

# Compressed air programme

Connectors | Advanced connection solutions



# Safety from end to end...



For more than 60 years, Stäubli has developed a complete programme of compressed air supply lines for your tools and other pneumatic applications.

## Choose Stäubli to meet all your requirements.

- Guaranteed performance: our compressed air range is based on our wealth of experience in fluid connections and our in-depth understanding of your applications.
- As genuine partners in your projects, our specialists can offer advice and efficient, innovative solutions.
- Safety is ensured from end to end with a comprehensive programme combining the distribution, filtration and connection functions...



### 5-year guarantee for all your industrial compressed air applications\*

\* On the quick release coupling ranges indicated in this programme.

From the date engraved on the couplings, for a guarantee period extended to 5 years, in accordance with Stäubli's general terms and conditions of sale.





## ... a range offering unfailing performance

### Safety is at the heart of our business

Stäubli has been committed to the safety of users and the environment for over 60 years. This commitment is what guides the development of our products, particularly those that make use of compressed air.

Your compressed air lines are vital partners in your work, and as such must be completely reliable.

To meet this requirement, our entire compressed air range is subject to stringent procedures and quality control:

- Compliance with standards and regulations
- Compliance with safety standards (ISO 4414 and ISO 6150 series C)\*
- Consideration of operating and environmental conditions
- Strong materials
- Dedicated inspection procedures and equipment
- Individual operation and leak-tightness testing of each unit

### UA constant drive to innovate

- Complete protection of all products against the risk of violent flexible hose whiplash under pressure.

\* Our equipment consists of components. As such, it is your responsibility to:

- identify the standards and regulations applicable to your installation
- ensure that the components are correctly incorporated into your installation
- check that your installation complies with the applicable legislation

Products	Pages
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# From the compressed air network through to your end application: Stäubli safety and performance

As the partners to your projects, Stäubli's technicians have the expertise necessary to design or diagnose your compressed air networks.

They define and validate the equipment as a function of the application and required air quality and will recommend:

- the optimum dimensions depending on the air flow for distribution
- the components that make up your network
- the right accessories and components to meet your needs







Programme covers the entire network from general supply inlet through to the end of your equipment including: functions of distribution, filtration and connections.



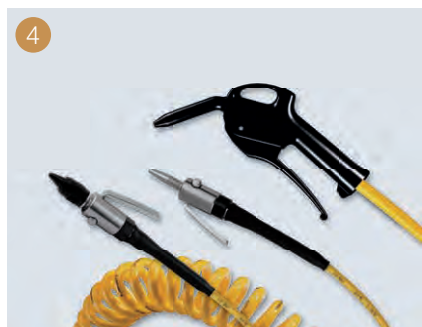
Open or closed drum hose reels for the efficient distribution of compressed air in workshops.  
(pages 37 to 42)



Filtration of particles and aerosols for high-quality air.  
(pages 61 to 65)



Economic network filtration, regulation and lubrication solution for the required air quality.  
(pages 57 to 60)



Safety blowguns and self-retracting blowing units for outstanding flexibility of use at workstations.  
(pages 43 to 56)



Wide range of safety couplings and self-retracting connection units for solutions for every one of your applications.  
(pages 8 to 36)

You will also find our other products at the end of this documentation (pages 75 to 87): connection accessories and flexible hoses.

# Reminder of general information concerning compressed air

**Maximum working pressure:** the maximum permitted pressure in a tubework component is the effective maximum pressure to which the component in question can be subjected in a given installation. The pressure is stated in bars or Pa (1 bar = 102 kPa).

**Upstream pressure:** pressure of the compressed air at the inlet to the socket/plug pair.

**Downstream pressure:** pressure at the outlet.

**Pressure drop:** pressure difference between the upstream and downstream pressure

Conversion table for pressure units

	1 bar = $\frac{10^5 \text{ N}}{\text{m}^2}$	1 at = $\frac{1 \text{ Kp}}{\text{cm}^2}$	$\frac{\text{Poundal}}{\text{sq ft}}$	$\frac{\text{Poundal}}{\text{sq in}} = \text{Psi}$	1 atm
1 Pa = 1 N/m <sup>2</sup>	1.10 <sup>-5</sup>	1.02.10 <sup>-5</sup>	0.0209	1.45.10 <sup>-4</sup>	9.87.10 <sup>-6</sup>
1 bar	1	1.0197	2089	14.504	0.9869
1 at	0.980665	1	2048	14.22	0.96784
1 pdl/sq ft	0.4790.10 <sup>-3</sup>	0.4882.10 <sup>-3</sup>	1	6.944.10 <sup>-3</sup>	0.4725.10 <sup>-3</sup>
1 pdl/sq in = Psi	0.06895	0.07031	144	1	0.06806
1 at	1.013	1.033	2120	14.70	1



# Perfect leak-tightness for outstanding economic efficiency

## 1 - Known fact

From the compressor to the tool, between 15 and 30% of the compressed air is lost due to leaks.

## 2 - Calculation

A hole of 1 mm in your network can cause a loss of 20,880 m<sup>3</sup>/year of compressed air due to leaks.

1 additional bar of pressure increases your energy consumption by 6 to 7%.

### So how much are you losing?

Volumes of air leaks as a function of hole diameter and the number of hours of operation per year at 7 bar

	4,000 h/year	6,000 h/year
Ø 1 mm	13,920 m <sup>3</sup> /year	20,880 m <sup>3</sup> /year
Ø 2 mm	55,680 m <sup>3</sup> /year	83,520 m <sup>3</sup> /year
Ø 3 mm	125,280 m <sup>3</sup> /year	187,924 m <sup>3</sup> /year

## 3 - The solution

By choosing our ranges of quick release couplings, you optimise the leak-tightness of your networks and are therefore able to control your energy generation requirements: you save money and show your commitment to sustainable development.

# RSI

## Automatic quick release couplings



### Applications

Connections for all compressed air circuits:

- Spurs on tubework
- Fittings on extension hoses

- Pneumatic tool connectors, air guns and automatic systems on machines
- In all types of industries.



Rotating button to always have the connections "to hand".



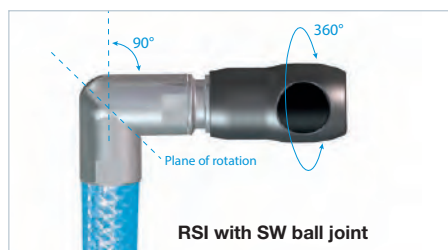
Raised push button version for easy unlocking.



Male threaded sockets have a front seal fitted into the adaptor providing efficient sealing on connection.

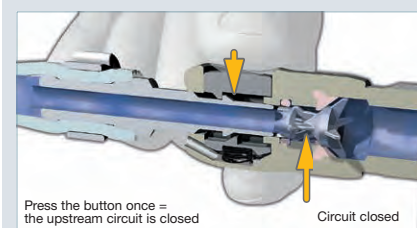
**Maximum lightness thanks to dedicated design and materials.**

**"Swivel version" coupling** with 360° and 90° rotation for greater flexibility during use



For further details, refer to the RA105 product documentation.

**Operator safety thanks to the 3-in-1 safety function**



- 1 Closure of the upstream compressed air circuit.



# NSI

## Automatic quick release couplings



### Applications

Quick connection of pneumatic tools.

Especially suitable for applications that are sensitive to the risk of scratching: finishing shops, the aeronautics industry, automotive plants, furniture manufacturing, stitching equipment, etc.



Front seal integrated in the shut-off.

### Non-scratch design provides improved protection for vulnerable surfaces

Made from composite material and free from protruding metal parts, NSI sockets eliminate any risk of scratching and are particularly suited to vehicle body shops, furniture workshops, the aeronautics industry, etc.

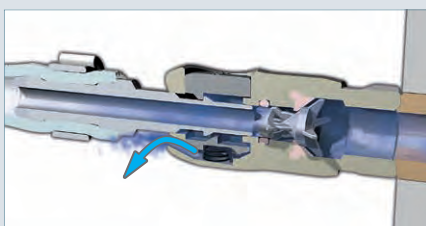
### Lightweight

Manufactured from lightweight materials, all NSI sockets are very easy to handle.

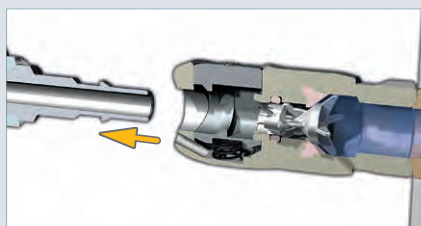
**Swivel anti-scratch versions:** 2 versions for complete freedom of movement and top performance whatever the angle.



**Simply pressing** the button once starts a fully automatic disconnection process:



**2** Decompression of the upstream circuit.



**3** Automatic disconnection of the plug as soon as the pressure level is low enough.

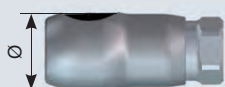


For further details, refer to the RA705 product documentation.

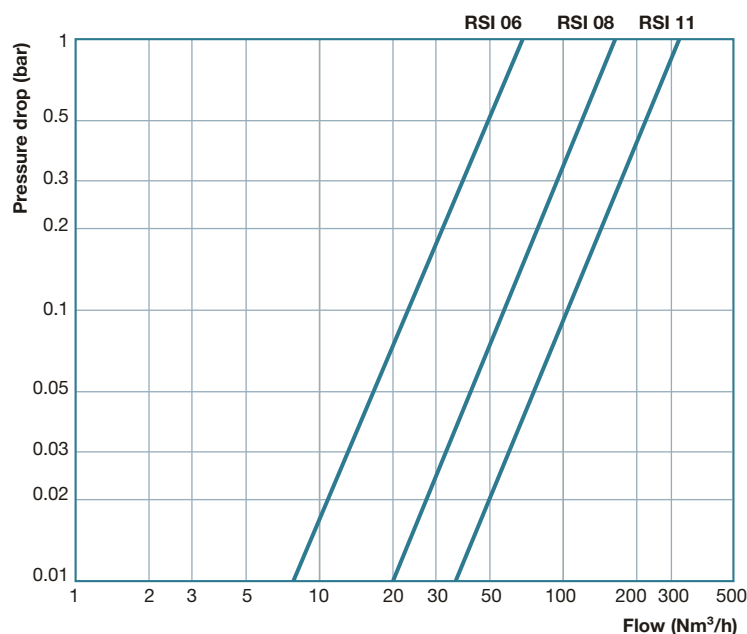
# Technical characteristics

## RSI

	RSI 06	RSI 08	RSI 11
Max. working pressure (bar)	16	16	16
Ø straight through flow path (mm)	5.5	8	11
Cross section (mm <sup>2</sup> )	23.75	50	95
Connection force at 6 bar (N)	45	82	125
Flow at 0.3 bar pressure drop (Nm <sup>3</sup> /h)	39	94	180
Ø Socket o.d. (mm)	25.8	30.8	36



## Pneumatic flow rate / pressure drop



### Construction

- Socket body: stainless steel with 17% chromium
- Lock: heat treated steel
- Plug: hardened and ground stainless steel with 13% chromium
- Nitrile NBR seal
- Shut-off:
  - socket: single shut-off
  - plug: full flow
- Swivel coupling: high strength aluminium ball and socket

### Test conditions:

- Flow direction: socket → plug
- Inlet pressure: 7 bar

The flow and pressure drops of all the components in your network influence its efficiency. Our experienced and knowledgeable sales engineers will help you optimise your systems performance.

### Push-button lock option

Option available for Part-numbers with the "\*" symbol.

Add /VD at the end of the Part-number of the selected.

# Part-numbers

## Sockets

Description	Model	Fittings	Part-number
<b>1. SOCKETS WITH MALE THREAD</b>  	RSI 06	G 1/4	RSI06.1151 *
		G 3/8	RSI06.1152 *
		G 1/2	RSI06.1153 *
		NPT 1/4	RSI06.1251
		NPT 3/8	RSI06.1252
		NPT 1/2	RSI06.1253
	RSI 08	G 1/4	RSI08.1151 *
		G 3/8	RSI08.1152 *
		G 1/2	RSI08.1153 *
		NPT 1/4	RSI08.1251
		NPT 3/8	RSI08.1252
		NPT 1/2	RSI08.1253
	RSI 11	G 3/8	RSI11.1152 *
		G 1/2	RSI11.1153 *
		G 3/4	RSI11.1154 *
		NPT 3/8	RSI11.1252
		NPT 1/2	RSI11.1253
		NPT 3/4	RSI11.1254
<b>2. SOCKETS WITH FEMALE THREAD</b>  	RSI 06	G 1/8	RSI06.1100 *
		G 1/4	RSI06.1101 *
		G 3/8	RSI06.1102 *
		G 1/2	RSI06.1103 *
		NPT 1/4	RSI06.1201
		NPT 3/8	RSI06.1202
		NPT 1/2	RSI06.1203
	RSI 08	G 1/4	RSI08.1101 *
		G 3/8	RSI08.1102 *
		G 1/2	RSI08.1103 *
		NPT 1/4	RSI08.1201
		NPT 3/8	RSI08.1202
		NPT 1/2	RSI08.1203
	RSI 11	G 3/8	RSI11.1102 *
		G 1/2	RSI11.1103 *
		G 3/4	RSI11.1104 *
		NPT 3/8	RSI11.1202
		NPT 1/2	RSI11.1203
		NPT 3/4	RSI11.1204
<b>3. SOCKETS WITH TAPERED FEMALE THREAD</b>  	RSI 06	Rc 1/4	RSI06.1111
		Rc 3/8	RSI06.1112
		Rc 1/2	RSI06.1113
	RSI 08	Rc 1/4	RSI08.1111
		Rc 3/8	RSI08.1112
		Rc 1/2	RSI08.1113
<b>4. PANEL MOUNTED SOCKETS WITH FEMALE THREAD</b>  	RSI 06	G 1/8	RSI06.2100 *
		G 1/4	RSI06.2101 *
		G 3/8	RSI06.2102 *
		NPT 3/8	RSI06.2202
	RSI 08	G 1/4	RSI08.2101 *
		G 3/8	RSI08.2102 *
		G 1/2	RSI08.2103 *
		NPT 1/2	RSI08.2203
	RSI 11	G 3/8	RSI11.2102 *
		G 1/2	RSI11.2103 *
		G 3/4	RSI11.2104 *
		NPT 3/4	RSI11.2204

\* Part-numbers for which the push button lock option is available: add **/VD** at the end of the part-number. Coupling plugs: see page 27.

# Part-numbers (continued)

Description	Model	Connection	Part-number
<b>5. SOCKETS FOR RUBBER HOSE</b>  	RSI 06	Ø 6	RSI06.1806
		Ø 8	RSI06.1808
		Ø 10	RSI06.1810
		Ø 13	RSI06.1813
	RSI 08	Ø 8	RSI08.1808
		Ø 10	RSI08.1810
		Ø 13	RSI08.1813
		Ø 16	RSI08.1816
	RSI 11	Ø 13	RSI11.1813
		Ø 16	RSI11.1816
		Ø 19	RSI11.1819
<b>6. SOCKETS FOR POLYURETHANE TUBE</b>  	RSI 06	Ø 8 x 12	RSI06.1908/PU
		Ø 9 x 13	RSI06.1909/PU
	RSI 08	Ø 8 x 12	RSI08.1908/PU
		Ø 9 x 13	RSI08.1909/PU
		Ø 11 x 16	RSI08.1911/PU
	RSI 11	Ø 11 x 16	RSI11.1911/PU
<b>7. SOCKETS FOR LORTAN HOSE</b>  	RSI 06	Ø 9 x 14.5	RSI06.1909/LT
		Ø 9.5 x 16	RSI06.1910/LT
	RSI 08	Ø 9.5 x 16	RSI08.1910/LT
		Ø 12.5 x 19	RSI08.1913/LT
<b>8. 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b>  	RSI 06	G 3/8	RSI06.1102/SW
		NPT 3/8	RSI06.1202/SW
	RSI 08	G 3/8	RSI08.1102/SW
		NPT 3/8	RSI08.1202/SW
<b>9. 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b>  	RSI 06	Ø 8	RSI06.1808/SW
		Ø 10	RSI06.1810/SW
		Ø 13	RSI06.1813/SW
	RSI 08	Ø 8	RSI08.1808/SW
		Ø 10	RSI08.1810/SW
		Ø 13	RSI08.1813/SW

Coupling plugs: see page 27.

# Part-numbers (continuation and end)

Description	Model	Connection	Part-number
<b>10. 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b>  	RSI 06	Ø 8 x 12	RSI06.1908/PU/SW
		Ø 9 x 13	RSI06.1909/PU/SW
	RSI 08	Ø 8 x 12	RSI08.1908/PU/SW
		Ø 9 x 13	RSI08.1909/PU/SW
		Ø 11 x 16	RSI08.1911/PU/SW
<b>11. 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b>  	RSI 06	Ø 1/2"	RSI06.1813/CN/SW
	RSI 08	Ø 1/2"	RSI08.1813/CN/SW
<b>12. MOBILE MANIFOLD UNITS</b>  	RSI 06	Stäubli RBE 06 plug	RSI06.8600
	RSI 08	Stäubli RBE 08 plug	RSI08.8600
	RSI 11	Stäubli RBE 11 plug	RSI11.8600
<b>13. FIXED MANIFOLD UNITS WITH FEMALE THREAD</b>  	RSI 06	G 1/4	RSI06.8101
		G 3/8	RSI06.8102
		G 1/2	RSI06.8103
	RSI 08	G 3/8	RSI08.8102
		G 1/2	RSI08.8103
	RSI 11	G 1/2	RSI11.8103
		G 3/4	RSI11.8104
<b>14. FIXED MANIFOLD UNITS WITH FEMALE THREAD (R = TAPERED GAS)</b>  	RSI 06	R 1/4	RSI06.8161
		R 3/8	RSI06.8162
		R 1/2	RSI06.8163
	RSI 08	R 3/8	RSI08.8162
		R 1/2	RSI08.8163
	RSI 11	R 1/2	RSI11.8163
		R 3/4	RSI11.8164

Coupling plugs: see page 27.



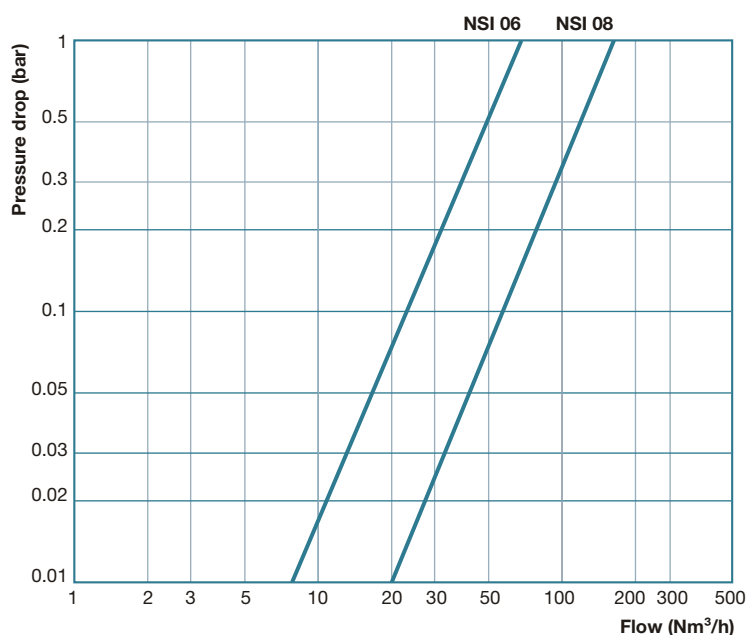
# Technical characteristics

## NSI automatic quick release couplings

	NSI 06	NSI 08
Max. working pressure (bar)	12	12
Full flow Ø (mm)	5.5	8
Flow area (mm <sup>2</sup> )	23.75	50
Coupling force at 6 bar (N)	45	82
Flow at 0.3 bar pressure drop (Nm <sup>3</sup> /h)	39	91
External Ø of socket (mm)	27	32



## Pneumatic flow rate / pressure drop



### Construction







- Coupling body: antistatic composite material
- Treated steel lock
- Coupling plug: stainless steel with 13% hardened chromium, ground
- NBR nitrile seal
- Shut-off:
  - socket: single shut-off
  - plug: full flow
- FA Swivel coupling: body made from high-strength stainless steel with rubber guard
- SW Swivel coupling: body made from high-strength aluminium with rubber guard

### Test conditions:

- Direction of flow: socket → plug
- Inlet pressure: 7 bar





The flow and pressure drops at all the components in your network influence its efficiency. Thanks to their expertise, our consultants can help you and offer complete solutions that guarantee optimized performance.

# Part-numbers

Description	Model	Connection	Part-number
<b>1. SOCKETS WITH MALE THREAD</b> 	NSI 06	G 1/4	NSI06.1151
		G 3/8	NSI06.1152
		G 1/2	NSI06.1153
		NPT 1/4	NSI06.1251
		NPT 3/8	NSI06.1252
		NPT 1/2	NSI06.1253
	NSI 08	G 1/4	NSI08.1151
		G 3/8	NSI08.1152
		G 1/2	NSI08.1153
		NPT 1/4	NSI08.1251
		NPT 3/8	NSI08.1252
		NPT 1/2	NSI08.1253
<b>2. SOCKETS WITH FEMALE THREAD</b> 	NSI 06	G 1/4	NSI06.1101
		G 3/8	NSI06.1102
		G 1/2	NSI06.1103
		NPT 1/4	NSI06.1201
		NPT 3/8	NSI06.1202
		NPT 1/2	NSI06.1203
	NSI 08	G 1/4	NSI08.1101
		G 3/8	NSI08.1102
		G 1/2	NSI08.1103
		NPT 1/4	NSI08.1201
		NPT 3/8	NSI08.1202
		NPT 1/2	NSI08.1203
<b>3. SOCKETS WITH TAPERED FEMALE THREAD</b> 	NSI 06	Rc 1/4	NSI06.1111
		Rc 3/8	NSI06.1112
		Rc 1/2	NSI06.1113
	NSI 08	Rc 1/4	NSI08.1111
		Rc 3/8	NSI08.1112
		Rc 1/2	NSI08.1113
<b>4. SOCKETS FOR RUBBER HOSE</b> 	NSI 06	Ø 6	NSI06.1806
		Ø 8	NSI06.1808
		Ø 10	NSI06.1810
		Ø 13	NSI06.1813
	NSI 08	Ø 8	NSI08.1808
		Ø 10	NSI08.1810
		Ø 13	NSI08.1813
<b>5. SOCKETS FOR POLYURETHANE TUBE</b> 	NSI 06	Ø 8 x 12	NSI06.1908/PU
		Ø 9 x 13	NSI06.1909/PU
	NSI 08	Ø 8 x 12	NSI08.1908/PU
		Ø 9 x 13	NSI08.1909/PU
		Ø 11 x 16	NSI08.1911/PU
<b>6. SOCKETS FOR LORTAN HOSE</b> 	NSI 06	Ø 9 x 14.5	NSI06.1909/LT
		Ø 9.5 x 16	NSI06.1910/LT
	NSI 08	Ø 9.5 x 16	NSI08.1910/LT
		Ø 12.5 x 19	NSI08.1913/LT





Coupling plugs: see page 27.

# Part-numbers (continued)

Description	Model	Connection	Part-number
<b>7. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b>  	NSI 06	G 3/8	NSI06.1102/FA
	NSI 08	G 3/8	NSI08.1102/FA
<b>8. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b>  	NSI 06	Ø 8	NSI06.1808/FA
		Ø 10	NSI06.1810/FA
		Ø 13	NSI06.1813/FA
	NSI 08	Ø 8	NSI08.1808/FA
		Ø 10	NSI08.1810/FA
		Ø 13	NSI08.1813/FA
<b>9. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b>  	NSI 06	Ø 8 x 12	NSI06.1908/PU/FA
		Ø 9 x 13	NSI06.1909/PU/FA
	NSI 08	Ø 8 x 12	NSI08.1908/PU/FA
		Ø 9 x 13	NSI08.1909/PU/FA
		Ø 11 x 16	NSI08.1911/PU/FA
<b>10. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b>  	NSI 06	Ø 1/2"	NSI06.1813/CN/FA
	NSI 08	Ø 1/2"	NSI08.1813/CN/FA

Coupling plugs: see page 27.

# Part-numbers (continuation and end)

Description	Model	Connection	Part-number
<b>11. SW 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b>  	NSI 06	G 3/8	NSI06.1102/SW
		NPT 3/8	NSI06.1202/SW
	NSI 08	G 3/8	NSI08.1102/SW
		NPT 3/8	NSI08.1202/SW
<b>12. SW 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b>  	NSI 06	Ø 8	NSI06.1808/SW
		Ø 10	NSI06.1810/SW
		Ø 13	NSI06.1813/SW
	NSI 08	Ø 8	NSI08.1808/SW
		Ø 10	NSI08.1810/SW
		Ø 13	NSI08.1813/SW
<b>13. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b>  	NSI 06	Ø 8 x 12	NSI06.1908/PU/SW
		Ø 9 x 13	NSI06.1909/PU/SW
	NSI 08	Ø 8 x 12	NSI08.1908/PU/SW
		Ø 9 x 13	NSI08.1909/PU/SW
		Ø 11 x 16	NSI08.1911/PU/SW
<b>14. SW 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b>  	NSI 06	Ø 1/2	NSI06.1813/CN/SW
	NSI 08	Ø 1/2	NSI08.1813/CN/SW

Coupling plugs: see page 27.

# RCS

## Automatic quick release couplings



### Applications

Connections for all compressed air networks:

- Tappings at conduits
- Extension equipment

- Connection of pneumatic tools, blowguns and automatic devices to machines

In all types of industries.

### Automatic and ergonomic

Pleasant to handle, easy to connect and disconnect, our RCS couplings ensure the operator's comfort and contribute to his effectiveness.

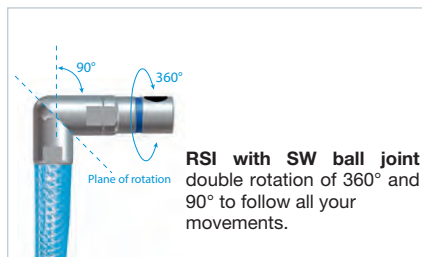
### Excellent efficiency for optimised productivity

Every one of our couplings is individually tested for performance and offers an excellent flow volume, thus playing its part in the efficiency of your compressed air installations.

### Long term reliability

The RCS range uses designed-to-last technology to provide a long service life and low running costs.

**Swivel version:** 2 versions for complete freedom of movement and top performance whatever the angle



### Operator safety thanks to the anti-hose whip safety function on uncoupling

2 pushes to eliminate risks of dangerous hose whip under pressure.

**This safety function complies with standard ISO 4414.**

For further details, refer to the RA100 product documentation.



# ERS

## Automatic quick release couplings



### Applications

Fast connection of pneumatic tools. Particularly well-suited for sensitive applications with a risk of scratches:

finishing shops, aeronautics, automotive construction, furniture-making, stapler equipment, etc.

### Anti-scratch

Thanks to its design and its fully polyamide protecting spring, with no visible metal parts, this is the ideal coupling for the most delicate jobs.

### Lightweight

Made from lightweight materials, the ERS coupling is very easy to handle. As a result, it is particularly appreciated by users of pneumatic tools.

### Reliable

All internal wear parts are made of hardened steel.

### Automatic coupling

Simply push the plug into the socket.

### Lasting leak-tightness

The insertion and long guide of the plug in the hardened surfaces guarantee long-term leak-tightness.



**1 1<sup>st</sup> press:** automatic decompression of the downstream hose, with the plug continuing to be held in the park position in the coupling.



**2 2<sup>nd</sup> press:** hose not pressurised, disconnection of the coupling.

**Swivel version:** 2 versions for complete freedom of movement and top performance whatever the angle.



**ERS with FA ball joint** 360° of freedom, performance and easy handling.



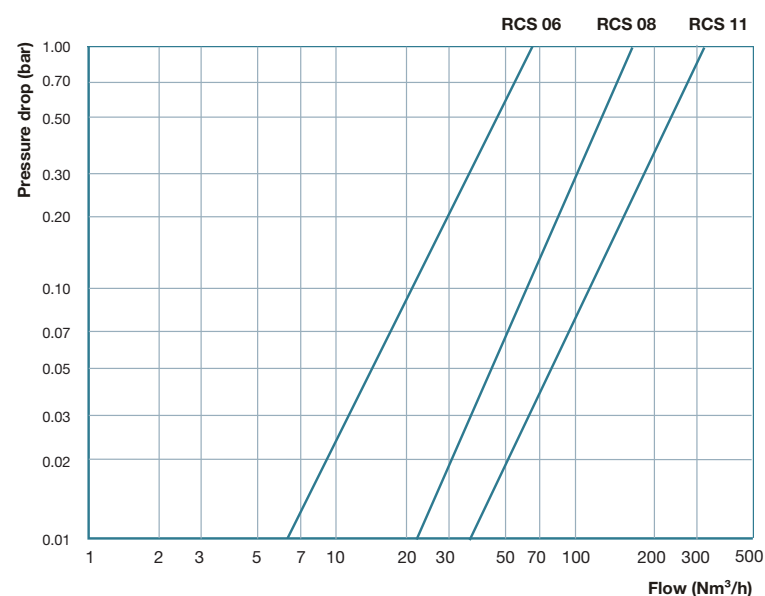
**ERS with SW ball joint** 360° and 90° rotation for greater freedom of movement.

# Technical characteristics

## RCS automatic quick release couplings

	RCS 06	RCS 08	RCS 11
Max. working pressure (bar)	12	16	16
Full flow Ø (mm)	5.5	8	11
Flow area (mm <sup>2</sup> )	23.75	50	95
Coupling force at 6 bar (N)	90	98	125
Flow at 0.3 bar pressure drop (Nm <sup>3</sup> /h)	35	94	180

## Pneumatic flow rate / pressure drop



### Construction

- Shutoff: single shutoff socket – free passage plug
- Socket bodies: 17% chrome stainless steel
- Plug: hardened and ground 13% chrome stainless steel
- Monobloc lock: hardened 13% chrome stainless steel
- Nitrile seals (NBR)
- Ball joint (revolving coupling): high strength aluminium

### Test conditions:

- Direction of flow: socket → plug
- Inlet pressure: 6 bar

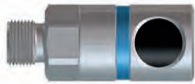
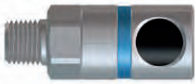
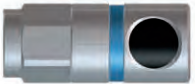
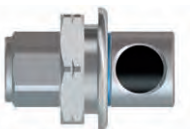
The flow and pressure drop of all your compressed air circuit components influence efficiency. Our experienced and knowledgeable sales engineers will help you optimise your systems performance.

### Push-button lock option






#### Option available for part-numbers with the "\*" symbol

Add **/VD** at the end of the part-number of the selected coupling part-number.

# Part-numbers







Description	Model	Connection	Part-number
<b>1. SOCKETS WITH MALE THREAD</b> 	RCS 06	G 1/4	RCS06.1151*
		G 3/8	RCS06.1152*
		G 1/2	RCS06.1153*
		NPT 1/4	RCS06.1251
		NPT 3/8	RCS06.1252
		NPT 1/2	RCS06.1253
	RCS 08	G 1/4	RCS08.1151*
		G 3/8	RCS08.1152*
		G 1/2	RCS08.1153*
		NPT 1/4	RCS08.1251
		NPT 3/8	RCS08.1252
		NPT 1/2	RCS08.1253
	RCS 11	G 3/8	RCS11.1152*
		G 1/2	RCS11.1153*
		G 3/4	RCS11.1154*
		NPT 3/8	RCS11.1252
		NPT 1/2	RCS11.1253
		NPT 3/4	RCS11.1254
<b>2. PRE-TEFLONNED SOCKETS WITH TAPERED MALE THREAD</b> 	RCS 06	R 1/4	RCS06.1161*
		R 3/8	RCS06.1162*
		R 1/2	RCS06.1163*
	RCS 08	R 1/4	RCS08.1161*
		R 3/8	RCS08.1162*
		R 1/2	RCS08.1163*
<b>3. SOCKETS WITH FEMALE THREAD</b> 	RCS 06	G 1/4	RCS06.1101*
		G 3/8	RCS06.1102*
		G 1/2	RCS06.1103*
		NPT 1/4	RCS06.1201
		NPT 3/8	RCS06.1202
		NPT 1/2	RCS06.1203
	RCS 08	G 1/4	RCS08.1101*
		G 3/8	RCS08.1102*
		NPT 1/4	RCS08.1201
		NPT 3/8	RCS08.1202
		NPT 1/2	RCS08.1203
		G 1/2	RCS08.1103*
	RCS 11	G 3/8	RCS11.1102*
		G 1/2	RCS11.1103*
		G 3/4	RCS11.1104*
		NPT 3/8	RCS11.1202
		NPT 1/2	RCS11.1203
		NPT 3/4	RCS11.1204
<b>4. PANEL MOUNTED SOCKETS WITH FEMALE THREAD</b> 	RCS 06	G 1/8	RCS06.2100*
		G 1/4	RCS06.2101*
		G 3/8	RCS06.2102*
		NPT 1/4	RCS06.2201*
		NPT 3/8	RCS06.2202*
	RCS 08	G 1/4	RCS08.2101*
		G 3/8	RCS08.2102*
		G 1/2	RCS08.2103*
		NPT 1/4	RCS08.2201*
		NPT 3/8	RCS08.2202*
		NPT 1/2	RCS08.2203*
	RCS 11	G 3/8	RCS11.2102*
		G 1/2	RCS11.2103*
		G 3/4	RCS11.2104*
		NPT 3/8	RCS11.2202*
		NPT 1/2	RCS11.2203*
		NPT 3/4	RCS11.2204*

# Part-numbers (continued)

Description	Model	Connection	Part-number
<b>5. SOCKETS FOR RUBBER HOSE</b>  	RCS 06	Ø 6	RCS06.1806*
		Ø 8	RCS06.1808*
		Ø 10	RCS06.1810*
		Ø 13	RCS06.1813*
	RCS 08	Ø 8	RCS08.1808*
		Ø 10	RCS08.1810*
		Ø 13	RCS08.1813*
		Ø 16	RCS08.1816*
	RCS 11	Ø 13	RCS11.1813*
		Ø 16	RCS11.1816*
		Ø 19	RCS11.1819*
<b>6. SW SWIVEL COUPLINGS WITH FEMALE THREAD</b>  	RCS 06	G 3/8	RCS06.1102/SW
		NPT 3/8	RCS06.1202/SW
	RCS 08	G 3/8	RCS08.1102/SW
		NPT 3/8	RCS08.1202/SW
<b>7. SW SWIVEL COUPLINGS FOR RUBBER HOSE</b>  	RCS 06	Ø 8	RCS06.1808/SW
		Ø 10	RCS06.1810/SW
		Ø 13	RCS06.1813/SW
	RCS 08	Ø 8	RCS08.1808/SW
		Ø 10	RCS08.1810/SW
		Ø 13	RCS08.1813/SW
<b>8. SW SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b>  	RCS 06	Ø 1/2"	RCS06.1813/CN/SW
	RCS 08	Ø 1/2"	RCS08.1813/CN/SW
<b>9. SW SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b>  	RCS 06	Ø 8 x 12	RCS06.1908/PU/SW
		Ø 9 x 13	RCS06.1909/PU/SW
	RCS 08	Ø 8 x 12	RCS08.1908/PU/SW
		Ø 9 x 13	RCS08.1909/PU/SW

\* Part-numbers for which the push button lock option is available: add /VD at the end of the part-number. Coupling plugs: see page 27.

# Part-numbers (continuation and end)

Description	Model	Connection	Part-number
<b>10. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b> 	RCS 06	G 1/4	RCS06.1101/FA
		G 3/8	RCS06.1102/FA
		NPT 1/4	RCS06.1201/FA
		NPT 3/8	RCS06.1202/FA
	RCS 08	G 1/4	RCS08.1101/FA
		G 3/8	RCS08.1102/FA
		NPT 1/4	RCS08.1201/FA
		NPT 3/8	RCS08.1202/FA
<b>11. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b> 	RCS 06	Ø 6	RCS06.1806/FA
		Ø 8	RCS06.1808/FA
		Ø 10	RCS06.1810/FA
		Ø 13	RCS06.1813/FA
	RCS 08	Ø 6	RCS08.1806/FA
		Ø 8	RCS08.1808/FA
		Ø 10	RCS08.1810/FA
		Ø 13	RCS08.1813/FA
<b>12. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b> 	RCS 06	Ø 3/8"	RCS06.1810/CN/FA
		Ø 1/2"	RCS06.1813/CN/FA
	RCS 08	Ø 3/8"	RCS08.1810/CN/FA
		Ø 1/2"	RCS08.1813/CN/FA
<b>13. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b> 	RCS 06	Ø 8 x 12	RCS06.1908/PU/FA
		Ø 9 x 13	RCS06.1909/PU/FA
	RCS 08	Ø 8 x 12	RCS08.1908/PU/FA
		Ø 9 x 13	RCS08.1909/PU/FA
		Ø 11 x 16	RCS08.1911/PU/FA
	RCS 11	Ø 11 x 16	RCS11.1911/PU/FA
<b>14. MOBILE MANIFOLD UNITS</b> 	RCS 06		RCS06.8600*
	RCS 08		RCS08.8600*
	RCS 11		RCS11.8600*
<b>15. FIXED MANIFOLD UNITS</b> 	RCS 06	G 1/4	RCS06.8101*
		G 3/8	RCS06.8102*
		G 1/2	RCS06.8103*
	RCS 08	G 1/2	RCS08.8103*
	RCS 11	G 1/2	RCS11.8103*
		G 3/4	RCS11.8104*

\* Part-numbers for which the push button lock option is available: add /VD at the end of the part-number. Coupling plugs: see page 27.

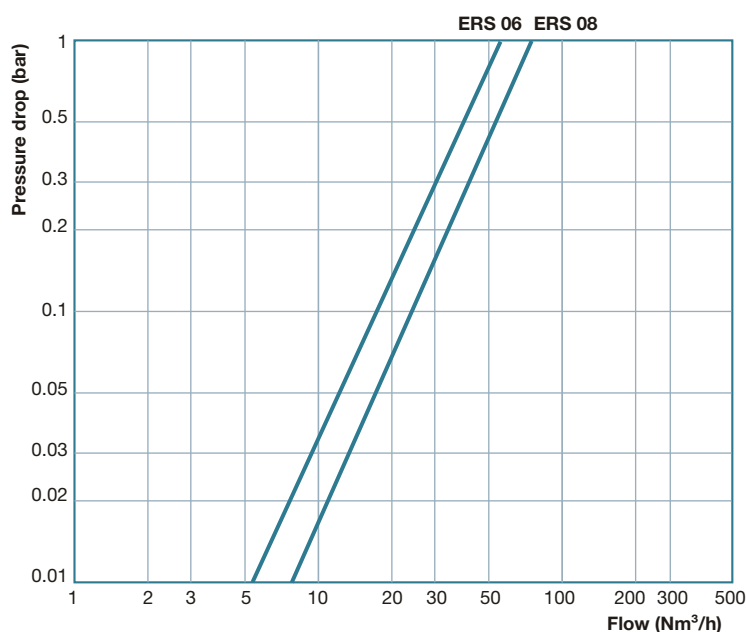


# Technical characteristics

## ERS automatic quick release couplings

	ERS 06	ERS 08
Max. working pressure (bar)	12	10
Full flow Ø (mm)	5.5	8
Flow area (mm <sup>2</sup> )	23.75	50


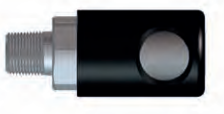
## Pneumatic flow rate / pressure drop



### Test conditions:

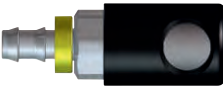

- $\Delta p$  max. = 1 bar
- Direction of flow: socket → plug
- Inlet pressure: 6 bar

# Part-numbers

Description	Model	Connection	Part-number
<b>1. SOCKETS WITH MALE THREAD</b>   GAZ   NPT	ERS 06	G 1/4	ERS06.1151
		G 3/8	ERS06.1152
		G 1/2	ERS06.1153
		NPT 1/4	ERS06.1251
		NPT 3/8	ERS06.1252
		NPT 1/2	ERS06.1253
	ERS 08	G 1/4	ERS08.1151
		G 3/8	ERS08.1152
		G 1/2	ERS08.1153
		NPT 1/4	ERS08.1251
		NPT 3/8	ERS08.1252
		NPT 1/2	ERS08.1253








\* Part-numbers for which the push button lock option is available: add /VD at the end of the part-number. Coupling plugs: see page 27.

# Part-numbers (continued)

Description	Model	Connection	Part-number
<b>2. SOCKETS WITH FEMALE THREAD</b>  	ERS 06	G 1/4	ERS06.1101
		G 3/8	ERS06.1102
		G 1/2	ERS06.1103
		NPT 1/4	ERS06.1201
		NPT 3/8	ERS06.1202
	ERS 08	G 1/4	ERS08.1101
		G 3/8	ERS08.1102
		G 1/2	ERS08.1103
		NPT 1/4	ERS08.1201
		NPT 3/8	ERS08.1202
		NPT 1/2	ERS08.1203
<b>3. SOCKETS FOR RUBBER HOSE</b>  	ERS 06	Ø 6	ERS06.1806
		Ø 8	ERS06.1808
		Ø 10	ERS06.1810
		Ø 13	ERS06.1813
	ERS 08	Ø 8	ERS08.1808
		Ø 10	ERS08.1810
		Ø 13	ERS08.1813
<b>4. SOCKETS FOR SELF-CLAMPING SELF-CLAMPING HOSE</b>  	ERS 06	Ø 1/4"	ERS06.1806/CN
		Ø 3/8"	ERS06.1810/CN
<b>5. SOCKETS FOR POLYURETHANE TUBE</b>  	ERS 06	Ø 8 x 12	ERS06.1908/PU
		Ø 9 x 13	ERS06.1909/PU
	ERS 08	Ø 8 x 12	ERS08.1908/PU
		Ø 9 x 13	ERS08.1909/PU
		Ø 11 x 16	ERS08.1911/PU
<b>6. SOCKETS FOR LORTAN HOSE</b>  	ERS 06	Ø 9 x 14.5	ERS06.1909/LT
		Ø 9.5 x 16	ERS06.1910/LT
	ERS 08	Ø 9.5 x 16	ERS08.1910/LT
		Ø 12.5 x 19	ERS08.1913/LT
<b>7. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b>  	ERS 06	G 1/4	ERS06.1101/FA
		G 3/8	ERS06.1102/FA
		NPT 1/4	ERS06.1201/FA
		NPT 3/8	ERS06.1202/FA
	ERS 08	G 1/4	ERS08.1101/FA
		G 3/8	ERS08.1102/FA
		NPT 1/4	ERS08.1201/FA
		NPT 3/8	ERS08.1202/FA

Coupling plugs: see page 27.





# Part-numbers (continuation and end)

Description	Model	Connection	Part-number
<b>8. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b> 	ERS 06	Ø 6	ERS06.1806/FA
		Ø 8	ERS06.1808/FA
		Ø 10	ERS06.1810/FA
		Ø 13	ERS06.1813/FA
	ERS 08	Ø 6	ERS08.1806/FA
		Ø 8	ERS08.1808/FA
		Ø 10	ERS08.1810/FA
		Ø 13	ERS08.1813/FA
<b>9. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b> 	ERS 06	Ø 8 x 12	ERS06.1908/PU/FA
		Ø 9 x 13	ERS06.1909/PU/FA
	ERS 08	Ø 8 x 12	ERS08.1908/PU/FA
		Ø 9 x 13	ERS08.1909/PU/FA
		Ø 11 x 16	ERS08.1911/PU/FA
<b>10. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE</b> 	ERS 06	Ø 3/8"	ERS06.1810/CN/FA
		Ø 1/2"	ERS06.1813/CN/FA
	ERS 08	Ø 3/8"	ERS08.1810/CN/FA
		Ø 1/2"	ERS08.1813/CN/FA
<b>11. W 360° SWIVEL COUPLINGS WITH FEMALE THREAD</b> 	ERS 06	G 3/8	ERS06.1102/SW
		NPT 3/8	ERS06.1202/SW
	ERS 08	G 3/8	ERS08.1102/SW
		NPT 3/8	ERS08.1202/SW
<b>12. SW 360° SWIVEL COUPLINGS FOR RUBBER HOSE</b> 	ERS 06	Ø 8	ERS06.1808/SW
		Ø 10	ERS06.1810/SW
		Ø 13	ERS06.1813/SW
	ERS 08	Ø 8	ERS08.1808/SW
		Ø 10	ERS08.1810/SW
		Ø 13	ERS08.1813/SW
<b>13. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b> 	ERS 06	Ø 8 x 12	ERS06.1908/PU/SW
		Ø 9 x 13	ERS06.1909/PU/SW
	ERS 08	Ø 8 x 12	ERS08.1908/PU/SW
		Ø 9 x 13	ERS08.1909/PU/SW
		Ø 11 x 16	ERS08.1911/PU/SW
<b>14. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE</b> 	ERS 06	Ø 1/2"	ERS06.1813/CN/SW
	ERS 08	Ø 1/2"	ERS08.1813/CN/SW

Coupling plugs: see page 27.

# Part-numbers

## Coupling plugs common to the RSI, NSI, RCS and ERS couplings

Description	Model	Connection	Part-number
<b>1. COUPLING PLUGS WITH MALE THREAD</b> 	<b>RBE 06</b>	G 1/8	RBE06.6150
		G 1/4	RBE06.6151
		G 3/8	RBE06.6152
		NPT 1/8	RBE06.6250
		NPT 1/4	RBE06.6251
		NPT 3/8	RBE06.6252
		M 14 x 1.25	RBE06.6414
	<b>RBE 08</b>	G 1/4	RBE08.6151
		G 3/8	RBE08.6152
		G 1/2	RBE08.6153
		NPT 1/4	RBE08.6251
		NPT 3/8	RBE08.6252
		NPT 1/2	RBE08.6253
	<b>RBE 11</b>	G 3/8	RBE11.6152
		G 1/2	RBE11.6153
		G 3/4	RBE11.6154
		NPT 3/8	RBE11.6252
		NPT 1/2	RBE11.6253
		NPT 3/4	RBE11.6254
<b>2. PRE-TEFLONNED COUPLING PLUGS WITH TAPERED MALE THREAD</b> 	<b>RBE 06</b>	R 1/8	RBE06.6160
		R 1/4	RBE06.6161
		R 3/8	RBE06.6162
	<b>RBE 08</b>	R 1/4	RBE08.6161
		R 3/8	RBE08.6162
		R 1/2	RBE08.6163
<b>3. COUPLING PLUGS WITH FEMALE THREAD</b> 	<b>RBE 06</b>	G 1/8	RBE06.6100
		G 1/4	RBE06.6101
		G 3/8	RBE06.6102
		NPT 1/8	RBE06.6200
		NPT 1/4	RBE06.6201
		NPT 3/8	RBE06.6202
		M 14 x 1.25	RBE06.63w14
		UN 9/16-20	RBE06.6315
	<b>RBE 08</b>	G 1/4	RBE08.6101
		G 3/8	RBE08.6102
		G 1/2	RBE08.6103
		NPT 1/4	RBE08.6201
		NPT 3/8	RBE08.6202
		NPT 1/2	RBE08.6203
	<b>RBE 11</b>	G 3/8	RBE11.6102
		G 1/2	RBE11.6103
		G 3/4	RBE11.6104
		NPT 3/8	RBE11.6202
		NPT 1/2	RBE11.6203
<b>4. COUPLING PLUGS FOR RUBBER HOSE</b> 	<b>RBE 06</b>	Ø 6	RBE06.6806
		Ø 8	RBE06.6808
		Ø 10	RBE06.6810
		Ø 13	RBE06.6813
	<b>RBE 08</b>	Ø 6	RBE08.6806
		Ø 8	RBE08.6808
		Ø 10	RBE08.6810
		Ø 13	RBE08.6813
		Ø 16	RBE08.6816
	<b>RBE 11</b>	Ø 6	RBE11.6806
		Ø 8	RBE11.6808
		Ø 10	RBE11.6810
		Ø 13	RBE11.6813
		Ø 16	RBE11.6816
		Ø 19	RBE11.6819

Coupling plugs compliant with the ISO 6150 standard, series C.

You will also find our ADS and RVS large passage compressed air couplings in the documentation for RA600 and RX010.

# RBS stainless steel automatic quick release couplings



## Applications

Connections for compressed air and inert gas networks in corrosive environments:

- food-processing applications
- chemical
- pharmaceutical
- nuclear power
- marine...

## Resistance and durability

With its mainly stainless steel 316 serie construction, RBS is designed to resist the most severe working environments and eliminate all risk of corrosion, guaranteeing reliable performance over time.

## Efficiency and simplicity of push-button technology

Automatic connection and disconnection for greater ease of use.



## Proven reliability and sealing

Stäubli's connector technology guarantees reliable long life usage with minimal service costs.

## Operator safety thanks to the anti-hose whip safety function on uncoupling

As in the RCS and ERS couplings, the push-button **must be pressed twice** to disconnect the coupling and eliminate the risk of sudden dangerous ejection of the hose under pressure.

**Safety compliant with standard ISO 4414.**



**1 Impulsion 1:** automatic decompression of the downstream hose, with the plug continuing to be held in the part position in the coupling.



**2 Impulsion 2:** no pressure in the hose, on disconnection.

## "Panel mounted" coupling version



For the ideal, neat and tidy integration of your equipment.

For further details, refer to the RA103 product documentation.



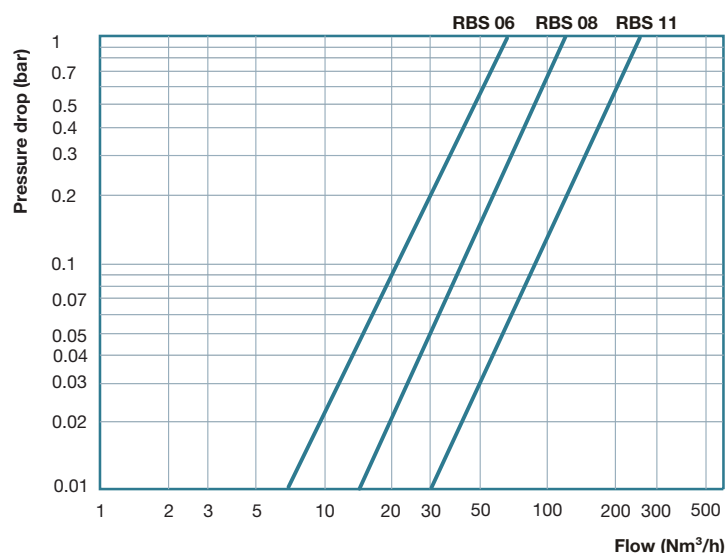
# Technical characteristics

	RBS 06	RBS 08	RBS 11
Max. working pressure (bar)	16	10	10
Full flow Ø (mm)	5.5	8	11
Flow area (mm <sup>2</sup> )	23.75	50	95
Flow at 0.3 bar pressure drop (Nm <sup>3</sup> /h)	36	77	150
External Ø of socket (mm)	26	32	38
Max. panel thickness (mm)*	6.5	12	12.5



\* Only applies to the "Panel feed-through" coupling version

## Pneumatic flow rate / pressure drop



### Test conditions:

- Direction of flow: socket → plug
- Inlet pressure: 6 bar

\* **Important!** Use of this seal with or in contact with mineral fluids (oil, grease, etc.) is highly discouraged.

### Construction

- Socket and plug: mainly stainless steel 316 series. For more information, consult us.
- Springs : stainless steel with 18% chrome
- Plug protective dust caps:
  - Stainless steel 316 serie protective dust caps or
  - Chloroprene protective dust caps
- KES sealing kit: stainless steel ring

### Sealing

- In standard: Nitrile seal (NBR)
- In option: Fluorocarbon seal (FPM), Ethylene-Propylene seal (EPDM)\* with FDA option

### Seals working temperatures

- Nitrile (NBR): - 15 to + 100 °C
- Fluorocarbon (FPM): - 10 to + 200 °C
- Ethylene-Propylene (EPDM) with FDA option: - 20 to + 150 °C

The flow and pressure drop of all compressed air circuit components influence efficiency. Our experienced and knowledgeable sales engineers will help you to optimise your system's performance.

## Coding options

To build your part-number, add to the standard part-number of the product, the type of seal (other than Nitrile and only for the socket) and the possible options, according to the example\*: **RBS 06.1250/IC/JV/DG**

**1. Socket standard part-number** with nitrile seal. Add at the end of this part-number, codes below:

### 2. Seal selection

(other one than Nitrile, only for the socket)

Fluorocarbon (FPM)

Ethylene-Propylene (EPDM) with FDA option

/JV code

/JE/FDA code

### 3. Other option

(possible for both socket and plug)




Degreasing

/DG code

\* example given here for the part-number of a coupling

# Part-numbers

## Standard couplings

Description	Model	Connection	Part-number
<b>1. SOCKETS WITH FEMALE GAZ THREAD</b>  	<b>RBS 06</b>	G 1/8	<b>RBS06.1100/IC</b>
		G 1/4	<b>RBS06.1101/IC</b>
		G 3/8	<b>RBS06.1102/IC</b>
		G 1/2	<b>RBS06.1103/IC</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.1101/IC</b>
		G 3/8	<b>RBS08.1102/IC</b>
		G 1/2	<b>RBS08.1103/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.1102/IC</b>
		G 1/2	<b>RBS11.1103/IC</b>
		G 3/4	<b>RBS11.1104/IC</b>
<b>2. SOCKETS WITH FEMALE NPT THREAD</b>  	<b>RBS 06</b>	NPT 1/8	<b>RBS06.1200/IC</b>
		NPT 1/4	<b>RBS06.1201/IC</b>
		NPT 3/8	<b>RBS06.1202/IC</b>
		NPT 1/2	<b>RBS06.1203/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.1201/IC</b>
		NPT 3/8	<b>RBS08.1202/IC</b>
		NPT 1/2	<b>RBS08.1203/IC</b>
	<b>RBS 11</b>	NPT 3/8	<b>RBS11.1202/IC</b>
		NPT 1/2	<b>RBS11.1203/IC</b>
		NPT 3/4	<b>RBS11.1204/IC</b>
<b>3. SOCKETS WITH MALE GAZ THREAD</b>  	<b>RBS 06</b>	G 1/8	<b>RBS06.1150/IC</b>
		G 1/4	<b>RBS06.1151/IC</b>
		G 3/8	<b>RBS06.1152/IC</b>
		G 1/2	<b>RBS06.1153/IC</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.1151/IC</b>
		G 3/8	<b>RBS08.1152/IC</b>
		G 1/2	<b>RBS08.1153/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.1152/IC</b>
		G 1/2	<b>RBS11.1153/IC</b>
		G 3/4	<b>RBS11.1154/IC</b>



(see page 31)

If you want to add options to your part-numbers, please refer to the bottom of page 29.  
Coupling plugs: see page 34.

# Part-numbers (continuation and end)


Description	Model	Connection	Part-number
<b>4. SOCKETS WITH MALE NPT THREAD</b>  	<b>RBS 06</b>	NPT 1/8	<b>RBS06.1250/IC</b>
		NPT 1/4	<b>RBS06.1251/IC</b>
		NPT 3/8	<b>RBS06.1252/IC</b>
		NPT 1/2	<b>RBS06.1253/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.1251/IC</b>
		NPT 3/8	<b>RBS08.1252/IC</b>
		NPT 1/2	<b>RBS08.1253/IC</b>
	<b>RBS 11</b>	NPT 3/8	<b>RBS11.1252/IC</b>
		NPT 1/2	<b>RBS11.1253/IC</b>
		NPT 3/4	<b>RBS11.1254/IC</b>
<b>5. SOCKETS FOR RUBBER HOSE</b>  	<b>RBS 06</b>	int. Ø 6 mm	<b>RBS06.1806/IC</b>
		int. Ø 8 mm	<b>RBS06.1808/IC</b>
		int. Ø 10 mm	<b>RBS06.1810/IC</b>
		int. Ø 13 mm	<b>RBS06.1813/IC</b>
	<b>RBS 08</b>	int. Ø 8 mm	<b>RBS08.1808/IC</b>
		int. Ø 10 mm	<b>RBS08.1810/IC</b>
		int. Ø 13 mm	<b>RBS08.1813/IC</b>
		int. Ø 16 mm	<b>RBS08.1816/IC</b>
	<b>RBS 11</b>	int. Ø 10 mm	<b>RBS11.1810/IC</b>
		int. Ø 13 mm	<b>RBS11.1813/IC</b>
		int. Ø 16 mm	<b>RBS11.1816/IC</b>
		int. Ø 19 mm	<b>RBS11.1819/IC</b>


If you want to add options to your part-numbers, please refer to the bottom of page 29.

Coupling plugs: see page 34.

# Accessories (to be ordered separately)

## KES sealing kits

Composed of a retaining ring and an O-Ring seal, the KES ensure a perfect resistance between the socket and your support. This type of sealing is possible on cylindrical male sockets and plugs (the part-numbers compatible with this option are identified by the symbol  in the table of part-numbers on pages 30 to 34).

	Model	Part-number
	G 1/8	<b>KES01.9100/IC</b>
	G 1/4	<b>KES01.9101/IC</b>
	G 3/8	<b>KES01.9102/IC</b>
	G 1/2	<b>KES01.9103/IC</b>
	G 3/4	<b>KES01.9104/IC</b>

**Part-numbers available in the same seal selections for sockets and plugs.**

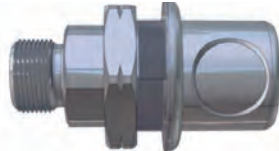
Add the code below at the end of the part-number:

- Nitrile seal (in standard) ..... no code
- Fluorocarbon seal ..... /JV code
- Ethylene-Propylene seal ..... /JE/FDA code with FDA option

For further details, refer to the RP003 product documentation.

# Part-numbers

## Panel mounted socket version

Description	Model	Connection	Part-number
<b>1. SOCKETS WITH FEMALE GAZ THREAD</b> 	<b>RBS 06</b>	G 1/8	<b>RBS06.2100/IC</b>
		G 1/4	<b>RBS06.2101/IC</b>
		G 3/8	<b>RBS06.2102/IC</b>
		G 1/2	<b>RBS06.2103/IC</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.2101/IC</b>
		G 3/8	<b>RBS08.2102/IC</b>
		G 1/2	<b>RBS08.2103/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.2102/IC</b>
		G 1/2	<b>RBS11.2103/IC</b>
		G 3/4	<b>RBS11.2104/IC</b>
<b>2. SOCKETS WITH FEMALE NPT THREAD</b> 	<b>RBS 06</b>	NPT 1/8	<b>RBS06.2200/IC</b>
		NPT 1/4	<b>RBS06.2201/IC</b>
		NPT 3/8	<b>RBS06.2202/IC</b>
		NPT 1/2	<b>RBS06.2203/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.2201/IC</b>
		NPT 3/8	<b>RBS08.2202/IC</b>
		NPT 1/2	<b>RBS08.2203/IC</b>
	<b>RBS 11</b>	NPT 3/8	<b>RBS11.2202/IC</b>
		NPT 1/2	<b>RBS11.2203/IC</b>
		NPT 3/4	<b>RBS11.2204/IC</b>
<b>3. SOCKETS WITH MALE GAZ THREAD</b> 	<b>RBS 06</b>	G 1/8	<b>RBS06.2150/IC</b>
		G 1/4	<b>RBS06.2151/IC</b>
		G 3/8	<b>RBS06.2152/IC</b>
		G 1/2	<b>RBS06.2153/IC</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.2151/IC</b>
		G 3/8	<b>RBS08.2152/IC</b>
		G 1/2	<b>RBS08.2153/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.2152/IC</b>
		G 1/2	<b>RBS11.2153/IC</b>
		G 3/4	<b>RBS11.2154/IC</b>



(see page 31)

If you want to add options to your part-numbers, please refer to the bottom of page 29.

Coupling plugs: see page 34.








# Part-numbers (continuation and end)

Description	Model	Connection	Part-number
<b>4. SOCKETS WITH MALE NPT THREAD</b> 	<b>RBS 06</b>	NPT 1/8	<b>RBS06.2250/IC</b>
		NPT 1/4	<b>RBS06.2251/IC</b>
		NPT 3/8	<b>RBS06.2252/IC</b>
		NPT 1/2	<b>RBS06.2253/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.2251/IC</b>
		NPT 3/8	<b>RBS08.2252/IC</b>
		NPT 1/2	<b>RBS08.2253/IC</b>
	<b>RBS 11</b>	NPT 3/8	<b>RBS11.2252/IC</b>
		NPT 1/2	<b>RBS11.2253/IC</b>
		NPT 3/4	<b>RBS11.2254/IC</b>
<b>5. SOCKETS FOR RUBBER HOSE</b> 	<b>RBS 06</b>	int. Ø 6 mm	<b>RBS06.2806/IC</b>
		int. Ø 8 mm	<b>RBS06.2808/IC</b>
		int. Ø 10 mm	<b>RBS06.2810/IC</b>
		int. Ø 13 mm	<b>RBS06.2813/IC</b>
	<b>RBS 08</b>	int. Ø 8 mm	<b>RBS08.2808/IC</b>
		int. Ø 10 mm	<b>RBS08.2810/IC</b>
		int. Ø 13 mm	<b>RBS08.2813/IC</b>
		int. Ø 16 mm	<b>RBS08.2816/IC</b>
	<b>RBS 11</b>	int. Ø 10 mm	<b>RBS11.2810/IC</b>
		int. Ø 13 mm	<b>RBS11.2813/IC</b>
		int. Ø 16 mm	<b>RBS11.2816/IC</b>
		int. Ø 19 mm	<b>RBS11.2819/IC</b>

If you want to add options to your part-numbers, please refer to the bottom of page 29.  
Coupling plugs: see page 34.

# Part-numbers

## Coupling plugs for RBS/IC range

Description	Model	Connection	Part-number
<b>1. PLUGS WITH FEMALE GAZ THREAD</b> 	<b>RBS 06</b>	G 1/8	<b>RBS06.6100/IC</b>
		G 1/4	<b>RBS06.6101/IC</b>
		G 3/8	<b>RBS06.6102/IC</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.6101/IC</b>
		G 3/8	<b>RBS08.6102/IC</b>
		G 1/2	<b>RBS08.6103/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.6102/IC</b>
		G 1/2	<b>RBS11.6103/IC</b>
		G 3/4	<b>RBS11.6104/IC</b>
<b>2. PLUGS WITH FEMALE NPT THREAD</b> 	<b>RBS 06</b>	NPT 1/8	<b>RBS06.6200/IC</b>
		NPT 1/4	<b>RBS06.6201/IC</b>
		NPT 3/8	<b>RBS06.6202/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.6201/IC</b>
		NPT 3/8	<b>RBS08.6202/IC</b>
		NPT 1/2	<b>RBS08.6203/IC</b>
	<b>RBS 11</b>	NPT 1/2	<b>RBS11.6203/IC</b>
		NPT 3/4	<b>RBS11.6204/IC</b>
<b>3. PLUGS WITH MALE GAZ THREAD</b>    (see page 31 * Except for RBS 06 and RBS 08 G 3/8: not compatible)	<b>RBS 06</b>	G 1/8	<b>RBS06.6150/IC</b>
		G 1/4	<b>RBS06.6151/IC</b>
		G 3/8	<b>RBS06.6152/IC*</b>
	<b>RBS 08</b>	G 1/4	<b>RBS08.6151/IC</b>
		G 3/8	<b>RBS08.6152/IC*</b>
		G 1/2	<b>RBS08.6153/IC</b>
	<b>RBS 11</b>	G 3/8	<b>RBS11.6152/IC</b>
		G 1/2	<b>RBS11.6153/IC</b>
		G 3/4	<b>RBS11.6154/IC</b>
<b>4. PLUGS WITH MALE NPT THREAD</b> 	<b>RBS 06</b>	NPT 1/8	<b>RBS06.6250/IC</b>
		NPT 1/4	<b>RBS06.6251/IC</b>
		NPT 3/8	<b>RBS06.6252/IC</b>
	<b>RBS 08</b>	NPT 1/4	<b>RBS08.6251/IC</b>
		NPT 3/8	<b>RBS08.6252/IC</b>
		NPT 1/2	<b>RBS08.6253/IC</b>
	<b>RBS 11</b>	NPT 3/4	<b>RBS11.6254/IC</b>
<b>5. PLUGS FOR RUBBER HOSE</b>   or  	<b>RBS 06</b>	int. Ø 6 mm	<b>RBS06.6806/IC</b>
		int. Ø 8 mm	<b>RBS06.6808/IC</b>
		int. Ø 10 mm	<b>RBS06.6810/IC</b>
		int. Ø 13 mm	<b>RBS06.6813/IC</b>
	<b>RBS 08</b>	int. Ø 8 mm	<b>RBS08.6808/IC</b>
		int. Ø 10 mm	<b>RBS08.6810/IC</b>
		int. Ø 13 mm	<b>RBS08.6813/IC</b>
		int. Ø 16 mm	<b>RBS08.6816/IC</b>
	<b>RBS 11</b>	int. Ø 10 mm	<b>RBS11.6810/IC</b>
		int. Ø 13 mm	<b>RBS11.6813/IC</b>
		int. Ø 16 mm	<b>RBS11.6816/IC</b>
		int. Ø 19 mm	<b>RBS11.6819/IC</b>

Coupling plugs compliant with the ISO 6150 standard, series C.



# HJP polyurethane Self-retracting connection units



## Time savings and safe

Connection units are supplied fully assembled, ready to use.

## Excellent plastic memory

Complete return of hose to initial position after extension.  
Permanent elasticity.

## Long reach

- 3 hose diameters  
Ø 8 x 12, Ø 9 x 13, Ø 11 x 16 mm
  - 4 working lengths  
2,000, 3,000, 6,000 and 7,500 mm
- Silicone-free

## 3 automatic quick release coupling models



**NSI:** anti scratch design and anti hose whip safety (3 actions in 1 press).

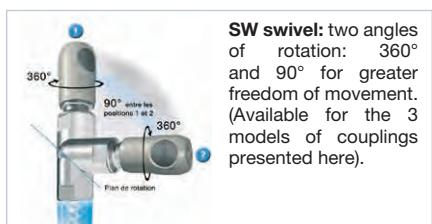


**RSI:** anti-hose whip safety (3 actions in 1 press).



**RCS:** anti-hose whip safety at disconnection.

## "360° swivel version" couplings



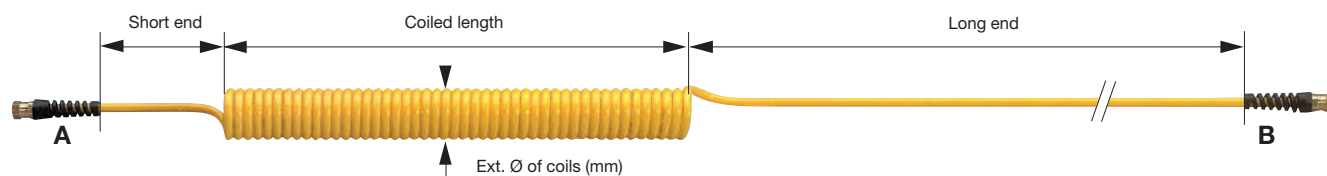
## Technical characteristics

Maximum working temperatures:  
- 20 to + 40 °C  
Maximum working pressure: 10 bar

For further details, refer to the RA900 product documentation.

# Part-numbers

## Spiral-reinforced polyurethane tube



int./ext. Ø of tube (mm)	Ø 8 x 12				Ø 9 x 13				Ø 11 x 16
Working length	2 000	3 000	6 000	7 500	2 000	3 000	6 000	7 500	7 500
Coiled length (mm)	150	250	500	620	260	350	550	650	570
Length of short end (mm)	150	150	150	150	150	150	150	150	150
Length of long end (mm)	1000	1000	1500	2000	1000	1000	1500	2000	2000
External Ø of coils (mm)	65	65	65	65	68	68	68	68	95
Part-number HJP	08M002	08M003	08M006	08M008	09M002	09M003	09M006	09M008	11M008

Description		HJP 08	HJP 09	HJP 11	Part-number
<b>End A</b> Female thread	G 3/8	✓	✓		AF102
	G 1/2			✓	AF103
	NPT 3/8	✓	✓		AF202
	NPT 1/2			✓	AF203
<b>Coupling plug</b>	RBE 06	✓	✓		RBE066
	RBE 08	✓	✓	✓	RBE086
	RBE 11	✓	✓	✓	RBE116
<b>Quick release couplings</b>	RSI 06	✓	✓		RSI061
	RSI 08	✓	✓	✓	RSI081
	RSI 11			✓	RSI111
	RCS 06	✓	✓		RCS061
	RCS 08	✓	✓	✓	RCS081
	RCS 11			✓	RCS111
	NSI 06	✓	✓		NSI061
	NSI 08	✓	✓	✓	NSI081
<b>360° swivel</b>		✓	✓		RSI061SW
		✓	✓	✓	RSI081SW
				✓	RSI111SW
		✓	✓		NSI061SW
		✓	✓	✓	NSI081SW
		✓	✓		RCS061SW
		✓	✓	✓	RCS081SW
				✓	RCS111SW
		✓	✓		RCS061FA
		✓	✓	✓	RCS081FA
				✓	RCS111FA
		✓	✓		NSI061FA
		✓	✓	✓	NSI081FA

## How to build your part-number?

Spiral-reinforced polyurethane tube	End A	End B
Tube Ø 8 x 12 mm Working length 2 000 mm	equipped with an RBE plug	equipped with an RSI 06 socket with 360° swivel
Your final part-number:	HJP08M002	/ RBE066 / RSI061SW

ETF

## Closed drum automatic hose reels

**Applications**

Supply of compressed air to pneumatic tools and blowguns:

- near machines,
- at workstations and on assembly lines,
- in the manufacturing and maintenance departments, etc.

They prevent damage to hoses left trailing on the floor, create more working space and contribute to safety

**Main reasons for choosing this product: practical/aesthetic/suitable for use in pollutant atmospheres**

- Internal diameter of hose: 8 mm.
- Length of hose: 10 m.
- Hose reel sold individually or fitted with your choice of quick release coupling between: RCS or RSI.

**Easy to use**

- Re-reel ratchet stop click meaning **safe and easy operation.**
- Hose reel mounted (as standard) on pivoting support that permits wall mounting, with roller-type hose guides at the outlet to permit smooth unwinding in any direction.

**Easy maintenance**

Rotating joint greased without removing the hose reel.

**Reliable**

- High resistance to bending, pulling and twisting of the hose.
- Return spring to prevent hose breakage.

# ETO

## open drum automatic hose reels



### Applications

Supply of compressed air to pneumatic tools and blowguns:

- near machines,
- at workstation and on assembly lines,
- in the manufacturing and maintenance departments, etc.

**They prevent damage to hoses left trailing on the floor, create more working space and contribute to safety.**

### Reasons for choosing the product

Very long hose length and larger hose diameter of up to 16 mm.

- Internal diameters of hose: 8, 13, 16 mm.
- Lengths of hose: 10, 20 m.
- Hose reel sold individually or fitted with your choice of quick release coupling between: RCS or RSI.

### Easy to use

- Just like the ETF, the ETO possesses a re-reel ratchet stop with click action for simple, safe use
- To make it even easier to use, the ETO can also be mounted on a pivoting support (to be ordered separately) that permits wall mounting, with roller-type hose guides at the outlet to permit smooth unwinding over large working areas.

### Easy maintenance

Rotating joint greased without removing the hose reel.

### Reliable

- High resistance to bending, pulling and twisting of the hose.
- Return spring to prevent hose breakage.

For further details, refer to the RP250 product documentation.

# ETO Compact open drum automatic hose reels



## Applications

Supply of compressed air to pneumatic tools and blowguns in small premises.

They prevent damage to hoses left trailing on the floor, create more working space and contribute to safety.

### Main reason for choosing this product: compact design

- Internal diameter of hose: 8mm
- Length of hose: 12m
- Hose reel sold individually or fitted with your choice of quick release coupling between: RCS or RSI

### Easy to use

- The ETO Compact also possesses a re-reel ratchet stop with click action for simple, safe use.
- The hose reel is equipped (as standard) with a pivoting support that permits wall mounting, with roller-type hose guides at the outlet to permit smooth unwinding in any direction.

### Easy maintenance

Rotating joint greased without removing the hose reel.

### Reliable

- High resistance to bending, pulling and twisting of the hose.
- Return spring to prevent hose breakage. du tuyau.

# Technical characteristics


## ETF hose reels

- Hose reel equipped with a pivoting support and a re-reel ratchet stop with click action.
- Drum fitted on ball bearings.
- Return spring mounted on hub and housed in the drum.
- Compressed air hose:
  - Maximum working pressure: 15 bar (\*limited to 12 bar if the hose reel is equipped with an RCS 06 coupling).
  - Max. operating temperature: 60 °C.
  - To be connected to the compressed air network by means of a hose of diameter 8 mm.
- Weight: 22.5 kg with support.

### Construction

- Case, drum and frame made from steel plates with an epoxy paint coating.
- Compressed air hose: black rubber.

## Part-numbers

	Hose int./ext. Ø (mm)	Hose length (m)	Hose reel alone	Hose reel equipped with coupling
	8/14	10	<b>ETF08</b>	
	8/14	10		<b>ETF08/RSI06</b>
	8/14	10		<b>ETF08/RCS06*</b>

Supplied with pivoting base

\* Attention: pressure limited to 12 bar (see above).



# Technical characteristics


## ETO hose reels

- Hose reel equipped with a re-reel ratchet stop with click action.
- Drum fitted on ball bearings
- Return spring mounted on hub and housed in the drum.
- Compressed air:
  - Maximum working pressure: 15 bar (\*limited to 12 bar if the hose reel is equipped with an RCS 06 coupling).
  - Max. operating temperature: 60 °C.
  - To be connected to the compressed air network by means of a hose of diameter 8, 13 or 16 mm.
- Weight (given with support): 20.5 kg for ETO 08 - 35.3 kg for ETO 13 and 16.

### Construction

- Case, drum and frame made from steel plates with an epoxy paint coating.
- Compressed air hose: black rubber.

## Part-numbers

	Hose int./ext. Ø (mm)	Hose length (m)	Hose reel alone	Hose reel equipped with coupling
	8/14	20	<b>ETO08</b>	<b>ETO08/RSI06</b> <b>ETO08/RCS06*</b>
	13/21	20	<b>ETO13</b>	<b>ETO13/RSI08</b> <b>ETO13/RCS08</b>
	16/25	10	<b>ETO16</b>	<b>ETO16/RSI08</b> <b>ETO16/RCS08</b>

\* Attention: pressure limited to 12 bar (see above).

Pivoting support (to be ordered separately)	Part-number
<b>ETO08</b>	<b>S03</b>
<b>ETO13</b>	<b>S04</b>
<b>ETO16</b>	

# Technical characteristics


## ETO Compact hose reels

- Hose reel equipped with a pivoting support and a re-reel ratchet stop with click action.
- Drum fitted on ball bearings.
- Return spring mounted on hub and housed in the drum.
- Compressed air hose:
  - Maximum working pressure: 20 bar (\*limited to 16 bar if the hose reel is equipped with an RSI 06 coupling) (\*\*limited to 12 bar if the hose reel is equipped with an RCS 06 coupling).
  - Max. operating temperature: 40 °C.
  - To be connected to the compressed air network by means of a hose of diameter 8 mm.
- Weight: 8.7 kg with support.

### Construction

- Case, drum and frame made from steel plates with an epoxy paint coating.
- Compressed air hose: black rubber.

## Part-numbers

	Hose int./ext. Ø (mm)	Hose length (m)	Hose reel alone	Hose reel equipped with coupling
 <p>Supplied with pivoting base</p>	8/13	12	<b>ETO08/C</b>	–
	8/13	12	–	<b>ETO08/C/RSI06*</b>
	8/13	12	–	<b>ETO08/C/RCS06**</b>

\* Attention: pressure limited to 16 bar.

\*\* Attention: pressure limited to 12 bar (see above).

# Pocket blowguns

## SPG



### Applications

- Workstation cleaning
- Blow-down of machined parts and machining stands
- Removing dust and drying parts on production, assembly, inspection and tooling stations...

For all types of industry including mechanical, electrical, automotive, timber, plastics, and laboratories.

### Pocket safety blowgun.

Stäubli constantly aims to improve its products and enhance operator safety. With this in mind, it has developed this pocket blowgun combining safety, compact size and flexibility for highperformance blow-down. The ideal partner for your compressed air coupling, this portable blowgun will adapt to all types of use.

#### Quickly transforms a quick-release coupling into a safety blowgun

- Direct connection to all 6-mm diameter Stäubli compressed air quick-release couplings for fast, easy incorporation into your installation.
- Coupling acts as blowgun handle.
- Stäubli plug fitting built into blowgun.

#### Anti-scratch design

For your delicate surfaces.

#### Portable, multi-purpose blowgun

#### Easy to use

Carefully designed to combine lightness and comfortable handling.

#### Adjustable, optimised air jet

- As of the opening of the compressed air circuit.
- For great ease of use.

#### Equipped with the OSHA safety nozzle with Venturi effect

- Foolproof internal mechanism complies with OSHA regulations. In the event of direct contact with the skin, two lateral exhaust holes instantly reduce outlet pressure.
- Ideal for large areas due to high air flow rate.
- Saves energy by using outside air.

# Technical characteristics

## SPG pocket blowguns

### Robust and reliable

- High strength composite material withstands impacts and dropping.
- Perfect seal even with intensive use, for optimum blow-down every time.

### Stäubli plug fitting built into blowgun


Designed for the entire range of 6-mm diameter Stäubli compressed air quick-release couplings.

- Max. operating temperature: -15 to +70 °C
- Max. working pressure: 12 bar
- Blowgun weight: 64 g
- Consumption at 6 bar: 14 Nm<sup>3</sup>/h
- Noise level: 89 dBA

### Construction

- Composite blowgun
- NBR seals
- Steel fitting

# Part-numbers

Description	Connection	Part-number
<p>Safety blowgun with OSHA nozzle</p> 	Stäubli profile 6-mm diameter plug	<b>SPG06.6000/OSHA</b>

# Compact blowguns

## SBG



### Applications

- Workstation cleaning
- Blow-down of machined parts and machining stands
- Removing dust and drying parts on production, assembly, inspection and tooling stations, etc.

For all types of industry including mechanical, electrical, automotive, timber, plastics, and laboratories.

### Compact safety blowgun.

Stäubli constantly aims to improve its products and enhance operator safety. With this in mind, it has developed 4 compact models combining safety, compact size and strength for high-performance blow-down. The ideal partner for quick-release couplings, these blowguns can adapt to all types of application.

### Quickly transforms a quick-release coupling into a safety blowgun

- Direct connection to all 6-mm diameter Stäubli compressed air quick-release couplings for fast, easy incorporation into your installation.
- Coupling acts as blowgun handle.

### Anti-scratch

For your delicate surfaces.

### Practical

Blowgun can easily be hung on the parking bracket, which incorporates a break-away function, using the ring or lever.

### Easy to use, robust and reliable

- High strength composite material withstands impacts and falls.
- Perfect seal even with intensive use, for optimum blow-down every time.
- Carefully designed to combine lightness and comfortable handling.

### Adjustable, optimised air jet

- As of the opening of the compressed air circuit.
- Ensures great ease of use.

### Stäubli plug fitting built into blowgun

Designed for the entire range of 6-mm diameter Stäubli compressed air quick-release couplings.

# Technical characteristics

## SBG compact blowguns

### MIK safety blowgun with protective air shield



Protective air shield prevents shavings and dust from blowing back onto the operator.

### SIL silent safety blowgun



Combines air jet strength and reduced noise level for operator comfort.

### OSHA safety blowgun with Venturi effect



Combines air jet strength and safety.

- Foolproof internal mechanism in the event of direct contact with skin: two lateral exhaust holes instantly reduce outlet pressure.
- Saves energy by using outside air.

### ZEP Zéphir conventional blowgun



Basic model for direct, concentrated blow-down.

Model	MIK	SIL	OSHA	ZEP
Consumption at 6 bar (Nm <sup>3</sup> /h)	25	10	13	14
Air jet strength at 6 bar (g)	131	165	260	286
Noise level (dBA)	87	74	87	85
Max. operating temperature	-15° to + 70°C			
Max. working pressure	12 bar			
Blowgun weight	70 g			

#### Construction

- Composite blowgun
- NBR seals
- 13% chrome stainless steel fitting

## Part-numbers

Description	Connection	Part-number
MIK safety blowgun with protective air shield 	Stäubli profile 6-mm Ø plug	<b>SBG06.6000/MIK</b>
OSHA safety blowgun with Venturi effect 	Stäubli profile 6-mm Ø plug	<b>SBG06.6000/OSHA</b>
Bracket 		<b>R04190000</b>

Description	Connection	Part-number
SIL silent safety blowgun 	Stäubli profile 6-mm Ø plug	<b>SBG06.6000/SIL</b>
ZEP Zéphir conventional blowgun 	Stäubli profile 6-mm Ø plug	<b>SBG06.6000/ZEP</b>



# Safety blowguns

## STA



### Applications

- Workstation cleaning
- Blowing of machined parts and machining equipment
- Dust removal and drying of parts on manufacturing, assembly and inspection stations, tools...

For the engineering, power, automotive, woodworking and plastics industries, laboratories...

**The air jet that combines ergonomics and strength.**

**Made entirely from high-strength composite materials, this is a high-performance safety blowgun.**

### Efficient

- Perfect seal even with intensive use, for optimum blow-down.

### Easy to use

- Sophisticated design combining lightness and comfortable handling.

### Anti-scratch

For your delicate surfaces.

### Tough, shockproof design

High strength composite material used to protect against impacts and falls.

### Optimally directed air jet

Providing excellent user comfort.

### Adjustable air jet

From the moment the compressed air is released.

## Four blowgun models for four nozzle types

### Safety blowgun with protective air shield - MIK



The protective air shield prevents chips and dust from being blown back towards the operator.

### Silent safety blowgun SIL



This blowgun combines blowing force and reduced noise level for operator comfort.

### OSHA safety blowgun with Venturi effect



This blowgun combines blowing force and safety. Foolproof if in contact with the skin: two side exhaust holes instantly limit the output pressure.

### Conventional Zéphir blowgun - ZEP



Basic model for direct, accurate blowing.

### Safety blowgun with "Contact" blowing - COT



Precision blowgun with long, bent nozzle for an accurate, powerful air jet that permits the "contact blow-down" of all hard-to-reach areas.

## Three air jet versions available for each model

### Standard version

- with maximum dynamic blowing pressure.

### Versions 2S3 and 2S15

- with limited dynamic blowing pressure, equivalent to the standard model supplied at 3 bar for the 2S3 and 1.5 bar for the 2S15.

The dynamic pressure is lowered through a tamperproof system located in the blowgun body. With these models, workstations can be equipped with low-pressure blowguns supplied from a common 6-bar compressed air supply system.

## Two types of connection

- Female threads: G 1/4 F or NPT 1/4 F.

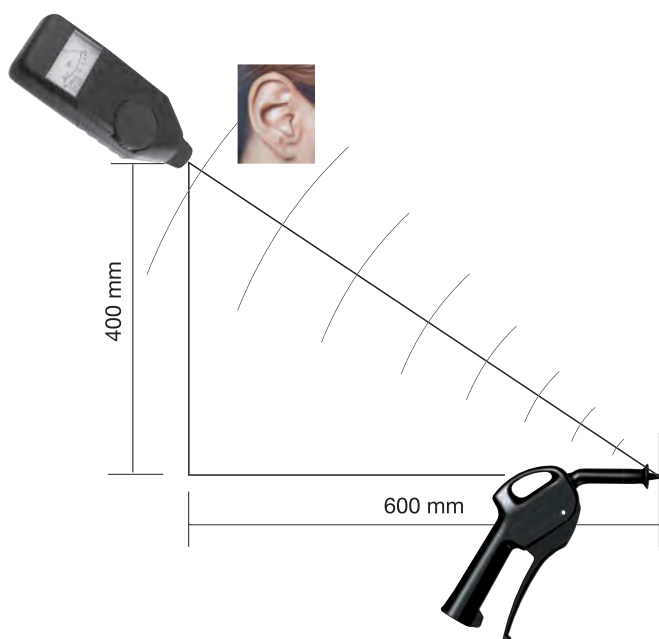
For further details, refer to the RB300 product documentation.

# Technical characteristics

## Optimal air jet strength for reduced consumption

Model	MIK	SIL	OSHA	ZEP	COT 3	COT 5
Consumption at 6 bar (Nm <sup>3</sup> /h)	27	12	13	15	15	14,5
Air jet strength at 6 bar (g)* *Test conditions: Distance : 300 mm - Surface : 300 x 300 mm	230	210	270	310	264	244
Noise level (dBA)**	82	77	90	84	86	86

## \*\* Measure of the acoustic level



### Construction

- Composite blowgun
- NBR seals
- Brass connector

### Maximum operating temperatures

- 15 to + 70 °C

### Max. working pressure


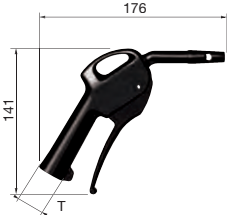

12 bar


### Blowgun weight

- 125 g with composite nozzles
- 200 g with metal nozzles

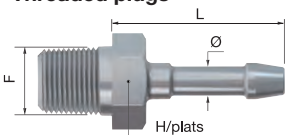
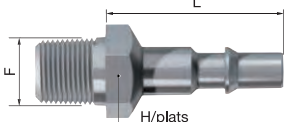
# Part-numbers

## Blowguns alone

Description	Thread T	Standard air jet version	Air jet version 2S3 (3 bar)	Air jet version 2S15 (1.5 bar)
<b>MIK</b> safety blowgun with protective air shield 	G 1/4	<b>STA06.1101/MIK</b>	<b>STA06.1101/MIK/2S3</b>	<b>STA06.1101/MIK/2S15</b>
	NPT 1/4	<b>STA06.1201/MIK</b>	<b>STA06.1201/MIK/2S3</b>	<b>STA06.1201/MIK/2S15</b>
Silent safety blowgun <b>SIL</b> 	G 1/4	<b>STA06.1101/SIL</b>	<b>STA06.1101/SIL/2S3</b>	<b>STA06.1101/SIL/2S15</b>
	NPT 1/4	<b>STA06.1201/SIL</b>	<b>STA06.1201/SIL/2S3</b>	<b>STA06.1201/SIL/2S15</b>
Safety blowgun with protection in the event of contact <b>OSHA</b> 	G 1/4	<b>STA06.1101/OSHA</b>	<b>STA06.1101/OSHA/2S3</b>	<b>STA06.1101/OSHA/2S15</b>
	NPT 1/4	<b>STA06.1201/OSHA</b>	<b>STA06.1201/OSHA/2S3</b>	<b>STA06.1201/OSHA/2S15</b>
Basic blowgun for direct, concentrated blow-down <b>ZEP</b> 	G 1/4	<b>STA06.1101/ZEP</b>	<b>STA06.1101/ZEP/2S3</b>	<b>STA06.1101/ZEP/2S15</b>
	NPT 1/4	<b>STA06.1201/ZEP</b>	<b>STA06.1201/ZEP/2S3</b>	<b>STA06.1201/ZEP/2S15</b>

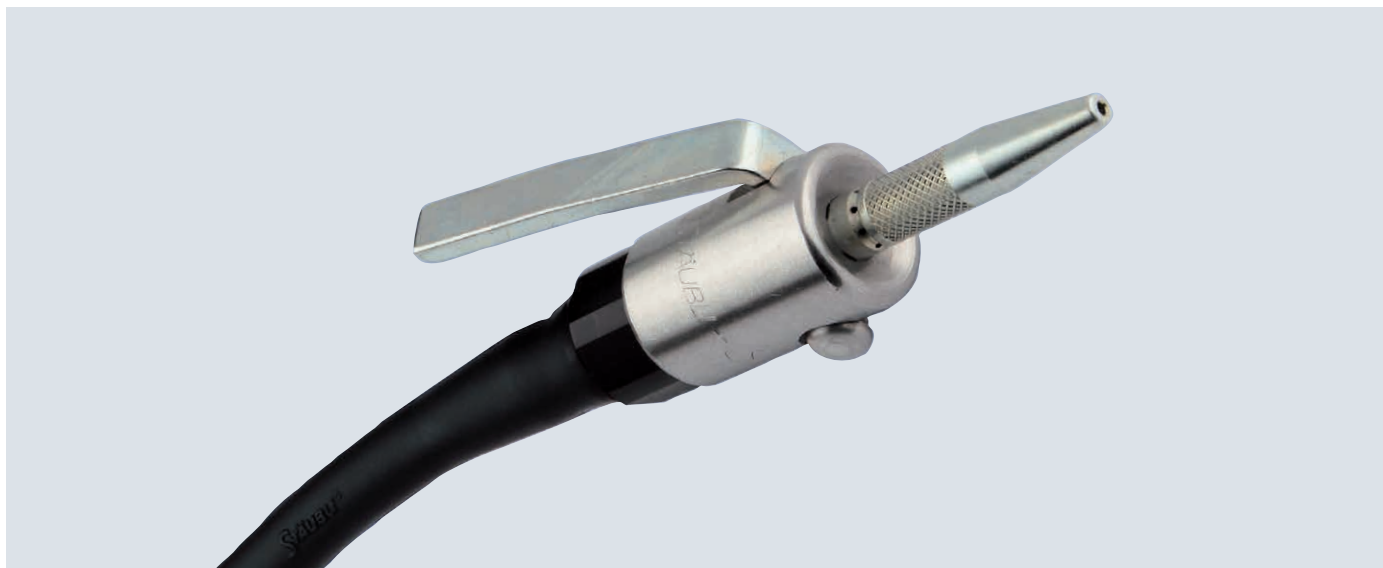
Description	Thread T	Version with metal nozzle of length 300 mm	Version with metal nozzle of length 500 mm
Safety blowgun with "Contact" blowing <b>COT</b> 	G 1/4	<b>STA06.1101/COT3</b>	<b>STA06.1101/COT5</b>
	NPT 1/4	<b>STA06.1201/COT3</b>	<b>STA06.1201/COT5</b>

## Plugs

Description	Dimensions (mm)			Thread T	Part-number	Thread T	Part-number
	int. Ø of hose	H	L				
<b>• Threaded plugs</b> 	6	17	35	G 1/4	<b>AF151.06</b>	NPT 1/4	<b>AF251.06</b>
	8	17	35	G 1/4	<b>AF151.08</b>	NPT 1/4	<b>AF251.08</b>
	9	17	35	G 1/4	<b>AF151.09</b>	NPT 1/4	
	10	17	35	G 1/4	<b>AF151.10</b>	NPT 1/4	<b>AF251.10</b>
	13	17	40	G 1/4	<b>AF151.13</b>	NPT 1/4	<b>AF251.13</b>
<b>• Coupling plugs</b> 		14	36	G 1/4	<b>RBE06.6151</b>		
		17	37			NPT 1/4	<b>RBE06.6251</b>

# Safety blowguns

## PML



### Applications

- Workstation cleaning
- Blowing of machined parts and machining equipment
- Dust removal and drying of parts on manufacturing, assembly and inspection stations, tools...

For the engineering, power, woodworking and plastics industries...

### The air jet that combines safety and strength.

Through its constant concern for operator safety, Stäubli has developed five models combining safety, low noise level and efficiency to meet the specific requirements of all applications.

### Rugged and reliable

- All-steel construction, shock- and drop-resistant
- Completely leak-tight, even under intensive use

These two advantages ensure the lowest operating costs.

### Practical

- The long lever offers great operational flexibility: this characteristic is often sought by female personnel or for repetitive operation.
- The lever can also be used for hanging up the blowgun.

### Quick-change nozzles

- Reduced storage costs
- Easy nozzle installation during set-up and changes
- The body of the standard blowgun accepts either straight or bent, non-rotating, nozzles.

## Five blowgun models for five nozzle types

### MIK safety blowgun with protective air shield



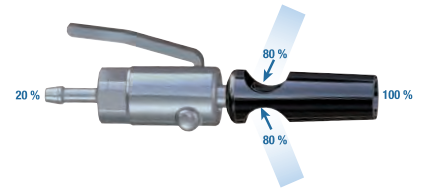
The protective air shield prevents chips and dust from being blown back towards the operator.

### SIL silent safety blowgun



This blowgun combines blowing force and reduced noise level for operator comfort.

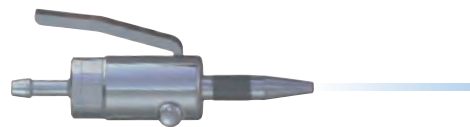
### Reduced pressure safety blowgun (Venturi effect) - VEN



The Venturi effect provides lowpressure blowing while providing maximum air flow and minimum consumption, using 80% outside air and only 20% compressed air.

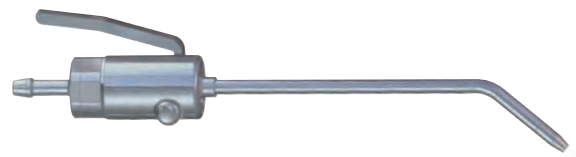
### Zéphir conventional blowgun

ZEP  
MIK



Basic model for direct, accurate blowing.

### Safety blowgun with "Contact" blowing - COT



A precise blowgun with a long, bent nozzle providing an accurate, powerful air jet for "contact blowing" in hard-to-reach areas.

## Three air jet versions available for each model

### Standard version

- with maximum dynamic blowing pressure.

### Versions 2S3 and 2S15

- with limited dynamic blowing pressure, equivalent to the standard model supplied at 3 bar for the 2S3 and 1.5 bar for the 2S15.

The dynamic pressure is lowered through a tamperproof system located in the blowgun body. With these models, workstations can be equipped with low-pressure blowguns supplied from a common 6-bar compressed air supply system.

## Two types of connection

- Hose tail with various diameters or male/female threads\*
- (\* NPT thread also available: please ask us).

## Technical characteristics

### Construction

- Chrome steel blowgun body
- Hardened nozzle surfaces
- S18/8 stainless steel springs
- Nitrile seal

### Maximum operating temperatures

- 15 to + 70 °C

### Max. working pressure

- 12 bar

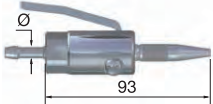
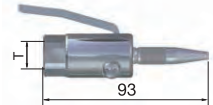








**Note:** The blowgun cannot be operated if the nozzle is not attached: this feature also falls within scope of safe operating procedures.

For further details, refer to the RB100 product documentation.



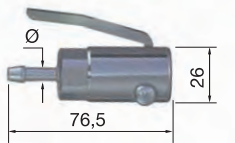
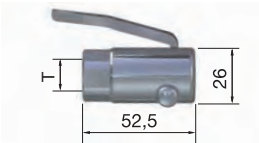

# Part-numbers

## Complete blowguns

Description	int. Ø of hose (mm) or thread T	Standard air jet version	Air jet version 2S3 (3 bar)	Air jet version 2S15 (1.5 bar)
<b>Safety blowguns with protective air shield - MIK</b> - hose tail  - female thread 	6	PML06.1806/MIK	PML06.1806/2S/3/MIK	PML06.1806/2S/15/MIK
	8	PML06.1808/MIK	PML06.1808/2S/3/MIK	PML06.1808/2S/15/MIK
	10	PML06.1810/MIK	PML06.1810/2S/3/MIK	PML06.1810/2S/15/MIK
	13	PML06.1813/MIK	PML06.1813/2S/3/MIK	PML06.1813/2S/15/MIK
	G 1/4	PML06.1101/MIK	PML06.1101/2S/3/MIK	PML06.1101/2S/15/MIK
<b>Silent safety blowguns SIL</b> - hose tail  - female thread 	6	PML06.1806/SIL		
	8	PML06.1808/SIL	PML06.1808/2S/3/SIL	PML06.1808/2S/15/SIL
	10	PML06.1810/SIL	PML06.1810/2S/3/SIL	PML06.1810/2S/15/SIL
	13	PML06.1813/SIL		
	G 1/4	PML06.1101/SIL	PML06.1101/2S/3/SIL	PML06.1101/2S/15/SIL
<b>Safety blowguns with "Contact" blowing COT</b> - hose tail  - female thread 	6	PML06.1806/COT		
	8	PML06.1808/COT	PML06.1808/2S/3/COT	PML06.1808/2S/15/COT
	10	PML06.1810/COT	PML06.1810/2S/3/COT	PML06.1810/2S/15/COT
	13	PML06.1813/COT		
	G 1/4	PML06.1101/COT	PML06.1101/2S/3/COT	PML06.1101/2S/15/COT
<b>Reduced pressure safety blowguns with Venturi effect - VEN</b> - hose tail  - female thread 	6	PML06.1806/VEN		
	8	PML06.1808/VEN	PML06.1808/2S/3/VEN	PML06.1808/2S/15/VEN
	10	PML06.1810/VEN	PML06.1810/2S/3/VEN	PML06.1810/2S/15/VEN
	13	PML06.1813/VEN		
	G 1/4	PML06.1101/VEN	PML06.1101/2S/3/VEN	PML06.1101/2S/15/VEN
<b>Zéphir conventional blowguns ZEP</b> - hose tail  - female thread 	6	PML06.1806/ZEP		
	8	PML06.1808/ZEP	PML06.1808/2S/3/ZEP	PML06.1808/2S/15/ZEP
	10	PML06.1810/ZEP	PML06.1810/2S/3/ZEP	PML06.1810/2S/15/ZEP
	13	PML06.1813/ZEP		
	G 1/4	PML06.1101/ZEP	PML06.1101/2S/3/ZEP	PML06.1101/2S/15/ZEP



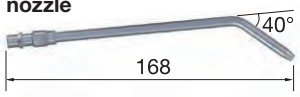


# Part-numbers

## Bodies only


Description	int. Ø of hose (mm) or thread T	Standard air jet version	Air jet version 2S3	Air jet version 2S3 2S15
<b>Blowgun body for hose</b> 	6	PML06.1806	PML06.1806/2S/3	PML06.1806/2S/15
	8	PML06.1808	PML06.1808/2S/3	PML06.1808/2S/15
	10	PML06.1810	PML06.1810/2S/3	PML06.1810/2S/15
	13	PML06.1813	PML06.1813/2S/3	PML06.1813/2S/15
<b>Blowgun body with female thread*</b> 	G 1/8	PML06.1100	PML06.1100/2S/3	PML06.1100/2S/15
	G 1/4	PML06.1101	PML06.1101/2S/3	PML06.1101/2S/15
	NPT 1/4	PML06.1201	PML06.1201/2S/3	PML06.1201/2S/15
	G 3/8	PML06.1102	PML06.1102/2S/3	PML06.1102/2S/15
	G 1/2	PML06.1103	PML06.1103/2S/3	PML06.1103/2S/15
<b>Blowgun body with male thread</b> 	G 1/4	PML06.1151	PML06.1151/2S/3	PML06.1151/2S/15
	G 3/8	PML06.1152	PML06.1152/2S/3	PML06.1152/2S/15
	G 1/2	PML06.1153	PML06.1153/2S/3	PML06.1153/2S/15

\* also available with NPT thread: please consult us.


## Nozzles only

Description	Part-number
<b>MIK nozzle</b> 	PML06.6000/MIK
<b>SILENT nozzle</b> 	PML06.6000/SIL
<b>CONTACT nozzle</b> 	PML06.6000/COT
<b>VENTURI nozzle</b> 	PML06.6000/VEN
<b>ZÉPHIR nozzle</b> 	PML06.6000/ZEP

Description	L (mm)	Part-number
<b>ZÉPHIR long steel blowgun nozzle (blowing orifice of 2 mm)</b> 	130	PML06.6015/ZEP
	180	PML06.6020/ZEP
	230	PML06.6025/ZEP
	280	PML06.6030/ZEP
	380	PML06.6040/ZEP
	480	PML06.6050/ZEP
	580	PML06.6060/ZEP
	780	PML06.6080/ZEP
	980	PML06.6100/ZEP

Description	Ø of copper tube (mm)	Part-number
<b>Long, bendable copper nozzles</b> 	2/4	PML06.6240/ZEP
	4/6	PML06.6440/ZEP

# HJP, STA and PML Blowing units



## Time saving and safety

Our blowing units are supplied with high quality fittings and are ready to use.

## A wide range

- **2 hose diameters:**  
Ø 5 x 8 and Ø 6.5 x 10 mm, together with:
- **4 working lengths:**  
1 500, 2 500, 3 000 and 5 000 mm.
- **2 safety blowgun models:**  
the blowing units can be combined with the PML blowgun (shown in this brochure) and the composite STA blowgun shown in brochure B 300 (shown on pages 43 to 50).

## A multi-faceted product

- Excellent plastic memory: hose returns completely to initial position after extension ensuring the workstation always remains tidy. Permanent elasticity.
- High-resistance polyurethane hose, silicone free.
- Ends protected by springs to prevent bending.
- Compact and easy to operate.

## Technical characteristics

### Maximum operating temperatures

- 15 to + 40 °C at 6 bar
- 15 to + 30 °C at 10 bar

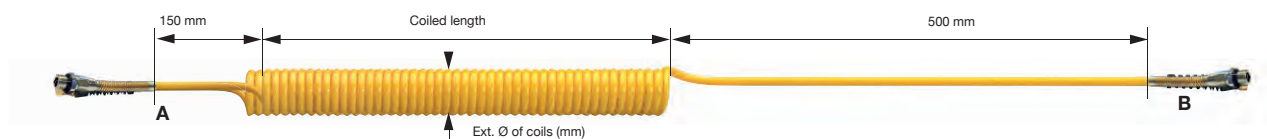
### Max. working pressure

- 10 bar

For further details, please see the product documentation for RB100 and RB300.

# Part-numbers

## Spiral-reinforced polyurethane tube













HJP spiral tubes are always equipped with G 1/4 male thread.

int./ext. Ø of tube (mm)	Ø 5 x 8		Ø 6.5 x 10	
Working length	1 500	3 000	2 500	5 000
Coiled length (mm)	180	360	300	500
External Ø of coils (mm)	42	42	52	52
Spiral-reinforced polyurethane tube	HJP05M002	HJP05M003	HJP06M003	HJP06M005

### Ends A - B

Description	Male thread	RBE 06 coupling plug
		
	G 1/4 (with O-ring)	
End A	AF251	RBE066
End A & B	2AF251	

### End B

Selection of dynamic blowing pressure  Blowgun supplied from the shared network at 6 bar	Standard	Standard with two nozzle lengths	2S3 (3 bar)		2S15 (1.5 bar)	
	STA	STA06	STA2S3		STA2S15	
	PML		PML2S3		PML2S15	
Selection of nozzle type						
STA blowgun	 MIK	 COT	 SIL	 OSHA	 ZEP	
	/ MIK	/COT3 for 300-mm nozzle /COT5 for 300-mm nozzle	/ SIL	/ OSHA	/ ZEP	
PML blowgun	 MIK	 COT	 SIL	 VEN	 ZEP	
	/ MIK	/ COT	/ SIL	/ VEN	/ ZEP	

### How to create your part-number?

Spiral-reinforced polyurethane tube	End A	End B
Tube Ø 5 x 8 mm Working length 3 000 mm	equipped with an RBE plug	equipped with a PML or STA blowgun of your choice
Your final part-number:	HJP05M003	RBE066
		STA2S3/SIL PML2S3/SIL STA06/COT3

## FRL

## filtration, regulation and lubrication units

**Applications**

- Filtration, regulation and lubrication of compressed air circuits to supply every work station with compressed air of appropriate quality from a common network.

**Effective, appropriate filtration**

Filtration levels perfectly suited to the requirements needed for correct operation of pneumatic components.

Efficient filtration in two stages: elimination of condensates by centrifugal action and filtration of the solid particles by a 40 or 5  $\mu$  filter cartridge.

Condensate outlet in the absence of pressure by semi-automatic drains (standard). The filters can also be fitted with manual or automatic drains (to be ordered separately).

**Lubrication to suit every application**

The quantity of oil sprayed on contact with the diffuser can be adjusted precisely by simply turning the adjustment screw, and observing the visible indicator.

**Ease of fitting**

The regulators can be panel mounted alone or combined with a filter and regulator.

**Dynamic and permanent regulation of the pressure setting and decompression of the downstream circuit**

The design of the regulators reduces hysteresis phenomena allowing accurate and stable pressure setting even with a widely varying input pressure.

The special shape of the diaphragm also contributes to a significant improvement in its service life.

The locking adjustment knob is not affected by vibration.

**Operator safety**

All our filters and lubricators are fitted as standard with metal guards to protect the polycarbonate bowls from mechanical damage, or damage caused by the use of unsuitable oil, and to limit possible projection in the event of bowl breakage.

**Toughness**

Metal body for a better mechanical strength.

**Tightness**

Wide contact area between components for rigid unit mounting.

Component assembly with centring rings and O-ring seals providing a high level of sealing.

**Modularity**

All the components – complete filtration units, separate components and additional equipment such as stop valves or soft start valves, bypass units, etc - can easily be combined to create entirely customized installations close to the work station.

Individual components can be replaced quickly and easily without it being necessary to disassemble the entire unit installed in the conduit.

# Technical characteristics

## FRL filtration, regulation and lubrication units

- Maximum working pressure ..... 16 bar
- Degree of filtration ..... 40 or 5 µ
- Min./max. ambient temperatures ..... + 5 to + 50 °C
- Min./max. fluid temperatures ..... 0 to + 50 °C

### Lubricators

- Min. priming pressure ..... 0.5 bar
- Min. priming flow:  
FRL 12 ..... 50 l/min  
FRL 15 and 25 ..... 150 l/min
- Oil content:  
FRL 12 ..... 50 cm<sup>3</sup>  
FRL 15 and 25 ..... 125 cm<sup>3</sup>










### Filters

- Condensate volume:  
FRL 12 ..... 25 cm<sup>3</sup>  
FRL 15 and 25 ..... 85 cm<sup>3</sup>



### Construction

- Metallic housing
- Filter cartridge in Polyethylene (PE)
- Bowl in Polycarbonate
- Metallic bowl guard
- Membrane of the regulator and seals: Nitrile (NBR)

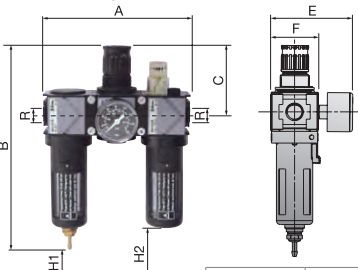
## Performance data

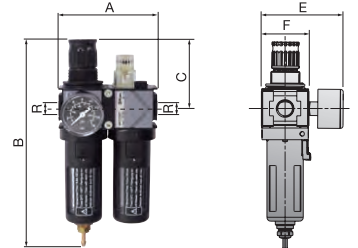
Description	Nominal flow rate (NI/min)		
	FRL12	FRL15	FRL25
 Filter + regulator + lubricator	1 500	3 400	5 000
 Filter/regulator + lubricator	1 500	3 400	5 000
 Filter/regulator	2 000	5 500	6 500
 Regulator	2 000	7 000	8 000
 Filter	1 800	3 200	3 500
 Lubrifier	3 400	4 600	7 500
 Soft start valve	1 200	3 800	4 200
 Manual 3/2-way shut-off valve	4 300	9 000	11 000
 Porting block	4 200	9 000	11 000

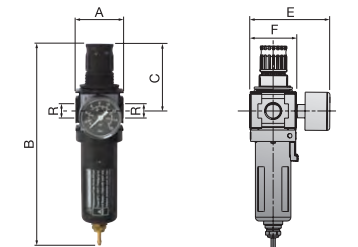
### Test conditions:

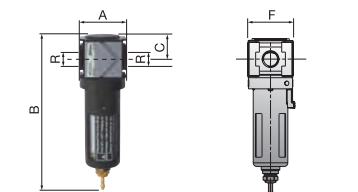
-  Filter + regulator + lubricator • Filter/regulator + lubricator • Filter/regulator • Regulator: inlet pressure p1: 10 bar - regulator set-point pressure p2: 6 bar – pressure drop: 1 bar (as per ISO 6953)
-  Filter • Lubrifier • Soft start valve • Manual 3/2-way shut-off valve • Porting block: inlet pressure p1: 6 bar - pressure drop: 1 bar (as per ISO 6953)

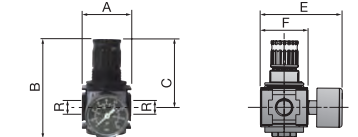
# Part-numbers

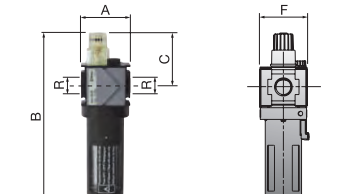
Description	Degree of filtration	Connection F	Dimensions (mm)					Part-number									
			A	B	C	E	F										
<b>Filter + Regulator + Lubricator</b>  <table><tr><td></td><td>H1 filters and filter/ regulators</td><td>H2 lubricators</td></tr><tr><td>FRL 12</td><td>165</td><td>185</td></tr><tr><td>FRL 15 and 25</td><td>210</td><td>255</td></tr></table> Min. heights below bowls (mm) for replacement of filter cartridge and filling of lubricators:		H1 filters and filter/ regulators	H2 lubricators	FRL 12	165	185	FRL 15 and 25	210	255	40 μ	G 1/4	144	216	68	84	48	FRL12.1110
		H1 filters and filter/ regulators	H2 lubricators														
	FRL 12	165	185														
	FRL 15 and 25	210	255														
	G 1/2	210	286	98	106	70	FRL15.1110										
	G1	265	286	98	106	70	FRL25.1110										
	5 μ	G 1/4	144	216	68	84	48	FRL12.1130									
G 1/2		210	286	98	106	70	FRL15.1130										
G1		265	286	98	106	70	FRL25.1130										

<b>Filter + Regulator + Lubricator</b> 	40 μ	G 1/4	96	215	68	84	48	FRL12.1210
		G 1/2	145	286	98	106	70	FRL15.1210
		G1	195	286	98	106	70	FRL25.1210
	5 μ	G 1/4	96	215	68	84	48	FRL12.1230
		G 1/2	145	286	98	106	70	FRL15.1230
		G1	195	286	98	106	70	FRL25.1230

<b>Filter/Regulator</b> 	40 μ	G 1/4	48	215	68	84	48	FRL12.2110
		G 1/2	70	286	98	106	70	FRL15.2110
		G1	125	286	98	106	70	FRL25.2110
	5 μ	G 1/4	48	215	68	84	48	FRL12.2130
		G 1/2	70	286	98	106	70	FRL15.2130
		G1	125	286	98	106	70	FRL25.2130

<b>Filter</b> 	40 μ	G 1/4	48	170	22		48	FRL12.2210
		G 1/2	70	215	22		70	FRL15.2210
		G1	125	215	22		70	FRL25.2210
	5 μ	G 1/4	48	170	22		48	FRL12.2230
		G 1/2	70	215	22		70	FRL15.2230
		G1	125	215	22		70	FRL25.2230

<b>Regulator</b> 		G 1/4	48	98	68	84	48	FRL12.2300*
		NPT 1/4	48	98	68	84	48	FRL12.2350
		G 1/2	70	134	98	106	70	FRL15.2300
		G1	125	134	98	106	70	FRL25.2300*

<b>Lubrificator</b> 		G 1/4	48	171	52		48	FRL12.2410
		G 1/2	70	224	57		70	FRL15.2410
		G 1	125	224	57		70	FRL25.2410

All the devices are supplied as standard with: • Filter and filter/regulator: semi-automatic drain and metal bowl protection • Regulator and filter/regulator: manometer 0-16 bar • Lubricator: metal bowl protection.

\* Part-numbers available with the option "Set-point pressure locking": add the code /VS at the end of the part-number.

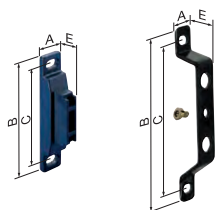


# Part-numbers

Description	Connection F	Dimensions (mm)					Part-number			
		A	B	C	E	F				
Soft start valve				G 1/4	48	54	24	53	48	FRL12.3100
				G 1/2	70	72	36	76	70	FRL15.3100
				G1	125	72	36	76	70	FRL25.3100
Manual 3/2-way shut-off valve				G 1/4	48	80	58	–	48	FRL12.3200
				G 1/2	70	92	64	–	70	FRL15.3200
				G1	125	92	64	–	70	FRL25.3200
Porting block				G 1/4	48	44	22	–	48	FRL12.9100
				G 1/2	70	56	28	–	70	FRL15.9100
				G1	125	56	28	–	70	FRL25.9100

## Accessories and replacement parts

### Wall mounting bracket



FRL Models	Dimensions (mm)				Part-number
	A	B	C	E	
12	19	90	75	26	FRL12.9110
15 and 25	16	130	110	26	FRL15.9110

### Equipment assembly kit

Consisting of: 2 fixing brackets + 2 fixing screws  
+ 1 centring ring with O-ring



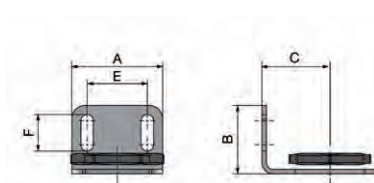
FRL 12 part-number	FRL 15 part-number	FRL 25 part-number
FRL12.9120	FRL15.9120	FRL25.9120

### Pressure gauge 0 - 16 bar



FRL Models	Ø	Part-number
12	40	FRL12.9130
15 and 25	50	FRL15.9130

### Wall fixing bracket for regulator



FRL Models	Dimensions (mm)					Part-number
	A	B	C	E	F	
12	40	30	30	26.5	16	FRL12.9150
15 and 25	55	40	42.5	35	20	FRL15.9150

### Metal bowl protection



FRL Models	Part-number
12	FRL12.9140
15 et 25	FRL15.9140

### Polycarbonate bowl for filter



FRL Models	Part-number
12	FRL12.9200
15 and 25	FRL15.9200

### Polycarbonate bowl for lubricator



FRL Models	Part-number
12	FRL12.9202
15 and 25	FRL15.9202

### Support for 1, 2 or 3 blocks



FRL Models	Part-number
15 and 25	S006492 11

### Cartridge



FRL Models	Degree of filtration	Part-number
12	40 µ	FRL12.9210
	5 µ	FRL12.9211
15 and 25	40 µ	FRL15.9210
	5 µ	FRL15.9211

### Manual drain



FRL 12, 15 and 25 part-number
FRL12.9250

### Semi-automatic drain



FRL 12, 15 and 25 part-number
FRL12.9261

### Automatic drain



FRL 12, 15 and 25 part-number
FRL12.9271

# FSB

## submicronic filters



### Applications

Filtration of particles and oil aerosols to supply workstations with high quality air:

- Pneumatic automation
- Pneumatic measurement, control and regulation
- Paint booths
- Laboratory air
- Breathing air, etc.

### Complete range

For increasingly pure quality air from 40 to 2800 m<sup>3</sup>/h.

### Efficient filtration

The filter elements are designed to filter pollutants efficiently from the air (water, oil, particles) with very little pressure drop.

We have several grades of filtration to suit your applications:

- Micronic: elimination of liquids (water and oil) and solid particles up to 1 µm for compressed air and gases.
- Submicronic: elimination of liquids (water and oil) and solid particles up to 0.01 µm for compressed air and gases.
- Activated carbon: elimination of oil vapour and aerosols.

### Easy maintenance

**Reduced operating costs** due to the quality of the filters and the long service life of the filter elements.

### Excellent corrosion resistance

- The choice of materials for both the filter housing and the filter element ensures excellent corrosion, chemical and thermal resistance and mechanical strength over time.

### Rapid identification of filter elements

- Immediate identification of filtration grades by different coloured foam.
- All filter elements are identified (Stäubli + reference).

For further details, refer to the RM300 product documentation.

# Technical characteristics

## FSB submicronic filters

Model	Type	Degree of filtration (µm)	Mass concentration (mg/m³)	Residual oil content <sup>(1)</sup> (mg/m³)	Pressure drop <sup>(2)</sup> (bar)	Recommended for
FSB 01	Micronic	1	1	≤ 0.1	0.03	Tools, pneumatic transport, pneumatic controls, surface treatment, compressed air motors and pre- or post-filter for absorption dryers.
FSB 02	Submicronic	0.01	0.1	≤ 0.01	0.09	Measurement and regulation system, pneumatic transport, instrumentation for analysis and pre-filter for absorption dryers.
FSB 03	Submicronic absolute	0.01	0.1	≤ 0.001	0.10	Measurement and regulation system. This filter must be preceded by an FSB 02 filter.
FSB 05 → FSB 02 + FSB 04	Submicronic	0.01	0.1	≤ 0.01	0.09	Breathing air applications, and also for process air, pharmaceutical industry, food industry, packaging, healthcare installations and heat treatment.
	Activated carbon	-	-	≤ 0.003	0.10	

<sup>(1)</sup> For 20 mg/m³ inlet at 1 bar abs. and 20 °C.

<sup>(2)</sup> Pressure drop of the dry filtering element on its own.

- Max. working pressure ..... 16 bar
- Degree of filtration ..... 40 or 5 µ
- Min./max. ambient temperatures ..... + 5 to + 50 °C
- Min./max. fluid temperatures ..... 0 to + 50 °C

### Lubricators

- Min. priming pressure ..... 0.5 bar
- Min. priming flow:  
FRL 12 ..... 50 l/min  
FRL 15 and 25 ..... 150 l/min
- Oil content:  
FRL 12 ..... 50 cm³  
FRL 15 and 25 ..... 125 cm³

### Filters

- Condensate volume:  
FRL 12 ..... 25 cm³  
FRL 15 and 25 ..... 85 cm³

### Leak-tightness

Nitrile seal between the bowl and top of the filter.

### Max. working pressure

16 bar

### Operating temperatures

from + 1 °C to + 60 °C

### Construction

- Filter element** consisting of a stainless steel mesh and 2 aluminium cups.
- Filter media** consisting of four pleated layers for a larger exchange area:
  - Two polypropylene layers – external and internal – surrounding two layers of borosilicate microfibre (one on top of the other) for grades FSB 01, 02 and 03,
  - An additional medium consisting of 32% activated carbon for grade FSB 04.
- Aluminium filter housing** with a very smooth synthetic resin external coating and a perfect finish.
- Interior of the bowls:** aluminium anti-corrosion treated.

### Correction factor (f) of the nominal flow rate of filters according to the working pressure

based on a constant flow velocity and a temperature of 20°C.

Pressure (bar)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
f =	0.25	0.38	0.50	0.63	0.75	0.88	1	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2	2.13

### How to calculate the nominal flow rate of a filter at a given pressure

Example:

Min. pressure: 10 bar → f = 1.38

Filter model FSB01.0020

→ nominal flow rate at 7 bar = 200 m³/h

Nominal flow rate at 10 bar = 200 x 1.38  
= 276 m³/h

### How to determine which model of filter is suitable for your application

Example:

Working pressure: 10 bar → f = 1.38

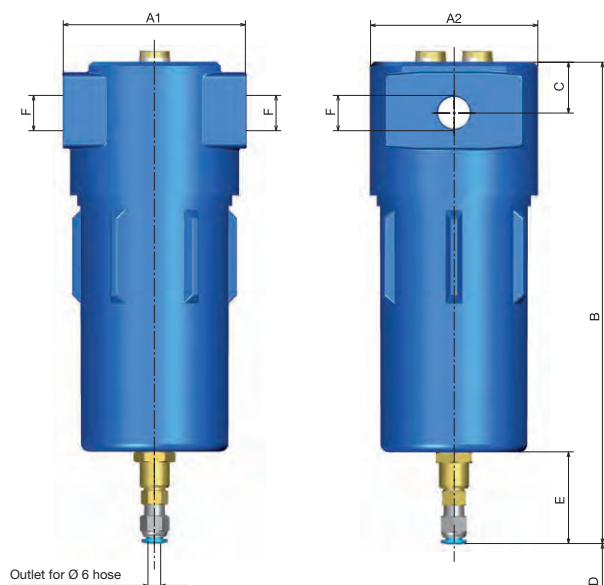
Required flow rate: 1 300 m³/h

Filter size = flow rate/f  
= 1 300/1.38  
= 942 m³/h

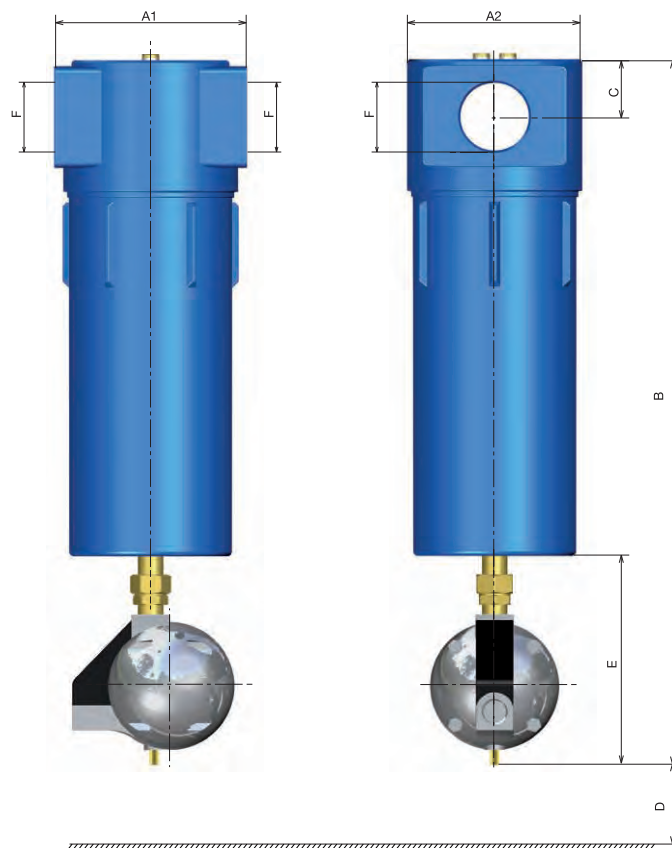
Filter model FSB01.0100

# Part-numbers

## Series FSB01 - FSB02 - FSB03



Models FSBxx.0004 to FSBxx.0080.



Models FSBxx.0100 to FSBxx.0280

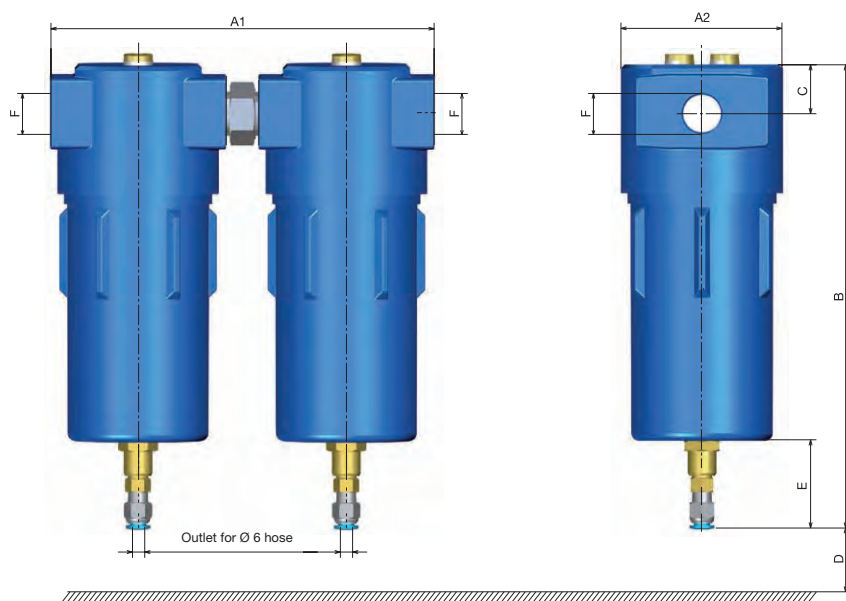
All filters are fitted with an automatic float drain valve as standard.

Flow rate* (Nm³/h)	Connection F	Dimensions (mm)						Weight (kg)	Part-numbers for complete filters		
		A1	A2	B	C	D	E		Serie FSB01	Serie FSB02	Serie FSB03
40	G 1/4	86	79	196	24	100	45	0.8	<b>FSB01.0004</b>	<b>FSB02.0004</b>	<b>FSB03.0004</b>
60	G 3/8	86	79	227	24	100	45	1.5	<b>FSB01.0006</b>	<b>FSB02.0006</b>	<b>FSB03.0006</b>
80	G 1/2	86	79	227	24	100	45	1.5	<b>FSB01.0008</b>	<b>FSB02.0008</b>	<b>FSB03.0008</b>
120	G 3/4	86	79	295	24	170	45	1.7	<b>FSB01.0012</b>	<b>FSB02.0012</b>	<b>FSB03.0012</b>
200	G 1	129	122	324	42	140	45	4.3	<b>FSB01.0020</b>	<b>FSB02.0020</b>	<b>FSB03.0020</b>
340	G 1 1/2	129	122	420	42	250	45	5	<b>FSB01.0034</b>	<b>FSB02.0034</b>	<b>FSB03.0034</b>
510	G 1 1/2	129	122	520	42	340	45	5.5	<b>FSB01.0051</b>	<b>FSB02.0051</b>	<b>FSB03.0051</b>
800	G 1 1/2	129	122	735	42	500	45	6.9	<b>FSB01.0080</b>	<b>FSB02.0080</b>	<b>FSB03.0080</b>
1000	G 2	160	145	865	48	820	175	9.6	<b>FSB01.0100</b>	<b>FSB02.0100</b>	<b>FSB03.0100</b>
1500	G 2 1/2	161	144	1105	56	1200	175	17.9	<b>FSB01.0150</b>	<b>FSB02.0150</b>	<b>FSB03.0150</b>
2250	G 3	250	210	1161	73	1200	175	28	<b>FSB01.0220</b>	<b>FSB02.0220</b>	<b>FSB03.0220</b>
2800	G 3	250	210	1421	74	1500	175	29.2	<b>FSB01.0280</b>	<b>FSB02.0280</b>	<b>FSB03.0280</b>

\* Flow rate at 7 bar and 20 °C

# Part-numbers

## Serie FSB05








All filters are fitted with an automatic float drain as standard.

Flow rate* (Nm <sup>3</sup> /h)	Connection F	Dimensions (mm)						Weight (kg)	Part-numbers for complete filters
		A1	A2	B	C	D	E		Serie FSB05
40	G 1/4	180	79	196	24	100	45	1.6	<b>FSB05.0004</b>
60	G 3/8	182	79	227	24	100	45	3	<b>FSB05.0006</b>
80	G 1/2	194	79	227	24	100	45	3	<b>FSB05.0008</b>
120	G 3/4	197	79	295	24	170	45	3.6	<b>FSB05.0012</b>
200	G 1	289	122	324	42	140	45	9	<b>FSB05.0020</b>
340	G 1 1/2	303	122	420	42	250	45	11	<b>FSB05.0034</b>
510	G 1 1/2	303	122	520	42	340	45	12	<b>FSB05.0051</b>
800	G 1 1/2	303	122	735	42	500	45	14.8	<b>FSB05.0080</b>

\* Flow rate at 7 bar and 20 °C

## Replacement filter elements

Serie FSB01		Serie FSB02		Serie FSB03		Serie FSB05		
Model	Part-numbers for filter elements	Model	Part-numbers for filter elements	Model	Part-numbers for filter elements	Model	Part-numbers for filter elements	
							1 <sup>st</sup> stage 	2 <sup>nd</sup> stage 
FSB01.0004	<b>FSB01.8004</b>	FSB02.0004	<b>FSB02.8004</b>	FSB03.0004	<b>FSB03.8004</b>	FSB05.0004	<b>FSB02.8004</b>	<b>FSB04.8004</b>
FSB01.0006	<b>FSB01.8006</b>	FSB02.0006	<b>FSB02.8006</b>	FSB03.0006	<b>FSB03.8006</b>	FSB05.0006	<b>FSB02.8006</b>	<b>FSB04.8006</b>
FSB01.0008	<b>FSB01.8008</b>	FSB02.0008	<b>FSB02.8008</b>	FSB03.0008	<b>FSB03.8008</b>	FSB05.0008	<b>FSB02.8008</b>	<b>FSB04.8008</b>
FSB01.0012	<b>FSB01.8012</b>	FSB02.0012	<b>FSB02.8012</b>	FSB03.0012	<b>FSB03.8012</b>	FSB05.0012	<b>FSB02.8012</b>	<b>FSB04.8012</b>
FSB01.0020	<b>FSB01.8020</b>	FSB02.0020	<b>FSB02.8020</b>	FSB03.0020	<b>FSB03.8020</b>	FSB05.0020	<b>FSB02.8020</b>	<b>FSB04.8020</b>
FSB01.0034	<b>FSB01.8034</b>	FSB02.0034	<b>FSB02.8034</b>	FSB03.0034	<b>FSB03.8034</b>	FSB05.0034	<b>FSB02.8034</b>	<b>FSB04.8034</b>
FSB01.0051	<b>FSB01.8051</b>	FSB02.0051	<b>FSB02.8051</b>	FSB03.0051	<b>FSB03.8051</b>	FSB05.0051	<b>FSB02.8051</b>	<b>FSB04.8051</b>
FSB01.0080	<b>FSB01.8080</b>	FSB02.0080	<b>FSB02.8080</b>	FSB03.0080	<b>FSB03.8080</b>	FSB05.0080	<b>FSB02.8080</b>	<b>FSB04.8080</b>
FSB01.0100	<b>FSB01.8100</b>	FSB02.0100	<b>FSB02.8100</b>	FSB03.0100	<b>FSB03.8100</b>			
FSB01.0150	<b>FSB01.8150</b>	FSB02.0150	<b>FSB02.8150</b>	FSB03.0150	<b>FSB03.8150</b>			
FSB01.0220	<b>FSB01.8220</b>	FSB02.0220	<b>FSB02.8220</b>	FSB03.0220	<b>FSB03.8220</b>			
FSB01.0280	<b>FSB01.8280</b>	FSB02.0280	<b>FSB02.8280</b>	FSB03.0280	<b>FSB03.8280</b>			

# Accessories

## Clogging indicators



with visual indicator  
Part-number: **FSB01.9002**

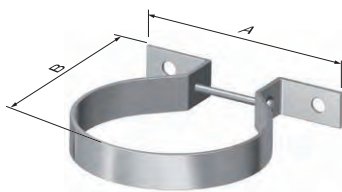


with manometer  
Part-number: **FSB01.9000**



with electrical contact: feedback  
of information  
Part-number: **FSB01.9001**

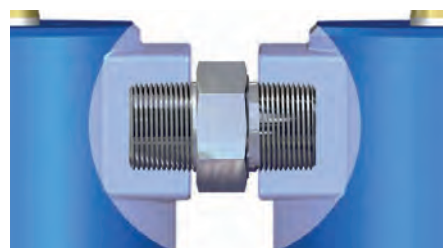
## Wall mounting brackets



Wall mounting kit comprising 1 wall bracket, 2 fixing screws, 2 nuts, 2 washers and 2 anchors.

Filter models	Bracket part-number	Dimensions (mm)	
		A	B
FSBxx.0004 to FSBxx.0012	<b>FSB01.9008</b>	0.25	0.25
FSBxx.0020 to FSBxx.0080	<b>FSB01.9009</b>	143	156

## Assembly kit



Connection	Part-number
G 1/4	<b>FSB01.9011</b>
G 3/8	<b>FSB01.9012</b>
G 1/2	<b>FSB01.9013</b>
G 3/4	<b>FSB01.9014</b>
G 1	<b>FSB01.9015</b>
G 1 1/2	<b>FSB01.9017</b>

Material:

- G 1/4 to G 1: nickel-plated brass
- G 1 1/2: stainless steel

## Replacement float drains

Automatic float drain valves for filters FSB 01, 02 and 03.

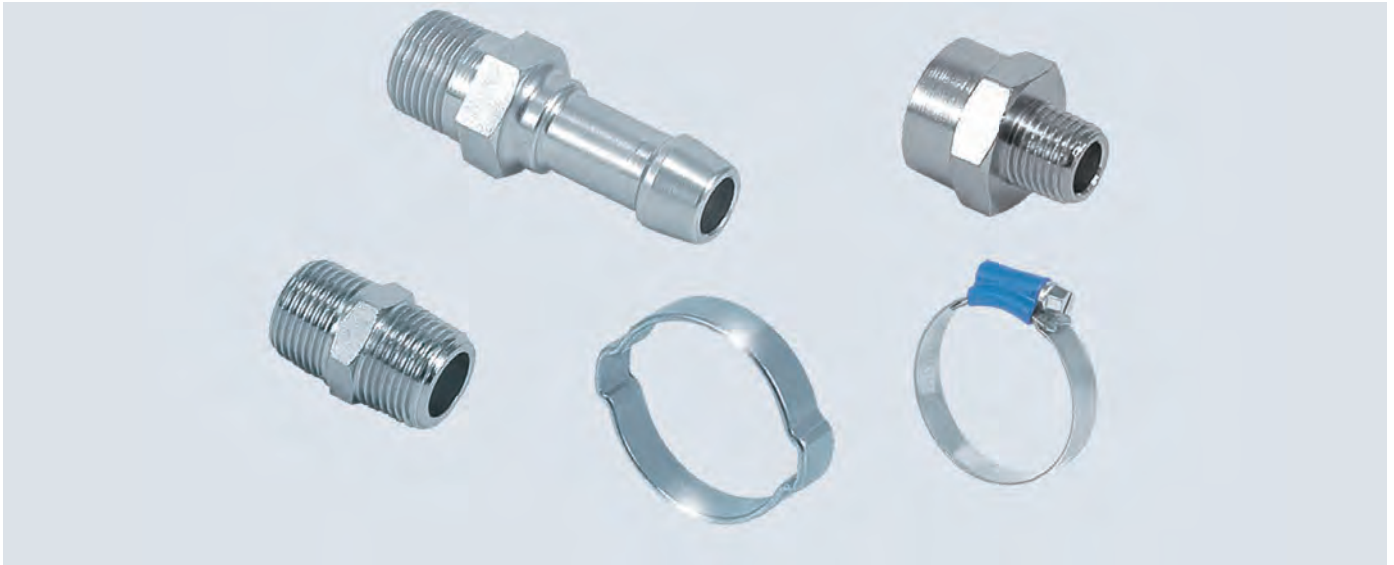


Filter models	Part-number
FSBxx.0004 to FSBxx.0080	<b>FSB01.9003</b>
FSBxx.0100 to FSBxx.0280	<b>FSB01.9004*</b>

\* Drain can be used at end-of-line on compressed air network.



# Connection accessories



## Wide range

Stäubli offers a wide range of connection accessories to cover all industrial connection requirements – from the network supply point right through to the workstation.

We have selected the accessories that are most suitable for your compressed air lines for you.

## A choice of two materials

- Nickel-plated brass
- Treated steel

## Reliability

- Consistent manufacturing and accurate machining for a constant quality,
- High performance material selection with high mechanical characteristics,
- Excellent resistance to pressure and temperature, for long life and reliable assemblies.

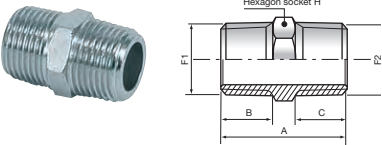
## Safety

- Reliable and quick tightness with the Stäubli sealing-kit easy to install without sealing compound.
- Easy repair of the damaged flexible hoses with the Stäubli connecting nipples for flexible hoses and 2 Stäubli ear or worm drive clamps.

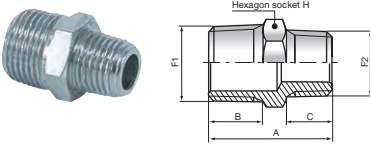


# Part-numbers

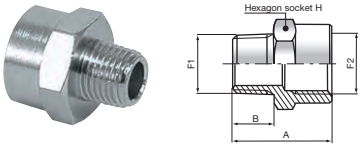
## Equal nipples - Male tapered GAZ x male tapered GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1	F 2		A	B	C	H	
<b>Nickel-plated brass</b> 	R 1/8	R 1/8	150	19.5	7.5	7.5	12	MAM160.160/LN
	R 1/4	R 1/4	100	27	11	11	14	MAM161.161/LN
	R 3/8	R 3/8	75	28	11.5	11.5	17	MAM162.162/LN
	R 1/2	R 1/2	50	33.5	14	14	22	MAM163.163/LN
	R 3/4	R 3/4	50	40	16.5	16.5	27	MAM164.164/LN
	R 1	R 1	50	45.5	19	19	34	MAM165.165/LN

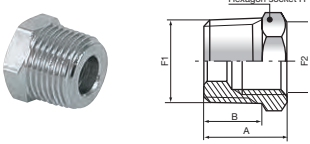










## Nipples - Male tapered GAZ x male tapered GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1	F 2		A	B	C	H	
<b>Nickel-plated brass</b> 	R 1/4	R 1/8	100	23.5	11	7.5	14	MAM161.160/LN
	R 3/8	R 1/8	75	24	11.5	7.5	17	MAM162.160/LN
	R 3/8	R 1/4	75	27.5	11.5	11	17	MAM162.161/LN
	R 1/2	R 1/8	50	27	14	7.5	22	MAM163.160/LN
	R 1/2	R 1/4	50	30.5	14	11	22	MAM163.161/LN
	R 1/2	R 3/8	50	31	14	11.5	22	MAM163.162/LN
	R 3/4	R 1/2	50	37.5	16.5	14	27	MAM164.163/LN
	R 1	R 3/4	50	43	19	16.5	34	MAM165.164/LN

## Reducers - Male tapered GAZ x female cylindrical GAZ

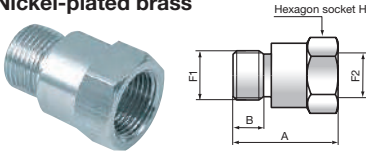

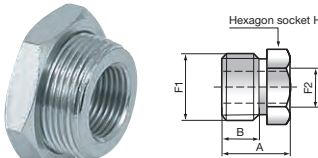


Description	Connection		M.W.P. (bar)	Dimensions (mm)			Part-number
	F 1	F 2		A	B	H	
<b>Nickel-plated brass</b> 	R 1/8	G 1/8	150	20	7.5	14	RMF160.100 /LN
	R 1/8	G 1/4	100	22	7.5	17	RMF160.101/LN
	R 1/8	G 3/8	75	23	7.5	22	RMF160.102 /LN
	R 1/4	G 1/4	100	26	11	17	RMF161.101 /LN
	R 1/4	G 3/8	75	27	11	22	RMF161.102 /LN
	R 1/4	G 1/2	50	30	11	26	RMF161.103 /LN
	R 3/8	G 3/8	75	27.5	11.5	22	RMF162.102 /LN
	R 3/8	G 1/2	50	30.5	11.5	22	RMF162.103 /LN
	R 1/2	G 1/2	50	33	14	26	RMF163.103 /LN
	R 1/2	G 3/4	50	35	14	32	RMF163.104 /LN

## Male tapered GAZ x female cylindrical GAZ - Compact construction

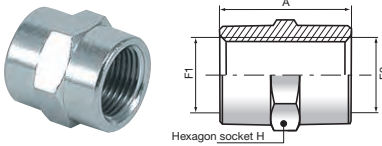
Description	Connection		M.W.P. (bar)	Dimensions (mm)			Part-number
	F 1	F 2		A	B	H	
<b>Nickel-plated brass</b> 	R 1/4	 G 1/8	100	16	11	14	RMF161.100/LN
	R 3/8	 G 1/8	75	16.5	11.5	17	RMF162.100/LN
	R 3/8	 G 1/4	75	16.5	11.5	17	RMF162.101/LN
	R 1/2	 G 1/8	50	19.5	14	22	RMF163.100/LN
	R 1/2	 G 1/4	50	19.5	14	22	RMF163.101/LN
	R 1/2	 G 3/8	50	19.5	14	22	RMF163.102/LN
	R 3/4	 G 3/8	50	23.5	16.5	27	RMF164.102/LN
	R 3/4	 G 1/2	50	23.5	16.5	27	RMF164.103/LN
	R 1	 G 1/2	50	26.5	19	34	RMF165.103/LN
	R 1	 G 1/2	50	26.5	19	34	RMF165.104/LN

# Part-numbers

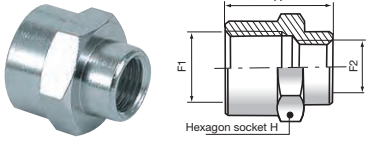
## Male cylindrical GAZ x male cylindrical GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)			Part-number
	F 1	F 2		A	B	H	
<b>Nickel-plated brass</b> 	G 1/4	G 1/4	100	29	11	17	<b>RMF151.101</b>
	G 3/8	 G 3/8	75	33	12	22	<b>RMF152.102</b>
	 G 1/2	 G 1/2	50	46	14	32	<b>RMF153.103</b>
<b>Nickel-plated copper / compact construction</b> 	G 3/8	 G 1/8	75	14	8.5	19	<b>RMF152.100</b>
	G 3/8	 G 1/4	75	14	8.5	19	<b>RMF152.101</b>

## Equal sleeves - female cylindrical GAZ x female cylindrical GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)		Part-number
	F 1	F 2		A	B	
<b>Nickel-plated brass</b> 	G 1/8	G 1/8	150	15	14	<b>MAN100.100/LN</b>
	G 1/4	G 1/4	100	22	17	<b>MAN101.101/LN</b>
	G 3/8	G 3/8	75	24	22	<b>MAN102.102/LN</b>
	G 1/2	G 1/2	50	30	26	<b>MAN103.103/LN</b>
	G 3/4	G 3/4	50	32	32	<b>MAN104.104/LN</b>

## Sleeves - female cylindrical GAZ x female cylindrical GAZ

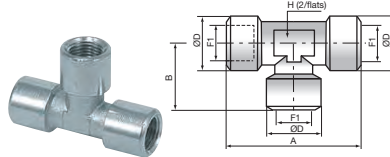
Description	Connection		M.W.P. (bar)	Dimensions (mm)		Part-number
	F 1	F 2		A	B	
<b>Nickel-plated brass</b> 	G 1/4	G 1/8	100	19	17	<b>MAN101.100/LN</b>
	G 3/8	G 1/8	75	20	22	<b>MAN102.100/LN</b>
	G 3/8	G 1/4	75	23	22	<b>MAN102.101/LN</b>
	G 1/2	G 1/8	50	24	24	<b>MAN103.100/LN</b>
	G 1/2	G 1/4	50	25	24	<b>MAN103.101/LN</b>
	G 1/2	G 3/8	50	27.5	24	<b>MAN103.102/LN</b>
	G 3/4	G 1/2	50	30	30	<b>MAN104.103/LN</b>
	G1	G 3/4	50	41	40	<b>MAN105.104/LN</b>

# Part-numbers

## Y-type manifold units - female cylindrical GAZ


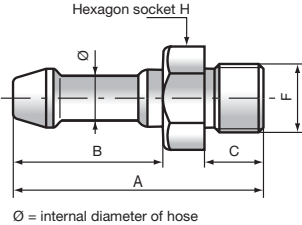











Description	Connection	M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1		A	Ø D	L	H	
<b>Nickel-plated brass</b> 	G 1/8	150	33	14	15	14	DIS100/2Y/LN
	G 1/4	100	37	17	18	17	DIS101/2Y/LN
	G 3/8	75	46	22	22	22	DIS102/2Y/LN
	G 1/2	50	58	26	29	26	DIS103/2Y/LN

## T-type manifold units - female cylindrical GAZ

Description	Connection	M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1		A	Ø D	L	H	
<b>Nickel-plated brass</b> 	G 1/8	150	39	19.5	13	12	DIS100/2T/LN
	G 1/4	100	49	24.5	16.5	13	DIS101/2T/LN
	G 3/8	75	54	27	21	16	DIS102/2T/LN
	G 1/2	50	64	32	25	20	DIS103/2T/LN
	G 3/4	50	73	36.5	32	27	DIS104/2T/LN
	G 1	50	90	45	39.5	30	DIS105/2T/LN

# Part-numbers

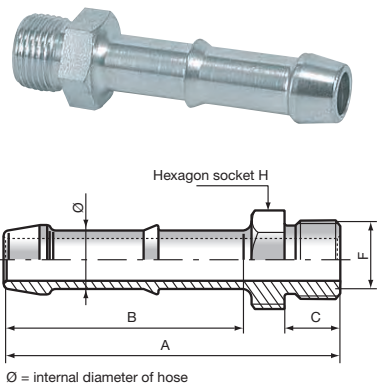






## Threaded plugs for hose - Single-groove threaded-plugs

Description	Connection		Dimensions (mm)				Part-number
	F 1	int. Ø of hose (mm)	A	B	C	H	
<b>Zinc-plated steel</b>     Ø = internal diameter of hose	G 1/8	4	43	28	8	14	<b>AF150.04</b>
	G 1/8	6	43	28	8	14	<b>AF150.06</b>
	G 1/8	8	43	28	8	14	<b>AF150.08</b>
	G 1/8	10	43	28	8	14	<b>AF150.10</b>
	 G 1/4	6	46	28	11	17	<b>AF151.06</b>
	 G 1/4	8	46	28	11	17	<b>AF151.08</b>
	 G 1/4	9	46	28	11	17	<b>AF151.09</b>
	 G 1/4	10	46	28	11	17	<b>AF151.10</b>
	 G 1/4	13	51	33	11	17	<b>AF151.13</b>
	G 3/8	8	47	28	12	19	<b>AF152.08</b>
	G 3/8	10	47	28	12	19	<b>AF152.10</b>
	G 3/8	13	52	33	12	19	<b>AF152.13</b>
	 G 3/8	16	52	33	12	23	<b>AF152.16</b>
	G 1/2	13	54	33	14	23	<b>AF153.13</b>
	G 1/2	16	54	33	14	23	<b>AF153.16</b>
	G 3/4	16	58	33	16	29	<b>AF154.16</b>
<b>Zinc-plated steel</b>	 G 1/4	8	41	23	11	17	<b>AF151.08/LN</b>
	 G 1/4	10	41	23	11	17	<b>AF151.10/LN</b>
	 G 1/4	12	46	28	11	17	<b>AF151.12/LN</b>
	G 3/8	10	47	28	12	19	<b>AF152.10/LN*</b>
	G 3/8	12	47	28	12	19	<b>AF152.12/LN</b>
	 G 1/2	12	50	28	14	27	<b>AF153.12/LN</b>
	 G 1/2	16	50	28	14	27	<b>AF153.16/LN</b>

\* Integrated nitrile seal

# Part-numbers

## Threaded plugs for hose - Double-groove threaded-plugs

Description	Connection		Dimensions (mm)				Part-number
	F 1	int. Ø of hose (mm)	A	B	C	H	
<b>Zinc-plated steel</b>   <p>Hexagon socket H</p> <p>Ø = internal diameter of hose</p>	G 1/8	8	61	46	8	14	AF150.08/G2
	G 1/8	10	61	46	8	14	AF150.10/G2
	 G 1/4	6	64	46	11	17	AF151.06/G2
	 G 1/4	8	64	46	11	17	AF151.08/G2
	 G 1/4	10	64	46	11	17	AF151.10/G2
	 G 1/4	13	71	53	11	17	AF151.13/G2
	G 3/8	13	72	53	12	19	AF152.13/G2
	G 3/8	16	72	53	12	23	AF152.16/G2
	 G 3/8	19	72	53	12	23	AF152.19/G2
	G 1/2	13	74	53	14	23	AF153.13/G2
	G 1/2	16	74	53	14	23	AF153.16/G2
	G 1/2	19	74	53	14	23	AF153.19/G2
	G 3/4	19	78	53	16	29	AF154.19/G2
	 G 3/4	25	80	53	16	35	AF154.25/G2
	G 1	19	84	53	20	35	AF155.19/G2
	G 1	25	84	53	20	35	AF155.25/G2

# Band clamps

## CL ear clamps



### Two materials depending on the model

- Special corrosion-proofed non-brittle steel
- AISI 304 L stainless steel

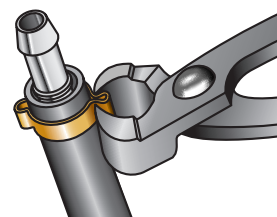
## Special non-brittle steel

ext. Ø ext. flexible hose (mm)		Part-number
Min.	Max.	
5	7	CL1007
7	9	CL1009
9	11	CL1011
11	13	CL1013
13	15	CL1015
14	17	CL1017
15	18	CL1018
17	20	CL1020
19	21	CL1021
20	23	CL1023
22	25	CL1025
23	27	CL1027
25	28	CL1028
27	31	CL1031
31	34	CL1034
34	37	CL1037
37	40	CL1040
40	43	CL1043
43	46	CL1046

## Inox AISI 304 L

ext. Ø ext. flexible hose (mm)		Part-number
Min.	Max.	
3	5	CL1005/IB
5	7	CL1007/IB
7	9	CL1009/IB
9	11	CL1011/IB
11	13	CL1013/IB
13	15	CL1015/IB
14	17	CL1017/IB
15	18	CL1018/IB
17	20	CL1020/IB
19	21	CL1021/IB
22	23	CL1023/IB
23	25	CL1025/IB
25	28	CL1028/IB
27	31	CL1031/IB
31	34	CL1034/IB
34	37	CL1037/IB
37	40	CL1040/IB
40	43	CL1043/IB
43	46	CL1046/IB

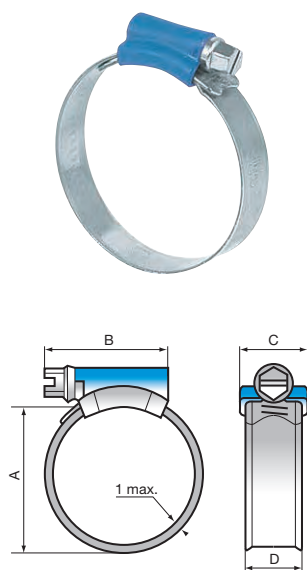
To choose the Stäubli clamps, determine the external diameter of your flexible hoses.



Description	Part-number
With normal jaws: for tightening at front	TEN1098
With two additional lateral jaws: for tightening at front or side	TEN1099

## ABA screw-type clamps

- High tightening force, recommended for PVC hoses
- Drop-forged, zinc-plated, chromium steel band
- Zinc-plated, chromium steel screw
- Steel body with oven-hardened blue paint as a protective coating



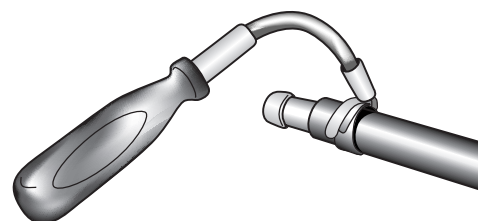
Description	Dimensions (mm)						Recommended tightening torque (N.m)	Part-number
	Max. int. Ø	Min. int. Ø	A (Min. int. Ø on delivery)	B	C	D		
	16.5	8	15	19.5	13	9	3.0 - 4.0	<b>ABA8-14</b>
	19.5	11	18	19.5	13	9	3.0 - 4.0	<b>ABA11-17</b>
	22.5	13	21	21.5	16	9	3.0 - 4.0	<b>ABA13-20</b>
	27	15	25	21.5	16	12.2	4.0 - 5.0	<b>ABA15-24</b>
	31	19	29	23.5	16	12.2	4.0 - 5.0	<b>ABA19-28</b>
	35.5	22	33	23.5	16	12.2	4.0 - 5.0	<b>ABA22-32</b>
	41.5	26	39	25.5	16	12.2	4.0 - 5.0	<b>ABA26-38</b>
	48	32	45	29.5	16	12.2	4.5 - 5.5	<b>ABA32-44</b>
	54	38	51	29.5	16	12.2	4.5 - 5.5	<b>ABA38-50</b>
	60	44	57	29.5	16	12.2	4.5 - 5.5	<b>ABA44-56</b>
	69	50	66	32.5	16	12.2	4.5 - 5.5	<b>ABA50-65</b>
	79	58	76	32.5	16	12.2	4.5 - 5.5	<b>ABA58-75</b>
	89	68	86	32.5	16	12.2	4.5 - 5.5	<b>ABA68-85</b>
	99	77	96	32.5	16	12.2	4.5 - 5.5	<b>ABA77-95</b>
	116	87	113	32.5	16	12.2	4.5 - 5.5	<b>ABA87-112</b>
	142	104	139	32.5	16	12.2	4.5 - 5.5	<b>ABA104-138</b>
	169	130	166	32.5	16	12.2	4.5 - 5.5	<b>ABA130-165</b>
	184	150	181	32.5	16	12.2	4.5 - 5.5	<b>ABA150-180</b>

To choose the Stäubli clamps, determine the external diameter of your flexible hoses.

## Flexible screwdrivers



Part-number **ABA3000**



For further details, refer to the RP001 product documentation.  
In this documentation, you will also find all our accessories available in stainless steel.



# KES sealing kits



KES sealing kits can only be used on cylindrical GAZ threads (G threads) as illustrated opposite. The KES-compatible accessories, sockets and plugs are identified by the logo  in front of the parts numbers in our product documentation.

**Comprising of a retaining ring and an O-ring seal, the sealing-kits ensure:**

- A reliable sealing between the socket or plug thread and the customer interface
- Excellent pressure resistance

- Easy to use: quick assembly without sealing compound.

Moreover, they are dismantlable and reusable.



## Technical characteristics

**Retaining ring available in 4 materials, according to applications**

- Steel with anti-corrosion protection (as standard - no code)
- AISI 316 L stainless steel (/IC code)
- High-strength stainless steel (/IB code)
- Anodized aluminum (/L code) - Max. temperature 150 °C

**Seals available in different materials, according to applications:**

- Nitrile (NBR as standard - no code)
- Fluorocarbon (FPM)
- Ethylene-Propylene\* (EPDM - code /JE)
- Fluorosilicone (FMQ - code /JS3)  
Max. working pressure: 50 bar
- Perfluoroelastomer (FFKM - code /JK)

**Operating temperatures for seals**


Types of seal	Operating temperatures (°C)
Nitrile (NBR)	- 15 to + 100
Fluorocarbon (FPM)	- 10 to + 200
Ethylene-Propylene* (EPDM)	- 20 to + 150
Fluorosilicone (FMQ)	- 40 to + 175
Perfluoroelastomer (FFKM)	0 to + 250

\* Important! Use of this seal with or in contact with mineral fluids (oil, grease, etc.) is not advisable.

## How to create your Part-number?

To build your part-number, add to the standard part-number the material option and the seal type codes.

Example:

	<b>Standard KES</b> <b>Construction:</b> corrosion-proofed steel <b>Seal:</b> Nitrile (NBR)	<b>KES 01.9100</b>	<b>/IC</b>	<b>/JE</b>
<b>Material series</b>	AISI 316 L stainless steel	<b>code /IC</b>		
	High-strength stainless steel	<b>code /IB</b>		
	Anodised aluminium	<b>code /L</b>		
<b>Seal types</b>	Fluorocarbon (FPM)		<b>code /JV</b>	
	Ethylene-Propylene* (EPDM)		<b>code /JE</b>	
	Fluorosilicone (FMQ)		<b>code /JS3</b>	
	Perfluoroelastomer (FFKM)		<b>code /JK</b>	

## Part-numbers


Connection F	Max. working pressure depending on material* series (bar)				Part-number
	Standard	L**	IB	IC	
G 1/8	250	200	700	350	<b>KES01.9100</b>
G 1/4					<b>KES01.9101</b>
G 3/8		150	600	200	<b>KES01.9102</b>
G 1/2					<b>KES01.9103</b>
G 3/4	200	100	550	150	<b>KES01.9104</b>
G 1					<b>KES 01.9105</b>
G 1 - 1/4	150	50	400	125	<b>KES01.9106</b>
G 1 - 1/2			350	100	<b>KES01.9107</b>
G 2	100		300		<b>KES01.9108</b>

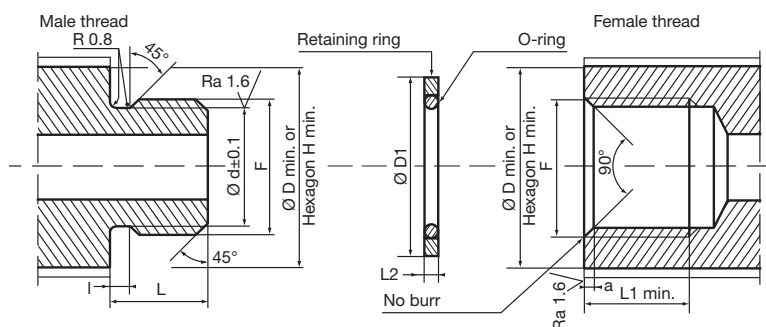
\*Except vibrating and pulsating conditions

\*\*Pressures given for a max. temperature of 150 °C

## Installation dimensions for KES sealing kits

To ensure perfect leak-tightness, the KES kits must be assembled correctly (assembly cone) and must respect the dimensions below:

Connection F	Dimensions (mm) des raccords							Ring 	
	Ø d	l	L	L1 mini.	D mini.	H mini.	a	Ø D1	L2
G 1/8	8.2	2	8	9	14	13	1	15	1.35
G 1/4	11.1	2.5	11	12	18	17	1.2	19.5	1.85
G 3/8	14.6		12	13	22	21		23.5	
G 1/2	18.3	3.5	14	15	26	25	1.5	28.5	
G 3/4	23.8		16	17	32	30		34.5	2.55
G 1	29.9	4.5	20	21	40	39	2	43.5	
G 1 - 1/4	38.6		21	22	49	47		53.5	
G 1 - 1/2	44.5				55	53		57.5	
G 2	56.3		26	27	68	65		70	



# Flexible hoses



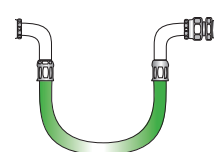
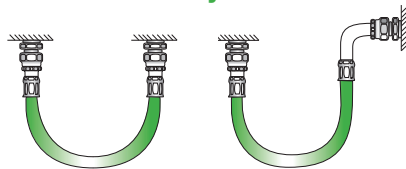
Stäubli has selected the most suitable flexible hoses for your applications for you.

## Advice on assembly

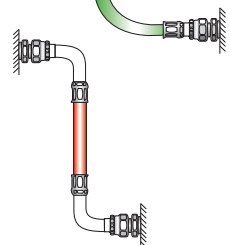
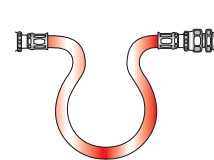
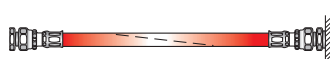
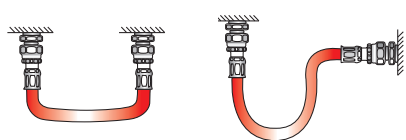
**The service life of flexible hoses depends frequently on the way in which they are installed. If the following points are always adhered to, the hoses may be used in an optimal way to give a longer service life:**

- Each hose must be installed in a way which avoids any stresses or strains: establish required hose lengths and adhere to recommended bend radius so as to avoid bends, flattening or fluid restrictions.
- The installation of the hoses must always work in such a way that all movements are within the same axis (hose axis).
- When the hose is installed straight, the hose must not be stretched; a small excess length must be. If a flexible hose runs close to a heat source, it must be included as length variations will occur when under load.
- If a hose is installed near a heat source, it must be separated and protected by a thermal sleeve.

### Correct assembly



### Incorrect assembly



**In order to guarantee the best working and safety conditions of the Stäubli flexible hoses, it is necessary to respect the followings:**

- Operating temperature (be aware of peak temperature and heat spot).
- The maximum working pressure (be aware of eventual peak pressure).
- Fluid compatibility with the components in the flexible hose.

### Equipped hoses AIRFLEX-S, AIRTANE, LORPRENE, NYLFLEX and TRESS-FLEX

Temperature and pressure data indicated for each hose are set up according to specific assembly and working condition

as follows:

- Only Stäubli original parts (hoses, clamps, plugs, stems...)

- Room temperature : 20 °C
- Ungreased and oil free on all components

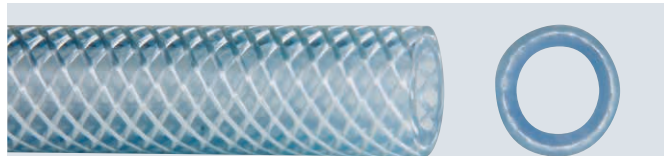
## NYLFLEX

### Reinforced PVC hose

- Good mechanical resistance
- Very low pressure drop
- Good flexibility at temperatures over 5 °C
- 3 colour options

### Applications

- Compressed air



### Composition

- Inner & outer PVC hose, intermediate polyester braid.

Marking: Stäubli Nylflex Ø - PS X Bar at 20°C

### Characteristics of the hose without fittings

int. Ø (mm)	ext. Ø (mm)	M.W.P. at 20 °C (bar)	Non-burst pressure at 20°C (bar)	Max. temp (°C)	Bending radius (mm)	Weight per metre (kg)	Colours	Part-number	
								25-m roll	50-m roll
4	10	15	60	- 15 to + 60	12	0.085	clear		NYLFLEX04/50
6	12	15	60	- 15 to + 60	18	0.100	clear	NYLFLEX06	NYLFLEX06/50
8	14	15	60	- 15 to + 60	27	0.125	clear	NYLFLEX08	NYLFLEX08/50
							blue	NYLFLEX08/KB	NYLFLEX08/KB/50
							red	NYLFLEX08/KR	NYLFLEX08/KR/50
10	16	15	60	- 15 to + 60	37	0.145	clear	NYLFLEX10	NYLFLEX10/50
							blue	NYLFLEX10/KB	NYLFLEX10/KB/50
							red	NYLFLEX10/KR	NYLFLEX10/KR/50
12	19	15	60	- 15 to + 60	45	0.215	clear	NYLFLEX12	NYLFLEX12/50
							blue	NYLFLEX12/KB	NYLFLEX12/KB/50
							red	NYLFLEX12/KR	NYLFLEX12/KR/50
13	20	15	60	- 15 to + 60	51	0.225	clear	NYLFLEX13	NYLFLEX13/50
							blue	NYLFLEX13/KB	NYLFLEX13/KB/50
							red	NYLFLEX13/KR	NYLFLEX13/KR/50
16	26	15	60	- 15 to + 60	65	0.410	clear	NYLFLEX16	NYLFLEX16/50
19	27	15	60	- 15 to + 60	79	0.350	clear	NYLFLEX19	
							blue	NYLFLEX19/KB	
							red	NYLFLEX19/KR	
25	34	15	48	- 15 to + 60	110	0.505	clear	NYLFLEX25	
							blue	NYLFLEX25/KB	
							red	NYLFLEX25/KR	
32	42	12	36	- 15 to + 60	185	0.715	clear	NYLFLEX32	
38	48	11	34	- 15 to + 60	220	0.865	clear	NYLFLEX38	
50	64	9	27	- 15 to + 60	300	1.44	clear	NYLFLEX50	

### Pressure resistance of hose with fittings

int. Ø (mm)	Stäubli ear clamp recommended		Stäubli screw clamp recommended	
	Part-number	M.W.P. (bar) at 20 °C	Part-number	M.W.P. (bar) at 20 °C
4	CL1011	15	ABA8-14	15
6	CL1013	15	ABA8-14	15
8	CL1015	15	ABA11-17	15
10	CL1018	15	ABA13-20	15
12	CL1020	15	ABA15-24	15
13	CL1021	15	ABA15-24	15
16	CL1027	10	ABA19-28	15
19	CL1028	10	ABA22-32	15
25	CL1037	10	ABA26-38	15
32			ABA38-50	8
38			ABA44-56	6
50			ABA58-75	4

## AIRFLEX-S

### Rubber hose

- Excellent reliability: high resistance to bending, pulling and twisting
- Meets NF EN ISO 2398 standard
- Silicone free.

### Applications

- Compressed air
- Painting



### Characteristics of the hose without fittings

int. Ø (mm)	ext. Ø (mm)	M.W.P. at 20 °C (bar)	Non-burst pressure at 20°C (bar)	Max. temp. (°C)	Bending radius (mm)	Weight per metre (kg)	Part-number	
							25-m roll	50-m roll
6	13	16	60	- 20 to + 65	60	0.160	<b>AIRFLEX-S06</b>	<b>AIRFLEX-S06/50</b>
8	15	16	60	- 20 to + 65	80	0.200	<b>AIRFLEX-S08</b>	<b>AIRFLEX-S08/50</b>
10	17.4	16	60	- 20 to + 65	100	0.230	<b>AIRFLEX-S10</b>	<b>AIRFLEX-S10/50</b>
13	21.6	16	60	- 20 to + 65	130	0.380	<b>AIRFLEX-S13</b>	<b>AIRFLEX-S13/50</b>
16	25.4	16	60	- 20 to + 65	160	0.440	<b>AIRFLEX-S16</b>	<b>AIRFLEX-S16/50</b>
19	30	16	60	- 20 to + 65	190	0.630	<b>AIRFLEX-S19</b>	<b>AIRFLEX-S19/50</b>
25	36.4	16	60	- 20 to + 65	250	0.790	<b>AIRFLEX-S25</b>	

### Pressure resistance of hose with fittings

Ø int. (mm)	Stäubli ear clamp recommended		Stäubli screw clamp recommended	
	Part-number	M.W.P. (bar) at 20 °C	Part-number	M.W.P. (bar) at 20 °C
6	<b>CL1015</b>	16	<b>ABA8-14</b>	16
8	<b>CL1017</b>	16	<b>ABA11-17</b>	16
10	<b>CL1018</b>	16	<b>ABA13-20</b>	16
13	<b>CL1023</b>	16	<b>ABA15-24</b>	16
16	<b>CL1027</b>	15	<b>ABA19-28</b>	16
19	<b>CL1031</b>	15	<b>ABA22-32</b>	16
25	<b>CL1040</b>	15	<b>ABA26-38</b>	16

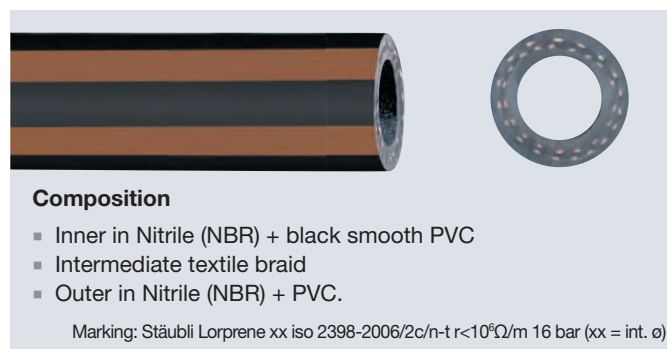
## LORPRENE

Universal rubber hose

- Excellent mechanical resistance
- Flexible, even at - 25 °C.
- Withstand partial vacuum
- Meets NF EN ISO 2398 and NF EN ISO 8031 standards regarding diameter and pressure
- Electrostatics conductor: R/m < 106 Ω/m
- Silicone free.

### Applications

- Greasy environments



### Characteristics of the hose without fittings

int. Ø (mm)	ext. Ø (mm)	M.W.P. at 20 °C (bar)	Non-burst pressure at 20°C (bar)	Max. temp. (°C)	Bending radius (mm)	Weight per metre (kg)	Part-number	
							25-m roll	50-m roll
6	13	16	60	- 25 to + 80	63	0.160	LORPRENE06	LORPRENE06/50
8	15.5	16	60	- 25 to + 80	80	0.210	LORPRENE08	LORPRENE 08/50
10	17.5	16	60	- 25 to + 80	100	0.240	LORPRENE10	LORPRENE10/50
13	21	16	60	- 25 to + 80	130	0.310	LORPRENE13	LORPRENE13/50
16	25	16	60	- 25 to + 80	160	0.420	LORPRENE16	LORPRENE16/50
19	29	16	60	- 25 to + 80	190	0.530	LORPRENE19	LORPRENE19/50
25	36	16	60	- 25 to + 80	250	0.740	LORPRENE25	

### Pressure resistance of hose with fittings

Ø int. (mm)	Stäubli ear clamp recommended		Stäubli screw clamp recommended	
	Part-number	M.W.P. (bar) at 20 °C	Part-number	M.W.P. (bar) at 20 °C
6	CL1015	16	ABA8-14	16
8	CL1017	16	ABA11-17	16
10	CL1018	16	ABA13-20	16
13	CL1023	16	ABA15-24	16
16	CL1027	15	ABA19-28	16
19	CL1031	15	ABA22-32	16
25	CL1040	15	ABA26-38	16

Pour plus de détails, se reporter à la documentation produit RN210.



■ Stäubli units    ○ Agents

# Global presence of the Stäubli Group

[www.staubli.com](http://www.staubli.com)