

## RCS Compressed air



## Perfect sealing, a guarantee of economy...

### 1 The problem

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

### 2 The calculation

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

	4000 h/year	6000 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 The solution

Selecting the RCS 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 RCS range gives you: controlled sealing.

The RCS range uses a design dedicated to security; using the most suitable materials and locking system.

The choice of Stäubli also gives you access to advice and knowledge of specialists regarding the overall performance of your installations.

### 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.

### Automatic and ergonomic.

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

### Long term reliability.

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





## ...fine tuned technology, a guarantee of safety

User and environmental safety have been of paramount importance to Stäubli for over 50 years. This key consideration guides the development of our products and especially those operating with compressed air.

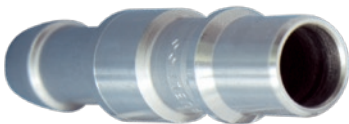
### Anti hose whip safety system

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

- push **1**: automatic decompression of the downstream hose
- push **2**: no pressure in the hose, disconnection.

### Conformity with standards

- connection plugs: ISO 6150 series C standard
- automatic safety system against blow-out: ISO 4414 standard.



### Excellent pressure resistance

RCS 06: 12 bars – RCS 08 and 11: 16 bars





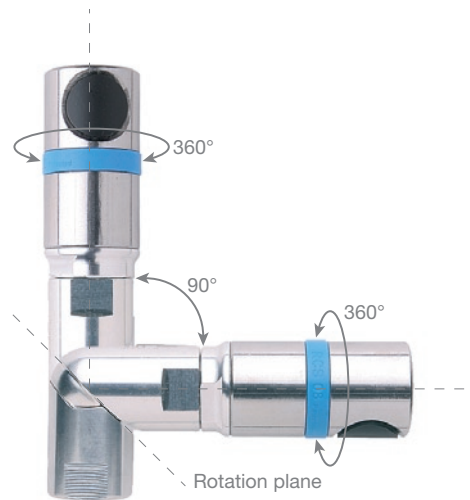
## Rotating version: 360° of freedom, performance and manoeuvrability

### Optimum manoeuvrability and total freedom of movement

- double rotation of 360° and 90° to follow all your movements,
- aluminium construction for lightness, sealed ball bearings for effortless manoeuvrability,
- effortless handling: **reduction in risk of repetitive strain injury (RSI).**

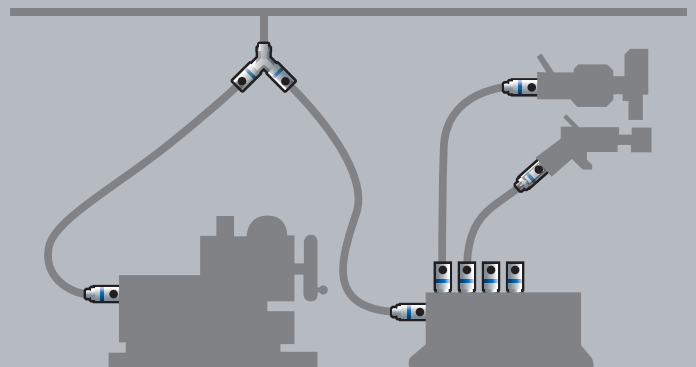
### Performance from every angle

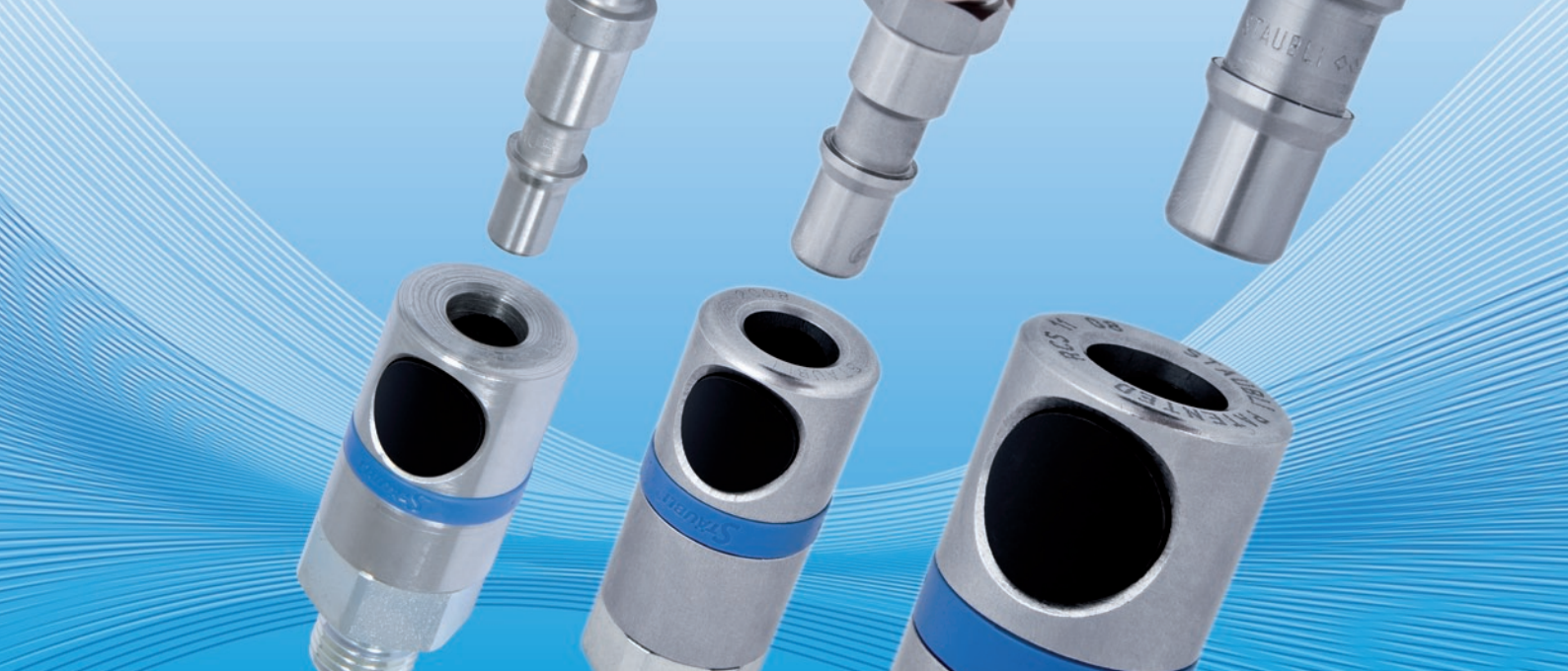
- ball joint function directly integrated into the socket to preserve all the coupling's properties:
  - > excellent flow volume
  - > maximum security
  - > compactness
- designed to eliminate any risk of hose folding, breaking or wrapping.



### Assembly and installation

- Teflon pre-treated tapered versions facilitate assembly:
  - > no need for Teflon tape or sealant paste
  - > immediate and durable sealing
  - > compatibility with all contact metals
- installation on spurs, extensions, machines and tools.



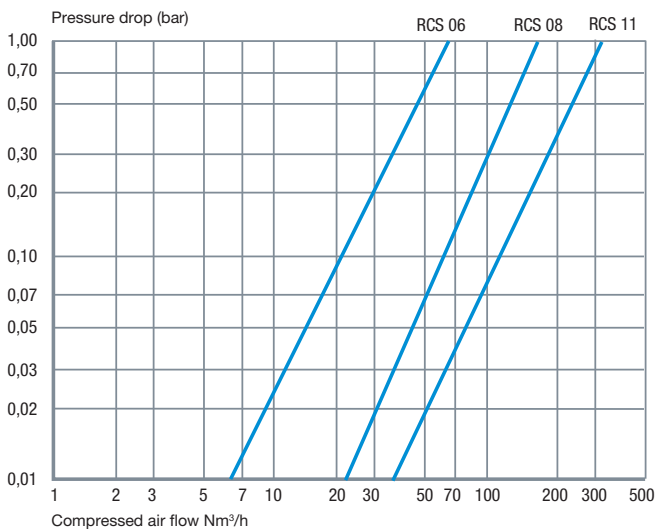


	RCS 06	RCS 08	RCS 11
Max. working pressure (bar)	12	16	16
Nominal bore (mm)	5.5	8	11
Cross section of bore (mm <sup>2</sup> )	23.75	50	95
Connection force at 6 bar (N)	90	98	125
Flow at 0.3 bar Pressure drop (Nm <sup>3</sup> /h)	35	94	180

#### applications

Connection with safety RCS couplings at all levels of compressed air distribution:  
 1 - line connection,  
 2 - extension pieces,  
 3 - machines and tools.


#### Flow rate / pressure drop







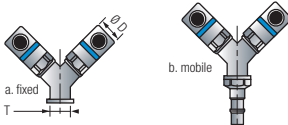
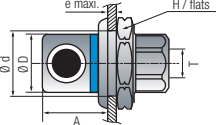
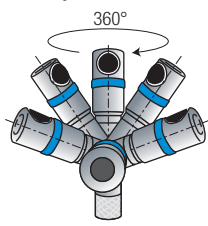
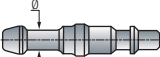
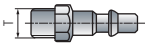
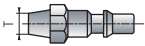

#### Construction

- 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





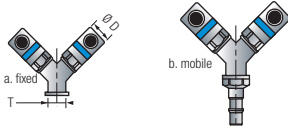
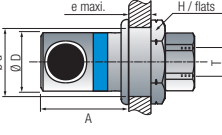
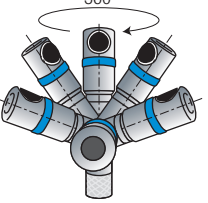
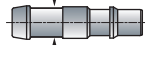
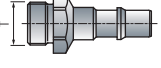
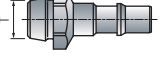

#### Test conditions

- direction of flow: socket → plug 
- supply 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.**

RCS 06		Thread T OR Ø	RCS 06 Part-numbers	ØD	
1. Sockets, female thread *		G 1/4	RCS 06.1101	22	
		G 3/8	RCS 06.1102	22	
		G 1/2	RCS 06.1103	22	
2. Sockets, male thread *		G 1/4	RCS 06.1151	22	
		G 3/8	RCS 06.1152	22	
		G 1/2	RCS 06.1153	22	
3. Sockets pre-applied tapered male thread (R = BSP Tr)		R 1/4	RCS 06.1161	22	
		R 3/8	RCS 06.1162	22	
		R 1/2	RCS 06.1163	22	
4. Sockets for rubber hose Ø = hose inside diameter		Ø 6 mm	RCS 06.1806	22	
		Ø 8 mm	RCS 06.1808	22	
		Ø 10 mm	RCS 06.1810	22	
		Ø 13 mm	RCS 06.1813	22	
5. Y sockets		a	G 1/4	RCS 06.8101	22
			G 3/8	RCS 06.8102	22
			G 1/2	RCS 06.8103	22
		b	RCS 06.8600	22	
6. Built-in sockets female thread *		G 1/8		RCS 06.2100	22
		G 1/4		RCS 06.2101	22
		G 3/8		RCS 06.2102	22
		Dimensions (mm)	A	22.5	
			Ø d	27	
7. Raised push button RCS/VD for use on ring main		VD option available on all diameters. Add /VD suffix to socket part-numbers Example : RCS 06.1101/VD			
8. Swivel quick-release couplings		Female thread*	G 3/8	RCS 06.1102/SW	22
		For rubber hose	Ø 8 mm	RCS 06.1808/SW	22
			Ø 10 mm	RCS 06.1810/SW	22
			Ø 13 mm	RCS 06.1813/SW	22
		Push-on hose stem	Ø 1/2"	RCS 06.1813/CN/SW	22
		Polyurethane hose	Ø 8 x 12 mm	RCS 06.1908/PU/SW	22
Ø 9 x 13 mm	RCS 06.1909/PU/SW		22		
9. Plugs for rubber hose Ø : hose inside diameter		Ø 6 mm		RBE 06.6806	
		Ø 8 mm		RBE 06.6808	
		Ø 10 mm		RBE 06.6810	
		Ø 13 mm		RBE 06.6813	
10. Plugs, male thread*		G 1/8		RBE 06.6150	
		G 1/4		RBE 06.6151	
		G 3/8		RBE 06.6152	
11. Plugs, pre-applied tapered male thread (R = BSP Tr)		R 1/8		RBE 06.6160	
		R 1/4		RBE 06.6161	
		R 3/8		RBE 06.6162	
12. Plugs, female thread *		G 1/8		RBE 06.6100	
		G 1/4		RBE 06.6101	
		G 3/8		RBE 06.6102	

\* also available in NPT thread.

RCS 08 & 11		Thread T OR Ø	RCS 08 Part-numbers	ØD	RCS 11 Part-numbers	ØD	
1. Sockets, female thread *		G 1/4	RCS 08.1101	27			
		G 3/8	RCS 08.1102	27	RCS 11.1102	33	
		G 1/2	RCS 08.1103	27	RCS 11.1103	33	
		G 3/4			RCS 11.1104	33	
2. Sockets, male thread *		G 1/4	RCS 08.1151	27			
		G 3/8	RCS 08.1152	27	RCS 11.1152	33	
		G 1/2	RCS 08.1153	27	RCS 11.1153	33	
		G 3/4			RCS 11.1154	33	
3. Sockets pre-applied tapered male thread (R = BSP Tr)		R 1/4	RCS 08.1161	27			
		R 3/8	RCS 08.1162	27			
		R 1/2	RCS 08.1163	27			
4. Sockets for rubber hose Ø = hose inside diameter		Ø 8 mm	RCS 08.1808	27			
		Ø 10 mm	RCS 08.1810	27			
		Ø 13 mm	RCS 08.1813	27	RCS 11.1813	33	
		Ø 16 mm	RCS 08.1816	27	RCS 11.1816	33	
		Ø 19 mm			RCS 11.1819	33	
5. Y sockets		a	G 1/2	RCS 08.8103	27	RCS 11.8103	33
			G 3/4			RCS 11.8104	33
		b		RCS 08.8600	27	RCS 11.8600	33
6. Built-in sockets female thread *		G 1/4	RCS 08.2101	27			
		G 3/8	RCS 08.2102	27	RCS 11.2102	33	
		G 1/2	RCS 08.2103	27	RCS 11.2103	33	
		G 3/4			RCS 11.2104	33	
		Dimensions (mm)	A	31		50	
			ø d	33		39	
7. Raised push button RCS/VD for use on ring main		VD option available on all diameters. Add /VD suffix to socket part-numbers Example : RCS 06.1101/VD					
8. Swivel quick-release couplings		Female thread*	G 3/8	RCS 08.1102/SW	27		
			For rubber hose	Ø 8 mm	RCS 08.1808/SW	27	
		Ø 10 mm		RCS 08.1810/SW	27		
		Ø 13 mm		RCS 08.1813/SW	27		
		Push-on hose stem	Ø 1/2"	RCS 08.1813/CN/SW	27		
		Polyurethane hose	Ø 8 x 12 mm	RCS 08.1908/PU/SW	27		
Ø 9 x 13 mm	RCS 08.1909/PU/SW		27				
9. Plugs for rubber hose Ø : hose inside diameter		Ø 6 mm	RBE 08.6806		RBE 11.6806		
		Ø 8 mm	RBE 08.6808		RBE 11.6808		
		Ø 10 mm	RBE 08.6810		RBE 11.6810		
		Ø 13 mm	RBE 08.6813		RBE 11.6813		
		Ø 16 mm	RBE 08.6816		RBE 11.6816		
		Ø 19 mm			RBE 11.6819		
10. Plugs, male thread *		G 1/4	RBE 08.6151				
		G 3/8	RBE 08.6152		RBE 11.6152		
		G 1/2	RBE 08.6153		RBE 11.6153		
		G 3/4			RBE 11.6154		
11. Plugs, pre-applied tapered male thread (R = BSP Tr)		R 1/4	RBE 08.6161				
		R 3/8	RBE 08.6162				
		R 1/2	RBE 08.6163				
12. Plugs, female thread*		G 1/4	RBE 08.6101				
		G 3/8	RBE 08.6102		RBE 11.6102		
		G 1/2	RBE 08.6103		RBE 11.6103		
		G 3/4			RBE 11.6104		

\* also available in NPT thread.

We reserve the right to modify, without prior notification, measurements, shape and material of component parts illustrated in our present catalog.