



RBS Compressed air





The perfect alliance of corrosion resistant material...

Both operators' 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.

Stäubli goes even further today, by extending this policy to the construction material: stainless steel, which is able to withstand the corrosive attacks encountered in the working environment.

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.

Operator safety

The anti-hose whip safety function requires 2 pushes to disconnect, eliminating the risk of dangerous hose whip under pressure.



This safety mechanism is in accordance with the ISO 4414 standard.



Impulsion 1: automatic decompression of the downstream hose



Impulsion 2: no pressure in the hose, on disconnection



... and safe operation

3 bores available

The RBS is available in 3 bores: 06, 08 and 11 mm.

3 possible seal choices for the socket

- Nitrile seal (NBR)
- Fluorocarbon seal (FPM)
- Ethylene-Propylene seal (EPDM) with FDA option

An adapted shut-off

Simple shut-off: automatic lock socket and free passage plug.

This configuration is indispensable when the applications require the decompression of a flexible hose.

Proven reliability and sealing

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



Simplicity of connection

Possible sealing by KES sealing kit on all cylindrical male sockets and plugs.



2 possible options

- Bulkhead mounting socket



All socket part-numbers presented in this documentation are available in "Standard" version or "Bulkhead mounting" (see part-numbers pages 8 and 9).

- Degreasing

Option available on both socket and plug. Select this option by indicating it at the end of your part-number (see page 4).

3 possible connections

Female threading



Male threading



For rubber hose





Absolutely leak free, vital for profitability

1 - Scenario

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

2 - Analysis

A 1 mm hole in your circuit can cause the loss of $20,880 \text{ m}^3$ /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 bar.							
	4,000 h/year 6,000 h/ye						
Ø 1 mm	13,920 m ³ /year	20,880 m³/year					
Ø 2 mm	55,680 m ³ /year	83,520 m³/year					
Ø 3 mm	125,280 m ³ /year	187,924 m ³ /year					

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

3 - Solution

Selecting the RBS range of quick-release couplings will optimize the security of your circuits and reduce energy consumption: **you spend less and you contribute to a sustainable development programme.**

In addition, by selecting an **all stainless steel** socket, you double this economy because this product will be much more reliable over time, and less susceptible to replacement due to oxidation or other deterioration.



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	Fluorocarbon (FPM)	/JV code
(other one than Nitrile, only for the socket)	Ethylene-Prolylene (EPDM) with FDA option	/JE/FDA code
3. Other option (possible on socket and plug)	Degreasing	/DG code

* Example given here onto socket part-number.

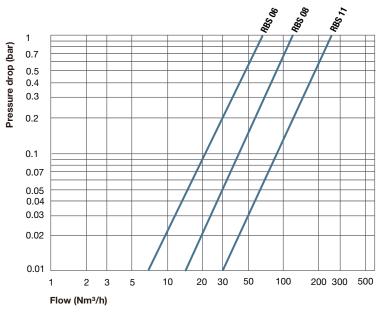


Technical data

	RBS 06	RBS 08	RBS 11
Max. working pressure (bar)	16	10	10
Ø straight through flow path (mm)	5,5	8	11
Cross section (mm ²)	23.75	50	95
Flow at 0.3 bar pressure drop (Nm ³ /h)	36	77	150
Ø Socket o.d. (mm)	26	32	38
Max. bulkhead thickness (mm)*	6.5	12	12.5

*Valid only for bulkhead mounting sockets.

Pneumatic flow rate / pressure drop



• Test conditions:

Flow direction: Socket -> Plug
Inlet pressure: 6 bar

* Important! The use and any contact of this seal with fluids of mineral origin (oil, fat...) is not advised.

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 $^\circ\mathrm{C}$

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.

Part-numbers Standards sockets

				Dimensi	ons (mm)		
Designation	Model	Thread T	L1	L2	H/flats	Ø	Part-number
1. GAZ female thread socket		G 1/8	49	-	23	26	RBS06.1100/IC
L1		G 1/4	52	-	23	26	RBS06.1101/IC
	RBS 06	G 3/8	60	-	23	26	RBS06.1102/IC
		G 1/2	63	-	24	26	RBS06.1103/IC
H/flats		G 1/4	64.5	-	29	32	RBS08.1101/IC
	RBS 08	G 3/8	64.5	-	29	32	RBS08.1102/IC
		G 1/2	73.5	-	29	32	RBS08.1103/IC
		G 3/8	75.5	-	35	38	RBS11.1102/IC
	RBS 11	G 1/2	77.5	-	35	38	RBS11.1103/IC
		G 3/4	85.5	-	35	38	RBS11.1104/IC
2. NPT female thread socket		NPT 1/8	47	-	23	26	RBS06.1200/IC
L1	RBS 06	NPT 1/4	51	-	23	26	RBS06.1201/IC
	NB3 00	NPT 3/8	60	-	23	26	RBS06.1202/IC
		NPT 1/2	63	-	24	26	RBS06.1203/IC
<u>H/flats</u>		NPT 1/4	63.5	-	29	32	RBS08.1201/IC
	RBS 08	NPT 3/8	63.5	-	29	32	RBS08.1202/IC
		NPT 1/2	73.5	-	29	32	RBS08.1203/IC
		NPT 3/8	73.5	-	35	38	RBS11.1202/IC
	RBS 11	NPT 1/2	75.5	-	35	38	RBS11.1203/IC
		NPT 3/4	79.5	-	35	38	RBS11.1204/IC
3. GAZ male thread socket		G 1/8	49	8	23	26	RBS06.1150/IC
<u>+ L2</u> + L1 →	RBS 06	G 1/4	49	11	23	26	RBS06.1151/IC
	00 601	G 3/8	48	12	23	26	RBS06.1152/IC
		G 1/2	48	14	23	26	RBS06.1153/IC
H/flats		G 1/4	60.5	11	29	32	RBS08.1151/IC
(see page 10)	RBS 08	G 3/8	60.5	12	29	32	RBS08.1152/IC
		G 1/2	60.5	14	29	32	RBS08.1153/IC
		G 3/8	71.5	12	35	38	RBS11.1152/IC
	RBS 11	G 1/2	71.5	14	35	38	RBS11.1153/IC
		G 3/4	70.5	16	35	38	RBS11.1154/IC

Standards sockets (suite)

Desimation	Model	Thread T		Dimensio	ons (mm)		Dout number
Designation	Model	or int. Ø	L1	L2	H/flats	Ø	Part-number
4. NPT male thread socket		NPT 1/8	49	10	23	26	RBS06.1250/IC
<u>+ L2</u> ↓ L1 →	RBS 06	NPT 1/4	47	15	23	26	RBS06.1251/IC
	ND3 00	NPT 3/8	46	15	23	26	RBS06.1252/IC
		NPT 1/2	45	17	23	26	RBS06.1253/IC
H/flats		NPT 1/4	60.5	15	29	32	RBS08.1251/IC
	RBS 08	NPT 3/8	60.5	14.5	29	32	RBS08.1252/IC
		NPT 1/2	58.5	19	29	32	RBS08.1253/IC
		NPT 3/8	69	14.5	35	38	RBS11.1252/IC
	RBS 11	NPT 1/2	66.5	19	35	38	RBS11.1253/IC
		NPT 3/4	67	18.5	35	38	RBS11.1254/IC
5. Rubber hose socket		int. Ø 6 mm	48	28	23	26	RBS06.1806/IC
<u>⊢ L2</u> <u>⊢ L1</u>	RBS 06	int. Ø 8 mm	48	28	23	26	RBS06.1808/IC
		int. Ø 10 mm	48	28	23	26	RBS06.1810/IC
		int. Ø 13 mm	48	33	23	26	RBS06.1813/IC
<u>H/flats</u>		int. Ø 8 mm	71.5	28	29	32	RBS08.1808/IC
	RBS 08	int. Ø 10 mm	71.5	28	29	32	RBS08.1810/IC
		int. Ø 13 mm	71.5	33	29	32	RBS08.1813/IC
		int. Ø 16 mm	80.5	33	29	32	RBS08.1816/IC
		int. Ø 10 mm	82.5	28	35	38	RBS11.1810/IC
	RBS 11	int. Ø 13 mm	82.5	33	35	38	RBS11.1813/IC
		int. Ø 16 mm	84.5	33	35	38	RBS11.1816/IC
		int. Ø 19 mm	84.5	53	35	38	RBS11.1819/IC

Bulkhead mounting sockets

					C	Dimensi	ons (mn	ו)			
Designation	Model	Thread T	L1	L2	L3	E maxi.	H/flats 1	H/flats 2	ØD	ØP	Part-number
1. GAZ female thread socket		G 1/8	49	25.5	-	6.5	23	32	36	26	RBS06.2100/IC
<u>↓ L1</u>		G 1/4	52	25.5	-	6.5	23	32	36	26	RBS06.2101/IC
	RBS 06	G 3/8	60	25.5	-	6.5	23	32	36	26	RBS06.2102/IC
		G 1/2	63	25.5	-	6.5	24	32	36	26	RBS06.2103/IC
		G 1/4	64.5	30.5	-	12	29	35	42	32	RBS08.2101/IC
H/flats 1	RBS 08	G 3/8	64.5	30.5	-	12	29	35	42	32	RBS08.2102/IC
		G 1/2	73.5	30.5	-	12	29	35	42	32	RBS08.2103/IC
		G 3/8	75.5	36	-	12.5	35	41	48	38	RBS11.2102/IC
	RBS 11	G 1/2	77.5	36	-	12.5	35	41	48	38	RBS11.2103/IC
		G 3/4	85.5	36	-	12.5	35	41	48	38	RBS11.2104/IC
2. NPT female thread socket		NPT 1/8	47	25.5	-	6.5	23	32	36	26	RBS06.2200/IC
L1	DDO 00	NPT 1/4	51	25.5	-	6.5	23	32	36	26	RBS06.2201/IC
E maxi, L2	RBS 06	NPT 3/8	60	25.5	-	6.5	23	32	36	26	RBS06.2202/IC
		NPT 1/2	63	25.5	-	6.5	24	32	36	26	RBS06.2203/IC
		NPT 1/4	63.5	30.5	-	12	29	35	42	32	RBS08.2201/IC
H/flats 1	RBS 08	NPT 3/8	63.5	30.5	-	12	29	35	42	32	RBS08.2202/IC
∖ H/flats 2		NPT 1/2	73.5	30.5	-	12	29	35	42	32	RBS08.2203/IC
		NPT 3/8	73.5	36	-	12.5	35	41	48	38	RBS11.2202/IC
	RBS 11	NPT 1/2	75.5	36	-	12.5	35	41	48	38	RBS11.2203/IC
		NPT 3/4	79.5	36	-	12.5	35	41	48	38	RBS11.2204/IC
3. GAZ male thread socket		G 1/8	49	25.5	8	6.5	23	32	36	26	RBS06.2150/IC
<u>+L3</u> , L1 ,	DDC 66	G 1/4	49	25.5	11	6.5	23	32	36	26	RBS06.2151/IC
E maxi, L2	RBS 06	G 3/8	48	25.5	12	6.5	23	32	36	26	RBS06.2152/IC
		G 1/2	48	25.5	14	6.5	23	32	36	26	RBS06.2153/IC
		G 1/4	60.5	30.5	11	12	29	35	42	32	RBS08.2151/IC
H/flats 1	RBS 08	G 3/8	60.5	30.5	12	12	29	35	42	32	RBS08.2152/IC
H/flats 2		G 1/2	60.5	30.5	14	12	29	35	42	32	RBS08.2153/IC
		G 3/8	71.5	36	12	12.5	35	41	48	38	RBS11.2152/IC
(see page 10)	RBS 11	G 1/2	71.5	36	14	12.5	35	41	48	38	RBS11.2153/IC
		G 3/4	70.5	36	16	12.5	35	41	48	38	RBS11.2154/IC

Bulkhead mounting sockets (suite)

		Thread T			C	imensi	ons (mn	ו)			
Designation	Model	or int. Ø	L1	L2	L3	E maxi.	H/flats 1	H/flats 2	ØD	ØP	Part-number
4. NPT male thread socket		NPT 1/8	49	25.5	10	6.5	23	32	36	26	RBS06.2250/IC
Emaxi, L1	RBS 06	NPT 1/4	47	25.5	15	6.5	23	32	36	26	RBS06.2251/IC
	1103 00	NPT 3/8	46	25.5	15	6.5	23	32	36	26	RBS06.2252/IC
		NPT 1/2	45	25.5	17	6.5	23	32	36	26	RBS06.2253/IC
H/flats 1		NPT 1/4	60.5	30.5	15	12	29	35	42	32	RBS08.2251/IC
H/flats 2	RBS 08	NPT 3/8	60.5	30.5	14.5	12	29	35	42	32	RBS08.2252/IC
		NPT 1/2	58.5	30.5	19	12	29	35	42	32	RBS08.2253/IC
		NPT 3/8	69	36	14.5	12.5	35	41	48	38	RBS11.2252/IC
	RBS 11	NPT 1/2	66.5	36	19	12.5	35	41	48	38	RBS11.2253/IC
		NPT 3/4	67	36	18.5	12.5	35	41	48	38	RBS11.2254/IC
5. Rubber hose socket		int. Ø 6 mm	76	25.5	28	6.5	23	32	36	26	RBS06.2806/IC
$\begin{array}{c} L1 \\ L3 \\ L3 \\ L2 \\ L2 \\ L2 \\ L2 \\ L2 \\ L2$	RBS 06	int. Ø 8 mm	76	25.5	28	6.5	23	32	36	26	RBS06.2808/IC
		int. Ø 10 mm	76	25.5	28	6.5	23	32	36	26	RBS06.2810/IC
H/flats 1		int. Ø 13 mm	81	25.5	33	6.5	23	32	36	26	RBS06.2813/IC
H/flats 2		int. Ø 8 mm	99.5	30.5	28	12	29	35	42	32	RBS08.2808/IC
	RBS 08	int. Ø 10 mm	99.5	30.5	28	12	29	35	42	32	RBS08.2810/IC
		int. Ø 13 mm	104.5	30.5	33	12	29	35	42	32	RBS08.2813/IC
		int. Ø 16 mm	113.5	30.5	33	12	29	35	42	32	RBS08.2816/IC
		int. Ø 10 mm	110.5	36	28	12.5	35	41	48	38	RBS11.2810/IC
	RBS 11	int. Ø 13 mm	115.5	36	33	12.5	35	41	48	38	RBS11.2813/IC
	ון פמע	int. Ø 16 mm	117.5	36	33	12.5	35	41	48	38	RBS11.2816/IC
		int. Ø 19 mm	137.5	36	53	12.5	35	41	48	38	RBS11.2819/IC

Part-numbers Plugs

Designation	Model	Thread T	Dim	nensions (r	mm)	Part-number
Designation	Model	Theau T	L1	L2	H/flats	Fait-number
1. GAZ female thread plug		G 1/8	44	-	14	RBS06.6100/IC
	RBS 06	G 1/4	50	-	17	RBS06.6101/IC
L1		G 3/8	52	-	21	RBS06.6102/IC
		G 1/4	57	-	19	RBS08.6101/IC
	RBS 08	G 3/8	59	-	24	RBS08.6102/IC
H/flats /		G 1/2	62	-	24	RBS08.6103/IC
		G 3/8	62	-	24	RBS11.6102/IC
	RBS 11	G 1/2	66	-	27	RBS11.6103/IC
		G 3/4	69	-	32	RBS11.6104/IC
2. NPT female thread plug		NPT 1/8	44	-	14	RBS06.6200/IC
	RBS 06 RBS 08	NPT 1/4	50	-	17	RBS06.6201/IC
		NPT 3/8	51	-	21	RBS06.6202/IC
		NPT 1/4	57	-	19	RBS08.6201/IC
H/flats /		NPT 3/8	58	-	24	RBS08.6202/IC
		NPT 1/2	62	-	27	RBS08.6203/IC
	DDC11	NPT 1/2	66	-	32	RBS11.6203/IC
* assembly with 2 parts	RBS11	NPT 3/4	95	-	32	RBS11.6204/IC*
3. GAZ male thread plug		G 1/8	36	8	14	RBS06.6150/IC
L1 L2	RBS 06	G 1/4	39	11	17	RBS06.6151/IC
		G 3/8	40	12	17	RBS06.6152/IC*
		G 1/4	44	11	19	RBS08.6151/IC
H/flats	RBS 08	G 3/8	44	12	19	RBS08.6152/IC*
		G 1/2	46	14	24	RBS08.6153/IC
(See below * Safe for RBS 06 and RBS 08		G 3/8	51	12	24	RBS11.6152/IC
G 3/8: not compatible)	RBS 11	G 1/2	51	14	24	RBS11.6153/IC
		G 3/4	79	16	32	RBS11.6154/IC

If you wish to complete your part-numbers with options, please refer to the bottom of page 4. Conformity with standard: connection plugs: ISO 6150 series C standard

Accessories (to be separately ordered)

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 compatible part-numbers with this option are characterized by the symbol () in part-numbers boards pages 6 to 10).

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

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)
- Fluorocarbon seal
- Ethylene-Propylene seal with FDA option
- /JV code /JE/FDA code

no code

Plugs (suite)

Desimation	Model	Thread T		Dimensi	ons (mm)		Part-number
Designation	wiodei	or int. Ø	L1	L2	H/flats	Ø	Part-number
4. NPT male thread plug		NPT 1/8	36.5	10	14	-	RBS06.6250/IC
	RBS 06	NPT 1/4	36.5	14.5	17	-	RBS06.6251/IC
		NPT 3/8	40	15	21	-	RBS06.6252/IC
H/flats		NPT 1/4	72	14.5	24	-	RBS08.6251/IC*
	RBS 08	NPT 3/8	72.5	14.5	24	-	RBS08.6252/IC*
		NPT 1/2	46	19	24	-	RBS08.6253/IC
* assembly with 2 parts	RBS11	NPT 3/4	85	17	32	-	RBS11.6254/IC*
5. Rubber hose plug		int. Ø 6 mm	34	28	-	12	RBS06.6806/IC
	550.00	int. Ø 8 mm	34	28	-	12	RBS06.6808/IC
	RBS 06	int. Ø 10 mm	34	28	-	14	RBS06.6810/IC
		int. Ø 13 mm	57	33	17	-	RBS06.6813/IC
H/flats		int. Ø 8 mm	92	28	19	-	RBS08.6808/IC
	RBS 08	int. Ø 10 mm	66	28	-	14	RBS08.6810/IC
L1 L2 ↓	KB2 08	int. Ø 13 mm	66	33	-	15	RBS08.6813/IC
		int. Ø 16 mm	102	33	24	-	RBS08.6816/IC
ø		int. Ø 10 mm	57	28	17	-	RBS11.6810/IC
	DD0 44	int. Ø 13 mm	69	33	24	-	RBS11.6813/IC
	RBS 11	int. Ø 16 mm	73	33	27	-	RBS11.6816/IC
		int. Ø 19 mm	73	53	27	-	RBS11.6819/IC

If you wish to complete your part-numbers with options, please refer to bottom of page 4. Conformity with standard: connection plugs: ISO 6150 series C standard

Plug protective dust caps								
Designation	Model	Part-number						
1. Stainless steel	RBS 06	RBE06.8550/IC						
C	RBS 08	RBE08.8550/IC						
	RBS11	RBE11.8550/IC						
2. Chloroprene	RBS 06	RBE06.8550/BC						
	RBS 08	RBE08.8550/BC						
	RBS 11	RBE11.8550/BC						

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



Global presence of the Stäubli Group

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