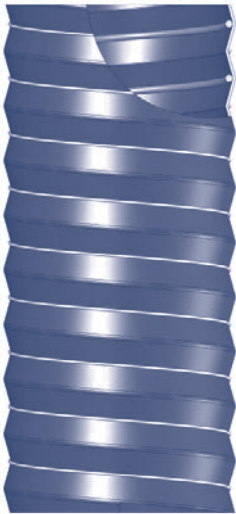




MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Airflex

 Special Hoses are light weight and highly flexible

They provide an optimal relation of weight/strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction helix is made from a special **MST** high performance grade spring wire or Polyamide. This enables to form a very tight bending radius with no reduction of the inner cross section and high crush safety. The clean folding is a result of the unique hose construction providing an optimized airflow.

Additional confection and assemblies :

Quick Connectors (snap-nozzles), wire free cuffs, insulation, flanges, connectors, pressed fittings, rigid segments, integrated moulded parts and sensor joints (M10x1)

Available in **MST** grades

**Premium – Standard**

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Neo-G1Mb/Sil-G1Mb → inside spring wire, bronzed  
outside CR/VMQ coated glass fabric  
single cord

rubber materials : CR, NBR, VMQ  
fabric materials : Glass, PA, PES, Aramide  
temperature rating : depending on the materials – please enquire

**MST** Grade Premium  
Flameability CR+VMQ on glass fabric FAR § 25.853(b), DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

Main Applications : **Ventilation, Heating, Extraction, Air-Intake**

these datas are for information only and may subject to change without prior notice



**MATZEN SCHLAUCH-TECHNIK**

**flexible solutions that work  
created in Germany**



## **Airflex** Special Hoses are light weight and highly flexible

They provide an optimal relation of weight/strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction helix is made from a special **MST** high performance grade spring wire or Polyamide. This enables to form a very tight bending radius with no reduction of the inner cross section and high crush safety. The clean folding with the convolutions to the outside is a result of the unique hose construction providing a smooth airflow.

Additional confection and assemblies :

Quick Connectors (snap-nozzles), wire free cuffs, insulation, flanges, connectors, pressed fittings, rigid segments, integrated moulded parts and sensor joints (M10x1)

Available in **MST** grades

**Premium – Standard – Low Cost**

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Neo-G2Mb/Sil-G2Mb → inside CR/VMQ coated glass fabric  
Spring wire, bronzed  
outside CR/VMQ coated glass fabric  
twin cord

rubber materials : CR, NBR, EPDM, CSM, AEM, FPM, VMQ  
fabric material : Glass, PA, PES, Aramide, Ceramic  
temperature rating : depending on the materials – please enquire

**MST** Grade PREMIUM  
Flameability CR+VMQ on glass fabric FAR § 25.853(b),  
DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

Main Applications : **Ventilation, Heating, Extraction, Air-Intake, Drainage  
Supply, Turbocharging, Coolant Hose**

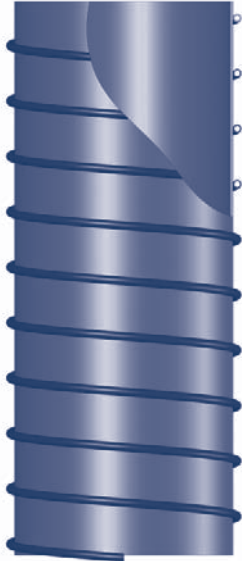
these datas are for information only and may subject to change without prior notice

**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com



MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Airflex

Special Hoses are ultra light weight and highly flexible

They provide an optimal relation of weight/strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction helix is made from a special **MST** high performance grade silicone coated spring wire or Polyamide. This enables to form a very tight bending radius with no reduction of the inner cross section and high crush safety. The clean folding with the convolutions to the outside is a result of the unique hose construction providing a smooth airflow.

Additional confection and assemblies :

Quick Connectors (snap-nozzles), wire free cuffs, insulation, flanges, connectors, pressed fittings, rigid segments, integrated moulded parts and sensor joints (M10x1)

Available in **MST** grades

**Premium**

Outstanding workmanship - Continuous and assured quality

### Constructions + MST Types

P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Sil-G1MbA → inside VMQ coated glass fabric  
outside VMQ coated Spring wire, bronzed

fabric materials : Glass, PA, PES  
temperature rating : depending on the materials – please enquire

<b>MST Grade</b>	PREMIUM	
<b>Flameability</b>	VMQ on glass fabric	FAR § 25.853(b), DIN 5510-S4/SR2/ST2 FAR § 25.853(a), ABD 00031

Main Applications : **Ventilation, Heating, Extraction, Cooling  
Cabin Climatisation, Air-Intake**

these datas are for information only and may subject to change without prior notice

**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com



MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Varioflex Convoluted Bellows are highly loadable

They provide an optimal tightness and strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction builds on sophisticated woven or knitted fabrics which are specially designed to accommodate **MST's** high performance philosophy. They provide high burst strength and very good resistance to mechanical loads. Smooth inside surface contributes to a good airflow. Oil, Fuel and further liquid resistant inner and barrier lining is available.

Special properties like axial/radial flexibility or reduced elongation under pressure is achieved by special design of the convolutions.

Outside/Inside rings made from stainless steel.

Additional confection and assemblies :

Flanges, connectors, pressed fittings, insulation and sensor joints (M10x1)

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Neo-NSxx/Sil-Q/Axx → CR/VMQ coated fabric  
xx – ply number of reinforcement fabric

rubber materials : CR, NBR, EPDM, CSM, AEM, FPM, VMQ, F/VMQ  
fabric materials : Glass, PA, PES, Aramide, Ceramic  
temperature rating : depending on the materials – please enquire

Flameability CR+VMQ on glass fabric FAR § 25.853(b), DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

Main Applications : **Turbocharging, Coolant Hose, Air-Intake**

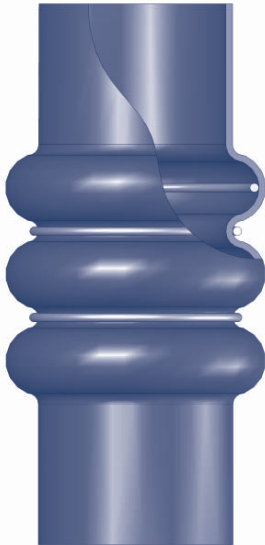
these datas are for information only and may subject to change without prior notice

**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com



MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Varioflex Convoluted Bellows are highly loadable

They provide an optimal tightness and strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction builds on sophisticated woven or knitted fabrics which are specially designed to accommodate **MST's** high performance philosophy. They provide high burst strength and very good resistance to mechanical loads. Smooth inside surface contributes to a good airflow. Oil, Fuel and further liquid resistant inner and barrier lining is available.

Special properties like axial/radial flexibility or reduced elongation under pressure is achieved by special design of the convolutions.

Outside/Inside rings made from stainless steel.

Additional confection and assemblies :  
Flanges, connectors, pressed fittings, insulation and sensor joints (M10x1)

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Neo-NSxx/Sil-Q/Axx → CR/VMQ coated fabric  
xx – ply number of reinforcement fabric

rubber materials : CR, NBR, EPDM, CSM, AEM, FPM, VMQ, F/VMQ  
fabric materials : Glass, PA, PES, Aramide, Ceramic  
temperature rating : depending on the materials – please enquire

Flameability CR+VMQ on glass fabric FAR § 25.853(b), DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

Main Applications : **Turbocharging, Coolant Hose, Air-Intake**

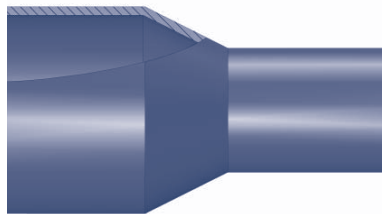
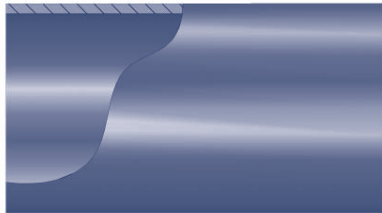
these datas are for information only and may subject to change without prior notice

**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com



MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Turboflex

Sleeves and straights are highly loadable

They provide an optimal tightness and strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction builds on sophisticated woven or knitted fabrics which are specially designed to accommodate **MST's** high performance philosophy. They provide high burst strength and very good resistance to mechanical loads. Smooth inside surface contributes to a good airflow. Oil, Fuel and further liquid resistant inner and barrier lining is available.

Additional confection and assemblies :

Flanges, connectors, pressed fittings, insulation and sensor joints (M10x1)

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !) Shock / short period up to + 40°C higher

Neo-NSxx/Sil-Q/Axx → CR/VMQ coated fabric  
xx – ply number of reinforcement fabric

rubber materials : CR, NBR, EPDM, CSM, AEM, FPM, VMQ, F/VMQ  
fabric materials : Glass, PA, PES, Aramide, Ceramic  
temperature rating : depending on the materials – please enquire

Flameability CR+VMQ on glass fabric FAR § 25.853(b), DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

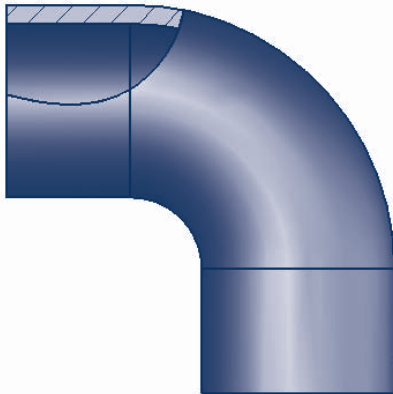
Main Applications : **Turbocharging, Coolant Hose, Air-Intake**

these datas are for information only and may subject to change without prior notice



MATZEN SCHLAUCH-TECHNIK

flexible solutions that work  
created in Germany



## Moduflex

Elbows are highly loadable and reliable

They provide an optimal tightness and strength by the usage of Hybride Materials (Fabrics-Elastomeres)

The construction builds on sophisticated woven or knitted fabrics which are specially designed to accommodate **MST's** high performance philosophy. They provide high burst strength and very good resistance to mechanical loads. Smooth inside surface contributes to a good airflow. Oil, Fuel and further liquid resistant inner and barrier lining is available.

The **Moduflex** Standard Elbow range uses sizes of normed steel pipe elbows for cost optimized tooling – especially interesting for smaller volumes.

Additional confection and assemblies :

Flanges, connectors, pressed fittings, insulation and sensor joints (M10x1)

Outstanding workmanship - Continuous and assured quality

### Constructions + **MST** Types

CR (Neoprene) : operating temperature -35°C ... +135°C  
P/VMQ (Silicone) : operating temperature -85°C ... +260°C  
(guide line only !)

Shock / short period up to + 40°C higher

Neo-NSxx/Sil-Q/Axx → CR/VMQ coated fabric  
xx – ply number of reinforcement fabric

rubber materials : CR, NBR, EPDM, CSM, AEM, FPM, VMQ, F/VMQ  
fabric materials : Glass, PA, PES, Aramide, Ceramic  
temperature rating : depending on the materials – please enquire

Flameability CR+VMQ on glass fabric FAR § 25.853(b), DIN 5510-S4/SR2/ST2  
VMQ on glass fabric FAR § 25.853(a), ABD 00031

Main Applications : **Turbocharging, Coolant Hose, Air-Intake**

these datas are for information only and may subject to change without prior notice

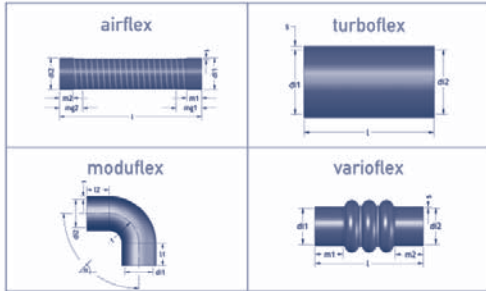
**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com



**MATZEN SCHLAUCH-TECHNIK**

**flexible solutions that work  
created in Germany**

## Technical Datas



## Airflex

Inner Diameter	I.D.[mm]	25	51	76	102	127	178	254
Operat. Pressure [bar] at +20°C	1 ply P	1,3	1,1	1	0,8	0,7	0,6	0,3
	1 ply G	1,6	1,2	1,1	0,9	0,8	0,6	0,5
	1 ply G/P	2	1,7	1,5	1,3	1	0,7	0,5
	2 ply P	2,5	2,3	2	1,8	1,2	0,9	0,6
	2 ply G	2,8	2,6	2,3	1,9	1,4	1	0,7
Proof Press. [bar] at +20°C		----- 1,5 x Operating Pressure -----						
Burst Press. [bar] at +20°C		----- 3,0 x Operating Pressure -----						
Operating Vacuum mm WC at +20°C	1 ply P	4800	4100	3100	2250	1800	840	400
	1 ply G	5100	4300	3400	2600	1700	1100	450
	1 ply G/P	3600	3080	2320	1680	1350	630	300
	2 ply P	7100	5200	4300	3500	2400	1200	700
	2 ply G	7100	5200	4300	3500	2400	1200	700
Bending Radius inside [mm]	1 ply	8	16	25	34	45	60	100
	2 ply	12	24	40	55	70	90	145
Max. Weight gr./m	1 ply	120	250	410	650	800	1190	1320
	2 ply	185	360	580	770	925	1430	1650
Axial Compression Capability		1 ply to approx. 33% of production lenght 2 ply to approx. 50% of production lenght						
Production Lenght		----- max. 4.000 mm -----						
Inner Diameter		-----from 6 / 1.000 mm-----						
Components		Flanges, Rings, Sidepipes, T/Y-Junction laminated / vulcanised bonded, attached, etc. increase pressure rating						

All values are given as leads to enable for basic assessment of later construction.  
MST operates a CAD- and calculation program, which elaborates precise part`s construction datas for the required application and will provide these on request.  
All datas are meant to provide for a first orientation only and shall be carefully tested under real application conditions by the user.  
Insofar these are not guarantied properties and MST will not accept any responsibility.

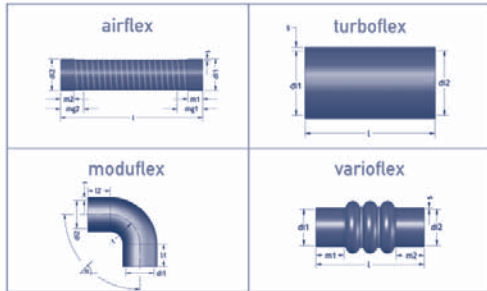
these datas are for inforamtion only and may be subject to change without prior notice



**MATZEN SCHLAUCH-TECHNIK**

**flexible solutions that work  
created in Germany**

## Technical Datas



## Turboflex Varioflex

Sleeves, Elbows, Bellows

Inner Diameter	I.D.[mm]	22	25	38	51	76	102
Operat. Pressure [bar] at +20°C	per ply P	2,2	2	1,3	1	0,6	0,5
	per ply Q	3	2,5	1,6	1,2	0,8	0,6
	per ply A	2	1,8	1	0,8	0,7	0,5
	per ply G	3	2,6	1,7	1,2	0,8	0,6
	per ply G S	4,8	4,3	2,8	2,1	1,4	1
Proof press. [bar] at +20°C		-----1,5 x Operating Pressure-----					
Burst press. [bar] at +20°C		-----3,0 x Operating Pressure-----					
Wall thickness	per ply P	-----0,3 mm-----					
	per ply Q	-----1,0/1,5 mm-----					
	per ply A	-----1,0/1,5 mm-----					
	per ply G	-----0,3 mm-----					
	per ply GS	-----0,5 mm-----					
per ply L		-----0,5/1,0 mm-----					
Inner Diameter		-----from 6 / 1.000 mm-----					
Manufacturing lenght		-Standard 1.000 mm / on request up to 4.000 mm-					
Components		Flanges, Rings, Sidepipes, T/Y-Junction laminated / vulcanised bonded, attached, etc. increase pressure rating					

All values are given as leads to enable for basic assessment of later construction.  
MST operates a CAD- and calculation program, which elaborates precise part`s construction datas for the required application and will provide these on request.  
All datas are meant to provide for a first orientation only and shall be carefully tested under real application conditions by the user.

Insofar these are not guarantied properties and MST will not accept any responsibility.

these datas are for inforamtion only and may be subject to change without prior notice

**MST Matzen Schlauch-Technik Ltd. & Co. KG** · Max-Jenne-Strasse 16-20 · DE-21337 Lüneburg/Germany  
Tel. +49(0)4131/789908-0 · Fax +49(0)4131/789908-19 · info@mst-flexduct.com