FAST MOVING TECHNOLOGY

STÄUBLI

Compressed air programme

Connectors I 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.

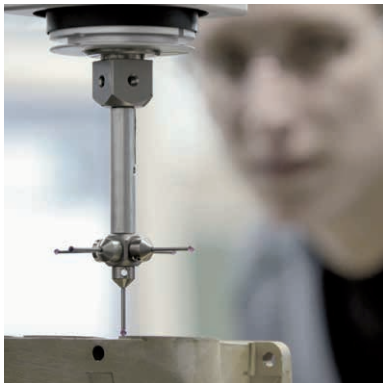
Choose Stäubli to meet all your requirements.

- 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

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

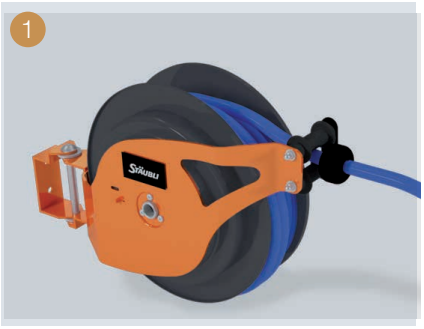
As the partners to your projects, Staubli's technicians have the expertise necessary to design or diagnose your compressed air networks.

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

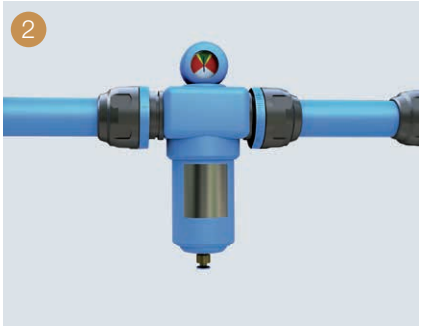
- the optimum dimensions depending on the air flow for distribution
- the components that make up your network
- the right accessories and components to meet your needs



Programe 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 = $\frac{10^5\ N}{m^2}$	1 at = $\frac{1\ Kp}{cm^2}$	$\frac{Poundal}{sq\ ft}$	$\frac{Poundal}{sq\ in = Psi}$	1 atm
1 Pa = 1 N/m²	1.10^{-5}	$1.02.10^{-5}$	0.0209	$1.45.10^{-4}$	$9.87.10^{-6}$
1 bar	1	1.0197	2089	14.504	0.9869
1 at	0.980665	1	2048	14.22	0.96784
1 pdl/sq ft	$0.4790.10^{-3}$	$0.4882.10^{-3}$	1	$6.944.10^{-3}$	$0.4725.10^{-3}$
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^3/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^3/year	20,880 m^3/year
Ø 2 mm	55,680 m^3/year	83,520 m^3/year
Ø 3 mm	125,280 m^3/year	187,924 m^3/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

PATENTED
US Patent 7887102
and other countries

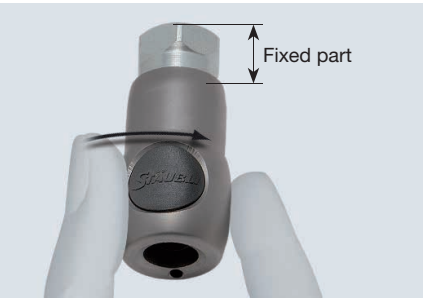
GUARANTEE 5-YEAR

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.



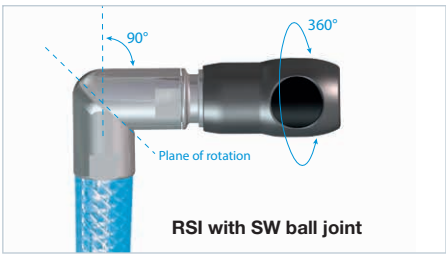
Rotating button to always have the connections "to hand".

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.

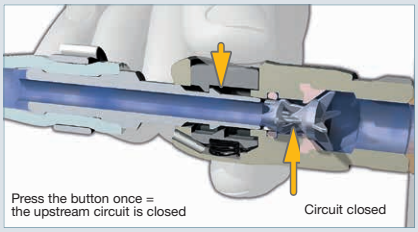
"Swivel version" coupling with 360° and 90° rotation for greater flexibility during use



RSI with SW ball joint

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

PATENTED
US Patent 7887102
and other countries

GUARANTEE 5-YEAR

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.

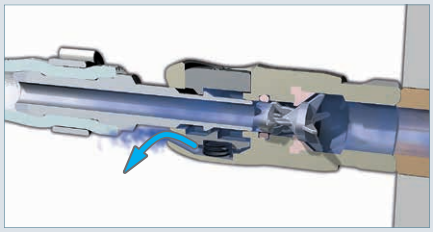
Lightweight

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

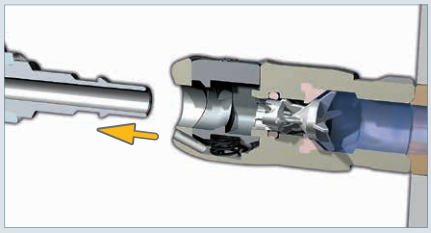
Swivel anti-scratch versions: 2 versions for complete freedom of movement and top performance whatever the angle.

NSI with FA ball joint: 360° of freedom, performance and easy handling.

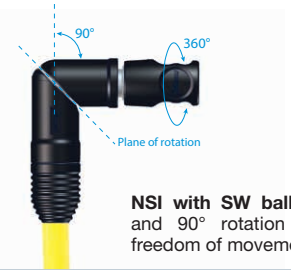
Simply pressing the button once starts a fully automatic disconnection process:



2 Decompression of the upstream circuit.



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

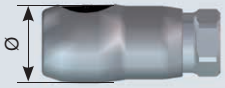


NSI with SW ball joint: 360° and 90° rotation for greater freedom of movement.

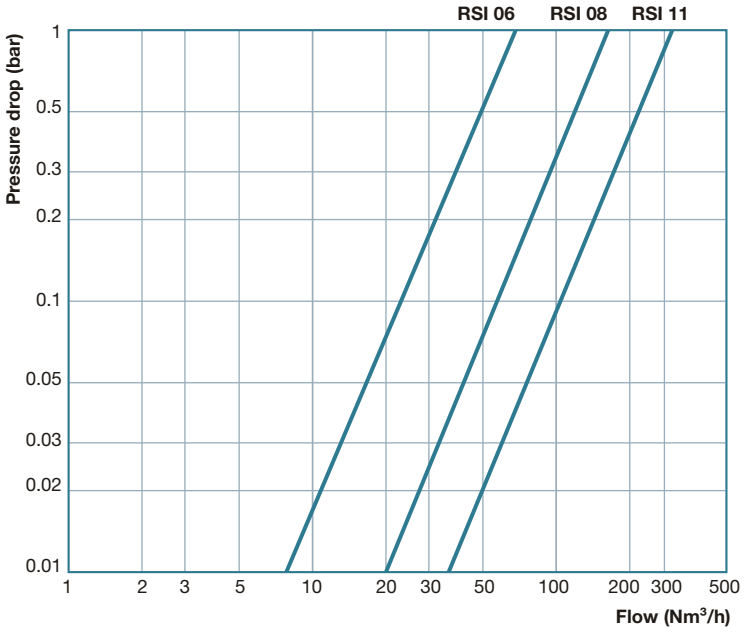
For further details, refer to the RA705 product documentation.

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^2)	23.75	50	95
Connection force at 6 bar (N)	45	82	125
Flow at 0.3 bar pressure drop (Nm^3/h)	39	94	180
Ø Socket o.d. (mm) 	25.8	30.8	36

Pneumatic flow rate / pressure drop



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

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

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
1. SOCKETS WITH MALE THREAD 	**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**
2. SOCKETS WITH FEMALE THREAD 	**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**
3. SOCKETS WITH TAPERED FEMALE THREAD 	**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**
4. PANEL MOUNTED SOCKETS WITH FEMALE THREAD 	**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
5. SOCKETS FOR RUBBER HOSE 	**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**
6. SOCKETS FOR POLYURETHANE TUBE 	**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**
7. SOCKETS FOR LORTAN HOSE 	**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**
8. 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**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**
9. 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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
10. 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
11. 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**RSI 06**	Ø 1/2”	**RSI06.1813/CN/SW**
	RSI 08	Ø 1/2”	**RSI08.1813/CN/SW**
12. MOBILE MANIFOLD UNITS 	**RSI 06**	Stäubli RBE 06 plug	**RSI06.8600**
	RSI 08	Stäubli RBE 08 plug	**RSI08.8600**
	RSI 11	Stäubli RBE 11 plug	**RSI11.8600**
13. FIXED MANIFOLD UNITS WITH FEMALE THREAD 	**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**
14. FIXED MANIFOLD UNITS WITH FEMALE THREAD (R = TAPERED GAS) 	**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**

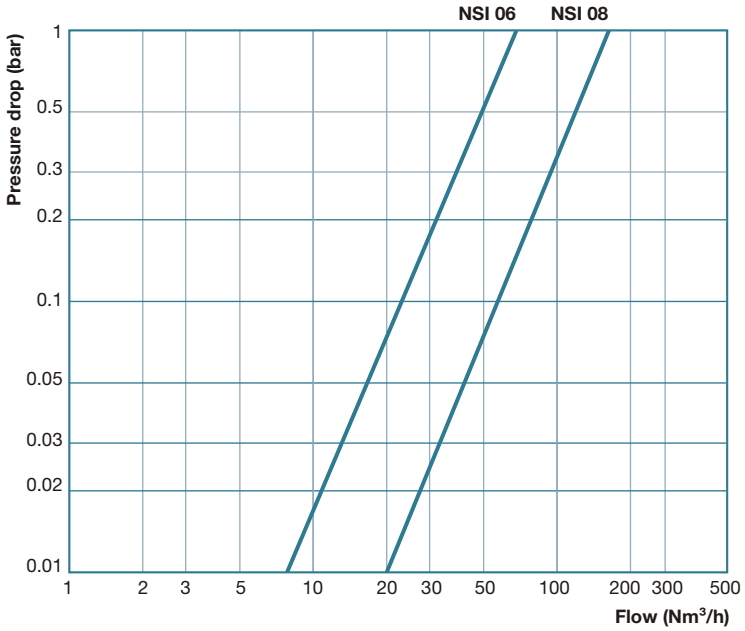
Coupling plugs: see page 27.

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^2)	23.75	50
Coupling force at 6 bar (N)	45	82
Flow at 0.3 bar pressure drop (Nm^3/h)	39	91
External Ø of socket (mm) 	27	32

Pneumatic flow rate / pressure drop



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

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

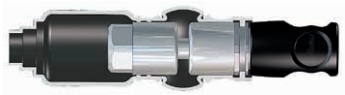
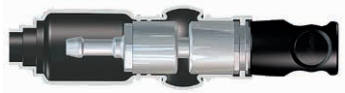
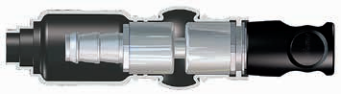
The flow and pressure drops at all the components in your network influence its efficiency. Thanks to their expertise, our consultants can help you and offer complete solutions that guarantee optimized performance.

Part-numbers

Description	Model	Connection	Part-number
1. SOCKETS WITH MALE THREAD 	**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**
2. SOCKETS WITH FEMALE THREAD 	**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**
3. SOCKETS WITH TAPERED FEMALE THREAD 	**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**
4. SOCKETS FOR RUBBER HOSE 	**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**
5. SOCKETS FOR POLYURETHANE TUBE 	**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**
6. SOCKETS FOR LORTAN HOSE 	**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
7. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**NSI 06**	G 3/8	**NSI06.1102/FA**
	NSI 08	G 3/8	**NSI08.1102/FA**
8. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
9. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
10. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**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
11. SW 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**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**
12. SW 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
13. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
14. SW 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**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

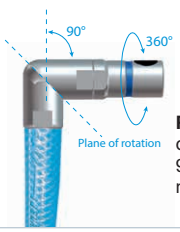
Every one of our couplings is individually tested for performance and offers an excellent flow volume, thus playing its part in the efficiency of your compressed air installations.

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

RCS with FA ball joint and anti-scratch protection 360° of freedom, performance and easy handling



RSI with SW ball joint double rotation of 360° and 90° to follow all your movements.

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

GUARANTEE 5-YEAR

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.

Automatic coupling

Simply push the plug into the socket.

Reliable

All internal wear parts are made of hardened steel.

Lasting leak-tightness

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

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

2 **2nd 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.

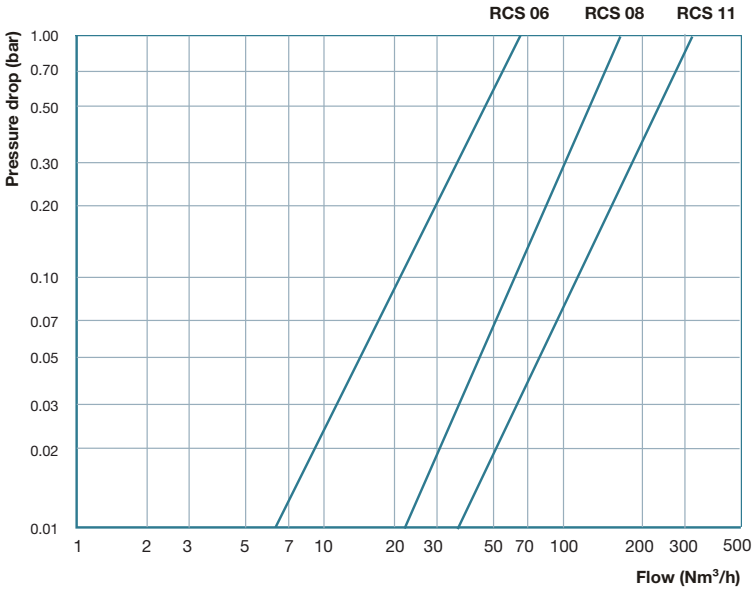
ERS with SW ball joint 360° and 90° rotation for greater freedom of movement.

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^2)	23.75	50	95
Coupling force at 6 bar (N)	90	98	125
Flow at 0.3 bar pressure drop (Nm^3/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

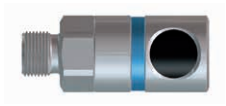
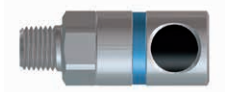
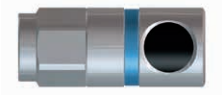
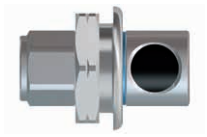
The flow and pressure drop of all your compressed air circuit components influence efficiency. Our experienced and knowledgeable sales engineers will help you optimise your systems performance.

Push-button lock option

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

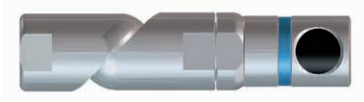
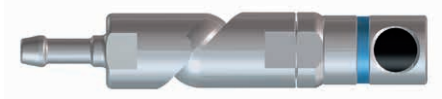
Add **/VD** at the end of the part-number of the selected coupling part-number.

Part-numbers

Description	Model	Connection	Part-number
1. SOCKETS WITH MALE THREAD 	**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**
2. PRE-TEFLONNED SOCKETS WITH TAPERED MALE THREAD 	**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***
3. SOCKETS WITH FEMALE THREAD 	**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**
4. PANEL MOUNTED SOCKETS WITH FEMALE THREAD 	**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***

Coupling plugs: see page 27.

Part-numbers (continued)

Description	Model	Connection	Part-number
5. SOCKETS FOR RUBBER HOSE 	**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***
6. SW SWIVEL COUPLINGS WITH FEMALE THREAD 	**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**
7. SW SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
8. SW SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**RCS 06**	Ø 1/2”	**RCS06.1813/CN/SW**
	RCS 08	Ø 1/2”	**RCS08.1813/CN/SW**
9. SW SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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
10. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**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**
11. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
	RCS 11	Ø 13	**RCS11.1813/FA**
12. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**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**
13. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
14. MOBILE MANIFOLD UNITS 	**RCS 06**		**RCS06.8600***
	RCS 08		**RCS08.8600***
	RCS 11		**RCS11.8600***
15. FIXED MANIFOLD UNITS 	**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***

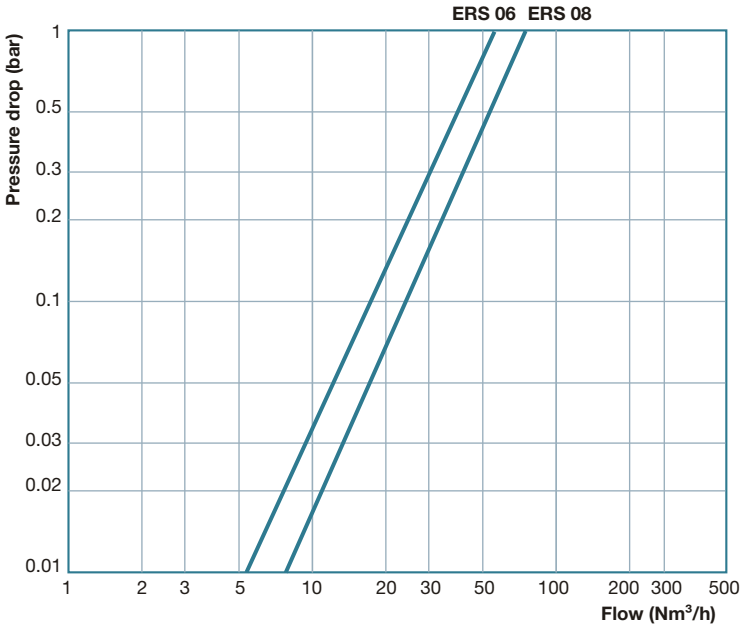
* Part-numbers for which the push button lock option is available: add /VD at the end of the part-number. Coupling plugs: see page 27.

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^2)	23.75	50

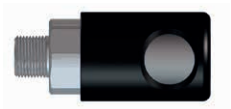
Pneumatic flow rate / pressure drop



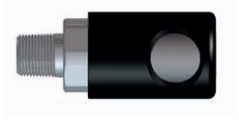
Test conditions:
- Δp max. = 1 bar
- Direction of flow: socket → plug
- Inlet pressure: 6 bar

Part-numbers

Description	Model	Connection	Part-number
1. SOCKETS WITH MALE THREAD	**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**



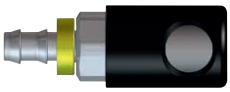
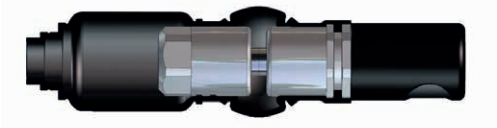
GAZ



NPT

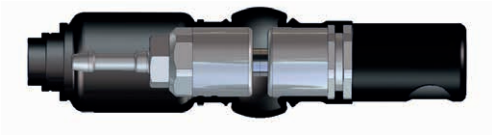
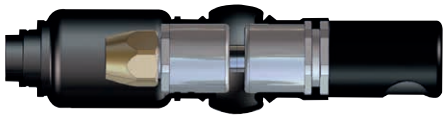
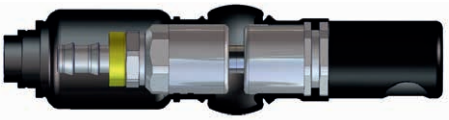
* Part-numbers for which the push button lock option is available: add /VD at the end of the part-number. Coupling plugs: see page 27.

Part-numbers (continued)

Description	Model	Connection	Part-number
2. SOCKETS WITH FEMALE THREAD 	**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**
3. SOCKETS FOR RUBBER HOSE 	**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**
4. SOCKETS FOR SELF-CLAMPING SELF-CLAMPING HOSE 	**ERS 06**	Ø 1/4''	**ERS06.1806/CN**
		Ø 3/8''	**ERS06.1810/CN**
5. SOCKETS FOR POLYURETHANE TUBE 	**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**
6. SOCKETS FOR LORTAN HOSE 	**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**
7. FA 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**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
8. FA 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
9. FA 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
10. FA 360° SWIVEL COUPLINGS FOR SELF-CLAMPING HOSE 	**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**
11. W 360° SWIVEL COUPLINGS WITH FEMALE THREAD 	**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**
12. SW 360° SWIVEL COUPLINGS FOR RUBBER HOSE 	**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**
13. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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**
14. SW 360° SWIVEL COUPLINGS FOR POLYURETHANE TUBE 	**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

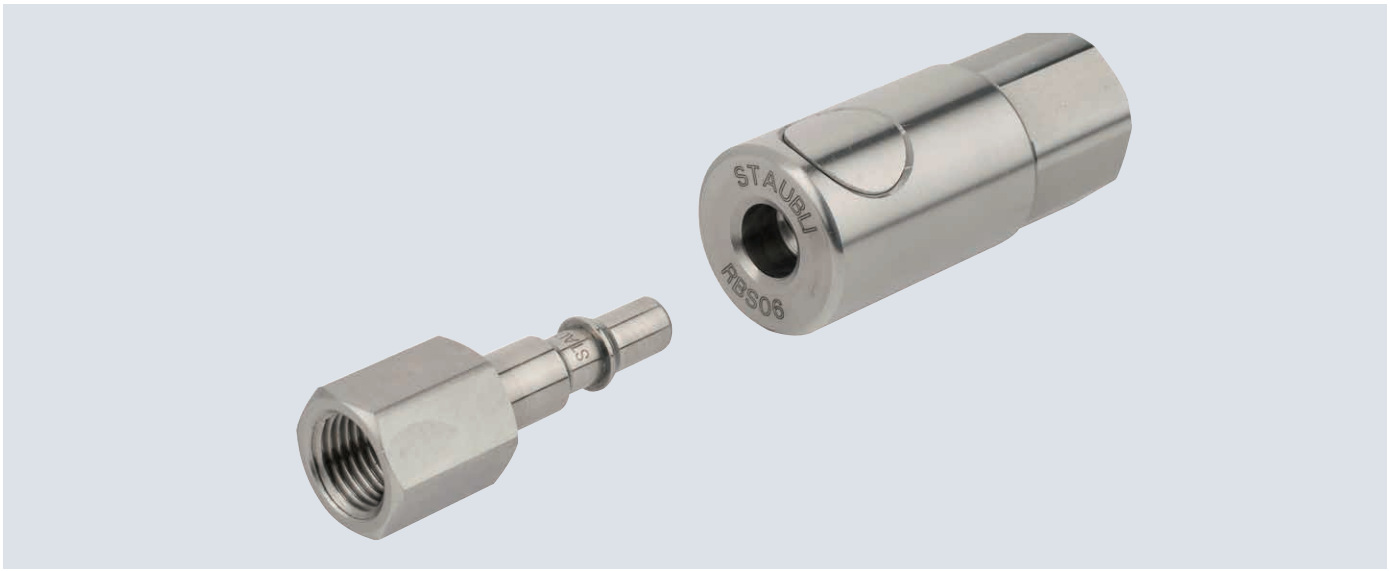
Coupling plugs common to the RSI, NSI, RCS and ERS couplings

Description	Model	Connection	Part-number
1. COUPLING PLUGS WITH MALE THREAD 	**RBE 06**	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**
	RBE 08	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**
	RBE 11	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**
2. PRE-TEFLONNED COUPLING PLUGS WITH TAPERED MALE THREAD 	**RBE 06**	R 1/8	**RBE06.6160**
		R 1/4	**RBE06.6161**
		R 3/8	**RBE06.6162**
	RBE 08	R 1/4	**RBE08.6161**
		R 3/8	**RBE08.6162**
		R 1/2	**RBE08.6163**
3. COUPLING PLUGS WITH FEMALE THREAD 	**RBE 06**	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**
	RBE 08	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**
	RBE 11	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**
		NPT 3/4	**RBE11.6204**
4. COUPLING PLUGS FOR RUBBER HOSE 	**RBE 06**	Ø 6	**RBE06.6806**
		Ø 8	**RBE06.6808**
		Ø 10	**RBE06.6810**
		Ø 13	**RBE06.6813**
	RBE 08	Ø 6	**RBE08.6806**
		Ø 8	**RBE08.6808**
		Ø 10	**RBE08.6810**
		Ø 13	**RBE08.6813**
		Ø 16	**RBE08.6816**
	RBE 11	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.

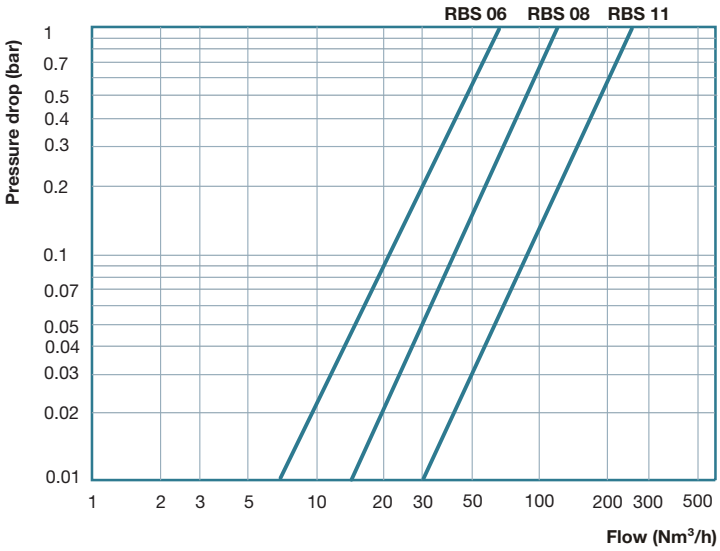
For further details, refer to the RA103 product documentation.

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^2)	23.75	50	95
Flow at 0.3 bar pressure drop (Nm^3/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**

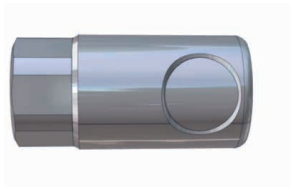
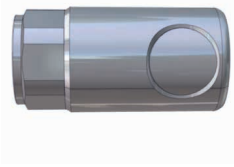
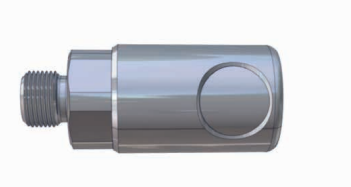
1. Socket standard part-number with nitrile seal. Add at the end of this part-number, codes below:

2. Seal selection (other one than Nitrile, only for the socket)	Fluorocarbon (FPM)	**/JV** code
	Ethylene-Propylene (EPDM) with FDA option	**/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

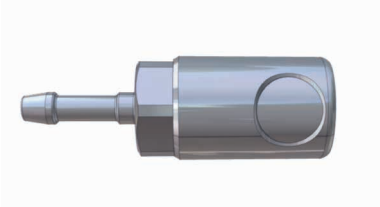
Standard couplings

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

(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
4. SOCKETS WITH MALE NPT THREAD 	**RBS 06**	NPT 1/8	**RBS06.1250/IC**
		NPT 1/4	**RBS06.1251/IC**
		NPT 3/8	**RBS06.1252/IC**
		NPT 1/2	**RBS06.1253/IC**
	RBS 08	NPT 1/4	**RBS08.1251/IC**
		NPT 3/8	**RBS08.1252/IC**
		NPT 1/2	**RBS08.1253/IC**
	RBS 11	NPT 3/8	**RBS11.1252/IC**
		NPT 1/2	**RBS11.1253/IC**
		NPT 3/4	**RBS11.1254/IC**
5. SOCKETS FOR RUBBER HOSE 	**RBS 06**	int. Ø 6 mm	**RBS06.1806/IC**
		int. Ø 8 mm	**RBS06.1808/IC**
		int. Ø 10 mm	**RBS06.1810/IC**
		int. Ø 13 mm	**RBS06.1813/IC**
	RBS 08	int. Ø 8 mm	**RBS08.1808/IC**
		int. Ø 10 mm	**RBS08.1810/IC**
		int. Ø 13 mm	**RBS08.1813/IC**
		int. Ø 16 mm	**RBS08.1816/IC**
	RBS 11	int. Ø 10 mm	**RBS11.1810/IC**
		int. Ø 13 mm	**RBS11.1813/IC**
		int. Ø 16 mm	**RBS11.1816/IC**
		int. Ø 19 mm	**RBS11.1819/IC**

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 KES in the table of part-numbers on pages 30 to 34).

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

For further details, refer to the RP003 product documentation.

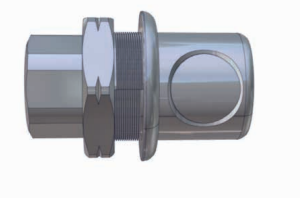
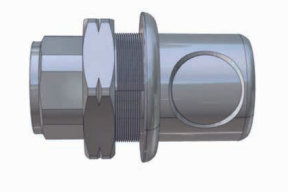
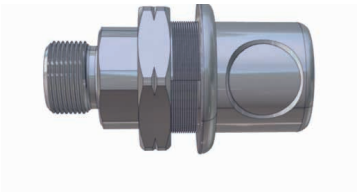
Part-numbers available in the same seal selections for sockets and plugs.

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

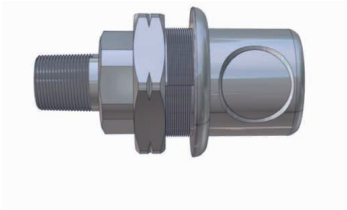
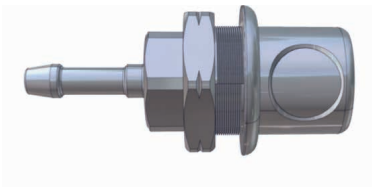
Part-numbers

Panel mounted socket version

Description	Model	Connection	Part-number
1. SOCKETS WITH FEMALE GAZ THREAD 	**RBS 06**	G 1/8	**RBS06.2100/IC**
		G 1/4	**RBS06.2101/IC**
		G 3/8	**RBS06.2102/IC**
		G 1/2	**RBS06.2103/IC**
	RBS 08	G 1/4	**RBS08.2101/IC**
		G 3/8	**RBS08.2102/IC**
		G 1/2	**RBS08.2103/IC**
	RBS 11	G 3/8	**RBS11.2102/IC**
		G 1/2	**RBS11.2103/IC**
		G 3/4	**RBS11.2104/IC**
2. SOCKETS WITH FEMALE NPT THREAD 	**RBS 06**	NPT 1/8	**RBS06.2200/IC**
		NPT 1/4	**RBS06.2201/IC**
		NPT 3/8	**RBS06.2202/IC**
		NPT 1/2	**RBS06.2203/IC**
	RBS 08	NPT 1/4	**RBS08.2201/IC**
		NPT 3/8	**RBS08.2202/IC**
		NPT 1/2	**RBS08.2203/IC**
	RBS 11	NPT 3/8	**RBS11.2202/IC**
		NPT 1/2	**RBS11.2203/IC**
		NPT 3/4	**RBS11.2204/IC**
3. SOCKETS WITH MALE GAZ THREAD  (see page 31)	**RBS 06**	G 1/8	**RBS06.2150/IC**
		G 1/4	**RBS06.2151/IC**
		G 3/8	**RBS06.2152/IC**
		G 1/2	**RBS06.2153/IC**
	RBS 08	G 1/4	**RBS08.2151/IC**
		G 3/8	**RBS08.2152/IC**
		G 1/2	**RBS08.2153/IC**
	RBS 11	G 3/8	**RBS11.2152/IC**
		G 1/2	**RBS11.2153/IC**
		G 3/4	**RBS11.2154/IC**

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

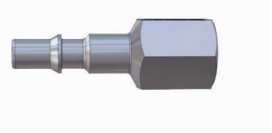
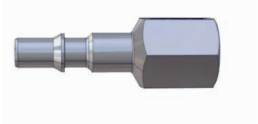
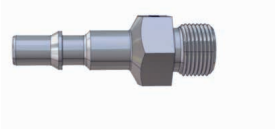
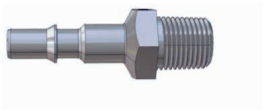
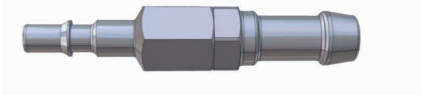
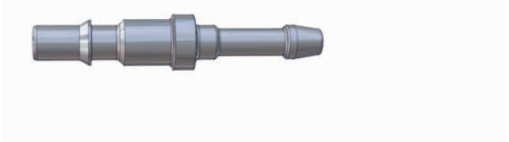
Part-numbers (continuation and end)

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

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

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

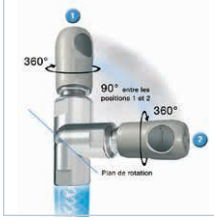
3 automatic quick release coupling models

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



SW swivel: two angles of rotation: 360° and 90° for greater freedom of movement. (Available for the 3 models of couplings presented here).

FA swivel: 360° of freedom, performance and ease of handling without any risk of scratching.
(Only available with the NSI and RCS couplings).

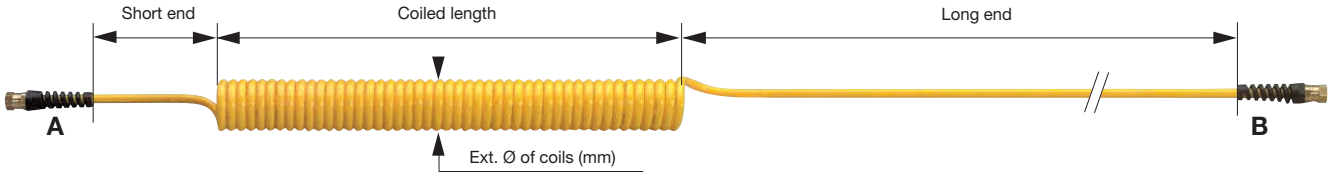
Technical characteristics

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

For further details, refer to the RA900 product documentation.

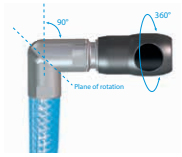
Part-numbers

Spiral-reinforced polyurethane tube



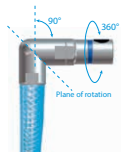
int./ext. Ø of tube (mm)	Ø 8 x 12				Ø 9 x 13				Ø 11 x 16
Working length	**2 000**	**3 000**	**6 000**	**7 500**	**2 000**	**3 000**	**6 000**	**7 500**	**7 500**
Coiled length (mm)	150	250	500	620	260	350	550	650	570
Length of short end (mm)	150	150	150	150	150	150	150	150	150
Length of long end (mm)	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
End A	G 3/8	✓	✓		**AF102**
Female thread	G 1/2			✓	**AF103**
	NPT 3/8	✓	✓		**AF202**
	NPT 1/2			✓	**AF203**
Coupling plug	RBE 06	✓	✓		**RBE066**
	RBE 08	✓	✓	✓	**RBE086**
	RBE 11	✓	✓	✓	**RBE116**
Quick release couplings	RSI 06	✓	✓		**RSI061**
	RSI 08	✓	✓	✓	**RSI081**
	RSI 11			✓	**RSI111**
	RCS 06	✓	✓		**RCS061**
	RCS 08	✓	✓	✓	**RCS081**
	RCS 11			✓	**RCS111**
	NSI 06	✓	✓		**NSI061**
	NSI 08	✓	✓	✓	**NSI081**
360° swivel		✓	✓		**RSI061SW**
		✓	✓	✓	**RSI081SW**
				✓	**RSI111SW**
		✓	✓		**NSI061SW**
		✓	✓	✓	**NSI081SW**
		✓	✓		**RCS061SW**
		✓	✓	✓	**RCS081SW**
				✓	**RCS111SW**
		✓	✓		**RCS061FA**
		✓	✓	✓	**RCS081FA**
				✓	**RCS111FA**
		✓	✓		**NSI061FA**
		✓	✓	✓	**NSI081FA**



RSI with SW swivel

NSI with SW swivel



RCS with SW swivel

NSI with FA swivel

RCS with FA swivel

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	**ETF08**	
	8/14	10		**ETF08/RSI06**
	8/14	10		**ETF08/RCS06***

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	**ETO08**	**ETO08/RSI06** **ETO08/RCS06***
	13/21	20	**ETO13**	**ETO13/RSI08** **ETO13/RCS08**
	16/25	10	**ETO16**	**ETO16/RSI08** **ETO16/RCS08**

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

Pivoting support (to be ordered separately)	Part-number
ETO08	**SO3**
ETO13	**SO4**
ETO16	

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.

Construction

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

- 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.

Part-numbers

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

* 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

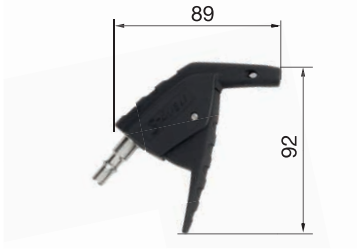
Designed for the entire range of 6-mm diameter Stäubli compressed air quick-release couplings.

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

Construction

- Composite blowgun
- NBR seals
- Steel fitting

Part-numbers

Description	Connection	Part-number
Safety blowgun with OHSA nozzle 	Stäubli profile 6-mm diameter plug	**SPG06.6000/OSHA**

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

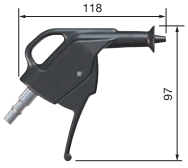
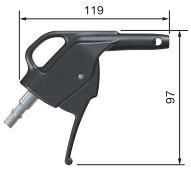
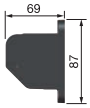
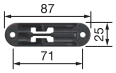
Basic model for direct, concentrated blow-down.

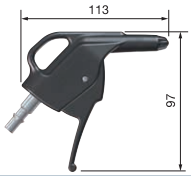
Model	MIK	SIL	OSHA	ZEP
Consumption at 6 bar (Nm^3/h)	25	10	13	14
Air jet strength at 6 bar (g)	131	165	260	286
Noise level (dBA)	87	74	87	85
Max. operating temperature	–15° to + 70°C			
Max. working pressure	12 bar			
Blowgun weight	70 g			

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	**SBG06.6000/MIK**
OSHA safety blowgun with Venturi effect 	Stäubli profile 6-mm Ø plug	**SBG06.6000/OSHA**
Bracket  		**R04190000**

Description	Connection	Part-number
SIL silent safety blowgun 	Stäubli profile 6-mm Ø plug	**SBG06.6000/SIL**
ZEP Zephir conventional blowgun 	Stäubli profile 6-mm Ø plug	**SBG06.6000/ZEP**

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.

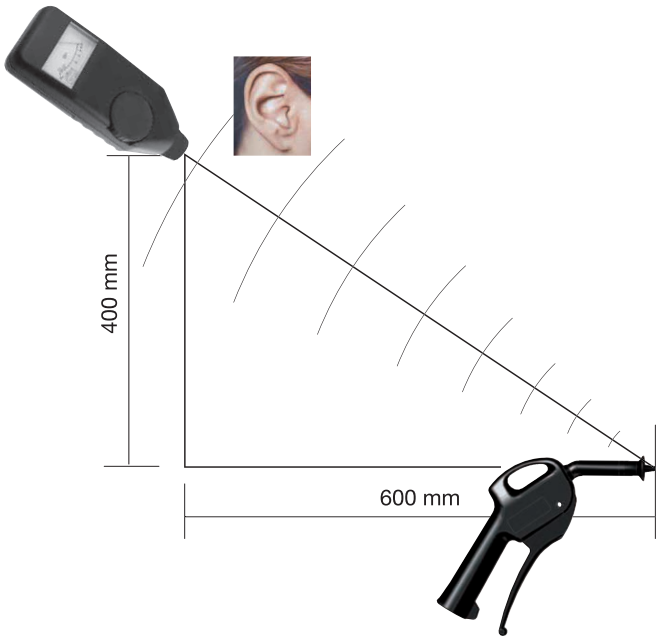
For further details, refer to the RB300 product documentation.

Technical characteristics

Optimal air jet strength for reduced consumption

Model	MIK	SIL	OSHA	ZEP	COT 3	COT 5
Consumption at 6 bar (Nm^3/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

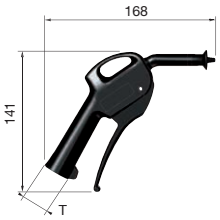
12 bar

Blowgun weight

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

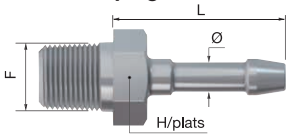
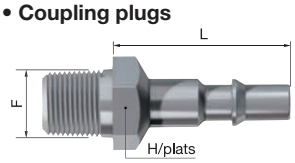
Part-numbers

Blowguns alone

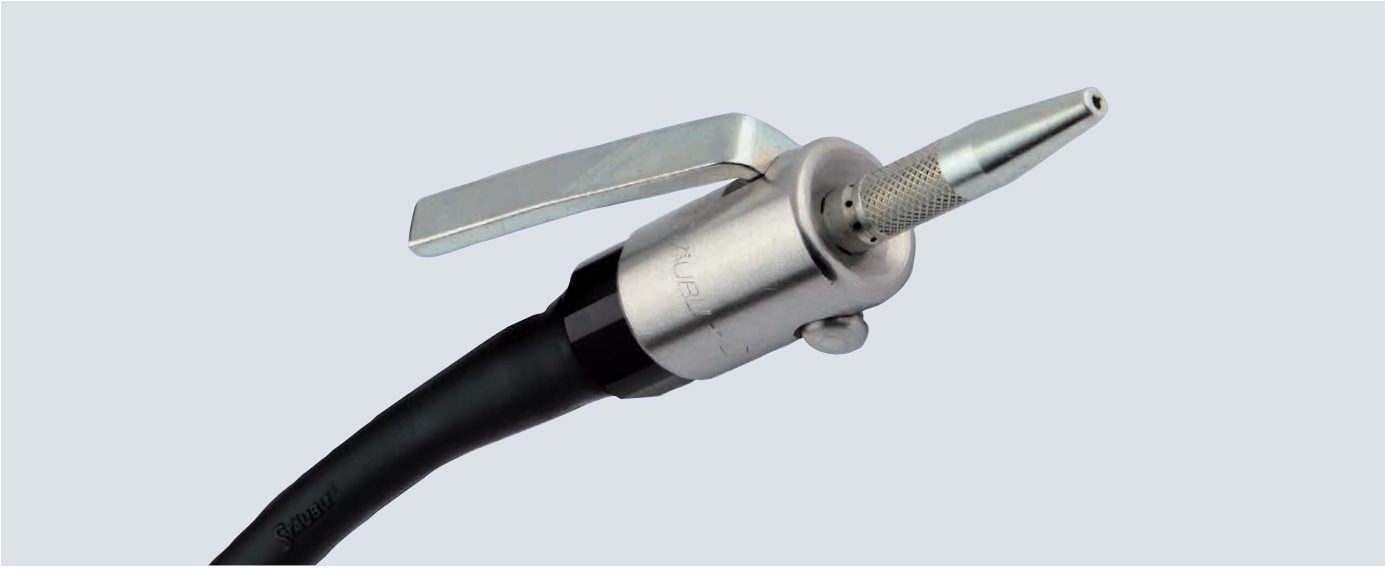
Description	Thread T	Standard air jet version	Air jet version 2S3 (3 bar)	Air jet version 2S15 (1.5 bar)
MIK safety blowgun with protective air shield 	G 1/4	**STA06.1101/MIK**	**STA06.1101/MIK/2S3**	**STA06.1101/MIK/2S15**
	NPT 1/4	**STA06.1201/MIK**	**STA06.1201/MIK/2S3**	**STA06.1201/MIK/2S15**
Silent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

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

Plugs

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

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

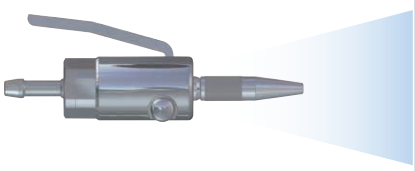
These two advantages ensure the lowest operating costs.

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.

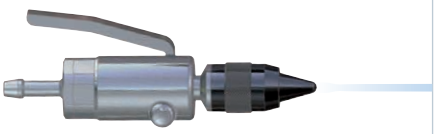
Five blowgun models for five nozzle types

MIK safety blowgun with protective air shield



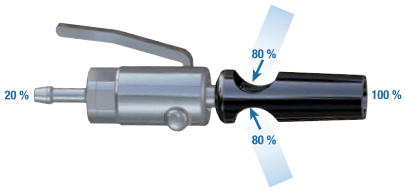
The protective air shield prevents chips and dust from being blown back towards the operator.

SIL silent safety blowgun



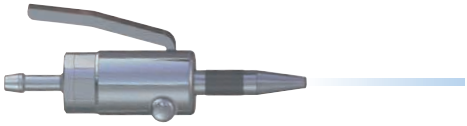
This blowgun combines blowing force and reduced noise level for operator comfort.

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

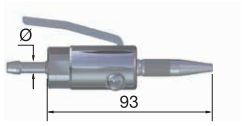
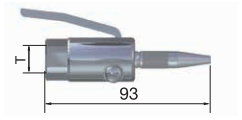
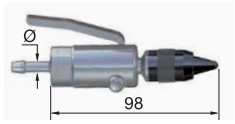
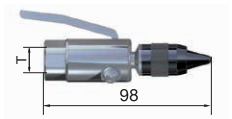
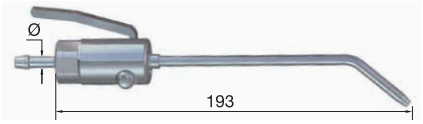
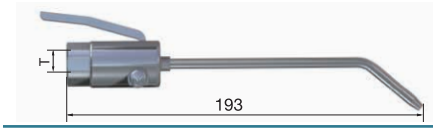
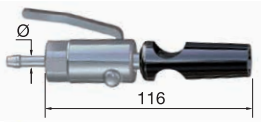
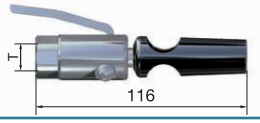
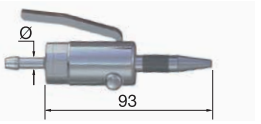
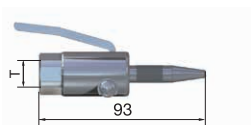
Max. working pressure
- 12 bar

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.

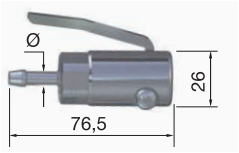
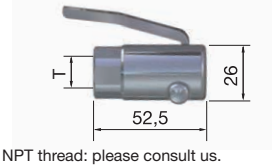
Part-numbers

Complete blowguns

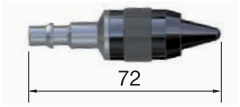
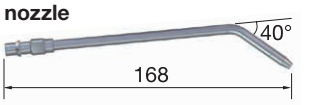
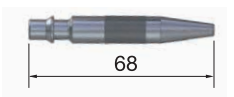
Description	int. Ø of hose (mm) or thread T	Standard air jet version	Air jet version 2S3 (3 bar)	Air jet version 2S15 (1.5 bar)
Safety blowguns with protective air shield - MIK - hose tail 	6	**PML06.1806/MIK**	**PML06.1806/2S/3/MIK**	**PML06.1806/2S/15/MIK**
	8	**PML06.1808/MIK**	**PML06.1808/2S/3/MIK**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

Part-numbers

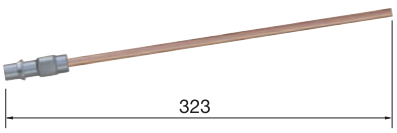
Bodies only

Description	int. Ø of hose (mm) or thread T	Standard air jet version	Air jet version 2S3	Air jet version 2S3 2S15
Blowgun body for hose 	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**
Blowgun body with female thread*  * also available with NPT thread: please consult us.	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**
Blowgun body with male thread 	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**

Nozzles only

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

Description	L (mm)	Part-number
ZÉPHIR long steel blowgun nozzle (blowing orifice of 2 mm) 	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
Long, bendable copper nozzles 	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

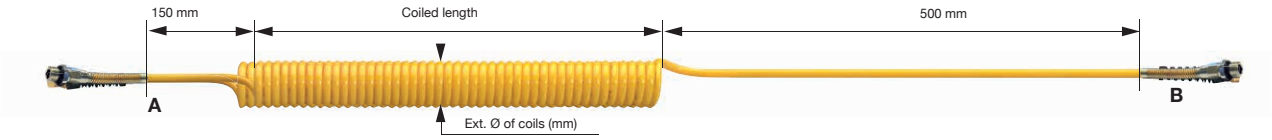
Max. working pressure

- 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**

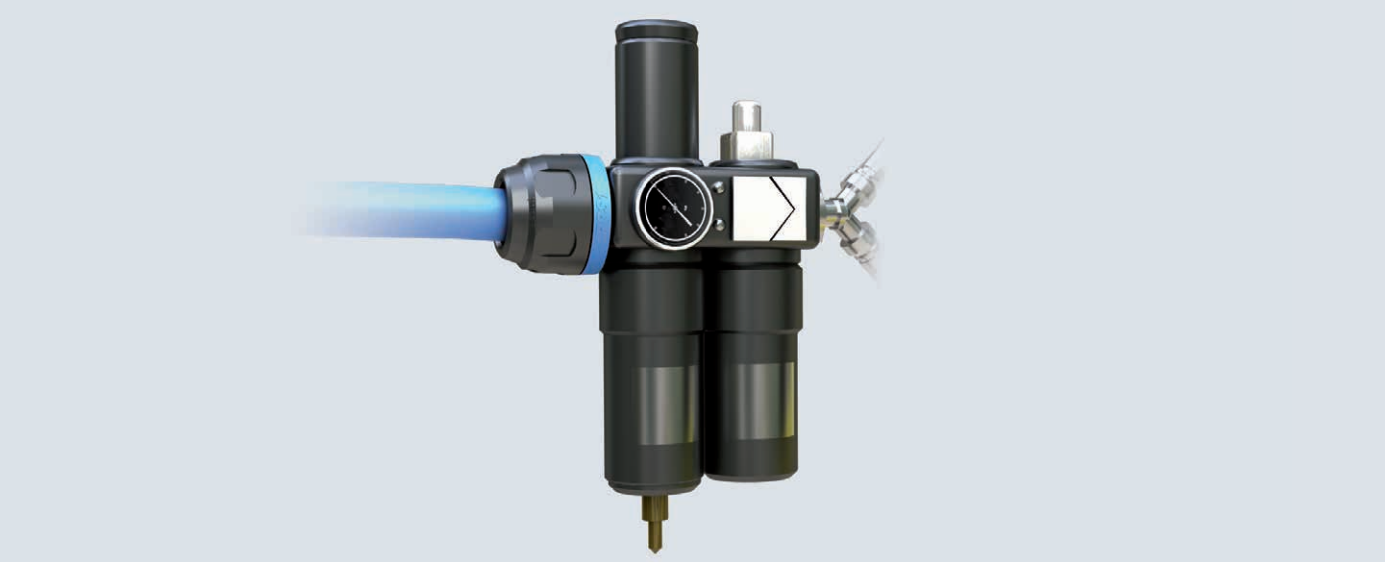
Selection of nozzle type					
STA blowgun	 MIK	 COT	 SIL	 OSHA	 ZEP
	/ MIK	**/COT3 for 300-mm nozzle /COT5 for 300-mm nozzle**	**/ SIL**	**/ OSHA**	**/ ZEP**
PML blowgun	 MIK	 COT	 SIL	 VEN	 ZEP
	/ MIK	**/ COT**	**/ SIL**	**/ VEN**	**/ ZEP**

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 µ 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^3
  FRL 15 and 25 ..... 125 cm^3

Filters

- Condensate volume:
  FRL 12 ..... 25 cm^3
  FRL 15 and 25 ..... 85 cm^3

Construction

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

Performance data

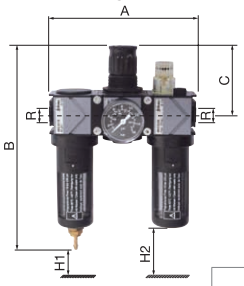
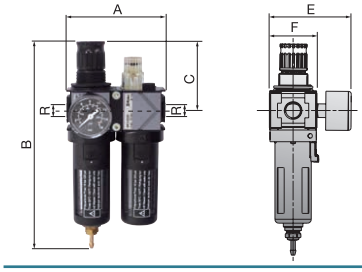
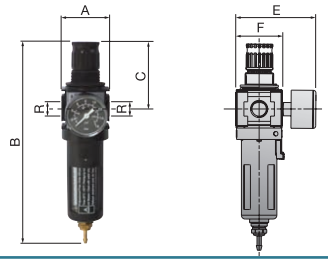
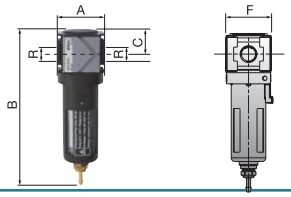
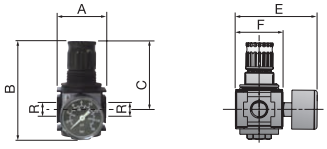
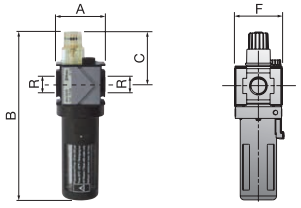
Description	Nominal flow rate (Nl/min)		
	FRL12	FRL15	FRL25
 Filter + regulator + lubricator	1 500	3 400	5 000
 Filter/regulator + lubricator	1 500	3 400	5 000
 Filter/regulator	2 000	5 500	6 500
 Regulator	2 000	7 000	8 000
 Filter	1 800	3 200	3 500
 Lubrificator	3 400	4 600	7 500
Soft start valve	1 200	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 • Lubricator • 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) A	B	C	E	F	Part-number
Filter + Regulator + Lubricator 	**40 µ**	G 1/4	144	216	68	84	48	**FRL12.1110**
		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**
Filter + Regulator + Lubricator 	**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**
Filter/Regulator 	**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**
Filter 	**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**
Regulator 		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***
Lubrificator 		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**

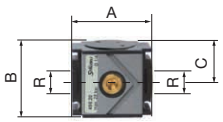
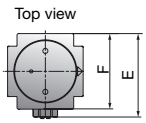
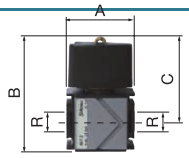
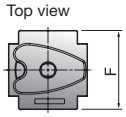
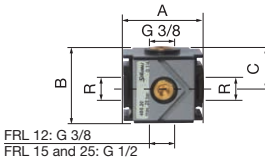
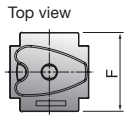
Min. heights below bowls (mm) for replacement of filter cartridge and filling of lubricators:

	H1 filters and filter/ regulators	H2 lubricators
FRL 12	165	185
FRL 15 and 25	210	255

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 • Lubrificator: metal bowl protection.

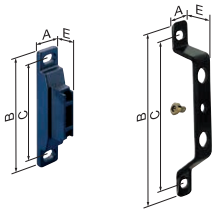
* Part-numbers available with the option "Set-point pressure locking": add the code /VS at the end of the part-number.

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	 FRL 12: G 3/8 FRL 15 and 25: G 1/2		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

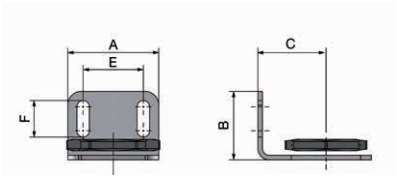
Consisting of: 2 fixing brackets + 2 fixing screws + 1 centring ring with O-ring

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

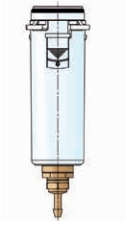


FRL Models	Dimensions (mm)					Part-number
	A	B	C	E	F	
12	40	30	30	26.5	16	**FRL12.9150**
15 and 25	55	40	42.5	35	20	**FRL15.9150**

Metal bowl protection

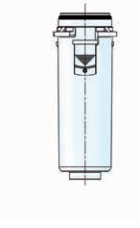
FRL Models	Part-number
12	**FRL12.9140**
15 et 25	**FRL15.9140**

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^3/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/m^3)	Residual oil content [1] (mg/m^3)	Pressure drop [2] (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 02 + **FSB 05** + **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	

[1] For 20 mg/m^3 inlet at 1 bar abs. and 20 °C.
[2] 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 cm^3
  FRL 15 and 25 ..... 125 cm^3

Filters

- Condensate volume:
  FRL 12 ..... 25 cm^3
  FRL 15 and 25 ..... 85 cm^3

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 polyprylene 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.

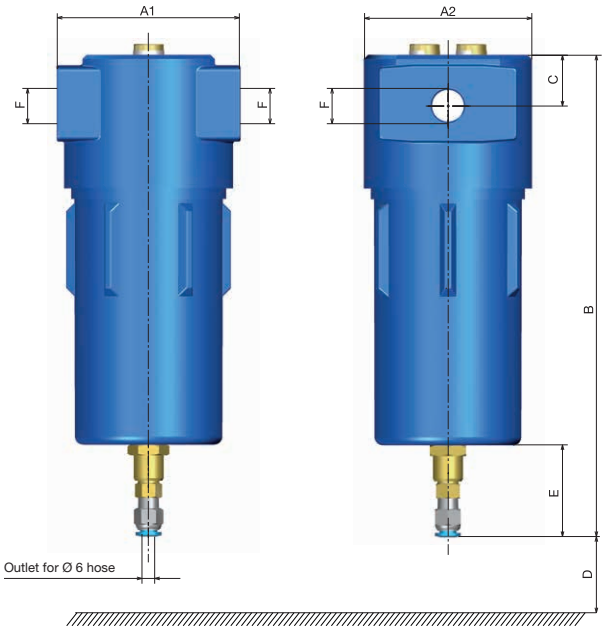
Pressure (bar)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
f =	0.25	0.38	0.50	0.63	0.75	0.88	1	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2	2.13

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 m^3/h
Nominal flow rate at 10 bar = 200 x 1.38
= 276 m^3/h

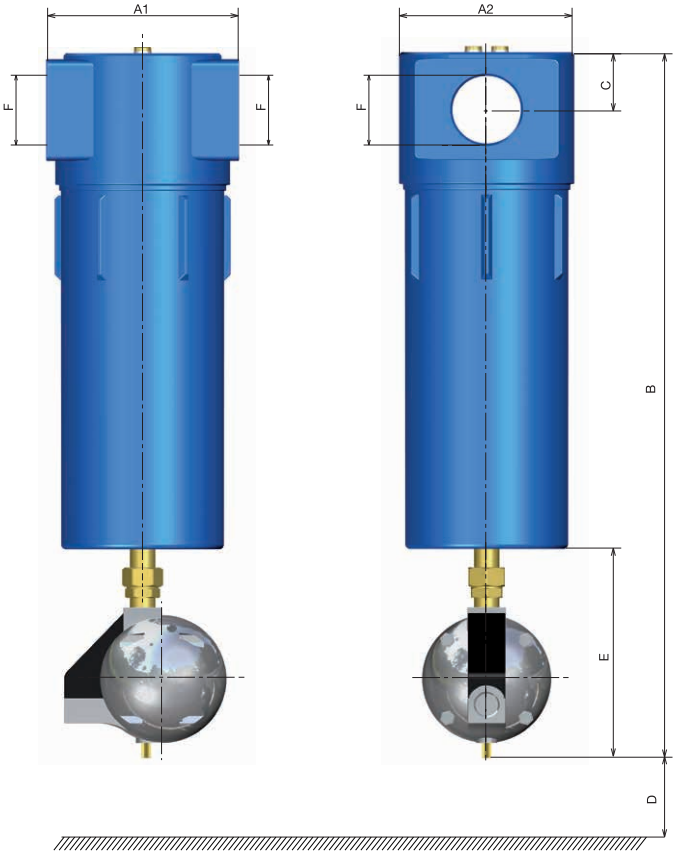
How to determine which model of filter is suitable for your application
Example:
Working pressure: 10 bar → f = 1.38
Required flow rate: 1 300 m^3/h
Filter size = flow rate/f
= 1 300/1.38
= 942 m^3/h
Filter model FSB01.0100

Part-numbers

Series FSB01 - FSB02 - FSB03



Models FSBxx.0004 to FSBxx.0080.



Models FSBxx.0100 to FSBxx.0280

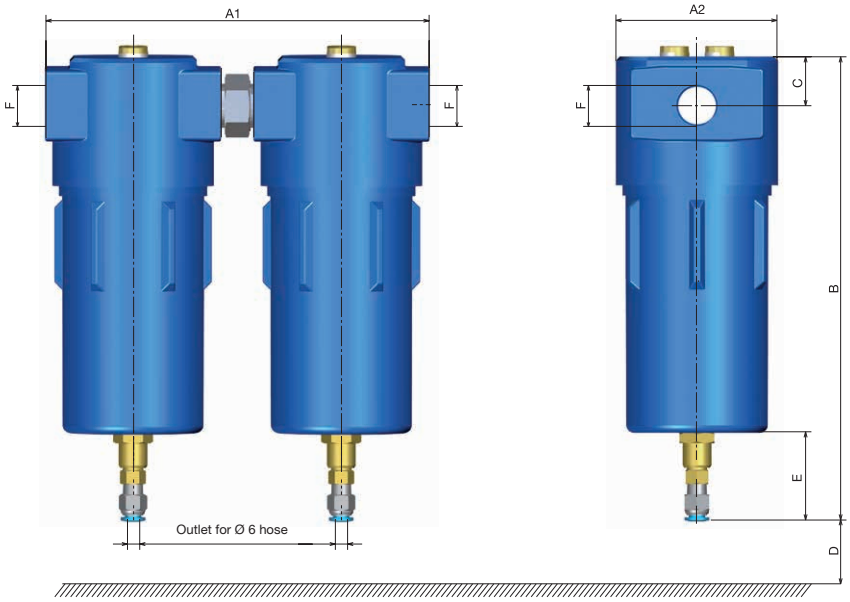
All filters are fitted with an automatic float drain valve as standard.

Flow rate* (Nm^3/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	**FSB01.0004**	**FSB02.0004**	**FSB03.0004**
60	G 3/8	86	79	227	24	100	45	1.5	**FSB01.0006**	**FSB02.0006**	**FSB03.0006**
80	G 1/2	86	79	227	24	100	45	1.5	**FSB01.0008**	**FSB02.0008**	**FSB03.0008**
120	G 3/4	86	79	295	24	170	45	1.7	**FSB01.0012**	**FSB02.0012**	**FSB03.0012**
200	G 1	129	122	324	42	140	45	4.3	**FSB01.0020**	**FSB02.0020**	**FSB03.0020**
340	G 1 1/2	129	122	420	42	250	45	5	**FSB01.0034**	**FSB02.0034**	**FSB03.0034**
510	G 1 1/2	129	122	520	42	340	45	5.5	**FSB01.0051**	**FSB02.0051**	**FSB03.0051**
800	G 1 1/2	129	122	735	42	500	45	6.9	**FSB01.0080**	**FSB02.0080**	**FSB03.0080**
1 000	G 2	160	145	865	48	820	175	9.6	**FSB01.0100**	**FSB02.0100**	**FSB03.0100**
1 500	G 2 1/2	161	144	1 105	56	1 200	175	17.9	**FSB01.0150**	**FSB02.0150**	**FSB03.0150**
2 250	G 3	250	210	1 161	73	1 200	175	28	**FSB01.0220**	**FSB02.0220**	**FSB03.0220**
2 800	G 3	250	210	1 421	74	1 500	175	29.2	**FSB01.0280**	**FSB02.0280**	**FSB03.0280**

* 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* (Nm³/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	**FSB05.0004**
60	G 3/8	182	79	227	24	100	45	3	**FSB05.0006**
80	G 1/2	194	79	227	24	100	45	3	**FSB05.0008**
120	G 3/4	197	79	295	24	170	45	3.6	**FSB05.0012**
200	G 1	289	122	324	42	140	45	9	**FSB05.0020**
340	G 1 1/2	303	122	420	42	250	45	11	**FSB05.0034**
510	G 1 1/2	303	122	520	42	340	45	12	**FSB05.0051**
800	G 1 1/2	303	122	735	42	500	45	14.8	**FSB05.0080**

* Flow rate at 7 bar and 20 °C

Replacement filter elements

Serie FSB01	
Model	Part-numbers for filter elements
FSB01.0004	**FSB01.8004**
FSB01.0006	**FSB01.8006**
FSB01.0008	**FSB01.8008**
FSB01.0012	**FSB01.8012**
FSB01.0020	**FSB01.8020**
FSB01.0034	**FSB01.8034**
FSB01.0051	**FSB01.8051**
FSB01.0080	**FSB01.8080**
FSB01.0100	**FSB01.8100**
FSB01.0150	**FSB01.8150**
FSB01.0220	**FSB01.8220**
FSB01.0280	**FSB01.8280**

Serie FSB02	
Model	Part-numbers for filter elements
FSB02.0004	**FSB02.8004**
FSB02.0006	**FSB02.8006**
FSB02.0008	**FSB02.8008**
FSB02.0012	**FSB02.8012**
FSB02.0020	**FSB02.8020**
FSB02.0034	**FSB02.8034**
FSB02.0051	**FSB02.8051**
FSB02.0080	**FSB02.8080**
FSB02.0100	**FSB02.8100**
FSB02.0150	**FSB02.8150**
FSB02.0220	**FSB02.8220**
FSB02.0280	**FSB02.8280**

Serie FSB03	
Model	Part-numbers for filter elements
FSB03.0004	**FSB03.8004**
FSB03.0006	**FSB03.8006**
FSB03.0008	**FSB03.8008**
FSB03.0012	**FSB03.8012**
FSB03.0020	**FSB03.8020**
FSB03.0034	**FSB03.8034**
FSB03.0051	**FSB03.8051**
FSB03.0080	**FSB03.8080**
FSB03.0100	**FSB03.8100**
FSB03.0150	**FSB03.8150**
FSB03.0220	**FSB03.8220**
FSB03.0280	**FSB03.8280**

Serie FSB05		
Model	Part-numbers for filter elements	
	1st stage	2nd stage
FSB05.0004	**FSB02.8004**	**FSB04.8004**
FSB05.0006	**FSB02.8006**	**FSB04.8006**
FSB05.0008	**FSB02.8008**	**FSB04.8008**
FSB05.0012	**FSB02.8012**	**FSB04.8012**
FSB05.0020	**FSB02.8020**	**FSB04.8020**
FSB05.0034	**FSB02.8034**	**FSB04.8034**
FSB05.0051	**FSB02.8051**	**FSB04.8051**
FSB05.0080	**FSB02.8080**	**FSB04.8080**

Accessories

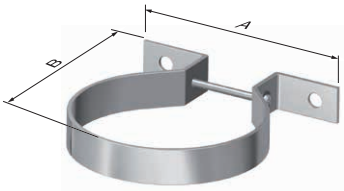
Clogging indicators

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

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

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

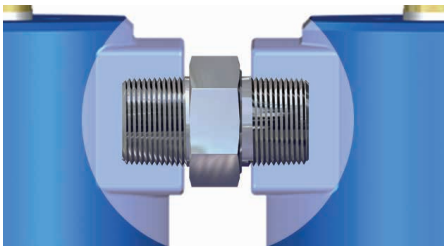
Wall mounting brackets



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	**FSB01.9008**	0.25	0.25
FSBxx.0020 to FSBxx.0080	**FSB01.9009**	143	156

Assembly kit



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

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

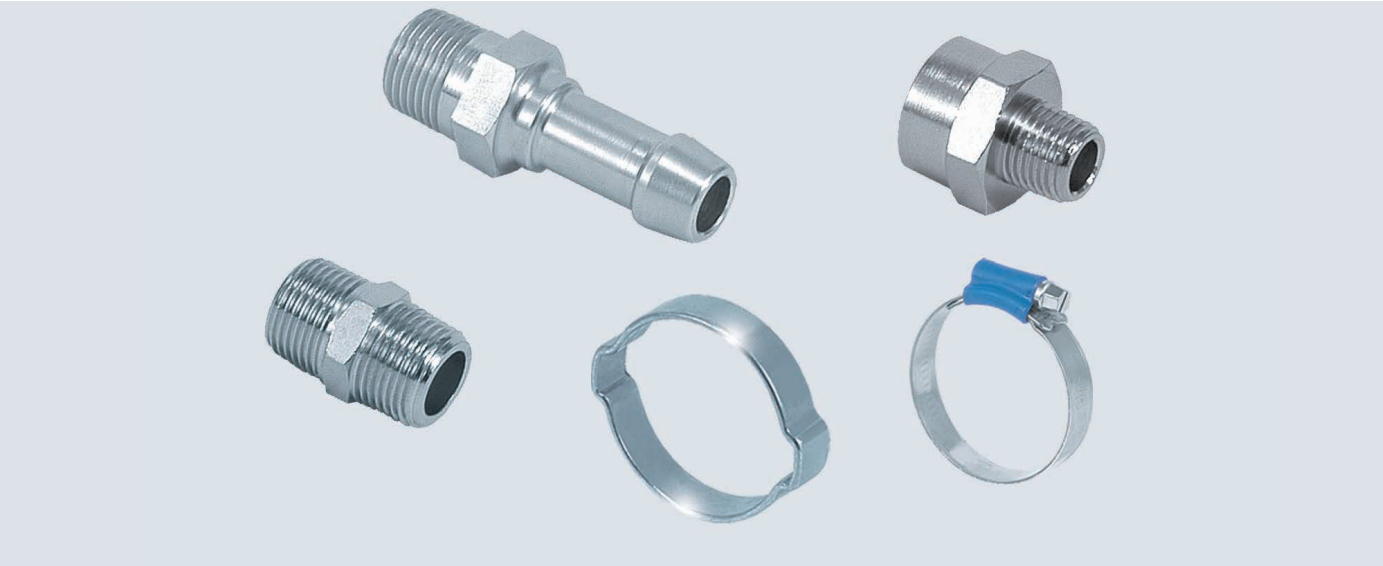
Replacement float drains

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

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

* 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

- Consistant 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.

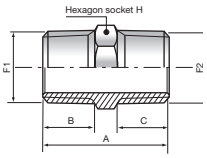
Safety

- 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 fl exible hoses and 2 Stäubli ear or worm drive clamps.

Part-numbers

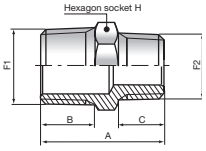
Equal nipples - Male tapered GAZ x male tapered GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1	F 2		A	B	C	H	
Nickel-plated brass	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**



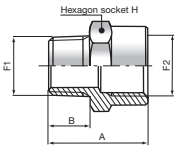
Nipples - Male tapered GAZ x male tapered GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1	F 2		A	B	C	H	
Nickel-plated brass	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**
	R1	R 3/4	50	43	19	16.5	34	**MAM165.164/LN**



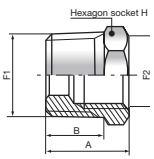
Reducers - Male tapered GAZ x female cylindrical GAZ

Description	Connection		M.W.P. (bar)	Dimensions (mm)			Part-number
	F 1	F 2		A	B	H	
Nickel-plated brass	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**



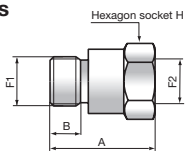
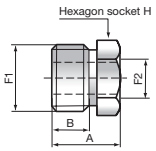
Male tapered GAZ x female cylindrical GAZ - Compact construction

Description	Connection		M.W.P. (bar)	Dimensions (mm)			Part-number
	F 1	F 2		A	B	H	
Nickel-plated brass	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**

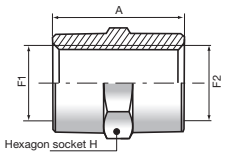


Part-numbers

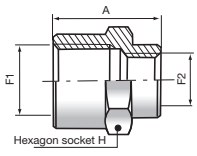
Male cylindrical GAZ x male cylindrical GAZ

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

Equal sleeves - female cylindrical GAZ x female cylindrical GAZ

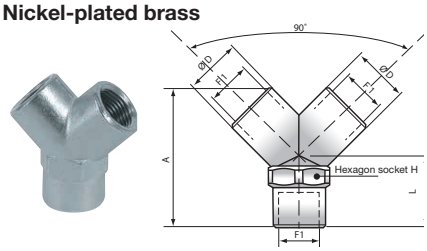
Description	Connection		M.W.P. (bar)	Dimensions (mm)		Part-number
	F 1	F 2		A	B	
Nickel-plated brass  	G 1/8	G 1/8	150	15	14	**MAN100.100/LN**
	G 1/4	G 1/4	100	22	17	**MAN101.101/LN**
	G 3/8	G 3/8	75	24	22	**MAN102.102/LN**
	G 1/2	G 1/2	50	30	26	**MAN103.103/LN**
	G 3/4	G 3/4	50	32	32	**MAN104.104/LN**

Sleeves - female cylindrical GAZ x female cylindrical GAZ

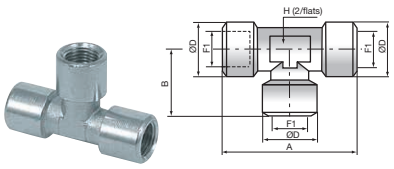
Description	Connection		M.W.P. (bar)	Dimensions (mm)		Part-number
	F 1	F 2		A	B	
Nickel-plated brass  	G 1/4	G 1/8	100	19	17	**MAN101.100/LN**
	G 3/8	G 1/8	75	20	22	**MAN102.100/LN**
	G 3/8	G 1/4	75	23	22	**MAN102.101/LN**
	G 1/2	G 1/8	50	24	24	**MAN103.100/LN**
	G 1/2	G 1/4	50	25	24	**MAN103.101/LN**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

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	
Nickel-plated brass 	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**

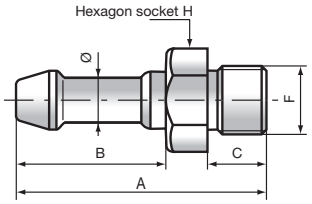
T-type manifold units - female cylindrical GAZ

Description	Connection	M.W.P. (bar)	Dimensions (mm)				Part-number
	F 1		A	Ø D	L	H	
Nickel-plated brass 	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	
Zinc-plated steel	G 1/8	4	43	28	8	14	**AF150.04**
	G 1/8	6	43	28	8	14	**AF150.06**
	G 1/8	8	43	28	8	14	**AF150.08**
	G 1/8	10	43	28	8	14	**AF150.10**
	G 1/4	6	46	28	11	17	**AF151.06**
	G 1/4	8	46	28	11	17	**AF151.08**
	G 1/4	9	46	28	11	17	**AF151.09**
	G 1/4	10	46	28	11	17	**AF151.10**
	G 1/4	13	51	33	11	17	**AF151.13**
	G 3/8	8	47	28	12	19	**AF152.08**
	G 3/8	10	47	28	12	19	**AF152.10**
	G 3/8	13	52	33	12	19	**AF152.13**
	G 3/8	16	52	33	12	23	**AF152.16**
	G 1/2	13	54	33	14	23	**AF153.13**
	G 1/2	16	54	33	14	23	**AF153.16**
	G 3/4	16	58	33	16	29	**AF154.16**
Zinc-plated steel	G 1/4	8	41	23	11	17	**AF151.08/LN**
	G 1/4	10	41	23	11	17	**AF151.10/LN**
	G 1/4	12	46	28	11	17	**AF151.12/LN**
	G 3/8	10	47	28	12	19	**AF152.10/LN***
	G 3/8	12	47	28	12	19	**AF152.12/LN**
	G 1/2	12	50	28	14	27	**AF153.12/LN**
	G 1/2	16	50	28	14	27	**AF153.16/LN**



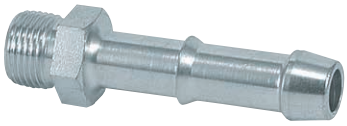
Ø = internal diameter of hose

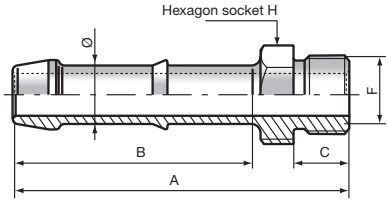
* Integrated nitrile seal

Part-numbers

Threaded plugs for hose - Double-groove threaded-plugs

Zinc-plated steel





Ø = internal diameter of hose

Description	Connection		Dimensions (mm)				Part-number
	F 1	int. Ø of hose (mm)	A	B	C	H	
	G 1/8	8	61	46	8	14	**AF150.08/G2**
	G 1/8	10	61	46	8	14	**AF150.10/G2**
KES	G 1/4	6	64	46	11	17	**AF151.06/G2**
KES	G 1/4	8	64	46	11	17	**AF151.08/G2**
KES	G 1/4	10	64	46	11	17	**AF151.10/G2**
KES	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**
KES	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**
KES	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

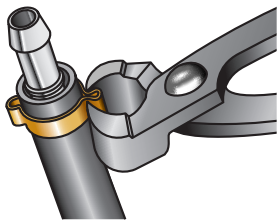
Special non-brittle steel

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**

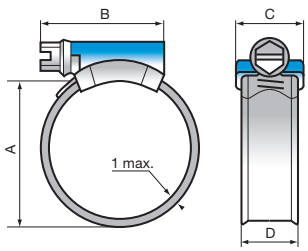
To choose the Stäubli clamps, determine the external diameter of your flexible hoses.



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

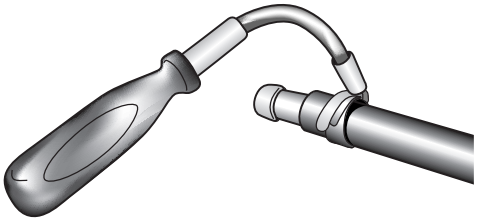
- High tightening force, recommended for PVC hoses
- Drop-forged, zinc-plated, chromium steel band
- Zinc-plated, chromium steel screw
- Steel body with oven-hardened blue paint as a protective coating



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	**ABA8-14**
	19.5	11	18	19.5	13	9	3.0 - 4.0	**ABA11-17**
	22.5	13	21	21.5	16	9	3.0 - 4.0	**ABA13-20**
	27	15	25	21.5	16	12.2	4.0 - 5.0	**ABA15-24**
	31	19	29	23.5	16	12.2	4.0 - 5.0	**ABA19-28**
	35.5	22	33	23.5	16	12.2	4.0 - 5.0	**ABA22-32**
	41.5	26	39	25.5	16	12.2	4,0 - 5.0	**ABA26-38**
	48	32	45	29.5	16	12.2	4.5 - 5.5	**ABA32-44**
	54	38	51	29.5	16	12.2	4.5 - 5.5	**ABA38-50**
	60	44	57	29.5	16	12.2	4.5 - 5.5	**ABA44-56**
	69	50	66	32.5	16	12.2	4.5 - 5.5	**ABA50-65**
	79	58	76	32.5	16	12.2	4.5 - 5.5	**ABA58-75**
	89	68	86	32.5	16	12.2	4.5 - 5.5	**ABA68-85**
	99	77	96	32.5	16	12.2	4.5 - 5.5	**ABA77-95**
	116	87	113	32.5	16	12.2	4.5 - 5.5	**ABA87-112**
	142	104	139	32.5	16	12.2	4.5 - 5.5	**ABA104-138**
	169	130	166	32.5	16	12.2	4.5 - 5.5	**ABA130-165**
	184	150	181	32.5	16	12.2	4.5 - 5.5	**ABA150-180**

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

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 dismountable and reusable.

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 (KES) in front of the parts numbers in our product documentation.

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:

Standard KES
Construction: corrosion-proofed steel
Seal: Nitrile (NBR)

KES 01.9100 **/IC** **/JE**

Material series	AISI 316 L stainless steel	**code /IC**	
	High-strength stainless steel	code /IB	
	Anodised aluminium	code /L	
Seal types	Fluorocarbon (FPM)		code /JV
	Ethylene-Propylene* (EPDM)		**code /JE**
	Fluorosilicone (FMQ)		code /JS3
	Perfluoroelastomer (FFKM)		code /JK

Part-numbers

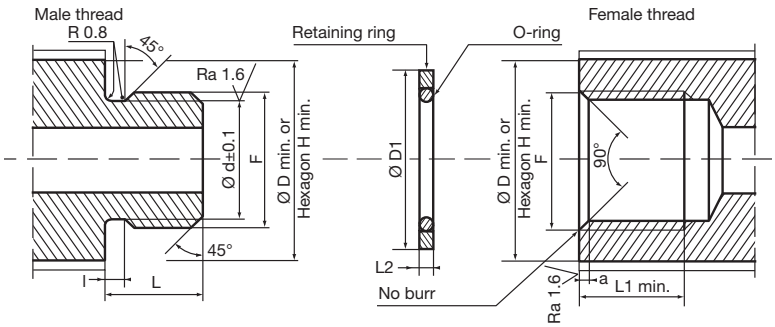
Connection F	Max. working pressure depending on material* series (bar)				Part-number
	Standard	L**	IB	IC	
G 1/8	250	200	700	350	**KES01.9100**
G 1/4			600		**KES01.9101**
G 3/8		150		200	**KES01.9102**
G 1/2			550	150	**KES01.9103**
G 3/4					**KES01.9104**
G 1	200	100			**KES 01.9105**
G 1 - 1/4	150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

*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 raccordements							Ring KES	
	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	
G 1	29.9	4.5	20	21	40	39	2	43.5	2.55
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

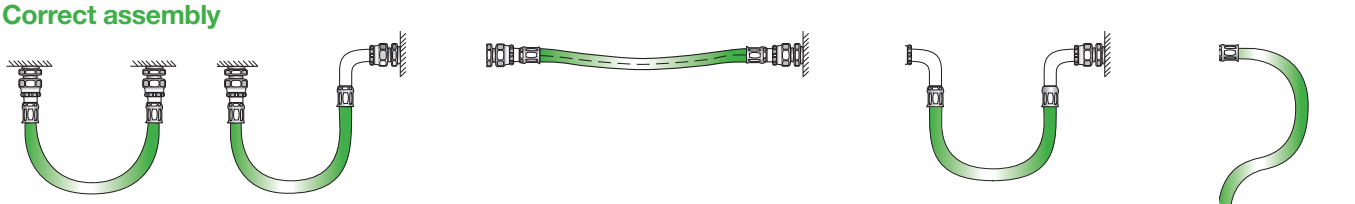
Stäubli has selected the most suitable flexible hoses for your applications for you.

Advice on assembly

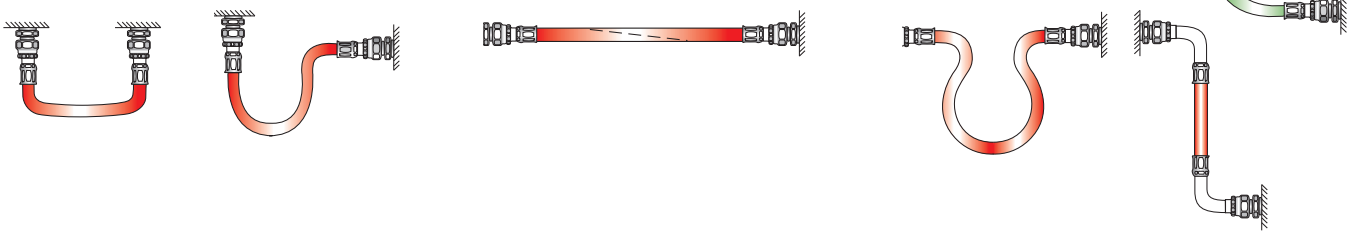
The service life of flexible hoses depends frequently on the way in which they are installed. If the following points are always adhered to, the hoses may be used in an optimal way to give a longer service life:

- 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

Composition

- Inner hose in SBR + EPDM
- Synthetic textile intermediate braid
- Outer hose in SBR + EPDM

Marking: Stäubli Airflex-s xx - iso 2398-2006/2b/n-t 16 bar (xx = int. ø)

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	**AIRFLEX-S06**	**AIRFLEX-S06/50**
8	15	16	60	- 20 to + 65	80	0.200	**AIRFLEX-S08**	**AIRFLEX-S08/50**
10	17.4	16	60	- 20 to + 65	100	0.230	**AIRFLEX-S10**	**AIRFLEX-S10/50**
13	21.6	16	60	- 20 to + 65	130	0.380	**AIRFLEX-S13**	**AIRFLEX-S13/50**
16	25.4	16	60	- 20 to + 65	160	0.440	**AIRFLEX-S16**	**AIRFLEX-S16/50**
19	30	16	60	- 20 to + 65	190	0.630	**AIRFLEX-S19**	**AIRFLEX-S19/50**
25	36.4	16	60	- 20 to + 65	250	0.790	**AIRFLEX-S25**	

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

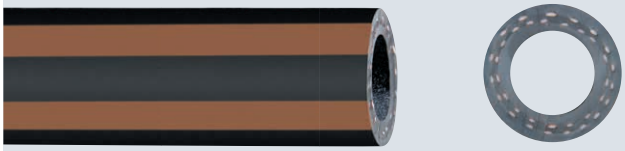
LORPRENE

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



Composition

- Inner in Nitrile (NBR) + black smooth PVC
- Intermediate textile braid
- Outer in Nitrile (NBR) + PVC.

Marking: Stäubli Lorprene xx iso 2398-2006/2c/n-t r<10^6Ω/m 16 bar (xx = int. ø)

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.

RZ2000303A

■ Stäubli units ○ Agents

Global presence of the Stäubli Group

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