU Inline
- generally good UV and ozone resistance
- good resistance to chemicals, oil and fuel
- free of halogens and plasticizers
- high tensile strength
- completely smooth internal lining, therefore ideal flow characteristics
- flexible
- microbe-resistant
- antistatic, surface resistance <math> < 10^9 \text{ Ohm}</math> acc. to DIN EN iso 8031

Temperature Range

- -40°C to +90°C
- peaks to +125°C

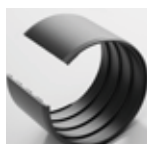
DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	4,65	0,94	150	56	1,72	000195:38:x	10
40	4,5	0,94	160	58	1,79	000195:40:x	10
50	4,125	0,94	200	69	1,61	000195:50:x	10
51	4,125	0,94	200	70	1,64	000195:51:x	10
65	3,9	0,94	300	85	2,02	000195:65:x	10
75	3,75	0,94	400	96	3,4	000195:75:x	10
76	3,75	0,94	400	97	3,44	000195:76:x	10
80	3,375	0,94	410	99	2,69	000195:80:x	10
100	3	0,94	430	122	4,31	000195:100:x	10
102	3	0,94	430	122	4,39	000195:102:x	10
115	2,6	0,94	440	136	4,9	000195:115:x	10
125	2,4	0,94	450	146	5,6	000195:125:x	10
127	2,4	0,94	450	148	5,69	000195:127:x	10
150	1,95	0,94	600	175	7,3	000195:150:x	10
152	1,95	0,94	600	175	7,3	000195:152:x	10m

All data refers to a media and ambient temperature of +20 °C. Available from stock in the above listed lengths and sizes. Available on request in other lengths, sizes and colours, with print. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:



Hose Clamp with Bolts



PU Hose Sleeve



Clamp Collars, screwed



Combiflex PU Swivel Flange Inline & Performance

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page 22 onwards.

Master-PROTECT Pipe-Bend

PU-lined Pipe-Bend



Material

lining: polyurethane
 bend: DIN 2448 St 37, primed
 flange: R St 37, primed

Applications

- Pneumatic conveying plants

Properties

- extremely abrasion-resistant
- pressure level PN 6 and PN 10/16
- significantly lower pressure loss than with deflection / impact absorbers
- lower risk of blockages via uniform concentration distribution and a more constant speed of transported goods
- much greater wear resistance than steel pipe bends
- reduced operating costs via longer maintenance intervals
- no displacement of transport media

Temperature Range

- -40°C to +80°C
- peaks to +110°C

DN	d in mm	PN	A mm	Adapter Outer Ø	Hole Circle	No. Holes	Article No.
50	54	10/16	121	165	125	4	004108
65	70	6	133	160	130	4	004110
65	70	10/16	140	185	145	4	004111
80	82	6	157	190	150	4	004112
80	82	10/16	165	200	160	8	004113
100	107	6	198	210	170	4	004118
100	107	10/16	205	220	180	8	004119
125	131	10/16	246	250	210	8	004123
150	159	10/16	284	285	240	8	004124
200	207	6	360	320	280	8	004126

All data refers to a media and ambient temperature of +20 °C. Order-specific production in the above listed sizes, lengths and pressure steps. Available on request in other DN sizes and in stainless steel. Subject to technical changes and colour deviations.

Hoses for the Plastics Industry / Granule Drying



Suction & transport hoses used for filling granule dryers along with temperature-proof hoses for transporting the air for the dryer itself



In the field of plastics processing, granule drying plays an integral role. Plastic absorbs moisture and humidity from the air around it. This can lead to drastic deficiencies in the end product. That's why the drying of the granules is such an important phase of the process - especially when having to allow for the recommended residual moisture tolerances of the raw material manufacturers

Granule Drying

Before the plastic granules can be melted later on in the injection-moulding and extrusion process, the moisture and humidity must first be removed. This pre-drying significantly improves the processing properties of the plastic granules. The air drying is the most widely used method in the plastics industry.

Dry, warm air flows through the granules, removing any remaining moisture and forwarding this to a drying agent.

Masterflex's temperature-resistant hoses are especially suitable for the suction and extraction of warm air during the drying process. These specialist hoses are designed to withstand temperatures of up to +250 °C.

The hoses are made from single or multi-layered strips of vulcanised fabric coiled together in overlap and further equipped with an inner steel helix, which is either hidden or bare. The hoses feature a smooth inner lining, provide good pressure-resistance and are extremely flexible, making installation quick and easy no matter where they are applied.



Master-NEO 1

Medium & High Temperature Hose for temperatures up to +135 °C



Material

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

Applications

- Chemicals industry
- Vehicle manufacturing
- Aircraft manufacturing
- 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

Properties

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

Temperature Range

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

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Weight c. kg/m	Article No. **	max. Production Length
38	0,49	490	12	0,17	000479:38:x	4
44	0,45	451	14	0,21	000479:44:x	4
51	0,42	422	16	0,25	000479:51:x	4
57	0,4	402	18	0,28	000479:57:x	4
60	0,39	392	20	0,3	000479:60:x	4
63	0,38	382	22	0,32	000479:63:x	4
65	0,37	373	22	0,34	000479:65:x	4
70	0,35	353	24	0,36	000479:70:x	4
76	0,33	333	27	0,41	000479:76:x	4
80	0,31	314	28	0,44	000479:80:x	4
83	0,3	304	28	0,46	000479:83:x	4
90	0,29	294	29	0,49	000479:90:x	4
95	0,28	275	32	0,56	000479:95:x	4
102	0,26	255	35	0,65	000479:102:x	4
108	0,24	235	38	0,68	000479:108:x	4
114	0,22	216	40	0,71	000479:114:x	4
115	0,22	216	40	0,72	000479:115:x	4
120	0,2	196	43	0,76	000479:120:x	4
127	0,17	167	46	0,8	000479:127:x	4
140	0,15	147	48	0,9	000479:140:x	4m

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in lengths from 4m and the above listed sizes. Available on request in other lengths, sizes, with spiral-free sleeves or plastic spirals. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible

Connections:



Hose Clamp
with Worm-Gear

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page 22 onwards.

Master-NEO 2

Medium & High Temperature Hose
for temperatures up to +135 °C,
double-layered



Material

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

Applications

- Chemicals industry
- Vehicle manufacturing
- Aircraft manufacturing
- Conveyance of air and gaseous media with high nominal & ambient temperatures with greater mechanical requirements
- Hot air hose for granulate dryer
- Machine and engine manufacturing
- Shipbuilding
- Plastic processing industry
- Waste incineration plants

Properties

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

Temperature Range

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

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Weight c. kg/m	Article No.**	max. Production Length
38	2,6	0,59	18	0,31	000485:38:x	4
44	2,6	0,55	21	0,34	000485:44:x	4
51	2,6	0,51	24	0,36	000485:51:x	4
57	2,5	0,48	28	0,43	000485:57:x	4
60	2,4	0,47	31	0,47	000485:60:x	4
63	2,4	0,47	31	0,49	000485:63:x	4
65	2,4	0,47	31	0,5	000485:65:x	4
70	2,3	0,43	35	0,53	000485:70:x	4
76	2,2	0,42	38	0,58	000485:76:x	4
80	2,1	0,41	40	0,62	000485:80:x	4
83	2,1	0,4	42	0,64	000485:83:x	4
91	2	0,39	44	0,7	000485:91:x	4
95	1,9	0,36	48	0,73	000485:95:x	4
102	1,9	0,34	52	0,77	000485:102:x	4
108	1,7	0,3	55	0,83	000485:108:x	4
114	1,6	0,28	57	0,89	000485:114:x	4
120	1,6	0,28	61	0,94	000485:120:x	4
127	1,4	0,25	64	1	000485:127:x	4
140	1,3	0,19	70	1,11	000485:140:x	4

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in lengths from 4m and the above listed sizes. Available on request in other lengths, sizes, with spiral-free sleeves or plastic spirals. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:

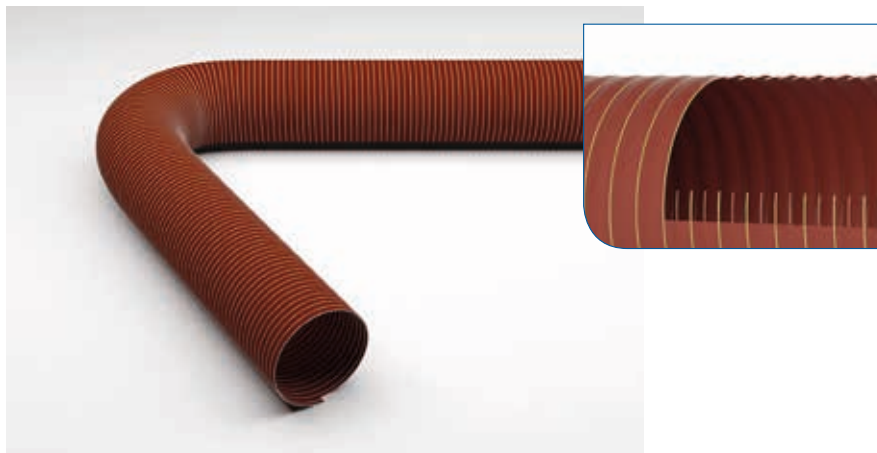


Hose Clamp
with Worm-Gear

For more detailed information on our
Connectors & Fittings, please see
Chapter 4, from page

Master-SIL 1

Medium & High Temperature Hose
for temperatures up to +250 °C



Material

spiral: spring steel wire

cord: fibreglass fabric

wall: silicone-coated glass-fibre fabric

Applications

- Chemicals industry
- Vehicle manufacturing
- Aircraft manufacturing
- 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 & ambient temperatures

Properties

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

Temperature Range

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

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Weight c. kg/m	Article No.**	max. Production Length
38	1,3	0,49	12	0,17	000493:38:x	4
44	1,2	0,45	14	0,21	000493:44:x	4
51	1,2	0,42	16	0,25	000493:51:x	4
57	1,1	0,4	18	0,28	000493:57:x	4
60	1,1	0,39	20	0,3	000493:60:x	4
63	1,1	0,38	22	0,32	000493:63:x	4
65	1,1	0,37	22	0,34	000493:65:x	4
70	1,1	0,35	24	0,36	000493:70:x	4
76	1,1	0,33	27	0,41	000493:76:x	4
80	1	0,31	28	0,44	000493:80:x	4
83	1	0,3	28	0,46	000493:83:x	4
90	1	0,29	29	0,49	000493:90:x	4
95	0,9	0,28	32	0,56	000493:95:x	4
102	0,9	0,26	35	0,65	000493:102:x	4
108	0,9	0,24	38	0,68	000493:108:x	4
114	0,9	0,22	40	0,71	000493:114:x	4
120	0,8	0,2	43	0,76	000493:120:x	4
127	0,8	0,17	46	0,8	000493:127:x	4
140	0,7	0,15	48	0,9	000493:140:x	4

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in lengths from 4m and the above listed sizes. Available on request in other lengths, sizes, with spiral-free sleeves or plastic spirals. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:

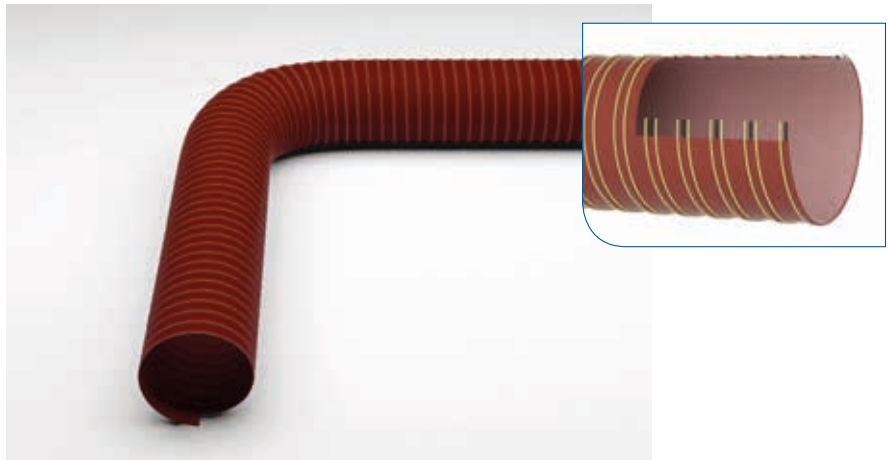


Hose Clamp
with Worm-Gear

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master-SIL 2

Medium & High Temperature Hose for temperatures up to +250 °C, double-layered



Material

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

Applications

- Chemicals industry
- Vehicle manufacturing
- Aircraft manufacturing
- Conveyance of air and gaseous media with high nominal & ambient temperatures with greater mechanical requirements
- Hot air hose for granulate dryer
- Machine and engine manufacturing
- Plastic processing industry
- Waste incineration plants

Properties

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

Temperature Range

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

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Weight c. kg/m	Article No.**	max. Production Length
38	2,6	0,59	18	0,31	000495:38:x	4
44	2,6	0,55	21	0,34	000495:44:x	4
51	2,6	0,51	24	0,36	000495:51:x	4
57	2,5	0,48	28	0,43	000495:57:x	4
60	2,4	0,47	31	0,47	000495:60:x	4
63	2,4	0,47	31	0,49	000495:63:x	4
65	2,4	0,47	31	0,5	000495:65:x	4
70	2,3	0,43	35	0,53	000495:70:x	4
76	2,2	0,42	38	0,58	000495:76:x	4
80	2,1	0,41	40	0,62	000495:80:x	4
83	2,1	0,4	42	0,64	000495:83:x	4
90	2	0,39	44	0,69	000495:90:x	4
95	1,9	0,36	48	0,73	000495:95:x	4
102	1,9	0,34	52	0,77	000495:102:x	4
108	1,7	0,3	55	0,83	000495:108:x	4
114	1,6	0,28	57	0,89	000495:114:x	4
120	1,6	0,28	61	0,94	000495:120:x	4
127	1,4	0,25	64	1	000495:127:x	4
140	1,3	0,19	70	1,11	000495:140:x	4

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in lengths from 4m and the above listed sizes. Available on request in other lengths, sizes, with spiral-free sleeves or plastic spirals. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:



Hose Clamp
with Worm-Gear

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Hoses for the Plastics Industry / Production Process

Once the drying process is complete, the plastic granules are then processed. Extrusion, Co-extrusion, Injection-Moulding or Bubble-Packaging manufacturing are typical production process in the plastics industry

Production Process

During the course of the production process, many different types of hoses are applied. Highly abrasion-resistant suction & transport hoses are used for the transport from the granule dryer to the production lines.

The next stage is the melting of the granules themselves. The liquidised plastic is then sent to an extrusion tool, for example. This part of the process is made easier through the use of electrically heated hoses, such as the high-tech **templine**[®] heated hose from Masterflex. Thanks to its innovative use of integrated heat conductors, this patented Masterflex hose guarantees a constant and evenly distributed temperature. Its unique construction design also ensures that, even with the most extreme bending and torsional distortions, the heat conductors never leave contact with the hose surface and therefore prevent any overheating or cooling of the liquid plastic. High pressure loads are no problem for the Masterflex **templine**[®] heated hoses.

Everywhere where heat is created for a melting process, hot air is the direct result. Temperature-resistant hoses from Masterflex always provide the best answer for applications in extractor units. Air with temperatures of up to +250 °C can be extracted with ease.

3 wishes at once!

The suction & transport hoses from Masterflex are usually microbe-resistant, permanently antistatic acc. to the TRBS 2153 (ATEX) standard, as well as being hardly inflammable acc. to DIN 4102 B1. The combination of these three features, however, offers a much wider spectrum of possible applications. Choosing the right product and dealing with spiralling storage costs just got much easier. Masterflex hoses provide real added value - and at no extra cost!



Electrically heated hoses applied in injection-moulding. The liquid plastic must be kept at a constant temperature.



Temperature-proof hoses used for extracting hot air for the manufacturing of bubble packaging



Master-PUR L Trivolution®

PU Suction hose & Transport Hose, extremely flexible, light duty, antistatic, surface resistance < 10⁹ Ohm, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

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

Applications

- Transport of fine-grained particles, e.g dust & powder
- Suction/extraction of paper and textile fibres
- Suction & transport hose for abrasive solids, liquids & gases
- Protective hose against mechanical wear
- Oil mist extraction/suction

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- hardly inflammable acc. to DIN 4102 B1
- permanently antistatic, surface resistance < 10⁹ Ohm acc to. DIN EN iso 8031
- acc. to TRGS 727 and ATEX 2014/34 EU
- microbe-resistant
- good resistance to chemicals, oil and fuel
- smallest bending radius
- optimum flow characteristics
- highly abrasion-resistant
- light, very good flexibility
- halogen and plasticizer-free
- high tensile strength
- generally good UV and ozone resistance

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
32	2,52	0,71	40	40	0,35	000007:32:x	25
38	2,1	0,66	46	46	0,39	000007:38:x	25
40	2,1	0,66	48	48	0,4	000007:40:x	25
45	1,84	0,59	53	53	0,42	000007:45:x	25
51	1,68	0,52	58	58	0,45	000007:51:x	25
55	1,54	0,44	63	63	0,51	000007:55:x	25
60	1,4	0,44	68	68	0,53	000007:60:x	25
65	1,26	0,37	73	73	0,64	000007:65:x	25
70	1,12	0,37	78	78	0,68	000007:70:x	25
76	1,12	0,29	84	84	0,72	000007:76:x	25
80	0,98	0,29	88	88	0,76	000007:80:x	25
102	0,84	0,22	110	110	0,95	000007:102:x	25
120	0,7	0,22	129	129	1,12	000007:120:x	25
127	0,7	0,22	135	135	1,18	000007:127:x	25
152	0,56	0,15	161	161	1,48	000007:152:x	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. ** Please replace "x" with your desired hose length.

Possible Connections:



PU Screw Cuff EL



Master-Grip Quick-Fix Clamp



Master-Grip Hose Clamp, screwable

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master-PUR H Trivolution®

PU Suction hose & Transport Hose, very flexible, antistatic, surface resistance < 10⁹ Ohm, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

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

Applications

- Suction of coarse-grained media with high flow rate
- For abrasive solids, gaseous and liquid media
- Standard hose for industrial vacuum cleaners
- Granulate transport hose
- Transport of chips/shavings
- Suction and transport of paper fibres
- Oil mist extraction/suction

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- hardly inflammable acc. to DIN 4102 B1
- permanently antistatic, surface resistance < 10⁹ Ohm acc. to DIN EN iso 8031
- acc to. TRGS 727 and ATEX 2014/34 EU
- microbe-resistant
- highly abrasion-resistant
- good resistance to chemicals, oil and fuel
- small bending radius
- optimum flow characteristics
- high tensile strength
- medium duty
- good flexibility
- free of halogens and plasticizers
- generally good UV and ozone resistance
- increased pressure and vacuum resistance

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
32	3,25	0,92	60	41	0,39	000063:32:x	25
38	3,12	0,82	69	47	0,46	000063:38:x	25
40	3	0,82	72	49	0,49	000063:40:x	25
45	2,95	0,81	80	55	0,55	000063:45:x	25
51	2,9	0,82	87	61	0,71	000063:51:x	25
55	2,75	0,76	95	65	0,77	000063:55:x	25
60	2,55	0,74	102	70	0,84	000063:60:x	25
65	2,4	0,66	112	75	0,91	000063:65:x	25
70	2,25	0,66	117	80	0,97	000063:70:x	25
76	2	0,59	126	87	1,06	000063:76:x	25
80	2	0,59	132	91	1,11	000063:80:x	25
102	1,5	0,44	165	112	1,48	000063:102:x	25
120	1,3	0,31	194	131	1,75	000063:120:x	25
127	1,3	0,31	203	138	1,91	000063:127:x	25
152	1,05	0,26	242	163	2,29	000063:152:x	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. ** Please replace "x" with your desired hose length.

Possible Connections:



PU Screw Cuff EL



Master-Grip Quick-Fix Clamp



Master-Grip Hose Clamp, screwable

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master-PUR HX Trivolution®

PU Transport hose & Suction Hose, highly abrasion resistant and vacuum proof, with reinforcement underneath the spiral, antistatic, surface resistance <math> < 10^9 \text{ Ohm}</math>, microbe-resistant, hardly inflammable acc. to DIN 4102 B1



Material

- wall: pure polyester polyurethane (acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- wall thickness between spirals approx. 2.0 mm, depending on DN
- spiral: spring steel wire

Applications

- For increased requirements of abrasion resistance & durability
- Suction & transport hose for extremely abrasive media
- Flat-roof gravelling
- Working hose for silo vehicles and cargo depots
- Transport hose for problematic media, e.g. sand, gravel, etc.

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- hardly inflammable acc. to DIN 4102 B1
- permanently antistatic, surface resistance <math> < 10^9 \text{ Ohm}</math> acc to. DIN EN iso 8031
- acc. to TRGS 727 and ATEX 2014/34 EU
- microbe-resistant
- extremely abrasion resistant via specific reinforcements underneath the spiral
- good resistance to chemicals, oil and fuel
- flexible
- halogen and plasticizer-free
- smooth inner lining, optimum flow characteristics
- high vacuum and apex pressure resistance
- highly durable, long service lives
- generally good UV and ozone

DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	4,39	0,94	95	48	0,78	000158:38:x	20
40	4,27	0,94	100	50	0,83	000158:40:x	20
51	4	0,94	125	61	1,04	000158:51:x	20
55	3,75	0,89	140	65	1,1	000158:55:x	20
60	3,6	0,89	150	70	1,2	000158:60:x	20
65	3,3	0,89	165	75	1,29	000158:65:x	20
70	3,15	0,89	175	80	1,38	000158:70:x	20
76	2,92	0,89	190	87	1,5	000158:76:x	20
80	2,77	0,89	200	93	1,93	000158:80:x	20
90	2,4	0,89	225	103	2,16	000158:90:x	20
102	2,1	0,87	250	115	2,6	000158:102:x	20
115	1,8	0,87	290	129	2,94	000158:115:x	20
120	1,65	0,87	300	134	3,07	000158:120:x	20
127	1,65	0,87	315	140	3,44	000158:127:x	20
152	1,5	0,82	450	167	4,13	000158:152:x	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. ** Please replace "x" with your desired hose length.

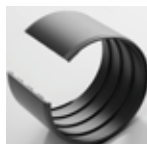
Possible Connections:



Hose Clamp with Bolts



Combiflex PU Swivel Flange



PU Hose Sleeve



Clamp Collars, screwed

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master-PUR Performance®

PU suction hose & transport hose, extremely abrasion-resistant & vacuum-proof, seamless smooth inner lining, antistatic and microbe-resistant, surface resistance < 10⁹ Ohm



Material

- spiral: spring steel wire
- wall: pure polyurethane
- wall thickness min. 2.5 mm
- 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

Properties

- flexible
- permanently antistatic, surface resistance < 10⁹ Ohm acc to. DIN EN iso 8031
- acc to. TRGS 727 ans ATEX 2014/34 EU
- microbe-resistant
- good resistance to chemicals, oil and fuel
- completely smooth internal lining, therefore ideal flow characteristics
- high tensile strength
- excellent vacuum-resistance and good pressure-resistance
- halogen and plasticizer-free
- generally good UV and ozone resistance

Temperature Range

- -40°C to +90°C
- peaks to +125°C

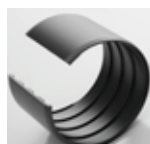
DN	Op Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	4,35	0,94	130	50	0,8	000210:38:x	10
40	4,25	0,94	135	52	0,8	000210:40:x	10
45	4,12	0,94	155	57	1	000210:45:x	10
51	4	0,94	170	66	1,2	000210:51:x	10
55	3,8	0,94	175	72	1,3	000210:55:x	10
60	3,7	0,94	185	77	1,5	000210:60:x	10
65	3,5	0,94	190	82	1,6	000210:65:x	10
76	3,15	0,94	250	93	1,9	000210:76:x	10
80	2,9	0,94	270	97	2,1	000210:80:x	10
90	2,7	0,94	285	107	2,4	000210:90:x	10
102	2,5	0,94	300	119	2,6	000210:102:x	10
115	2,3	0,94	325	132	3	000210:115:x	10
127	2	0,94	350	144	3,3	000210:127:x	10
152	1,5	0,94	400	169	3,7	000210:152:x	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. ** Please replace "x" with your desired hose length.

Possible Connections:



Hose Clamp with Bolts



PU Hose Sleeve



Clamp Collars, screwed

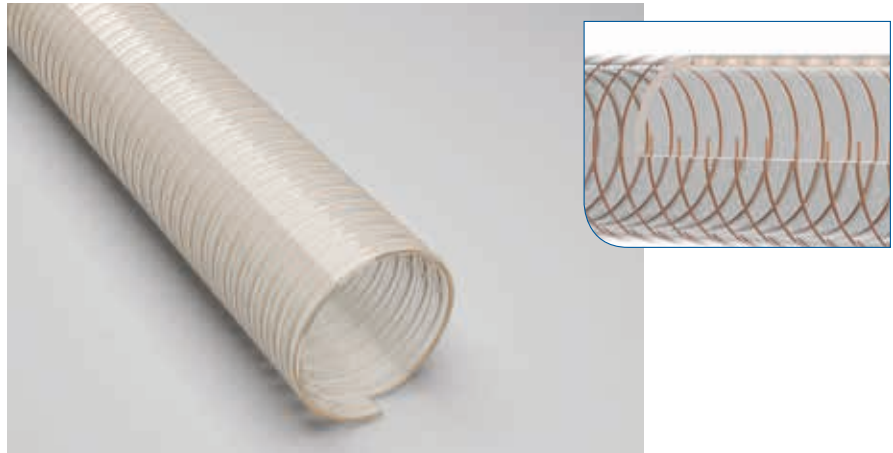


Combiflex PU Swivel Flange Inline & Performance

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Polderflex PUR

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



Material

- spiral: spring steel wire
- wall: pure polyester polyurethane
(acc. to DIN ISO 4649 more abrasion-resistant in comparison to polyether polyurethane)
- 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
- Working Hose for silo vehicles and cargo depots
- for highest standards of abrasion resistance and durability
- Transport hose for handling and conveying plants
- Refurbishment of rail systems
- Transport of gravel and rocks
- Suction & Transport Hose for the most extreme fields of application

Properties

- very good flexibility
- high vacuum and good pressure resistance
- highly durable, long service lives
- extremely abrasion resistant, extra strong PU lining
- generally good UV and ozone resistance
- good resistance to chemicals, oil and fuel
- free of halogens and plasticizers
- high tensile strength
- smooth inner and outer linings

Temperature Range

- -40°C to +90°C
- peaks to +125°C

DN	Op. Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
32	5,75	0,93	160	41,5	0,88	000187:32:x	20
38	5,625	0,93	190	47,5	1,03	000187:38:x	20
40	5,5	0,93	200	49,5	1,07	000187:40:x	20
45	5,375	0,93	225	54,5	1,2	000187:45:x	20
51	5,25	0,93	250	62,5	1,25	000187:51:x	20
60	5,125	0,93	300	71,5	1,44	000187:60:x	20
65	5,1	0,93	325	76,5	1,56	000187:65:x	20
70	5,05	0,93	350	81,5	1,77	000187:70:x	20
76	5	0,93	380	87,5	1,92	000187:76:x	20
80	4,5	0,88	400	91,5	2,01	000187:80:x	20
102	4,125	0,86	600	113	3,1	000187:102:x	20

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in the above listed lengths and sizes. Available on request in other lengths and sizes with print. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:



Hose Clamp
with Bolts

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master-SANTO SL

TPV Transport & Suction Hose, very light duty, for increased temperatures



Material

- spiral: spring steel wire, TPV-coated
- 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

Properties

- halogen and plasticizer-free
- extremely flexible
- smallest bending radii
- generally good UV and ozone resistance
- acc. to TRGS 727 and ATEX 2014/34 EU
- smooth inner lining
- good resistance to acids, alkalis and solvent fumes
- very light

Temperature Range

- -40°C bis +130°C
- peaks to +150°C

DN	Op. Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max. Production Length
38	2,5	0,81	38	48	0,24	000424:38:x	25
40	2,4	0,8	40	49	0,25	000424:40:x	25
45	2,3	0,8	45	54	0,28	000424:45:x	25
51	2,2	0,79	50	60	0,36	000424:51:x	25
60	1,6	0,71	60	70	0,43	000424:60:x	25
63	1,5	0,68	63	72	0,44	000424:63:x	25
65	1,4	0,67	65	74	0,46	000424:65:x	25
70	1,3	0,63	70	79	0,49	000424:70:x	25
76	1,2	0,59	75	84	0,59	000424:76:x	25
80	1,1	0,55	80	89	0,63	000424:80:x	25
90	1	0,47	90	100	0,71	000424:90:x	25
102	0,9	0,39	100	111	0,63	000424:102:x	25
115	0,8	0,36	115	124	0,71	000424:115:x	25
120	0,8	0,35	120	130	0,74	000424:120:x	25
127	0,8	0,34	125	135	0,77	000424:127:x	25
152	0,6	0,29	150	160	0,95	000424:152:x	10m

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in the above listed lengths and sizes. Available on request in other lengths and sizes with print. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:



Master-Grip
Quick-Fix Clamp



Master-Grip Hose Clamp,
screwable

For more detailed information on our Connectors & Fittings, please see Chapter 4, from page

Master -SANTO L

TPV Transport & Suction Hose,
light duty, for increased
temperatures



Material

- spiral: spring steel wire
- wall: thermoplastic vulcanisate (TPV)

Applications

- Protective Hose against mechanical wear
- Steam extraction
- Air supply and extraction in engine applications
- Conveyance of hot and cold air in vehicle and machine manufacturing
- Liquid and gaseous media

Properties

- halogen and plasticizer-free
- extremely flexible
- light
- smallest bending radii
- generally good UV and ozone resistance
- mostly smooth inner lining
- 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.
- good resistance to acids, alkalis and solvent fumes

Temperature Range

- -40°C bis +130°C
- peaks to +150°C

DN	Op. Pressure c. bar	Vacuum c. bar	Bend Radius c. mm*	Outer Ø c. mm	Weight c. kg/m	Article No.**	max Production Length
38	0,69	0,66	46	46	0,24	000236:38:x	25
40	0,69	0,66	48	48	0,38	000236:40:x	25
45	0,61	0,59	53	53	0,4	000236:45:x	25
51	0,55	0,52	58	58	0,43	000236:51:x	25
55	0,51	0,44	63	63	0,49	000236:55:x	25
60	0,46	0,44	68	68	0,51	000236:60:x	25
65	0,42	0,37	73	73	0,62	000236:65:x	25
70	0,37	0,37	78	78	0,65	000236:70:x	25
76	0,37	0,29	84	84	0,69	000236:76:x	25
80	0,32	0,29	88	88	0,73	000236:80:x	25
90	0,28	0,22	99	99	0,85	000236:90:x	25
102	0,28	0,22	110	110	0,91	000236:102:x	25
115	0,23	0,22	124	124	1,02	000236:115:x	25
120	0,23	0,22	129	129	1,06	000236:120:x	25
127	0,23	0,22	135	135	1,13	000236:127:x	25
152	0,19	0,15	161	161	1,42	000236:152:x	10m

All data refers to a media and ambient temperature of +20 °C. * refers to the inside of the hose. Available from stock in the above listed lengths and sizes. Available on request in other lengths and sizes with print. Subject to technical changes and colour deviations. ** Please replace "x" with your desired hose length.

Possible Connections:



Master-Grip
Quick-Fix Clamp



Master-Grip Hose Clamp,
screwable

For more detailed information on our
Connectors & Fittings, please see
Chapter 4, from page

templine® Heated Hose

**Electrically Heated Hose System
for applications up to
+300 °C media temperature**



Material

- Medium hose made from PTFE with high chemical resistance
- Outer casing made from mechanically stable polyamide or abrasion-resistant aramide fibres
- Thermal insulation: optional silicone foam or silicon-free textile cord

Applications

- Anti-freeze, maintaining & increasing of temperatures for gases, granules and liquids of varying viscosity in temperature range -50 °C to +300 °C.

Properties

- good flexibility
- step-proof and antistatic design
- high power density (up to 250 W/m)
- nominal voltage (in operation): 12 ... 400 V
- different superstructures for hose pressures up to 500 bar and vacuum
- optional integrated temperature controller / safety temperature limiter
- connections (fittings) in steel / stainless steel / brass

Temperature Range

- PTFE smooth hose as well as all pressure-reinforced versions up to +220 °C
- corrugated metal hose +300 °C

Heated Hose / Construction	Type I PTFE, single pressure reinforcement	Type II PTFE, double pressure reinforcement	Type III PTFE, triple pressure reinforcement	PTFE corrugated hose / reinforced	Metal corrugated hose / stainless steel
Operating Temperature	max. + 250°C	max. + 250°C	max. + 250°C	DN 6-50	DN 6-50
Storage Temperature	-20°C + 60°C	-20°C + 60°C	-20°C + 60°C	overpressure/vacuum	corrosion-resistant
Heating Conductor	Resistance alloy	Resistance alloy	Resistance alloy	electroconductive	- max. + 500°C
Textile braiding	Glass yarn	Glass yarn	Glass yarn	- FDA	authorized for gases
thermal insulation 1	Silicone foam	Silicone foam	Silicone foam	good self-cleaning properties	vacuum-resistant
thermal insulation 2	Thermal fleece	Thermal fleece	Thermal fleece	small bending radius	Water approval
thermal insulation 3	Glass fabric	Glass fabric	Glass fabric		
Protective braiding	PA/Glass-Silk/Kevlar	PA/Glass-Silk/Kevlar	PA/Glass-Silk/Kevlar		
Bending Radius*	10-12 x Hose Outer-Ø	12 x Hose Outer-Ø	10 x Hose Outer-Ø		
Food-Grade	x	x	-		
Pressure Resistance	bar	bar	bar		
DN 4	n.a.	264	n.a.	on request	on request
DN 6	224	247	500	on request	on request
DN 8	207	230	475	on request	on request
DN 10	183	207	475	on request	on request
DN 13	161	183	450	on request	on request
DN 16	114	138	400	on request	on request
DN 20	103	126	300	on request	on request
DN 25	80	103	275	on request	on request
DN 32 - 40	on request	on request	on request	on request	on request
DN 50	n.a.	n.a.	n.a.	on request	on request

Possible Connections:



Standard connection



Pipe connection



Special connector
Type: KAMLOCK. Illustration is of female/male format

Hoses for the Plastics Industry / Connectors & Fittings



For a fast and secure connection - Master-Grip Quick-Fix Clamp



Clamp collars for special applications in transporting problematic goods

It is often the connection of pipelines or hoses onto an existing system, which provides more difficult challenges than at first thought. That's why Masterflex offers the very best in connectors, fittings and customised solutions for all of your specific needs

It's all about the right connections!

Masterflex connectors are designed especially to provide the perfect connection of our hoses to your applications. The optimum in fit, seal and ease of use - no matter the conditions.

The connectors and fittings listed here are only a small selection of those offered by Masterflex for connecting our hoses to your existing machines, systems and pipes. The list of possibilities in the field of connections is almost endless. Ranging from a simple clamp through to the most fully-customised complex solutions - Masterflex makes the impossible possible.

The **Master-Grip** hose clamp, for example, is equipped with a special bridge, which covers the wire spiral to guarantee a tight connection. This hose clamp is also available with a tool-free Quick-Fix connector.

The **Combiflex** connection technology is available as screw-fit and cast-on versions. The easy docking of these connectors ensures a quick and time-saving installation of hoses and hose systems. This enables downtimes in your production plants to be significantly reduced - and your productivity to be drastically increased.

Master-Grip Hose Clamp, screwable

Special clamp for right-lay hoses



Material

- band collar, bridge, housing: steel

Applications

- Special clamp for lighter and medium weight, right-handed spiral hoses such as Flamex B-se, Flamex B-F se, Master-PUR, Master-PVC and Master-SANTO

Properties

- robust
- easy to install
- rust-protected
- primarily tight and tear-proof connection via bridge profiles

For Right-Hand Hoses in DN	Clamping Range in mm	Article No.
38	35-44	001626
40	35-44	001626
45	45-55	001629
50	45-55	001629
55	55-65	001633
60	55-65	001633
65	65-75	001636
70	65-75	001636
75	75-85	001639
80	75-85	001639
90	90-110	001642
100	100-120	001646
110	110-130	001649
120	120-140	001651
125	120-140	001651
130	130-150	001653
140	140-160	001655
150	150-170	001657

All data refers to a media and ambient temperature of +20 °C. Clamping range from 35/44 mm to 500/520 mm. Available on request in other sizes and materials. Subject to technical changes and colour deviations.

Master-Grip Quick-Fix Clamp

Special clamp for right-lay hoses



Material

- band collar, bridge, housing: steel (1.4301)

Applications

- Special clamp for lighter and medium weight, right-handed spiral hoses such as Flamex B-se, Flamex B-F se, Master-PUR, Master-PVC and Master-SANTO

Properties

- robust
- rust-free
- primarily tight and tear-proof connection via bridge profiles
- adjustable clamping force via clamping screw
- very easy to install
- subsequent quick mounting also possible for pre-installed hoses

For Right-Hand Hoses in DN	Clamping Range in mm	Article No.
75	75-82	001694
80	80-87	001695
90	90-97	001696
100	100-107	001697
110	110-117	001698
120	120-127	001699
125	125-132	001700
130	130-137	001701
140	140-147	001703
150	150-157	001704

All data refers to a media and ambient temperature of +20 °C. Clamping range from 75/82 mm to 500/507 mm. Available on request in other sizes and materials. Subject to technical changes and colour deviations.

Hose Clamp with Worm-Gear

Standard clamp
for universal
requirements



Material

- screw: galvanised steel
- band collar: steel, galvanised

Applications

- Mounting of light duty hose types onto connector brackets on mobile and stationary units

Properties

- robust
- rust-protected
- band width approx. 12 mm
- band thickness approx. 0.5 - 1 mm

Clamping Range in mm	Article No.
25-40	002038
32-50	002040
40-60	002042
50-70	002044
60-80	002046
70-90	002048
80-100	002050
90-110	002052
100-120	002054
110-130	002056
120-140	002058
130-150	002060
140-160	002062
150-170	002064

All data refers to a media and ambient temperature of +20 °C. Clamping range from 75/82 mm to 500/507 mm. Available on request in other sizes and materials. Subject to technical changes and colour deviations.

Hose Clamp with Bolts

For heavier hoses



Material

- screw: galvanised steel
- band collar: steel, galvanised

Applications

- Special clamp for medium and heavy duty hoses

Properties

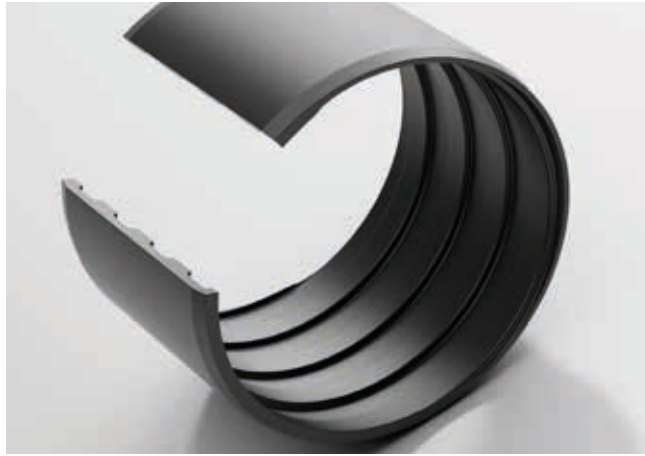
- rust-protected
- extremely robust
- band width approx. 20 - 26 mm
- band thickness approx. 0.8 - 1.6 mm

Clamping Range in mm	Width x Thickness in mm	Article No.
32-35	20 x 1,0	002112
36-39	20 x 1,0	002114
40-43	20 x 1,0	002115
44-47	22 x 1,0	002117
48-51	22 x 1,0	002118
52-55	22 x 1,0	002120
56-59	22 x 1,0	002122
60-63	22 x 1,0	002124
64-67	25 x 1,5	002127
68-73	25 x 1,5	002128
74-79	25 x 1,5	002130
80-85	25 x 1,5	002133
86-91	25 x 1,5	002135
92-97	25 x 1,5	002137
98-103	25 x 1,5	002138
104-112	24 x 1,5	002140
113-121	25 x 1,5	002144
122-130	25 x 1,5	002146
131-139	25 x 1,5	002148
140-148	25 x 1,5	002149
149-161	25 x 1,8	002151

All data refers to a media and ambient temperature of +20 °C. Clamping range from 32/35 mm to 500/518 mm. Available on request in other sizes and materials. Subject to technical changes and colour deviations.

PU Hose Sleeve

Special sleeve for use with clamps



Material

- lightweight
- 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

DN	Da mm	L mm	Article No. Type L	Article No. Type H	Article No. Type HX	Article No. Type Inline	Article No. Type Performance®
38	59	25	001331	001329		001330	001332
40	61	25				001333	
51	67	37		001335			
51	71	37			001336	001337	001339
65	86	43	001342	001340		001341	001343
76	101	43		001344	001345	001346	001347
80	101	43	001351	001348	001349	001350	
102	118	80	001355	001352	001353	001354	001356
127	147	115	001360		001358	001359	001361
152	173	133	001364				
152	180	133				001363	001365
204	239	180			001367	001368	

All data refers to a media and ambient temperature of +20 °C. Available from stock are the # marked DN. Subject to technical changes and colour deviations.

Clamp Collars, screwed

acc. to DIN EN 14420-3



Material

- screws and nuts: galvanised steel
- clamp collar: aluminium

Applications

- Versatile applications for spiral hoses from the Masterflex SE hose range when using PU hose sleeves

Properties

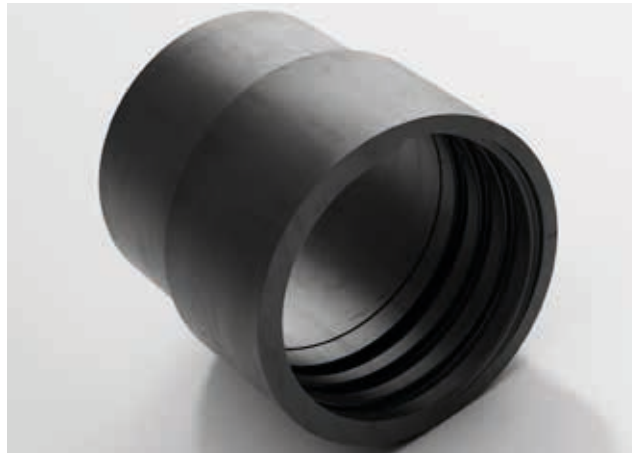
- light
- robust
- simple mounting

DN	Clamping Range mm	Extent	No. Screws	Weight c. kg/pc.	Article No.	For Hose Types
#38	57-60	38x10	4xM6x20	0,18	002209	L/H/Inline/Performance*
#40	58-61	40x10	4xM6x20	0,19	002210	Inline/Performance*
50	64-67	50x8	4xM8x25	0,27	002211	L/H
#50	69-71	50x10	4xM8x25	0,31	002212	HX/Inline/Performance*
#65	84-87	65x10	4xM8x25	0,45	002213	L/H/HX/Inline/Performance*
#80	99-102	80x10	4xM8x25	0,51	002214	L/H/HX/Inline/Performance*
100	114-119	100x8	4xM10x40	1,19	002215	L/H
#100	126-130	100x14	4xM10x40	1,35	002216	HX/Inline/Performance*
125	143-148	125x10	6xM10x40	1,4	002217	L/H
#125	149-154	125x13	6xM12x50	2,65	002218	HX/Inline/Performance*
150	168-174	150x10	6xM12x50	3,75	002219	L/H
#150	174-180	150x13	6xM12x50	3,3	002220	HX/Inline/Performance*
200	230-239	200x16	8xM12x60	6,75	002221	L/H/HX/Inline

All data refers to a media and ambient temperature of +20 °C. Available from stock are the # marked DN. Subject to technical changes and colour deviations.

PU Screw Cuff EL

Electroconductive
 $\leq 10^4 \text{ Ohm}$



Material

- polyurethane, electroconductive $R_o \leq 10^4 \text{ Ohm}$

Applications

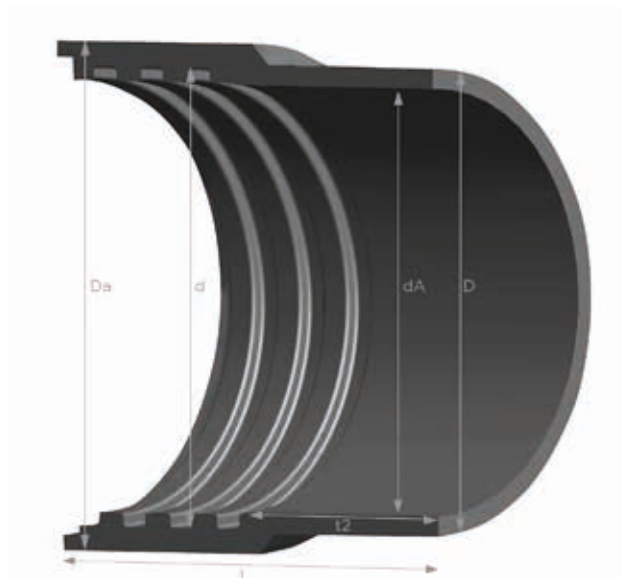
- Industrial vacuum cleaners
- Suction and blower units
- Special screw coupling for Master-PUR L/H and Master-PVC L/H hoses
- Conveyance units

Properties

- abrasion-resistant
- flexible at cold temperatures
- surface resistance $\leq 10^4 \text{ Ohm}$
- shock-proof
- dimensionally stable
- easy to install

Temperature Range

- -40°C to $+90^\circ\text{C}$
- peaks to $+125^\circ\text{C}$

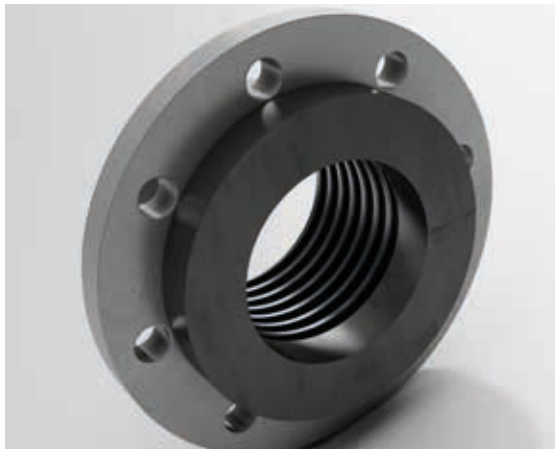


DN	dA: Pipe Outer-Ø	D: Outer-Ø Clamp Range	d: Inner-Ø Thread Range	Da: Outer-Ø Thread Range	t1: Hose Screw-In Depth	t2: Socket Screw-In Depth	L: Total Length in mm	Weight c. kg/pc	Article No.
32	32	39	42	47	37	35	72	0,06	002515
38	38	45	48	54	42	38	80	0,06	002517
40	40	48	51	56	42	43	85	0,07	002518
50	50	59	60	67	47	42	89	0,1	002522
60	60	68	72	78	43	47	90	0,11	002527
70	70	78	80	89	48	46	94	0,15	002528

All data refers to a media and ambient temperature of $+20^\circ\text{C}$. Available from stock in the above listed sizes in black. Subject to technical changes and colour deviations.

Combiflex PU Swivel Flange

For counter-flanges acc. to
DIN 2632 / DIN 2632



Material

- swivel flange: aluminium
- collar: abrasion-resistant polyurethane

Temperature Range

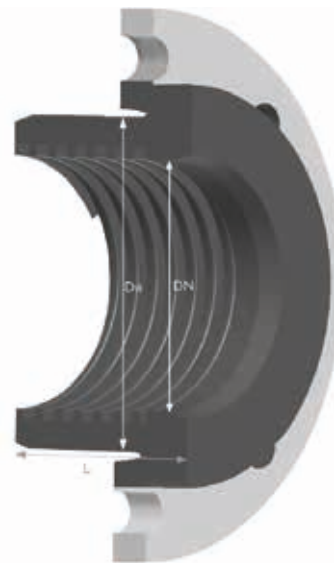
- -40°C to +90°C
- peaks to +125°C

Applications

- Screwable plastic collar with loose flange for all Master-PUR L / H / SH / HX hose types

Properties

- shock-proof
- high tension-proof
- reusable and exchangeable
- simple mounting
- abrasion and microbe-resistant
- connection option without adjustable constriction of the cross-section
- surface resistance $\leq 10^{10}$ Ohm



DN Flange	dA: Pipe Outer-Ø	Da: Outer-Ø Thread	DN Hose	Hole Circle	Total Length mm	Weight c. kg/pc	Article No. Type L	Article No. Type H	Article No. Type HX
50	57	75	50	125	66	0,92	001946	001962	001990
50	60,3	75	50	125	66	0,92	001947	001963	001991
65	76,1	90	65	145	76	1,19			001992
65	76,1	90	70	145	76	1,14		001964	001993
80	88,9	105	75	160	76	1,48	001948		001994
80	88,9	105	80	160	76	1,43	001949	001965	001994
100	108	131	100	180	86	1,74	001951	001966	001995
100	114,3	131	100	180	86	1,74	001952	001967	001996
125	133	156	120	210	92	2,37	001953		
125	139,7	156	120	210	92	2,37			
125	133	156	125	210	92	2,26	001954	001969	001998
125	139,7	156	125	210	92	2,26	001955	001970	001999
150	159	184	140	240	98	3,09	001956		002000
150	159	184	150	240	98	2,82	001957	001971	002001
150	168,3	184	150	240	98	2,82		001972	002002
150	177,8	184	160	240	98	2,53	001958		002003
200	219,1	235	200	295	108	4,18	001959	001973	002004
250	267	292	250	350	118	5,88	001960	001974	002005
250	273	292	250	350	118	5,88		001975	002006
300	323,9	344	300	400	123	7,12	001961	001976	002007

All data refers to a media and ambient temperature of +20 °C. Available from stock in the above listed sizes in black. Available on request in permanently mounted version for watertight, tensile strengthened connections, other DN sizes, coloured. Subject to technical changes and colour deviations.

Combiflex PU Swivel Flange Inline

For counter-flanges acc. to DIN 2632 / DIN 2633 / DIN 2673



Material

- swivel flange: aluminium
- collar: abrasion-resistant polyurethane

Applications

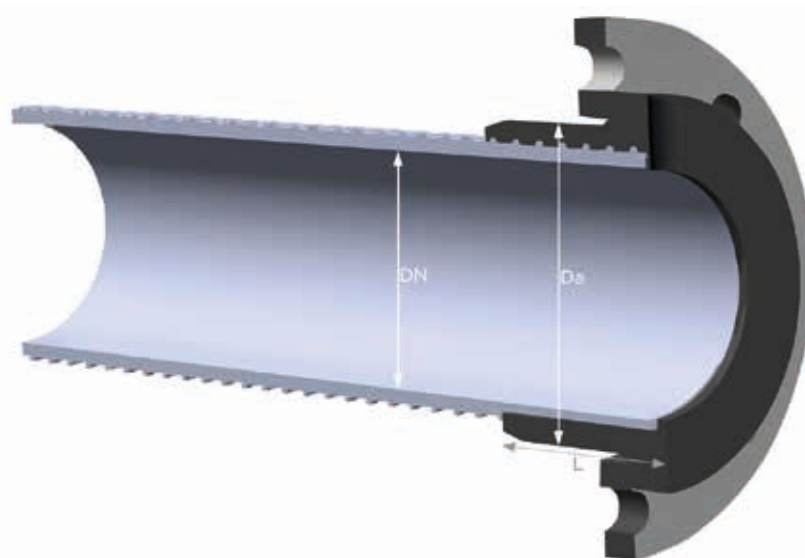
- Cast-on PU loose flange for Master-PUR Inline hose types

Temperature Range

- -40°C to +90°C
- peaks to +125°C

Properties

- abrasion-resistant
- gas/watertight
- lightweight
- microbe-resistant
- shock-proof
- high tension-proof connection
- front-flush hose integration



DN: Inner-Ø Hose	Da: Outer-Ø Thread	Hole Circle in mm	Length in mm	Weight c. kg/pc	Article No.
65	72	145	72	1,16	002008
75	72	160	72	1,48	002009
80	72	160	72	1,43	002010
100	82	180	82	1,74	002011
125	88	210	88	2,37	002012
150	94	240	94	2,82	002013
152	94	240	94	2,82	002014
200	104	295	104	4,18	002015