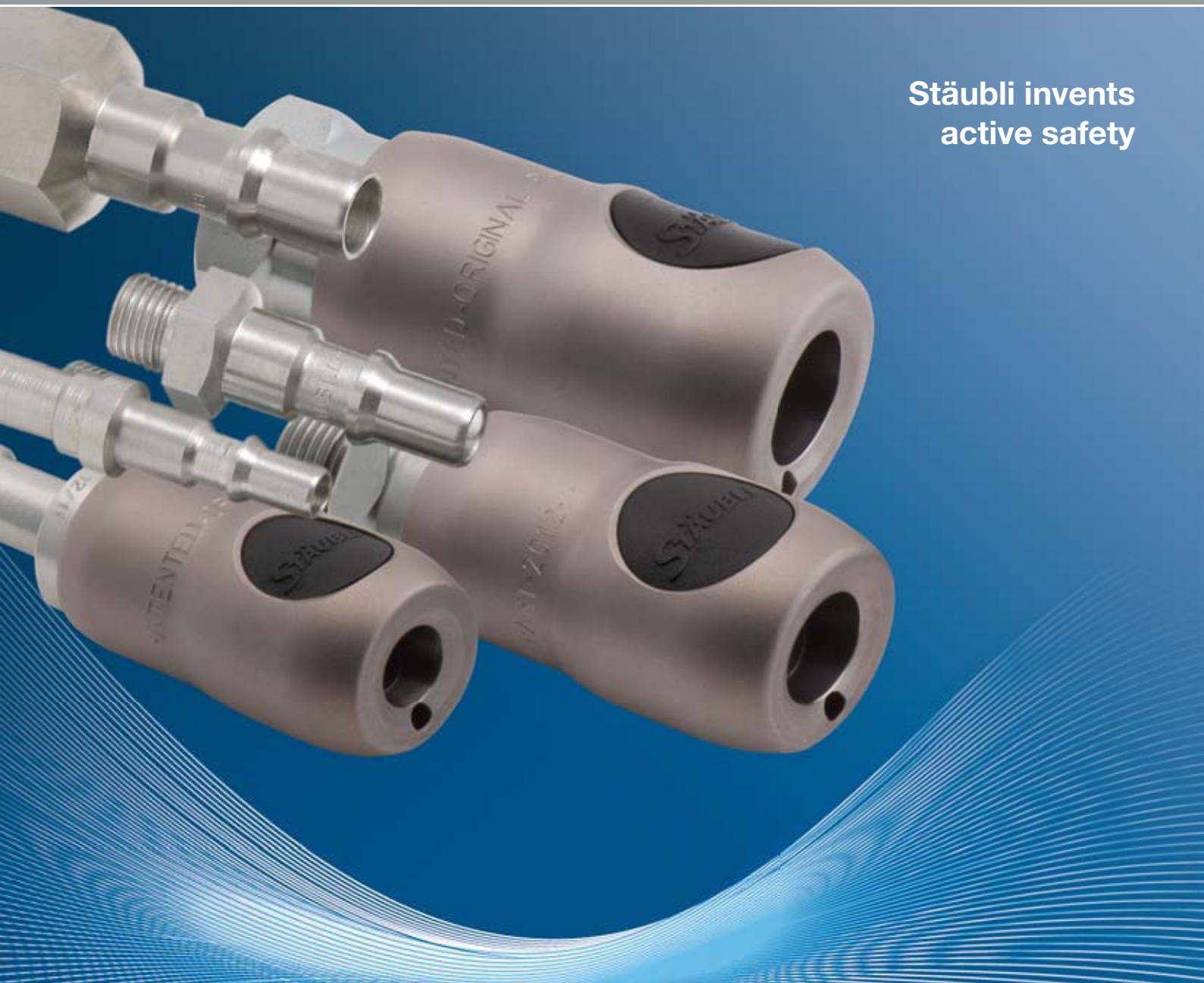
CONNECTORS

STÄUBLI

RSI
Compressed air





US Patent 7887102
and other countries

Created to make safety automatic…

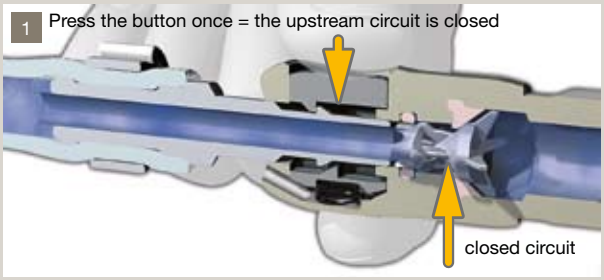
3 in 1 active safety

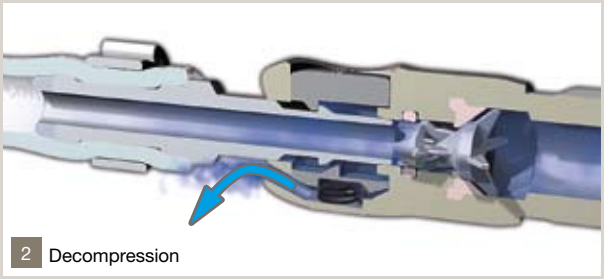
Absolute safety against the risk of violent hose ejection under pressure.

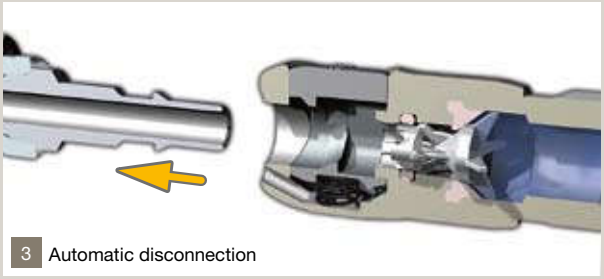
Simply pressing

the button once starts a fully automatic disconnection process:

1. closure of the upstream compressed air circuit
2. decompression of the downstream circuit
3. automatic disconnection of the plug as soon as the pressure is low enough.









… and profiled for performance

Rotating button to always have the connections “to hand”.

RSI coupling bodies can be swivelled to make the button as accessible as possible.

Maximum lightness thanks to dedicated design and materials.

“Swivelling version” (double rotation of 360° and 90°), designed to satisfy your requirements:

- flexibility of use thanks to the lightness of the materials and the ball bearings
- effortless operation, even under pressure: reduction in musculoskeletal disorders.

The swivel function is an integral part of the socket and ensures all the performance: flow, tightness, etc.

Raised push button version

Connection identification:

Characteristics engraved on the back adaptor to prevent errors during storage or installation:

- type (G, NPT or R)
- size (1/4, 3/8, 10 mm, etc)

rotating button

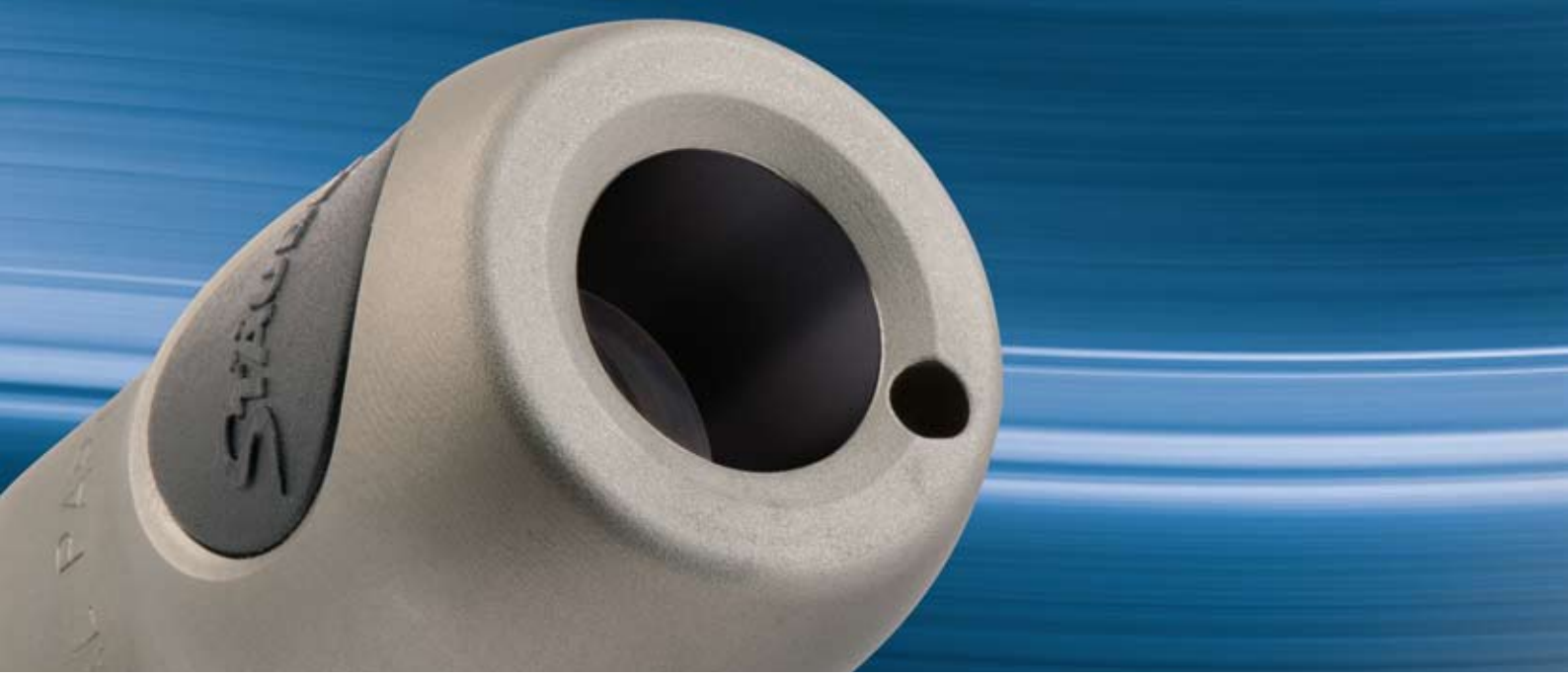


swivelling socket



raised push button





Perfect tightness, vital for profitability

1 Scenario

15 to 30% of compressed air is lost by leakage between the compressor and the tool.

2 Analysis

A 1mm hole in your circuit can cause the loss of 20880 m³/year of compressed air by leakage.

Air leakage volumes on the basis of the diameter of the hole and the number of hours worked per year, at 7 bars.		
	4 000 h/year	**6 000 h/year**
• Ø 1 mm	13 920 m³/year	20 880 m³/year
● Ø 2 mm	55 680 m³/year	83 520 m³/year
● Ø 3 mm	125 280 m³/year	187 924 m³/year

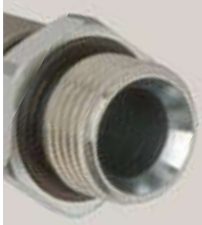
1 extra bar of pressure represents an increase in energy consumption of 6 to 7%. **Do your own calculation!**

3 Solution

Selecting the RSI range of quick-release couplings will optimise the tightness of your circuits and reduce energy consumption.
You spend less and you contribute to a sustainable development programme.

The fruit of more than 50 years expertise in energy connection, RSI couplings play an active role in the efficiency of your compressed air installations and contribute to **a long service life and the lowest operating costs.**

The internal design and the materials chosen guarantee **perfect and long lasting tightness.**



All RSI couplings are **individually tested for operation and tightness.** Male threaded sockets have a **front seal fitted** into the adaptor providing efficient sealing on connection.

The RSI range conforms to the following standards:

- **ISO 6150 C series** for connection plugs
- **ISO 4414** for disconnection backlash prevention.



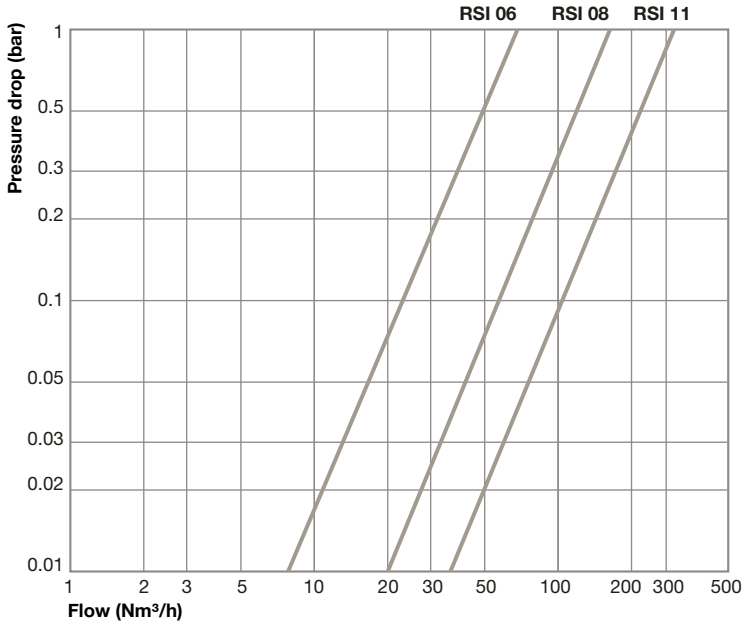
Technical characteristics

	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

Applications

Connections for all compressed air circuits: spurs on pipework, fittings on extension hoses, pneumatic tool connectors, air guns and automatic systems on machines.

Pneumatic flow rate / pressure drop

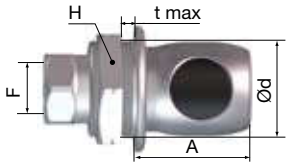


Construction

- Socket body: stainless steel with 17% chromium
- Lock: heat treated steel
- Plug: hardened and ground stainless steel with 13% chromium
- Nitrile NBR seal.
- Shutoff:
  socket: valved
  plug: unvalved.
- Swivelling coupling:
  High strength aluminium ball and socket.

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.

• Test conditions:
- flow direction: socket → plug
- inlet pressure: 7 bars

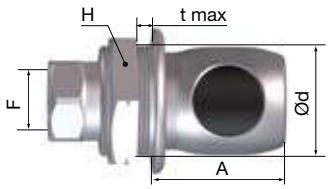
Socket	Threading F	Part numbers	Raised push button option
Sockets, female thread 	G 1/8	**RSI 06.1100**	**X**
	G 1/4	**RSI 06.1101**	**X**
	G 3/8	**RSI 06.1102**	**X**
Available with NPT threads: contact us	G 1/2	**RSI 06.1103**	**X**
Sockets, tapered female thread 	Rc 1/4	**RSI 06.1111**	
	Rc 3/8	**RSI 06.1112**	
	Rc 1/2	**RSI 06.1113**	
Sockets, male thread 	G 1/4	**RSI 06.1151**	**X**
	G 3/8	**RSI 06.1152**	**X**
Available with NPT threads: contact us	G 1/2	**RSI 06.1153**	**X**
Sockets for rubber hoses 	Ø 06	**RSI 06.1806**	
	Ø 08	**RSI 06.1808**	
	Ø 10	**RSI 06.1810**	
	Ø 13	**RSI 06.1813**	
Sockets for polyurethane or Lortan hoses 	Polyurethane Ø 8 x 12	**RSI 06.1908/PU**	
	Polyurethane Ø 9 x 13	**RSI 06.1909/PU**	
	Lortan Ø 09	**RSI 06.1909/LT**	
	Lortan Ø 10	**RSI 06.1910/LT**	
Y sockets  1 female thread	G 1/4	**RSI 06.8101**	
	G 3/8	**RSI 06.8102**	
	G 1/2	**RSI 06.8103**	
2 male thread (R = tapered gas thread)	R 1/4	**RSI 06.8161**	
	R 3/8	**RSI 06.8162**	
	R 1/2	**RSI 06.8163**	
3 "moveable" distribution valve	Stäubli RBE 06 plug	**RSI 06.8600**	
Bulkhead sockets, female thread 	G 1/8	**RSI 06.2100**	**X**
	G 1/4	**RSI 06.2101**	**X**
	G 3/8	**RSI 06.2102**	**X**
	dimensions (mm)	Ø d = 27 t max = 5 A = 31 H = 32	
360° swivelling sockets  female thread	G 3/8	**RSI 06.1102/SW**	
for rubber hoses	Ø 08	**RSI 06.1808/SW**	
	Ø 10	**RSI 06.1810/SW**	
	Ø 13	**RSI 06.1813/SW**	
for polyurethane hoses	Ø 8 x 12	**RSI 06.1908/PU/SW**	
	Ø 9 x 13	**RSI 06.1909/PU/SW**	
for self-clamping hoses	Ø 1/2"	**RSI 06.1813/CN/SW**	

X : Available with raised push button, add /VD at the end of the part number.



Socket	Threading F	Part numbers
Bracket fitted with 2 RSI 06 sockets 	G 1/2	**RSI 06.8103/AM**
	G 3/4	**RSI 06.8104/AM**

Plug	Threading F	Part numbers
Plugs, female thread  **Available with NPT threads: contact us**	G 1/8	**RBE 06.6100**
	G 1/4	**RBE 06.6101**
	G 3/8	**RBE 06.6102**
Plugs, male thread  **Available with NPT threads: contact us**	G 1/8	**RBE 06.6150**
	G 1/4	**RBE 06.6151**
	G 3/8	**RBE 06.6152**
Plugs, pre-applied tapered male thread (R = tapered gas thread) 	R 1/8	**RBE 06.6160**
	R 1/4	**RBE 06.6161**
	R 3/8	**RBE 06.6162**
Plugs, for rubber hoses Ø: hose inside diameter 	Ø 06	**RBE 06.6806**
	Ø 08	**RBE 06.6808**
	Ø 10	**RBE 06.6810**
	Ø 13	**RBE 06.6813**

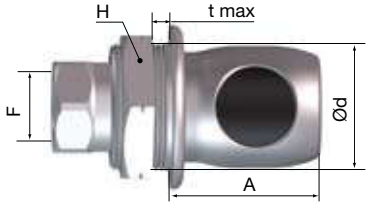
Socket		Threading F	Part numbers	Raised push button option
Sockets, female thread  **Available with NPT threads: contact us**		G 1/4	**RSI 08.1101**	**X**
		G 3/8	**RSI 08.1102**	**X**
		G 1/2	**RSI 08.1103**	**X**
Sockets, tapered female thread 		Rc 1/4	**RSI 08.1111**	
		Rc 3/8	**RSI 08.1112**	
		Rc 1/2	**RSI 08.1113**	
Sockets, male thread  **Available with NPT threads: contact us**		G 1/4	**RSI 08.1151**	**X**
		G 3/8	**RSI 08.1152**	**X**
		G 1/2	**RSI 08.1153**	**X**
Sockets for rubber hoses 		Ø 08	**RSI 08.1808**	
		Ø 10	**RSI 08.1810**	
		Ø 13	**RSI 08.1813**	
		Ø 16	**RSI 08.1816**	
Sockets for polyurethane or Lortan hoses 		Polyurethane Ø 8 x 12	**RSI 08.1908/PU**	
		Polyurethane Ø 9 x 13	**RSI 08.1909/PU**	
		Polyurethane Ø 11 x 16	**RSI 08.1911/PU**	
		Lortan Ø 10	**RSI 08.1910/LT**	
		Lortan Ø 13	**RSI 08.1913/LT**	
Y sockets 	1 female thread	G 3/8	**RSI 08.8102**	
		G 1/2	**RSI 08.8103**	
	2 male thread (R = tapered gas thread)	R 3/8	**RSI 08.8162**	
		R 1/2	**RSI 08.8163**	
	3 "moveable" distribution valve	Stäubli RBE 08 plug	**RSI 08.8600**	
Bulkhead sockets, female thread 		G 1/4	**RSI 08.2101**	**X**
		G 3/8	**RSI 08.2102**	**X**
		G 1/2	**RSI 08.2103**	**X**
		dimensions (mm)	Ø d = 33 t max = 8 A = 38 H = 36	
360° swivelling sockets 	female thread	G 3/8	**RSI 08.1102/SW**	
	for rubber hoses	Ø 08	**RSI 08.1808/SW**	
		Ø 10	**RSI 08.1810/SW**	
		Ø 13	**RSI 08.1813/SW**	
	for polyurethane hoses	Ø 8 x 12	**RSI 08.1908/PU/SW**	
		Ø 9 x 13	**RSI 08.1909/PU/SW**	
		Ø 11 x 16	**RSI 08.1911/PU/SW**	
	for self-clamping hoses	Ø 1/2"	**RSI 08.1813/CN/SW**	

X : Available with raised push button, add /VD at the end of the part number.



Socket	Threading F	Part numbers
Bracket fitted with 2 RSI 08 sockets 	G 1/2	**RSI 08.8103/AM**
	G 3/4	**RSI 08.8104/AM**

Plug	Threading F	Part numbers
Plugs, female thread  **Available with NPT threads: contact us**	G 1/4	**RBE 08.6101**
	G 3/8	**RBE 08.6102**
	G 1/2	**RBE 08.6103**
Plugs, male thread  **Available with NPT threads: contact us**	G 1/4	**RBE 08.6151**
	G 3/8	**RBE 08.6152**
	G 1/2	**RBE 08.6153**
Plugs, pre-applied tapered male thread (R = tapered gas thread) 	R 1/4	**RBE 08.6161**
	R 3/8	**RBE 08.6162**
	R 1/2	**RBE 08.6163**
Plugs, for rubber hoses Ø: hose inside diameter 	Ø 06	**RBE 08.6806**
	Ø 08	**RBE 08.6808**
	Ø 10	**RBE 08.6810**
	Ø 13	**RBE 08.6813**
	Ø 16	**RBE 08.6816**

Socket	Threading F	Part numbers	Raised push button option
Sockets, female thread  **Available with NPT threads: contact us**	G 3/8	**RSI 11.1102**	**X**
	G 1/2	**RSI 11.1103**	**X**
	G 3/4	**RSI 11.1104**	**X**
Sockets, male thread  **Available with NPT threads: contact us**	G 3/8	**RSI 11.1152**	**X**
	G 1/2	**RSI 11.1153**	**X**
	G 3/4	**RSI 11.1154**	**X**
Sockets for rubber hoses 	Ø 13	**RSI 11.1813**	
	Ø 16	**RSI 11.1816**	
	Ø 19	**RSI 11.1819**	
Sockets for polyurethane or Lortan hoses 	Polyurethane Ø 11 x 16	**RSI 11.1911/PU**	
Y sockets  1 female thread 2 male thread (R = tapered gas thread) 3 "moveable" distribution valve	G 1/2	**RSI 11.8103**	
	G 3/4	**RSI 11.8104**	
	R 1/2	**RSI 11.8163**	
	R 3/4	**RSI 11.8164**	
	Stäubli RBE 11 plug	**RSI 11.8600**	
Bulkhead sockets, female thread 	G 3/8	**RSI 11.2102**	**X**
	G 1/2	**RSI 11.2103**	**X**
	G 3/4	**RSI 11.2104**	**X**
	dimensions (mm) Ø d = 39 t max = 10 A = 44,5 H = 41		

X : Available with raised push button, add /VD at the end of the part number.

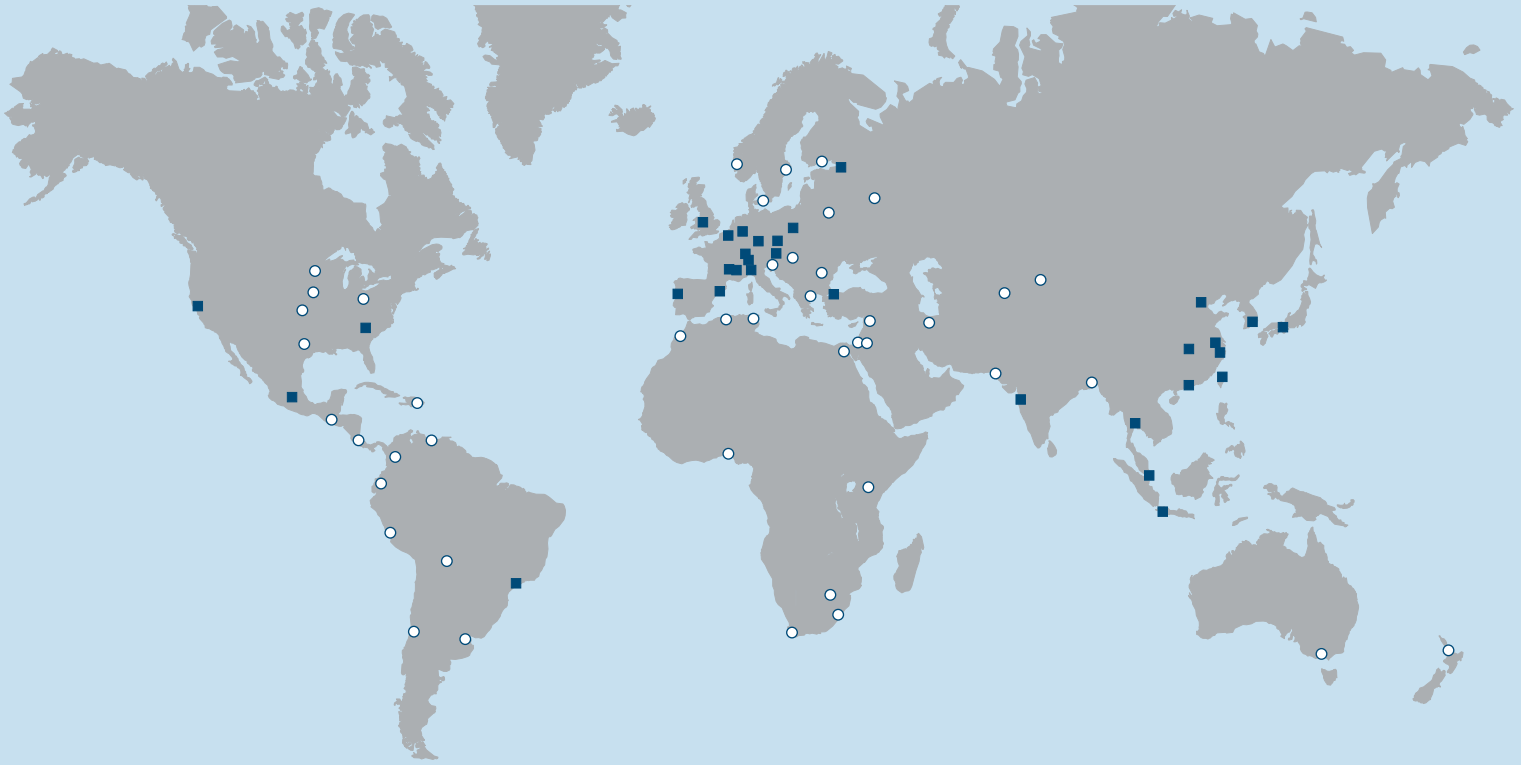


Socket	Threading F	Part numbers
Bracket fitted with 2 RSI 11 sockets 	G 3/4	**RSI 11.8104/AM**

Plug	Threading F	Part numbers
Plugs, female thread  **Available with NPT threads: contact us**	G 3/8	**RBE 11.6102**
	G 1/2	**RBE 11.6103**
	G 3/4	**RBE 11.6104**
Plugs, male thread  **Available with NPT threads: contact us**	G 3/8	**RBE 11.6152**
	G 1/2	**RBE 11.6153**
	G 3/4	**RBE 11.6154**
Plugs, for rubber hoses Ø: hose inside diameter 	Ø 08	**RBE 11.6808**
	Ø 10	**RBE 11.6810**
	Ø 13	**RBE 11.6813**
	Ø 16	**RBE 11.6816**
	Ø 19	**RBE 11.6819**

We reserve the right to modify product specifications without prior notice.

For contact details: **www.staubli.com/connectors/contacts**



Global presence of the Stäubli Group
■ Stäubli units
○ Agents

International sales coordination
Stäubli Faverges - CS 30070 - F - 74210 Faverges - Tel.: +33 4 50 65 67 97 - Fax: +33 4 50 65 60 69 - E-mail: connectors.sales@staubli.com
www.staubli.com

Staubli is a trademark of Stäubli International AG, registered in Switzerland and other countries. © Stäubli 29/01/2013. Printed on FSC paper.
We reserve the right to modify product specifications without prior notice. Photocredits: Stäubli.

RA1050301C