2018 Product Guide

High-Tech Hoses & Connection Systems

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888-372-0050 x2

Industrial Air Purification, Inc.

Connecting Values
About Masterduct
As part of the globally operating corporate group, The Masterflex Group, Masterduct specializes in solving complex connection challenges. We have 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.

Masterduct – Connecting Values

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 & all from one supplier.

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.

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 reaction and delivery times, we're the perfect partner for you:

Because in our business, reliable connections mean much more.

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, personal, quick & expert – that makes the difference!

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 Sales, Engineering 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 Masterduct
– we create values ...and connect them!
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Key Industries & Applications

Suction and Transport Hoses
- Plastics Industry: granules transport, air ducting, granule suction
- Chemical Industry: delivery of chemicals, air ducting, chemical suction
- Textile Industry: equipment hoses
- Material Handling: bulk material conveyors
- Vacuum Industry: vacuum cleaners, vacuum conduits
- Computer Industry: clean rooms
- Concrete Industry: sand and gravel suction, concrete pouring
- Sewer and Waste Industry: dust removal, air duct cleaning, street sweepers, suction equipment
- Mining Industry: gravel and rock suction, breathing hoses, rock quarries
- Agricultural Industry: grain transport
- Glass Manufacturing: glass extraction, glass wool extraction
- Oil and Gas Industry: fume extraction
- General Manufacturing: exhaust, blower hoses, ventilation, protection against mechanical pressure
- Electrically Conductive Applications: oil spray extraction, gaseous and liquid media extraction
- Dust Collection: manufacturing facilities
- Pharmaceutical and Food Industries: FDA approved conveying of drugs, food (Food Grade)

Flame Resistant Suction and Transport Hoses
- Woodworking Industry: woodworking equipment, chip exhaust, dust collecting and removal, protection hoses
- Exhaustion Plants

Microbe Resistant Suction and Transport Hoses
- Landscape Industry: lawnmowers, grass collectors and sweepers, leaf collectors
- Agricultural Industry: feed transport, grain transport
- Cleaning Industry: cleaning apparatus (ducts)

Exhaust/Intake Gas Hoses
- Automotive Industry: engine testing (smog, performance), construction, diesel engines
- Aircraft Industry: engine testing
- Military: tanks, aircraft (engines)
- Marine: shipbuilding (engines)
- Steel and Wire Manufacturing: exhaust hoses

Suction and Blower Hoses
- HVAC Industry: air conditioning and ventilation systems (temporary applications)
- Manufacturing: exhaust systems
- Outdoor Entertainment: tent HVAC
- Welding Industry: welding and soldering fumes
- Suction Plants
- Insulation Industry: insulation blowers

Medium and High Temperature Hoses
- Chemical Industry: chemical plants
- Automotive Industry: engine construction, diesel fume exhaust
- Plastics Industry: granule dryers
- Paint Industry: paint spray extraction
- Iron and Steel Manufacturing: heat and fume extraction
- Aircraft Industry: engine exhaust
- Shipbuilding: engine fume exhaust
- Heat Treating: air and fume exhaust
- Extreme Heat and Pressure Applications
- Oil and Gas Industry: fume extraction
- Furnace Manufacturing: hot air extraction
- Boiler Manufacturing: high temperature exhaust
- Chemical Hoses
- Chemical Industry: dryers, fume extraction
- Paint Industry: paint spray and solvent extraction
- Wood and Paper Industries: fume exhaust
- Pharmaceutical Industry: fume extraction

Electrically Conductive Hoses
- Wood and Paper Industries: suction and transport of paper, wood chips
- Vacuum Cleaning Industry: industrial vacuums
- Explosive Gas Extraction
- Paint Industry: solvent fume extraction
# Typical Product Applications Chart

<table>
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<tr>
<th>Application</th>
<th>Hose Type</th>
<th>Application</th>
<th>Hose Type</th>
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<tr>
<td>Cable protection</td>
<td>Master PUR STEP, TPR PLUS</td>
<td>Air conditioning</td>
<td>Master Clip VINYL, PE</td>
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<tr>
<td>Cement, concrete</td>
<td>Master PUR H, HH, GOLD, Performance</td>
<td>Air suction</td>
<td>Master Clip VINYL, PE</td>
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<tr>
<td>Dust collection</td>
<td>Master PUR L, H, STEP, GOLD</td>
<td>Air ventilation</td>
<td>Master Clip VINYL, NEOPRENE, PE</td>
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<tr>
<td>Electrically conductive</td>
<td>Master PUR EC hoses</td>
<td>Aircraft engine exhaust</td>
<td>Master Clip HT 1200, 1500, 2010</td>
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<tr>
<td>Flame retardant</td>
<td>Master PUR hoses</td>
<td>Boiler exhaust</td>
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<td>Flour</td>
<td>Master PUR H, HH</td>
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<td>Master Clip PE, NEOPRENE, Acrylic</td>
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<td>Food (dry)</td>
<td>Master PUR hoses</td>
<td>Chemical fumes</td>
<td>Master Clip PTFE, HYPALON®, VITON®, NEOPRENE, KAPTON®</td>
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<td>Glass extraction</td>
<td>Master PUR H, Performance</td>
<td>Cool air movement</td>
<td>Master Clip VINYL, PE</td>
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<td>Glass fibers</td>
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<td>Diesel exhaust</td>
<td>Carflex 570, Master Clip CAR, 750, 850</td>
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<td>Grain</td>
<td>Master PUR H, HH</td>
<td>Dynamometer</td>
<td>Master Clip HT 850, 1000, 1200, 1500</td>
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<tr>
<td>Grease</td>
<td>Master PUR L, GOLD</td>
<td>Electrically conductive conditions</td>
<td>Master Clip EC hoses</td>
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<td>Grinding materials</td>
<td>Master PUR SL, L</td>
<td>Explosive conditions</td>
<td>Master Clip EC hoses</td>
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<tr>
<td>Industrial vacuums</td>
<td>Master PUR L, L, STEP, GOLD</td>
<td>Furnace exhaust</td>
<td>Master Clip SILICONE, 750 thru 2010</td>
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<td>Lawn mowers, collectors</td>
<td>Master PUR L, GOLD</td>
<td>Heat treating</td>
<td>Master Clip SILICONE, 750 thru 2010</td>
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<tr>
<td>Metal chips, dust</td>
<td>Master PUR L, GOLD, Performance</td>
<td>High temperature fume and exhaust</td>
<td>Master Clip SILICONE, 750 thru 2010</td>
</tr>
<tr>
<td>Microbe resistant</td>
<td>Master PUR (MR) hoses, Performance</td>
<td>Insulated hoses</td>
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<tr>
<td>Mining - rock and gravel</td>
<td>Master PUR H, HH, Performance</td>
<td>Insulation blowing</td>
<td>Master Clip PU, PUR STEP</td>
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<tr>
<td>Mulch blowing</td>
<td>Master PUR STEP</td>
<td>Lacquer fume extraction</td>
<td>Master Clip VITON®, PTFE</td>
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<td>Oil mist</td>
<td>Master PUR SL, L, GOLD</td>
<td>Military vehicles, tank exhaust</td>
<td>Master Clip 850, 1000, 1200, 1500</td>
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<tr>
<td>Paper</td>
<td>Master PUR L, H</td>
<td>Oil and gas fume extraction</td>
<td>Master Clip NEOPRENE, SILICONE</td>
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<td>Pharmaceutical products</td>
<td>Master PUR STEP, PUR stainless hoses</td>
<td>Paint fumes</td>
<td>Master Clip VITON®, PTFE</td>
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<td>Master PUR H, HH, Performance</td>
<td>Paper dryers</td>
<td>Master Clip HT 1000, 1200</td>
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<td>Master PUR SL, L, H, STEP, GOLD, Performance</td>
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<td>Protection hoses</td>
<td>Master PUR L, H, STEP</td>
<td>Plastic pellet drying</td>
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<td>Master PUR H, Performance</td>
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<td>Master Clip VINYL, EC</td>
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<tr>
<td>Rail-car loading, unloading</td>
<td>Master PUR HH, Performance</td>
<td>Steel mfg exhaust</td>
<td>Master Clip SILICONE, 750, 850, 1000, 1200</td>
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<tr>
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<td>Master PUR SL, GOLD</td>
<td>Tent heating and ventilation</td>
<td>Master Clip NEOPRENE, PE</td>
</tr>
<tr>
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<td>Master PUR L, H</td>
<td>Vehicle exhaust</td>
<td>Carflex hoses, Hi-temp hoses</td>
</tr>
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<td>Welding fumes</td>
<td>Master Clip SPARK, NEOPRENE</td>
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<td>Silo discharge</td>
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<td></td>
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<tr>
<td>Static dissipative</td>
<td>Master PUR, STEP, Performance</td>
<td></td>
<td></td>
</tr>
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<td>Street cleaning</td>
<td>Master PUR L, H</td>
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<td>Sugar</td>
<td>Master PUR H, HH</td>
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<td>Textiles</td>
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<tr>
<td>Wood chips, sawdust</td>
<td>Master PUR SL, L, H, STEP, GOLD</td>
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</table>
# Antistatic Dust Collection & Material Handling Hoses

## Abrasion-resistant dust collection & material handling hoses

### Master-PUR SL-F

**PU Suction & Transport Hose, super lightweight, antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, highly flexible. hose wall conforms to FDA, smooth inside for optimum flow**

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 2” to 16”
- Color: transparent
- Standard length: to 25’
- **Temperature Range**
  - -22°F to +195°F
  - Intermittent to +260°F

### Master-PUR L-F

**PU Suction & Transport Hose, medium/light weight, antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, very flexible. hose wall conforms to FDA, smooth inside for optimum flow**

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.5” to 16”
- Color: transparent
- Standard length: to 25’
- **Temperature Range**
  - -22°F to +195°F
  - Intermittent to +260°F

### Master-PUR H-F

**PU Suction & Transport Hose, heavyweight, antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, improved vacuum and pressure rating, good flexibility, hose wall conforms to FDA, smooth inside for optimum flow**

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.5” to 16”
- Color: transparent
- Standard length: to 25’
- **Temperature Range**
  - -22°F to +195°F
  - Intermittent to +260°F

### Master-PUR “F” Hose Series

Strips of film, foil or fabric – spiral-shaped with welded overlaps and an embedded profile made from spring steel wire ensures an extremely flexible, highly durable, long lasting hose with a smooth inside to promote optimum flow. Ideal for applications that demand constant movement.

### Master-PUR “X” Hose Series

During the extrusion process, a spring steel wire is moulded into the profile so that it cannot move or twist. The material is then spirally welded onto the overlaps thus ensuring an extremely durable, long lasting hose with a smoother inside for high volume, highly abrasive media. Well suited for applications that require less flexibility.
### Antistatic Dust Collection & Material Handling Hoses

#### Master-PUR HH-F

**PU Suction & Transport Hose, ultra heavyweight,** antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, high vacuum and pressure rating, somewhat flexible, hose wall conforms to FDA, smooth inside for optimum flow

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.5” to 6”
- Color: transparent
- Standard length: to 25’

**Temperature Range**
- -22°F to +195°F
- Intermittent to +260°F

#### Master-PUR L-X

**New, Smoother Inside!**

**PU Suction & Transport Hose, medium/light weight,** antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, very flexible, hose wall conforms to FDA, smooth inside for optimum flow

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.2” to 10”
- Color: transparent
- Standard length: to 25’

**Temperature Range**
- -22°F to +195°F
- Intermittent to +260°F

#### Master-PUR H-X

**New, Smoother Inside!**

**PU Suction & Transport Hose, heavy weight,** antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, improved vacuum and pressure rating, good flexibility, hose wall conforms to FDA, smooth inside for optimum flow

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.2” to 8”
- Color: transparent
- Standard length: to 25’

**Temperature Range**
- -22°F to +195°F
- Intermittent to +260°F

#### Master-PUR HH-X

**New, Smoother Inside!**

**PU Suction & Transport Hose, ultra heavyweight,** antistatic, surface resistance $R_s < 10^9$ Ohm, flame-resistant, high vacuum and pressure rating, somewhat flexible, hose wall conforms to FDA, smooth inside for optimum flow

**Applications**
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust
- Oil mist extraction/suction
- Wet/dry process conveyance
- Food grade
- Pharmaceutical industry

**Available in:**
- ID: 1.2” to 4”
- Color: transparent
- Standard length: to 25’

**Temperature Range**
- -22°F to +195°F
- Intermittent to +260°F

#### Master-PUR Performance

**PU Suction & Transport Hose, extremely abrasion/vacuum-resistant, totally smooth inner lining, antistatic, surface resistance $R_s < 10^9$ Ohm, microbe-resistant**

**Applications**
- Transport of problematic media, e.g. sand, gravel, grain, granules, as well as for conveyance, handling and loading plan
- Everywhere where easy-to-clean surfaces are required
- Suction/transport hose for extremely abrasive solid, liquid and gaseous media
- Transports of glass works, steelworks, quarries, shipyards, docks, flat-roof graveling, etc.

**Available in:**
- ID: 1.5” to 6”
- Color: transparent
- Standard length: to 33’

**Temperature Range**
- -22°F to +195°F
- Intermittent to +260°F
### Antistatic Dust Collection & Material Handling Hoses

#### Master-PUR STEP

- **PU Film hose, antistatic, surface resistance** $R_0 < 10^6$ Ohm, flame-resistant, crush-resistant, hose wall conforms to FDA, highly flexible
- **Applications**
  - Suction & transport of abrasive solids, liquids and gases
  - Ideal for floor-level areas where conventional hoses are subjected to rough conditions and can be permanently deformed
  - Wood processing
  - Protective hose
- **Available in:**
  - ID: 2" to 6.4"
  - Color: hose wall clear with blue spiral
  - Standard length: to 25' **Temperature Range**
    - -22°F to +195°F
  - Intermittent to +260°F

#### Master-PUR GOLD

- **Polyurethane reinforced hose with woven polyester fabric, lightweight, good flexibility, solvent/adhesive free for increased temperatures**
- **Applications**
  - Suction/transport of abrasive solids, gases, liquids, fine-grained particles, e.g. dust, wood dust & powder
  - Medium temperature applications
  - Woodworking industry
  - Lawn industry
  - Liquid media
- **Available in:**
  - ID: 3" to 16"
  - Color: hose wall black with gold spiral
  - Standard length: to 25' **Temperature Range**
    - -22°F to +300°F
  - Intermittent to +325°F

#### Master-TPR PLUS

- **Suction & Transport Hose made with a thermoplastic elastomer reinforced fabric, lightweight, good chemical resistance to alkalies, acids and solvent gases, smooth inside for optimum flow**
- **Applications**
  - Dust collection hose for the woodworking industry
  - Fume extraction/welding arm
  - Drying/plastics equipment
  - Air-conditioning/ventilation systems
  - Robotic arm covers
  - Light material handling
  - General purpose applications
- **Available in:**
  - ID: 2" to 16"
  - Color: black
  - Standard length: to 25' **Temperature Range**
    - -60°F to +275°F
  - Intermittent to +300°F

---

*Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.*
### Food & Pharmaceutical Hoses

Hoses made from Polyester-Polyurethane and conform to FDA food contact, for almost any application in the Food & Pharmaceutical industries

<table>
<thead>
<tr>
<th>Master-PUR SL-F-SS</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| PU Suction & Transport Hose with stainless steel helix, **super lightweight**, antistatic, surface resistance $R_s < 10^{11}$ Ohm, flame-resistant, hose wall conforms to FDA, **highly flexible**, smooth inside for optimum flow | • Food industry  
• Pharmaceutical industry  
• Suction/transport hose for abrasive materials  
• Clean room applications  
• Gaseous and liquid media  
• Transport of small particle dusts and powders  
• Wet/dry process conveyance  
• Stainless steel requirements | ID: 1.6” to 16”  
Color: transparent  
Standard length: to 25’  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |

<table>
<thead>
<tr>
<th>Master-PUR L-F-SS</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| PU Suction & Transport Hose with stainless steel helix, **medium/light weight**, antistatic, surface resistance $R_s < 10^{11}$ Ohm, flame-resistant, hose wall conforms to FDA, **very flexible**, smooth inside for optimum flow | • Food industry  
• Pharmaceutical industry  
• Suction/transport hose for abrasive materials  
• Clean room applications  
• Gaseous and liquid media  
• Transport of small particle dusts and powders  
• Wet/dry process conveyance  
• Stainless steel requirements | ID: 1.5” to 16”  
Color: transparent  
Standard length: to 25’  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |

<table>
<thead>
<tr>
<th>Master-PUR H-F-SS</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| PU Suction & Transport Hose with stainless steel helix, **heavyweight**, antistatic, surface resistance $R_s < 10^{11}$ Ohm, flame-resistant, hose wall conforms to FDA, **good flexibility**, smooth inside for optimum flow | • Food industry  
• Pharmaceutical industry  
• Suction/transport hose for abrasive materials  
• Clean room applications  
• Gaseous and liquid media  
• Transport of small particle dusts and powders  
• Wet/dry process conveyance  
• Stainless steel requirements | ID: 1.5” to 16”  
Color: transparent  
Standard length:  
1.5” to 10” - 25’  
11” to 16” - 10’  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |
# Food & Pharmaceutical Hoses

## Master-PUR HH-F-SS

**Available in:**  
ID: 1.6” to 6”  
Color: transparent  
Standard length: to 10’  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F  

**Applications**  
- Food industry  
- Pharmaceutical industry  
- Suction/transport hose for abrasive materials  
- Clean room applications  
- Gaseous and liquid media  
- Transport of small particle dusts and powders  
- Wet/dry process conveyance  
- Stainless steel requirements  

**Suction & Transport Hose**  
Hose with stainless steel helix, **ultra heavyweight**, antistatic, surface resistance $R_s < 10^{11}$ Ohm, flame-resistant, hose wall conforms to FDA, **somewhat flexible**, smooth inside for optimum flow characteristics, highly flexible

## Master-Clip PTFE-FG-SS

**Available in:**  
ID: 3” to 14”  
Color: natural  
Standard length: to 25'  
**Temperature Range**  
-290°F to +600°F  

**Applications**  
- Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings & dust  
- Oil mist extraction/suction  
- Wet/dry process conveyance  
- Food grade  
- Pharmaceutical industry  
- Stainless steel requirements  

**Suction & Transport Hose**  
Hose, laminated PTFE fabric, stainless steel helix, excellent chemical/weather resistance, good tear strength, hose wall non-stick material for optimum flow characteristics, highly flexible

## Master-PUR STEP

**Available in:**  
ID: 2” to 6.4”  
Color: hose wall clear with blue spiral  
Standard length: to 25’  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F  

**Applications**  
- Food industry  
- Pharmaceutical industry  
- Suction & transport of abrasive solids, liquids and gases  
- Ideal for floor-level areas where conventional hoses are subjected to rough conditions and can be permanently deformed  
- Protective hose  

**PU Film hose**  
antistatic, surface resistance $R_s < 10^{11}$ Ohm, flame-resistant, crush-resistant, hose wall conforms to FDA, highly flexible  

---

**Crush-resistant**  
**antistatic**  
**flame-resistant**  
**conforms to FDA food contact**
Antistatic & Electrically Conductive Hoses

For preventing danger of ignition through electrostatic charges

| Master-PUR SL-F-EC | Application | Available in:  
|---|---|---|
| PU Suction & Transport Hose, *super lightweight*, electroconductive, $R_o < 10^4$ Ohm, highly abrasion-resistant, improved pressure and vacuum characteristics, *highly flexible*, smooth inside for optimum flow | • Suction/extraction of paper & textile fibers  
• Suction/transport of abrasive solids, liquids, gases and particles with high flow volume  
• Oil mist extraction/suction  
• Protective hose against mechanical wear  
• Special hose for industrial vacuum cleaners  
• Danger zones, which require electrically conductive hoses | ID: 2” to 16”  
Color: black  
Standard length: to 25'  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |

| Master-PUR L-F-EC | Application | Available in:  
|---|---|---|
| PU Suction & Transport Hose, *medium/light weight*, electroconductive, $R_o < 10^4$ Ohm, highly abrasion-resistant, improved pressure and vacuum characteristics, *very flexible*, smooth inside for optimum flow | • Suction/extraction of paper & textile fibers  
• Suction/transport of abrasive solids, liquids, gases and particles with high flow volume  
• Oil mist extraction/suction  
• Protective hose against mechanical wear  
• Special hose for industrial vacuum cleaners  
• Danger zones, which require electrically conductive hoses | ID: 2” to 16”  
Color: black  
Standard length: to 25'  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |

| Master-PUR H-F-EC | Application | Available in:  
|---|---|---|
| PU Suction & Transport Hose, *heavyweight*, electroconductive, $R_o < 10^4$ Ohm, highly abrasion-resistant, improved pressure and vacuum characteristics, *good flexibility*, smooth inside for optimum flow | • Suction/extraction of paper & textile fibers  
• Suction/transport of abrasive solids, liquids, gases and particles with high flow volume  
• Oil mist extraction/suction  
• Protective hose against mechanical wear  
• Special hose for industrial vacuum cleaners  
• Danger zones, which require electrically conductive hoses | ID: 2” to 16”  
Color: black  
Standard length: to 25'  
**Temperature Range**  
-22°F to +195°F  
Intermittent to +260°F |
## Antistatic & Electrically Conductive Hoses

<table>
<thead>
<tr>
<th>Master-Clip VINYL A</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose made from PVC-coated polyester fabric, antistatic, surface resistance $R_s < 10^6$ Ohm | • For greater safety requirements  
• Air-conditioning & ventilation systems  
• Air supply & extraction  
• Low pressure range  
• Extractor units | ID: 2.6” to 36”  
Color: gray  
Standard length: to 25'  
Temperature Range  
-5°F to +160°F  
Intermittent to +175°F |

<table>
<thead>
<tr>
<th>Master-Clip VINYL EC</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose made from PVC-coated polyester fabric, electroconductive, $R_s < 10^6$ Ohm | • Danger zones, which require electrically conductive hoses  
• Suction & conveyance of aggressive media, explosive gases & fumes  
• Air supply & extraction in explosion-protected areas  
• For greater mechanical demands  
• Low pressure range  
• Extractor units | ID: 2.6” to 36”  
Color: black  
Standard length: to 25'  
Temperature Range  
-5°F to +160°F  
Intermittent to +175°F |

<table>
<thead>
<tr>
<th>Master-Clip PTFE S-EC</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose for corrosive media up to +480°F, electroconductive, $R_s < 10^6$ Ohm | • Danger zones, which require electrically conductive hoses  
• Suction & conveyance of aggressive media, explosive gases & fumes  
• Paint mist extraction  
• Paint, wood and paper industry  
• Solvent extraction  
• Pharmaceuticals industry  
• Low pressure range  
• Chemicals industry | ID: 3” to 36”  
Color: inside black, outside silver-gray  
Standard length: to 25'  
Temperature Range  
-5°F to +480°F  
Intermittent to +520°F |

<table>
<thead>
<tr>
<th>Master-Clip PTFE H-EC</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose for corrosive media up to +350°F, electroconductive, $R_s < 10^6$ Ohm | • Danger zones, which require electrically conductive hoses  
• Suction & conveyance of aggressive media, explosive gases & fumes  
• Paint mist extraction  
• Paint, wood and paper industry  
• Solvent extraction  
• Pharmaceuticals industry  
• Low pressure range  
• Chemicals industry | ID: 2.6” to 36”  
Color: black  
Standard length: to 25'  
Temperature Range  
-40°F to +350°F  
Intermittent to +375°F |
Air-Conditioning, Ventilation & Welding Fumes Hoses

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

<table>
<thead>
<tr>
<th>Master-Clip UHMW-PE</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose made from an ultra-high molecular weight Polyethylene fabric, environmentally friendly | • Air-conditioning & ventilation systems  
• Air supply & extraction  
• Vacuum devices for asbestos removal  
• Grass collectors and lawn mowers  
• Light material handling  
• Dust collection  
• Low pressure range  
• Extractor units | ID: 3” to 36”  
Color: transparent  
Standard length: to 25’  
Temperature Range  
-40°F to +195°F |

<table>
<thead>
<tr>
<th>Master-Clip PE</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose made from an Polyethylene fabric, environmentally friendly | • Air-conditioning & ventilation systems  
• Air supply & extraction  
• Vacuum devices for asbestos removal  
• Low pressure range  
• Extractor units | ID: 2.5” to 36”  
Color: transparent  
Standard length: to 25’  
Temperature Range  
-40°F to +185°F Intermittent to +260°F |

<table>
<thead>
<tr>
<th>Master-Clip VINYL A</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose made from PVC-coated polyester fabric, antistatic, surface resistance $R_s < 10^8$ Ohm | • For greater safety requirements  
• Air-conditioning & ventilation systems  
• Air supply & extraction  
• Low pressure range  
• Extractor units | ID: 2.6” to 36”  
Color: gray  
Standard length: to 25’  
Temperature Range  
-5°F to +160°F Intermittent to +175°F |
### Master-Clip VINYL B

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose | - Air-conditioning & ventilation systems
- Air supply & extraction
- Tent ventilation
- Solder fume extraction
- Low pressure range
- Extractor units | ID: 2.6” to 36”
Color: yellow
Standard length: to 25’
**Temperature Range**
-5°F to +160°F
Intermittent to +175°F |

*Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.*

### Master-Clip PUR

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Blower Hose | - Suction/extraction of abrasive solids
- Air-conditioning & ventilation systems
- Low pressure range | ID: 2.5” to 36”
Color: black
Standard length: to 25’
**Temperature Range**
-40°F to +195°F |

### Master-NEO 2

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Medium & high temperature hose up to +300°F, double-layered | - Chemicals industry
- Conveyance of air & gaseous media with high nominal and ambient temperatures
- Hot air hose for granulate dryer
- Machine & engine manufacturing
- Shipbuilding
- Plastic processing industry
- Waste incineration plants
- Automotive & aircraft manufacturing | ID: 1” to 12”
Color: black
Standard length: to 13’
**Temperature Range**
-65°F to +300°F |

### Master-SIL 2

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Medium & high temperature hose up to +600°F, double-layered | - Chemicals industry
- Conveyance of air & gaseous media with high nominal and ambient temperatures
- Hot air hose for granulate dryer
- Machine & engine manufacturing
- Shipbuilding
- Plastic processing industry
- Waste incineration plants
- Automotive & aircraft manufacturing | ID: 1” to 12”
Color: orange
Standard length: 13’ (1”-12” dia), 20’ (2”, 2.5”, 3”, 4”, 5”, 6”, 8” dia)
**Temperature Range**
-75°F to +600°F |

### Master-TPR PLUS

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Applications</th>
<th>Available in:</th>
</tr>
</thead>
</table>
| Suction & Transport Hose made with a thermoplastic elastomer reinforced fabric, lightweight, good chemical resistance to alkalies, acids and solvent gases, smooth inside for optimum flow | - Dust collection hose for the woodworking industry
- Fume extraction/welding arm
- Drying/plastics equipment
- Air-conditioning/ventilation systems
- Robotic arm covers
- Light material handling
- General purpose applications | ID: 2” to 16”
Color: black
Standard length: to 25’
**Temperature Range**
-60°F to +275°F
Intermittent to +300°F |
### Master-PUR GOLD

**Applications**
- Suction/transport of abrasive solids, gases, liquids, fine-grained particles, e.g. dust, wood dust & powder
- Medium temperature applications
- Woodworking industry
- Laboratory applications
- Chemical fumes

**Available in:**
- ID: 3” to 16”
- Color: hose wall black with gold spiral
- Standard length: to 25'

**Temperature Range**
- -22°F to +300°F
- Intermittent to +325°F

### Master-Clip Fume Duct

**Applications**
- Welding industry
- Cutting
- Gases
- Grinding
- Pharmaceutical dust
- Plasma cutting
- Laboratory applications
- Chemical fumes

**Available in:**
- ID: 4” to 12”
- Color: blue or black
- Standard length: 10’ to 30’

**Temperature Range**
- -50°F up to +195°F
- Intermittent to +230°F

### Master-Clip SPARK

**Applications**
- Suction/extraction of abrasive solids
- Filling plants
- Welding industry
- Plasma cutting
- Low pressure range

**Available in:**
- ID: 2.5” to 36”
- Color: black
- Standard length: to 25'

**Temperature Range**
- -30°F to +300°F
- Intermittent to +350°F

### Master-Clip NEOPRENE

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Automotive manufacturing
- Welding industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: gray
- Standard length: to 25'

**Temperature Range**
- -5°F to +1950°F
- Intermittent to +230°F

### Master-Clip NEOPRENE H

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Automotive manufacturing
- Higher vacuum applications
- Welding industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: black
- Standard length: to 25'

**Temperature Range**
- -30°F to +300°F
- Intermittent to +350°F

---

- Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.
### Exhaust Fume Hoses

Hoses for suction/extraction of exhaust fumes from combustion engines at high temperatures

<table>
<thead>
<tr>
<th><strong>Carflex Super</strong></th>
<th><strong>Applications</strong></th>
<th><strong>Available in:</strong></th>
</tr>
</thead>
</table>
| Exhaust hose for exhaust fumes/gases up to +300°F, super lightweight, crush-resistant | • Suction/extraction of engine exhaust fumes up to max. +300°F  
• Permanently rollover-proof exhaust hose  
• Medium wear during extraction of petrol & diesel engine exhaust fumes  
• All conventional exhaust systems, such as:  
  - Exhaust Hose Reel  
  - Suction Rail System  
  - Upper/Lower Floor Systems  
  - Stationary Systems | ID: 2.5” to 8”  
Color: hose wall black, red spiral  
Standard length: to 25'  
**Temperature Range**  
Exhaust gas temperatures up to +300°F |

<table>
<thead>
<tr>
<th><strong>Master-Clip NEOPRENE</strong></th>
<th><strong>Applications</strong></th>
<th><strong>Available in:</strong></th>
</tr>
</thead>
</table>
| Medium & high temperature hose up to +300°F, Neoprene-coated fabric | • Air-conditioning & ventilation systems  
• Engine manufacturing  
• Exhaust gas extraction  
• Suction/extraction of aggressive media  
• Transport of hot & cold air  
• Automotive manufacturing  
• Welding industry  
• Low pressure range  
• Chemicals industry | ID: 2.5” to 36”  
Color: black  
Standard length: to 25'  
**Temperature Range**  
-30°F to +300°F  
Intermittent to +375°F |

<table>
<thead>
<tr>
<th><strong>Carflex 350</strong></th>
<th><strong>Applications</strong></th>
<th><strong>Available in:</strong></th>
</tr>
</thead>
</table>
| Exhaust gas hose for exhaust fumes/gases up to +350°F | • Suction/extraction of engine exhaust fumes up to max. +350°F  
• Light to medium wear during extraction of petrol & diesel engine exhaust fumes  
• All conventional exhaust systems, such as:  
  - Exhaust Hose Reel  
  - Suction Rail System  
  - Upper/Lower Floor Systems  
  - Stationary Systems | ID: 3” to 8”  
Color: black, blue outer abrasion protector  
Standard length: to 25'  
**Temperature Range**  
Exhaust gas temperatures up to +350°F |
# Exhaust Gas Hoses

## Carflex CF

- **Exhaust gas hose for exhaust fumes/gases up to +570°F, double-layered**

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suction/extraction of engine exhaust fumes up to max. +570°F</td>
</tr>
<tr>
<td>• High stress during extraction of petrol &amp; diesel engine exhaust fumes</td>
</tr>
<tr>
<td>• All conventional exhaust systems, such as:</td>
</tr>
<tr>
<td>- Exhaust Hose Reel</td>
</tr>
<tr>
<td>- Suction Rail System</td>
</tr>
<tr>
<td>- Upper/Lower Floor Systems</td>
</tr>
<tr>
<td>- Stationary Systems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID: 3” to 12”</td>
</tr>
<tr>
<td>Color: hose wall black, outer abrasion protector red</td>
</tr>
<tr>
<td>Standard length: to 25’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust gas temperatures up to +570°F</td>
</tr>
</tbody>
</table>

## Carflex 570

- **Exhaust gas hose for exhaust fumes/gases up to +570°F**

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suction/extraction of engine exhaust fumes up to max. +570°F</td>
</tr>
<tr>
<td>• High stress during extraction of petrol &amp; diesel engine exhaust fumes</td>
</tr>
<tr>
<td>• All conventional exhaust systems, such as:</td>
</tr>
<tr>
<td>- Exhaust Hose Reel</td>
</tr>
<tr>
<td>- Suction Rail System</td>
</tr>
<tr>
<td>- Upper/Lower Floor Systems</td>
</tr>
<tr>
<td>- Stationary Systems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID: 3” to 12”</td>
</tr>
<tr>
<td>Color: hose wall green-gray, outer abrasion protector red</td>
</tr>
<tr>
<td>Standard length: to 25’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaust gas temperatures up to +570°F</td>
</tr>
</tbody>
</table>

## Master-Clip CAR

- **Medium & high temperature hose up to +570°F**

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Machine manufacturing</td>
</tr>
<tr>
<td>• Automotive manufacturing</td>
</tr>
<tr>
<td>• Low pressure range</td>
</tr>
<tr>
<td>• Extractor units</td>
</tr>
<tr>
<td>• Exhaust extraction (engine manufacturing)</td>
</tr>
<tr>
<td>• Hot air</td>
</tr>
<tr>
<td>• Smoke extractors</td>
</tr>
<tr>
<td>• Defense systems</td>
</tr>
<tr>
<td>• Aircraft manufacturing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID: 2.5” to 36”</td>
</tr>
<tr>
<td>Color: inside black, outside green</td>
</tr>
<tr>
<td>Standard length: to 25’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-75°F to +570°F</td>
</tr>
<tr>
<td>Intermittent to +660°F</td>
</tr>
</tbody>
</table>

## Master-Clip ISO CAR

- **Medium & high temperature hose up to +570°F, double-layered**

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Diesel engine test-benches with higher extraction performance</td>
</tr>
<tr>
<td>• Machine manufacturing</td>
</tr>
<tr>
<td>• Automotive manufacturing</td>
</tr>
<tr>
<td>• Low pressure range</td>
</tr>
<tr>
<td>• Extractor units</td>
</tr>
<tr>
<td>• Hot air</td>
</tr>
<tr>
<td>• Smoke extractors</td>
</tr>
<tr>
<td>• Defense systems</td>
</tr>
<tr>
<td>• Aircraft manufacturing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID: 2.5” to 36”</td>
</tr>
<tr>
<td>Color: silver-gray, outside green-gray</td>
</tr>
<tr>
<td>Standard length: to 25’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-75°F to +570°F</td>
</tr>
<tr>
<td>Intermittent to +660°F</td>
</tr>
</tbody>
</table>

## Master-Clip SILICONE

- **Medium & high temperature hose up to +570°F**

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engine manufacturing</td>
</tr>
<tr>
<td>• Hot &amp; cold air conveyance</td>
</tr>
<tr>
<td>• Machine manufacturing</td>
</tr>
<tr>
<td>• Automotive manufacturing</td>
</tr>
<tr>
<td>• Low pressure range</td>
</tr>
<tr>
<td>• Extractor units</td>
</tr>
<tr>
<td>• Defense systems</td>
</tr>
<tr>
<td>• Aircraft manufacturing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID: 2.5” to 36”</td>
</tr>
<tr>
<td>Color: silver-gray</td>
</tr>
<tr>
<td>Standard length: to 25’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temperature Range*</th>
</tr>
</thead>
<tbody>
<tr>
<td>-75°F to +570°F</td>
</tr>
<tr>
<td>Intermittent to +625°F</td>
</tr>
</tbody>
</table>

---

*Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.*
Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.

### Exhaust Gas Hoses

#### Master-Clip SILICONE H
- **Medium & high temperature hose up to +570°F**
- **Applications**
  - Engine and machine manufacturing
  - Hot & cold air conveyance
  - Automotive manufacturing
  - Low pressure range
  - Extractor units
  - Defense systems
  - Aircraft manufacturing
  - Especially recommended for diesel applications due to heavier coating than Master-Clip Silicone
- **Available in:**
  - ID: 3” to 36”
  - Color: blue
  - Standard length: to 25’
  - **Temperature Range**
    - -75°F to +570°F
    - Intermittent to +625°F

#### Master-Clip ISO-SILICONE
- **Medium & high temperature hose up to +570°F, double-layered**
- **Applications**
  - Engine manufacturing
  - Hot & cold air conveyance
  - Extractor units with greater suction performance
  - Automotive manufacturing
  - Low pressure range
  - Defense systems
  - Aircraft manufacturing
- **Available in:**
  - ID: 2.5” to 36”
  - Color: silver-gray
  - Standard length: to 25’
  - **Temperature Range**
    - -75°F to +570°F
    - Intermittent to +625°F

#### Master-SIL 2
- **Medium & high temperature hose up to +600°F, double-layered**
- **Applications**
  - Chemicals industry
  - Conveyance of air & gaseous media with high nominal and ambient temperatures
  - Hot air hose for granulate dryer
  - Machine & engine manufacturing
  - Shipbuilding
  - Plastic processing industry
  - Waste incineration plants
  - Automotive & aircraft manufacturing
- **Available in:**
  - ID: 1” to 12”
  - Color: orange
  - Standard length: 13’ (1”-12” dia), 20’ (2”, 2.5”, 3”, 4”, 5”, 6”, 8” dia)
  - **Temperature Range**
    - -75°F to +600°F
    - Intermittent to +660°F

#### Master-SIL 2 NOMEX
- **Medium & high temperature hose up to +600°F, double-layered**
- **Applications**
  - Chemicals industry
  - Conveyance of air & gaseous media with high nominal and ambient temperatures
  - Hot air hose for granulate dryer
  - Machine & engine manufacturing
  - Shipbuilding
  - Plastic processing industry
  - Waste incineration plants
  - Automotive & aircraft manufacturing
- **Available in:**
  - ID: 1” to 12”
  - Color: orange
  - Standard length: 13’ (1”-12” dia), 20’ (2”, 2.5”, 3”, 4”, 5”, 6”, 8” dia)
  - **Temperature Range**
    - -75°F to +600°F
    - Intermittent to +660°F

#### Master-Clip HT 750
- **Medium & high temperature hose up to +750°F**
- **Applications**
  - Suction plants
  - Hot air conveyance
  - Furnace construction
  - Iron and steel works
  - Engine manufacturing
  - Radiant heat protection
  - Primarily suited as extraction hose
  - Low pressure applications
- **Available in:**
  - ID: 2.5” to 36”
  - Color: inside silver, outside red
  - Standard length: to 25’
  - **Temperature Range**
    - -5°F to +750°F
    - Intermittent to +840°F
### Master-Clip HT 850
- **Medium & high temperature hose up to +850°F**
- **Applications**
  - Vehicle exhaust systems, esp. diesel
  - Suction plants
  - Hot air conveyance
  - Furnace construction
  - Engine manufacturing
  - All conventional exhaust systems, such as:
    - Exhaust Hose Reel
    - Suction Rail System
    - Upper/Lower Floor Systems
    - Stationary Systems
- **Available in:**
  - ID: 3" to 36"
  - Color: orange
  - Standard length: to 25'
  - **Temperature Range**
    - -5°F to +850°F
    - Intermittent to +950°F

### Master-Clip HT 1000
- **Medium & high temperature hose up to +1000°F**
- **Applications**
  - Suction plants
  - Hot air conveyance
  - Furnace construction
  - Iron and steel works
  - Engine manufacturing
  - Radiant heat protection
  - Primarily suited as extraction hose
  - Low pressure applications
- **Available in:**
  - ID: 2.5" to 36"
  - Color: silver
  - Standard length: to 25'
  - **Temperature Range**
    - -5°F to +1000°F
    - Intermittent to +1100°F

### Master-Clip HT 1200
- **Medium & high temperature hose up to +1200°F**
- **Applications**
  - Oven manufacturing & heat protection
  - Automotive, aircraft & shipbuilding industries
  - Defense systems
  - Mining & steel industry
  - Exhaust gas extraction for high-performance engine test-benches in the automotive industry
  - Exhaust gas extraction for larger engines
  - Dynamometer testing
- **Available in:**
  - ID: 2.5" to 36"
  - Color: red
  - Standard length: to 25'
  - **Temperature Range**
    - -5°F to +1200°F
    - Intermittent to +1300°F

### Master-Clip HT 1500
- **Medium & high temperature hose up to +1500°F**
- **Applications**
  - Oven manufacturing & heat protection
  - Automotive, aircraft & shipbuilding industries
  - Defense systems
  - Mining & steel industry
  - Exhaust gas extraction for high-performance engine test-benches in the automotive industry
  - Exhaust gas extraction for larger engines
- **Available in:**
  - ID: 3" to 36"
  - Color: silver
  - Standard length: to 25'
  - **Temperature Range**
    - -5°F to +1500°F
    - Intermittent to +1680°F

### Master-Clip HT 2010
- **Medium & high temperature hose up to +2010°F**
- **Applications**
  - Oven manufacturing & heat protection
  - Automotive, aircraft & shipbuilding industries
  - Defense systems
  - Mining & steel industry
  - Exhaust gas extraction for high-performance engine test-benches in the automotive industry
  - Exhaust gas extraction for larger engines
  - Dynamometer testing
- **Available in:**
  - ID: 3" to 36"
  - Color: red
  - Standard length: to 25'
  - **Temperature Range**
    - -75°F to +2010°F
    - Intermittent to +2370°F

---

Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.
## Chemical-Resistant Hoses

**Suction & transport hoses for aggressive gases & fine-particled media such as dusts and powders in the chemicals industry**

### Master-Clip PTFE

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suction/transport hose of corrosive media</td>
</tr>
<tr>
<td>• Paint mist extraction</td>
</tr>
<tr>
<td>• Solvent extraction</td>
</tr>
<tr>
<td>• Paint, wood and paper industries</td>
</tr>
<tr>
<td>• Chemical plants</td>
</tr>
<tr>
<td>• Pharmaceutical industry</td>
</tr>
<tr>
<td>• Low pressure applications</td>
</tr>
</tbody>
</table>

**Available in:**

- **ID:** 2.5” to 36”
- **Color:** light brown
- **Standard length:** to 25’

**Temperature Range**

-235°F to +480°F

**Intermittent to +520°F**

### Master-Clip PTFE MP

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suction/transport of abrasive solids, paper fibers, granules, liquids, gases, rough-grained media with a high flow-rate, e.g. wood shavings &amp; dust</td>
</tr>
<tr>
<td>• Oil mist extraction/suction</td>
</tr>
<tr>
<td>• Wet/dry process conveyance</td>
</tr>
<tr>
<td>• Food grade</td>
</tr>
<tr>
<td>• Pharmaceutical industry</td>
</tr>
</tbody>
</table>

**Available in:**

- **ID:** 2.5” to 16”
- **Color:** natural
- **Standard length:** to 25”

**Temperature Range**

-290°F to +600°F

### Master-Clip PTFE H

<table>
<thead>
<tr>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Suction &amp; conveyance of aggressive media, explosive gases &amp; fumes</td>
</tr>
<tr>
<td>• Paint mist extraction</td>
</tr>
<tr>
<td>• Paint, wood and paper industry</td>
</tr>
<tr>
<td>• Solvent extraction</td>
</tr>
<tr>
<td>• Pharmaceuticals industry</td>
</tr>
<tr>
<td>• Low pressure range</td>
</tr>
<tr>
<td>• Chemicals industry</td>
</tr>
</tbody>
</table>

**Available in:**

- **ID:** 2.5” to 36”
- **Color:** inside white, outside black
- **Standard length:** to 25”

**Temperature Range**

-40°F to +350°F

**Intermittent to +375°F**
## Chemical-Resistant Hoses

### Master-Clip PTFE S

**Applications**
- Suction & conveyance of aggressive media, explosive gases & fumes
- Paint mist extraction
- Paint, wood and paper industry
- Solvent extraction
- Pharmaceuticals industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 3” to 36”
- Color: inside black, outside silver-gray
- Standard length: to 25’

**Temperature Range**
-90°F to +480°F
- Intermittent to +520°F

**Medium & high temperature hose**
up to +480°F

### Master-Clip NEOPRENE

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Automotive manufacturing
- Welding industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: black
- Standard length: to 25’

**Temperature Range**
-30°F to +300°F
- Intermittent to +375°F

**Medium & high temperature hose**
up to +300°F

### Master-Clip HYPALON®

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Granulate drying
- Standard industrial hose
- Automotive manufacturing
- Low pressure range
- Extractor units

**Available in:**
- ID: 2.5” to 36”
- Color: outside black, inside green
- Standard length: to 25’

**Temperature Range**
-40°F to +350°F
- Intermittent to +375°F

**Medium & high temperature hose**
up to +350°F

### Master-Clip VITON®

**Applications**
- Paint mist extraction
- Suction/extraction of aggressive media in medium temperature range
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: red
- Standard length: to 25’

**Temperature Range**
-15°F to +410°F
- Intermittent to +465°F

**Medium & high temperature hose**
up to +410°F

### Master-Clip KAPTON®

**Applications**
- Suction of aggressive gases at high temperatures
- Exhaust gas routing in gauge pressure & low pressure ranges
- Vehicle & engine manufacturing
- Exhaust gas extraction for high-performance
- Engine test-benches in the automotive industry

**Available in:**
- ID: 2.6” to 36”
- Color: inside black, outside silver-gray
- Standard length: to 25’

**Temperature Range**
-435°F to +480°F

**Medium & high temperature hose**
up to +750°F, excellent chemical resistance

### Master-Clip PTFE S

**Applications**
- Suction & conveyance of aggressive media, explosive gases & fumes
- Paint mist extraction
- Paint, wood and paper industry
- Solvent extraction
- Pharmaceuticals industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 3” to 36”
- Color: inside black, outside silver-gray
- Standard length: to 25’

**Temperature Range**
-90°F to +480°F
- Intermittent to +520°F

**Medium & high temperature hose**
up to +480°F

### Master-Clip NEOPRENE

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Automotive manufacturing
- Welding industry
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: black
- Standard length: to 25’

**Temperature Range**
-30°F to +300°F
- Intermittent to +375°F

**Medium & high temperature hose**
up to +300°F

### Master-Clip HYPALON®

**Applications**
- Air-conditioning & ventilation systems
- Engine manufacturing
- Exhaust gas extraction
- Suction/extraction of aggressive media
- Transport of hot & cold air
- Granulate drying
- Standard industrial hose
- Automotive manufacturing
- Low pressure range
- Extractor units

**Available in:**
- ID: 2.5” to 36”
- Color: outside black, inside green
- Standard length: to 25’

**Temperature Range**
-40°F to +350°F
- Intermittent to +375°F

**Medium & high temperature hose**
up to +350°F

### Master-Clip VITON®

**Applications**
- Paint mist extraction
- Suction/extraction of aggressive media in medium temperature range
- Low pressure range
- Chemicals industry

**Available in:**
- ID: 2.5” to 36”
- Color: red
- Standard length: to 25’

**Temperature Range**
-15°F to +410°F
- Intermittent to +465°F

**Medium & high temperature hose**
up to +410°F

### Master-Clip KAPTON®

**Applications**
- Suction of aggressive gases at high temperatures
- Exhaust gas routing in gauge pressure & low pressure ranges
- Vehicle & engine manufacturing
- Exhaust gas extraction for high-performance
- Engine test-benches in the automotive industry

**Available in:**
- ID: 2.6” to 36”
- Color: inside yellow-gold, outside white
- Standard length: to 25’

**Temperature Range**
-435°F to +750°F

**Medium & high temperature hose**
up to +750°F, excellent chemical resistance
<table>
<thead>
<tr>
<th>Chemical-Resistant Hoses</th>
<th>Master-Clip SILICONE</th>
<th>Master-NEO 2</th>
<th>Master-SIL 2</th>
<th>Master-TPR PLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications</td>
<td>Engine manufacturing</td>
<td>Chemicals industry</td>
<td>Chemicals industry</td>
<td>Dust collection hose for the woodworking industry</td>
</tr>
<tr>
<td></td>
<td>Hot &amp; cold air conveyance</td>
<td>Conveyance of air &amp; gaseous media with high nominal and ambient temperatures</td>
<td>Conveyance of air &amp; gaseous media with high nominal and ambient temperatures</td>
<td>Fume extraction/welding arm</td>
</tr>
<tr>
<td></td>
<td>Machine manufacturing</td>
<td>Hot air hose for granulate dryer</td>
<td>Hot air hose for granulate dryer</td>
<td>Drying/plastics equipment</td>
</tr>
<tr>
<td></td>
<td>Automotive manufacturing</td>
<td>Machine &amp; engine manufacturing</td>
<td>Machine &amp; engine manufacturing</td>
<td>Air-conditioning/ventilation systems</td>
</tr>
<tr>
<td></td>
<td>Low pressure range</td>
<td>Shipbuilding</td>
<td>Shipbuilding</td>
<td>Robotic arm covers</td>
</tr>
<tr>
<td></td>
<td>Extractor units</td>
<td>Plastic processing industry</td>
<td>Plastic processing industry</td>
<td>Light material handling</td>
</tr>
<tr>
<td></td>
<td>Defense systems</td>
<td>Waste incineration plants</td>
<td>Waste incineration plants</td>
<td>General purpose applications</td>
</tr>
<tr>
<td></td>
<td>Automotive &amp; aircraft manufacturing</td>
<td>Automotive &amp; aircraft manufacturing</td>
<td>Automotive &amp; aircraft manufacturing</td>
<td></td>
</tr>
<tr>
<td>Available in:</td>
<td>ID: 2.5&quot; to 36&quot;</td>
<td>ID: 1&quot; to 12&quot;</td>
<td>ID: 1&quot; to 12&quot;</td>
<td>ID: 2&quot; to 16&quot;</td>
</tr>
<tr>
<td>Color: silver-gray</td>
<td>Color: orange</td>
<td>Color: black</td>
<td>Color: black</td>
<td>Color: black</td>
</tr>
<tr>
<td>Standard length: to 13'</td>
<td>Standard length: up to 600°F</td>
<td>Standard length: up to 13'</td>
<td>Standard length: up to 600°F</td>
<td>Standard length: to 25'</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-75°F to +300°F</td>
<td>-65°F to +300°F</td>
<td>-75°F to +600°F</td>
<td>-60°F to +275°F</td>
</tr>
<tr>
<td></td>
<td>Intermittent to +625°F</td>
<td></td>
<td></td>
<td>Intermittent to +300°F</td>
</tr>
</tbody>
</table>
Hoses used for vehicle exhaust extraction, or operating near maximum temperature, must be used within a properly designed fan system to avoid damaging the hose. Please consult your local representative for more details.

**Master-Clip Thermo & Insulating Hoses**

- **Thermo and insulating hose for maintaining cold or hot temperature air flows, asbestos-free insulation material, good sound proofing, flexible**
- **Applications**
  - Air conditioning/ventilation
  - Radiant heat and cold protection
  - Engine construction
  - Vehicle construction
- **Temperature Range**
  - Depending on the combination of the materials for the inner and outer hose type

**Master-Clip Combo Hoses**

- **Specialty hoses for high temperatures +350°F to +2000°F**
- **Applications**
  - Vehicle exhaust systems
  - Engine & dynometer testing
  - High temperature conveyance
- **Recommended Combinations:**
  - Carflex 350/Carflex 570
  - Master-Clip HT 750/Master-Clip HT 1200
  - Master-Clip HT 1000/Master-Clip HT 1500
  - Master-Clip 1200/Master-Clip 2010
- **Temperature Range**
  - +350°F to +2000°F
  - Depending on the hose combination - contact factory for details.

**NEW! MD All Weather Flexible Duct**

- **Neoprene-coated polyester fabric hose for indoor or outdoor use on temporary conditioned air systems**
- **Properties**
  - Flame-resistant to UL94, UL214
  - Water repellent fabric
  - R8 insulation
  - Highly flexible
  - Compressibility 1:3
  - Small bend radius
  - Vibration-proof
- **Temperature Range**
  - -30°F up to 300°F
- **Available in:**
  - ID: 12” to 24”
  - Available end treatments: raw, cuffed with stainless steel clamp, or cuffed with zippers

**Features & Benefits**
- Standard R8 insulation provides better energy performance compared to R4 insulation.
- Galvanized steel helix creates a rigid flexible core that maintains its shape at all turns and offsets.
- Manufactured in Houston, Texas, allows for quick response and service on all projects throughout the United States.
- Standard lead time is 4 to 6 weeks, depending on the quantity ordered and desired end treatment.
Electrically Heated Hoses & Pneumatic Tubing

Heated hoses with integrated temperature controller/limiter for application in industrial processes, automation & machine-building

**templine® Heated Hose**

Electrically heated hose system for applications up to +572°F media temperature, step-proof and antistatic design, high power density (up to 250 W/m), nominal voltage (in operations): 12.400 V

**Applications**
- Plastics processing industry
- Automotive industry
- Food industry
- Chemical industry
- Fire-extinguishing water distribution system
- Movement of liquid granules and glues
- Maintaining & increasing of temperatures for gases, granules and liquids of varying viscosity in temperature

**Temperature Range**
- PTFE smooth hose as well as all pressure-reinforced versions up to +428°F
- Corrugated metal hose +572°F

**Highly flexible, thermoplastic pneumatic tubing & profiles offer superior quality for a precise and reliable fit**

**Pneumatic Tubing & Profiles**

- Lightweight
- Excellent temperature resistance
- Highly resistant to shock and impact
- Excellent compressive strength
- Excellent resistance to UV-rays
- High chemical resistance to oil, grease, fuels, solvent and hydraulic fluids
- Highly resistant to stress cracking
- Excellent abrasion resistance characteristics
- Water insensitive
- Easily fitted
- Minimal pressure loss
- Available in a range of colors
- Calibrated

**Temperature Range**
- -40°F up to 195°F

**Applications**
- Compressed air, vacuum, hydraulics*, fuels, grease lubrication systems, foodstuffs*

*A special grade may be required.

Quality, Precision, Delivery Reliability and competent advice are the cornerstones for the ongoing expansion of our pneumatic tubing & profiles market position.

Starting with the choice of material and cost effectiveness, down to matters of design, our experts accompany you in a competent and comprehensive fashion, regardless of whether you require a standard product or a custom design.

To protect our own everyday high quality requirements, we use special test and measuring equipment, as well as laboratory equipment. As a result, we have the latest technology to safeguard the product quality at our disposal, right from the time of your initial inquiry until your product is shipped. Along with this, our lofty claim to quality is guaranteed through the resolute realization of quality control systems in accordance with ISO 9001 and ISO 13485.

Furthermore, we apply the established Environmental Management System according to DIN EN ISO 14001 and the Energy Management System according to DIN EN ISO 50001.
Master-Lock
Metal Duct

Master-Lock mechanical joints makes an air tight seam, while the circumferential corrugations provide excellent strength and flexibility.

**Master-Lock Aluminum**
Corrugated aluminum flexible duct, adhesive-free, air tight seams, excellent strength, highly flexible, center line radius minimum one diameter, eliminates sagging or drooping.

- **Applications**
  - Air-conditioning & ventilation systems
  - Air supply & extraction
  - Applications that require low pressure loss
  - Easily cut to size & hand formed into elbows
  - Eliminates sagging or drooping

- **Available in:**
  - ID: 3” to 18”
  - Standard length: 8’

- **Temperature Range**
  - -60°F to +600°F

- **Applications**
  - Air-conditioning & ventilation systems
  - Air supply & extraction
  - Applications that require low pressure loss
  - Easily cut to size & hand formed into elbows
  - Eliminates sagging or drooping
  - Stainless steel requirements

- **Available in:**
  - ID: 3” to 18”
  - Standard length: 8’

- **Temperature Range**
  - -60°F to +1500°F

**Master-Lock Stainless Steel**
Corrugated 316 Stainless steel flexible duct, adhesive-free, air tight seams, excellent strength, good flexibility, center line radius minimum one diameter, eliminates sagging or drooping.

- **Applications**
  - Air-conditioning & ventilation systems
  - Air supply & extraction
  - Applications that require low pressure loss
  - Easily cut to size & hand formed into elbows
  - Eliminates sagging or drooping

- **Available in:**
  - ID: 3” to 18”
  - Standard length: 8’

- **Temperature Range**
  - -60°F to +250°F

**Master-Lock Silencer**
Sound attenuator, inner core perforated & corrugated aluminum, packed fiberglass insulation, outer core corrugated aluminum, mechanically fastened aluminum fittings on each end.

- **Applications**
  - Sound attenuation before & after the terminal box where discharge noise and radiated noise is undesirable
  - Straight or elbow silencer for exposed air systems
  - Return air connection on fan powered terminal boxes & heat pumps
  - Final sound attenuator to eliminate noise at air devices

- **Available in:**
  - ID: 4” to 14”
  - Standard length: 5’

- **Temperature Range**
  - -60°F to +250°F
Connection solutions for almost any application, from standard connectors to tailor-made & customer-specific connections

**Clip-Grip Hose Clamp**
- Special clamp for Master-Clip hoses
- Applications:
  - Special clamp for all hose types from Master-Clip series for mobile & stationary units
- Available in:
  - Clamping range from 1.6" to 36" , bridge & housing made from steel

**Car-Grip Hose Clamp**
- Special clamp for Carflex-Super & Master-PUR STEP hoses
- Applications:
  - Special clamp for Carflex Super and Master-PUR STEP hoses for mobile & stationary units
- Available in:
  - Clamping range from 2.4" to 24", bridge & housing made from steel

**Worm Gear Clamp**
- Standard clamp for universal requirements
- Applications:
  - Special clamp for mounting light hose types onto connector brackets on mobile & stationary units
- Available in:
  - Clamping range from 1.5" to 20", bridge & housing made from steel
# Installation & Connections

## Bolt Clamp
- **Applications**: Special clamp for connecting medium & heavy duty hoses to connectors on mobile & stationary units.
- **Available in**: Clamping range from 1.2” to 16”, bridge & housing made from steel.

## Hose Reducer
- **Applications**: Extension, coupling and connection of light to medium weight hoses.
- **Available in**: ID: 4” to 18”.

## Hose Connector
- **Applications**: Extension, coupling & connection of light to medium weight hoses.
- **Available in**: ID: 3” to 20”.

## PU Screw Cuff EC
- **Applications**: Special screw cuff for Master-PUR L/H & Master-PVC L/H hoses, industrial vacuum cleaners, suction & blower units, conveyance units.
- **Available in**: ID: 1.2” to 2.8”.
- **Color**: black.
- **Temperature Range**: -40°F to +195°F, intermittent to +257°F.

## Combiflex PU Cuff
- **Applications**: Special cuff for all Master-PUR L/H hose types, screwable or cast-on mounting.
- **Available in**: ID: 3” to 8”.
- **Color**: black.
- **Temperature Range**: -40°F to +195°F, intermittent to +257°F.
MASTERDUCT Terms & Conditions

PRICES: To the current prices are to be added any sales/excise taxes now or hereafter imposed upon the Seller resulting from the sale or delivery hereunder. All orders accepted by our Company are invoiced on the basis of our Company’s prices in effect at time indicated or time of shipment. All prices are subject to change without notice.

SPECIAL ORDERS: Any item indicated or not listed in the current Company price list shall be considered a Special Order item. Special Order items may not be canceled or returned once ordered.

RETURNS: All product, installation and service orders submitted to and accepted by Masterduct are subject to a 25% restocking fee if canceled by the issuing company or one of its authorized partners. No return product will be accepted without written approval.

CANCELATIONS: To cancel a full or partial order, Masterduct must receive a cancellation request within 48 hours of order placement. Cancellation requests may be emailed to orders@masterduct.com. All orders are considered in production until Masterduct confirms the cancelation. If you do not receive a confirmation cancelling an order within 24 hours, contact customer service at (713) 462-5779. Masterduct is not responsible for lost or failed email messages.

FREIGHT: Shipment terms are F.O.B. Houston, Texas. All orders will be shipped freight collect to the consignee using a carrier of our choice. If you have a preferred carrier please include shipping instructions on the purchase order.

STOCK: Products shipped by next business day. Prepaid on $3,000.00 net standard stock items in the continental US. Excludes products with special shipping requirements.

IMPORTANT: Distributors or their customers are responsible for all claims of freight damage regardless of carrier used. Masterduct will not provide a replacement or compensation for any merchandise damaged in transit.

LIMITED WARRANTY

Above delivery subject to delay by reason of acts of God, strikes, lockouts, fires or any other contingency, whether of like nature or otherwise, beyond control of the Seller. Delivery promises are based on current stock position, and are subject to the demand of prior customer orders.

A. No warranty is made regarding the suitability or compatibility of any Masterduct product for a particular application or purpose. The Customer is responsible for the final selection and utilization of Masterduct products for its use. The Customer assumes all liability for the consequences of performance, application, use and/or misuse by employees and/or Customers of products purchased from Masterduct, Inc.

B. Hose, and other product items subject to wear during the normal use of the product shall not be covered under warranty.

C. Products not manufactured by Masterduct or not part of an assembly manufactured by Masterduct shall be warranted only to the extent provided by the manufacturer. This includes but is not limited to high temp and heavy-duty hose.

LIMITATION OF WARRANTY

Masterduct makes no other warranties, express or implied, including warranties of merchantability and fitness for a particular use, and shall not be liable for incidental or consequential damages such as, but not limited to, lost profits, loss of use of other equipment or increases in costs or expenses.
## Chemical Resistance Chart

<table>
<thead>
<tr>
<th>Chemical</th>
<th>PUR - Ester</th>
<th>PUR MHR</th>
<th>SILICONE</th>
<th>HYDRAFLEX®</th>
<th>VITON®</th>
<th>PVC</th>
<th>TFE</th>
<th>NEOPRENE</th>
<th>KAPTON®</th>
<th>TPR PLUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>3</td>
<td>x</td>
<td>2</td>
<td>2-3</td>
<td>x</td>
<td>3</td>
<td>1-2</td>
<td>1</td>
<td>3</td>
<td>1</td>
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<tr>
<td>Acetylene Gas</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2-3</td>
<td>1-3</td>
<td>3</td>
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<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Ammonia, Gaseous 20°C</td>
<td>x</td>
<td>3</td>
<td>1</td>
<td>2</td>
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<td>x</td>
<td>1</td>
<td>1</td>
<td>1</td>
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### KAPTON®

- Acetone: 3
- Acetylene Gas: 1
- Ammonia, Gaseous 20°C: x
- Aniline (Aminobenzene): x
- Argon Gas: 1
- ASTM Fuel A: 1
- ASTM Fuel B: x
- ASTM Fuel C: x
- Benzene: 3-3
- Black Lye: x
- Boric Acid: 3
- Bromine: x
- Butane Gas: 1
- Butanone (MEK): x
- Butane Gas: 1
- Butanone (MEK): x
- Calcium Chloride: 3
- Cane Sugar: 3
- Carboic Acid (Phenol): 3-3
- Carbon Dioxide, Solid: 1
- Carbon Dioxide, Gas: 1
- Carbon Monoxide: 1
- Carbon Tetrachloride: x
- Chlorine, Dry: x
- Chlorine, Wet: x
- Chlorobenzene: x
- Chloroform (Trichloromethane): x
- Chromic Acid: x
- Citric Acid: 2
- Detergents: 3
- Diesel Oil: 2
- Diethylene Glycol: 3
- Ethane Gas: 2
- Ethanol (Ethyl Alcohol): 2
- Ethylene Chloride: x
- Ethylene Glycol: 2-3
- Formaldehyde: 2-3
- Formic Acid (0.1): 3
- Glycerine: 1
- Helium: 1
- Acetone: 3
- Acetylene Gas: 1
- Ammonia, Gaseous 20°C: x
- Aniline (Aminobenzene): x
- Argon Gas: 1
- ASTM Fuel A: 1
- ASTM Fuel B: x
- ASTM Fuel C: x
- Benzene: 3-3
- Black Lye: x
- Boric Acid: 3
- Bromine: x
- Butane Gas: 1
- Butanone (MEK): x
- Butane Gas: 1
- Butanone (MEK): x
- Calcium Chloride: 3
- Cane Sugar: 3
- Carboic Acid (Phenol): 3-3
- Carbon Dioxide, Solid: 1
- Carbon Dioxide, Gas: 1
- Carbon Monoxide: 1
- Carbon Tetrachloride: x
- Chlorine, Dry: x
- Chlorine, Wet: x
- Chlorobenzene: x
- Chloroform (Trichloromethane): x
- Chromic Acid: x
- Citric Acid: 2
- Detergents: 3
- Diesel Oil: 2
- Diethylene Glycol: 3
- Ethane Gas: 2
- Ethanol (Ethyl Alcohol): 2
- Ethylene Chloride: x
- Ethylene Glycol: 2-3
- Formaldehyde: 2-3
- Formic Acid (0.1): 3
- Glycerine: 1
- Helium: 1