

## RSI Compressed air

Stäubli invents  
active safety





US Patent 7887102  
and other countries

Created to make safety automatic...

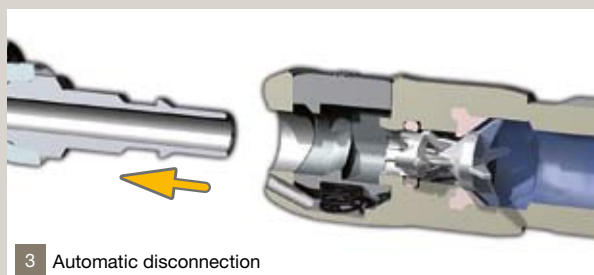
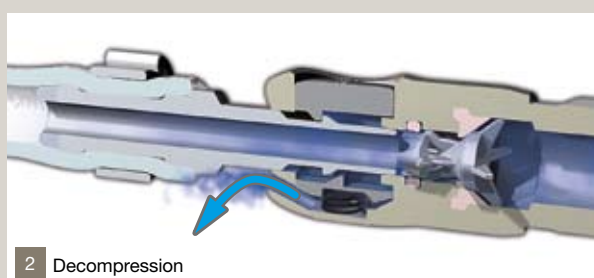
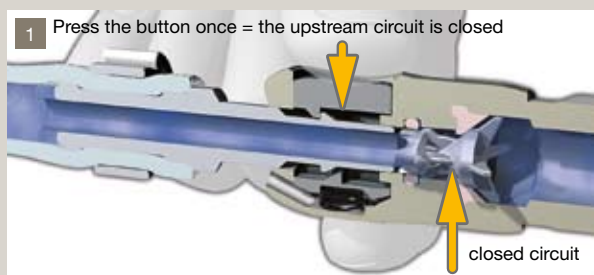
### 3 in 1 active safety

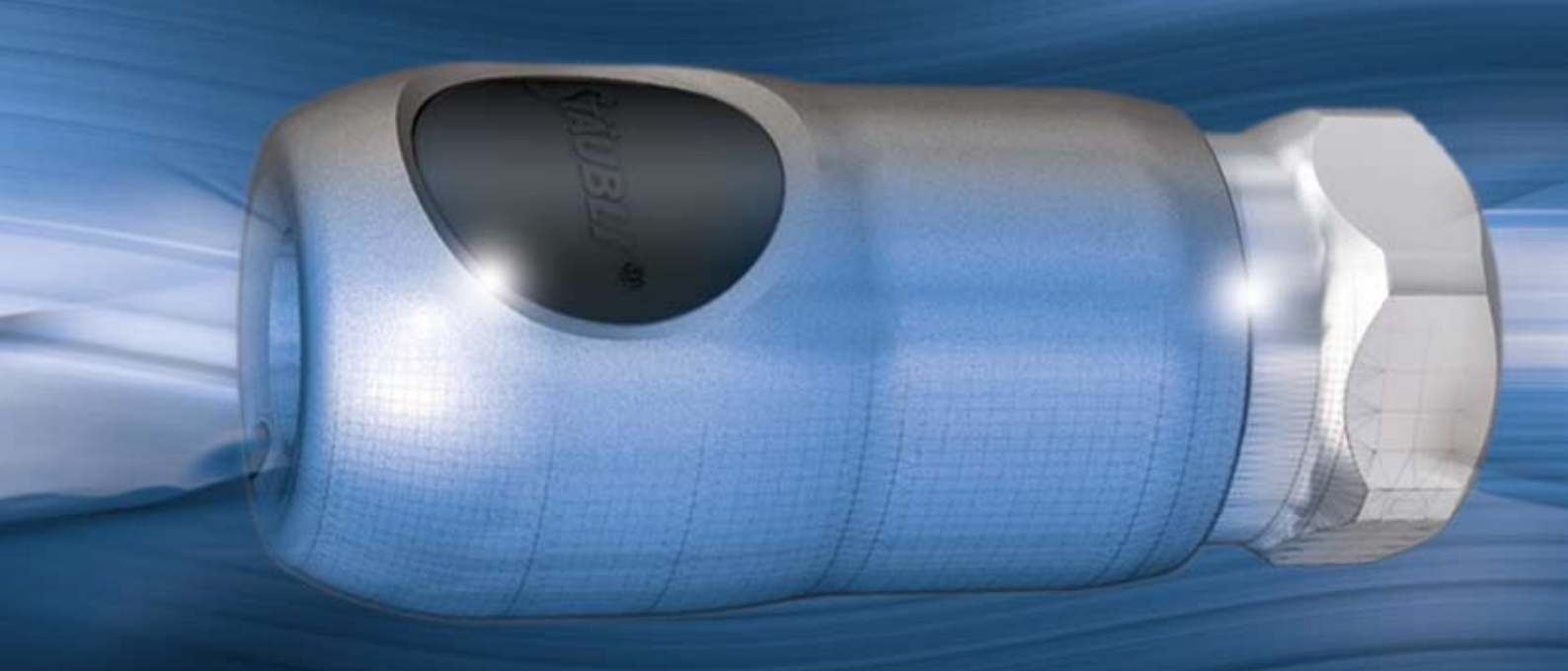
Absolute safety against the risk of violent hose ejection under pressure.

### 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.

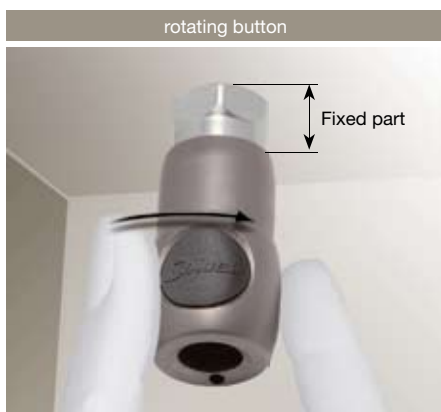
The swivel function is an integral part of the socket and ensures all the performance: flow, tightness, etc.

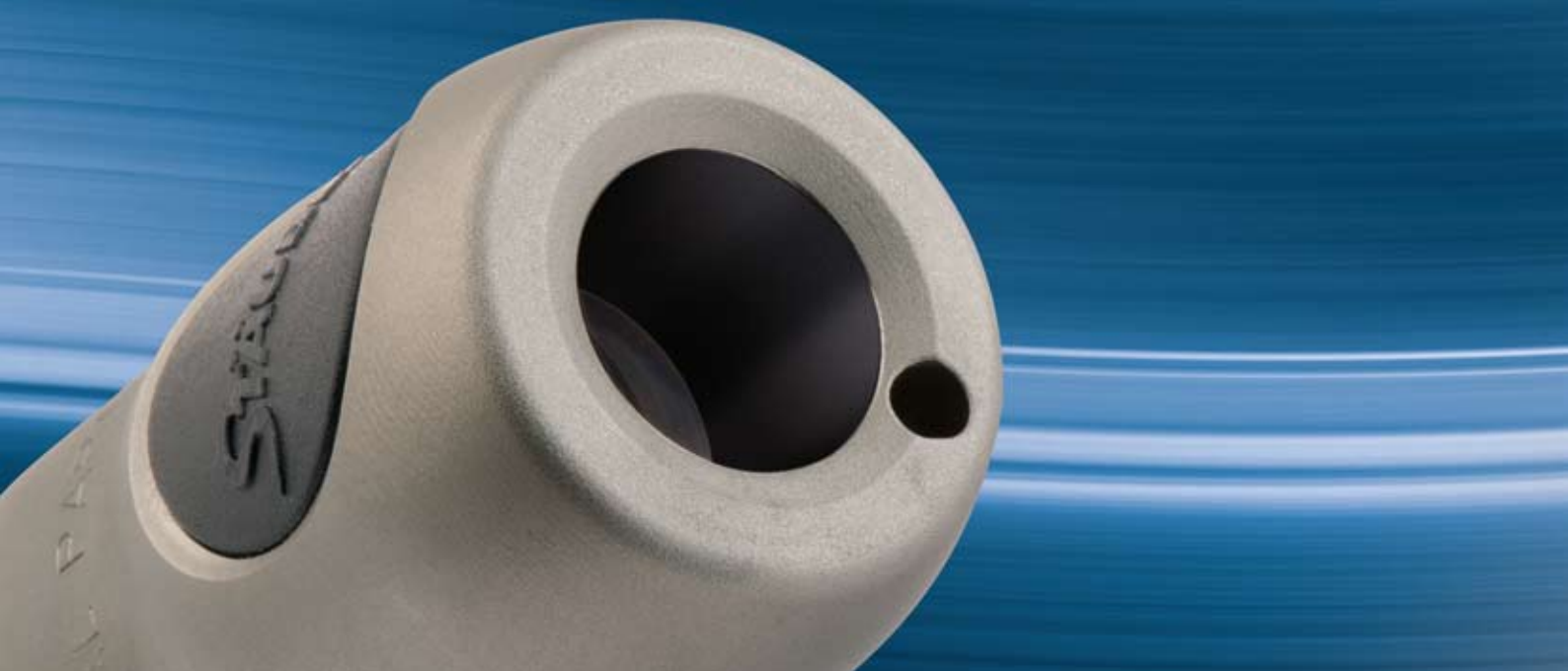
### Raised push button version

#### 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)





## 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 m<sup>3</sup>/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 m <sup>3</sup> /year	20 880 m <sup>3</sup> /year
• Ø 2 mm	55 680 m <sup>3</sup> /year	83 520 m <sup>3</sup> /year
• Ø 3 mm	125 280 m <sup>3</sup> /year	187 924 m <sup>3</sup> /year

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.



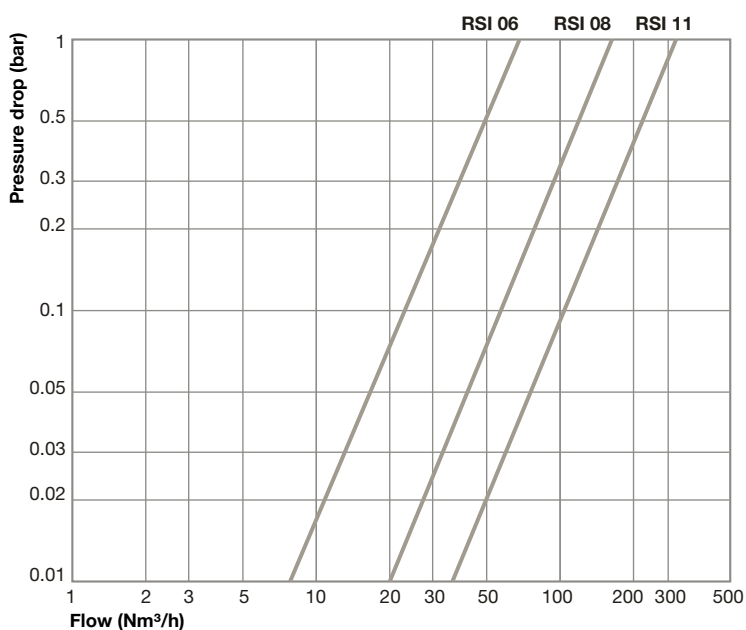
### Technical characteristics

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

### 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





# RSI 06 part numbers

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

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



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

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

# RSI 08 part numbers





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

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





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

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




# RSI 11 part numbers

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

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



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

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

For contact details: [www.staubli.com/connectors/contacts](http://www.staubli.com/connectors/contacts)



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RA1050301C

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