

RBL High-pressure stainless steel

For all fluids



Connections in high-pressure circuits carrying corrosive liquids and gases...

Applications

- High-pressure hydrogen circuits
- High-pressure circuits containing non-aggressive fluids in a corrosive environment
- High-pressure cleaning in the agri-food sector
- Process industry
- Laboratories
- High-pressure gas filling of cylinder racks

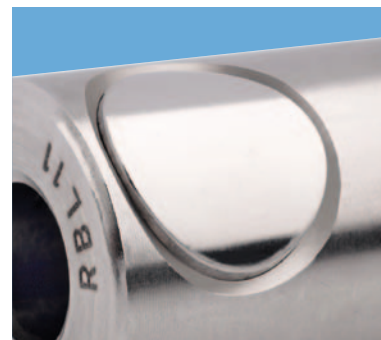
Four diameters

Product available in nominal diameters 03, 06, 08 and 11 mm.



Constant pressure guaranteed

by the large fastening surface area between the socket and the plug in the connected position and using a lock with a long reach inside the socket.



Efficiency and simplicity of push-button technology

Connected and disconnected with one hand for greater ease of use:

- Connected by pushing directly the plug into the socket.
- Disconnected by pressing the locking button.

... in an aggressive environment

Maximum safety

thanks to the design of the product, the quality of the materials used and the right seal type for the particular fluid involved.

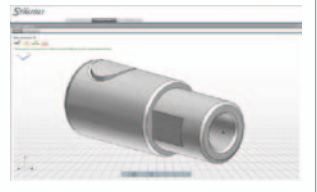
This aspect is particularly important in high-pressure circuits carrying corrosive gases and fluids.

Compatible with a large number of liquids and gases

thanks to its mainly stainless steel 316 serie construction.



3D models and sizing plans are available on request





Technical characteristics

	RBL 03	RBL 06	RBL 08	RBL 11
Nominal diameter (mm)	3	5.5	8	11
Max. working pressure (bar)*	400	450	400	350
Cross section (mm ²)	7	23.75	50	95

* For hazardous gases as defined in the PED Directive 97/23/EC, please ask us for the maximum operating pressure.

Hydraulic flow rate in l/min at a velocity of 5 m/s:

RBL	03	06	08	11
Single shutoff	2.1	7.2	15.1	28.5
Double shutoff	1.5	5	12.2	24.5
No shutoff	2.1	7.2	15.1	28.5

See the charts on page 6.

Construction

Mainly stainless steel 316 series.
Springs : stainless steel with 18% chrome.
For more information, consult us.

Vacuum tightness

1.10^{-3} N.cm² / s. in connected and disconnected position (code W).

For even more stringent requirements, please ask us.

Oxygen applications

Suggested options for your circuit applications:

- **Industrial oxygen** requiring pressure **below 50 bar:**
code JV/OX
- **Breathable oxygen** requiring pressure **below 50 bar:**
code JE/OX
- **Oxygen** requiring pressure **above 50 bar:**
we recommend our **ROX 05** sockets, specifically designed to withstand autoignition (adiabatic compression).

See page 7 to find out how to create your part-number.



Tightness

The choice of material for the seals depends on the fluid being carried and the operating temperature. Please do not hesitate to contact our technical interlocutor for advice. All our expertise in quick-release couplings is at your disposal.


Material	Code	Working temperatures	Applications
Nitrile (NBR)	standard	- 15 °C to + 100 °C	- Current applications. - High mechanical strength.
Fluorocarbon (FPM)	JV	- 10 °C to + 200 °C	- Good chemical resistance. - Outstanding resistance to high temperatures up to 200 °C. - Resistance to mineral oils, synthetic hydraulic oils, fuels, chemical products, hydrocarbons and coolants.
Ethylene-Propylene (EPDM)	JE	- 20 °C to + 150 °C Hot water, steam up to 200 °C	Excellent temperature characteristics. - Compatible with phosphate-based brake fluids - esters, hot and cold water, steam.
Perfluoro-elastomer (FFKM)	JK	0 to + 250 °C	- Remarkable resistance to heat and most chemical agents. - Coolants.
Fluorosilicone (FMQ)	JS3	- 45 °C to + 175 °C	- Maximum working pressure: 50 bar - Good resistance to low and high temperatures - Resistance to mineral oils, fuels.

KES sealing kit



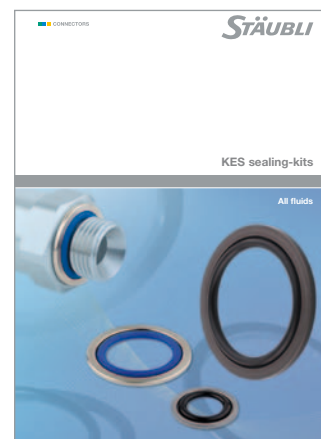
KES sealing kits consist of a retaining ring and an O-ring to create a perfect seal between the socket and the plug with its base.

Part references that are compatible with this option are indicated with the

symbol  in the part-number tables on pages 8 to 11.

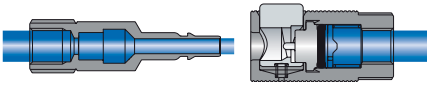
KES sealing kits must be ordered separately.

Select the ring and seal materials depending on your application, using our new documentation KES P 003.



Shutoff

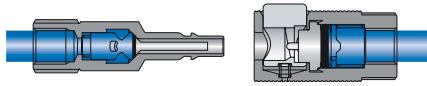
Single shutoff



- Socket with automatic closing
- Full flow plug

Socket: **standard**
 Plug: **full flow**

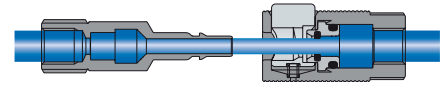
Double shutoff



- Socket and plug with automatic closing

Socket: **code OD**
 Plug: **self-shutoff**

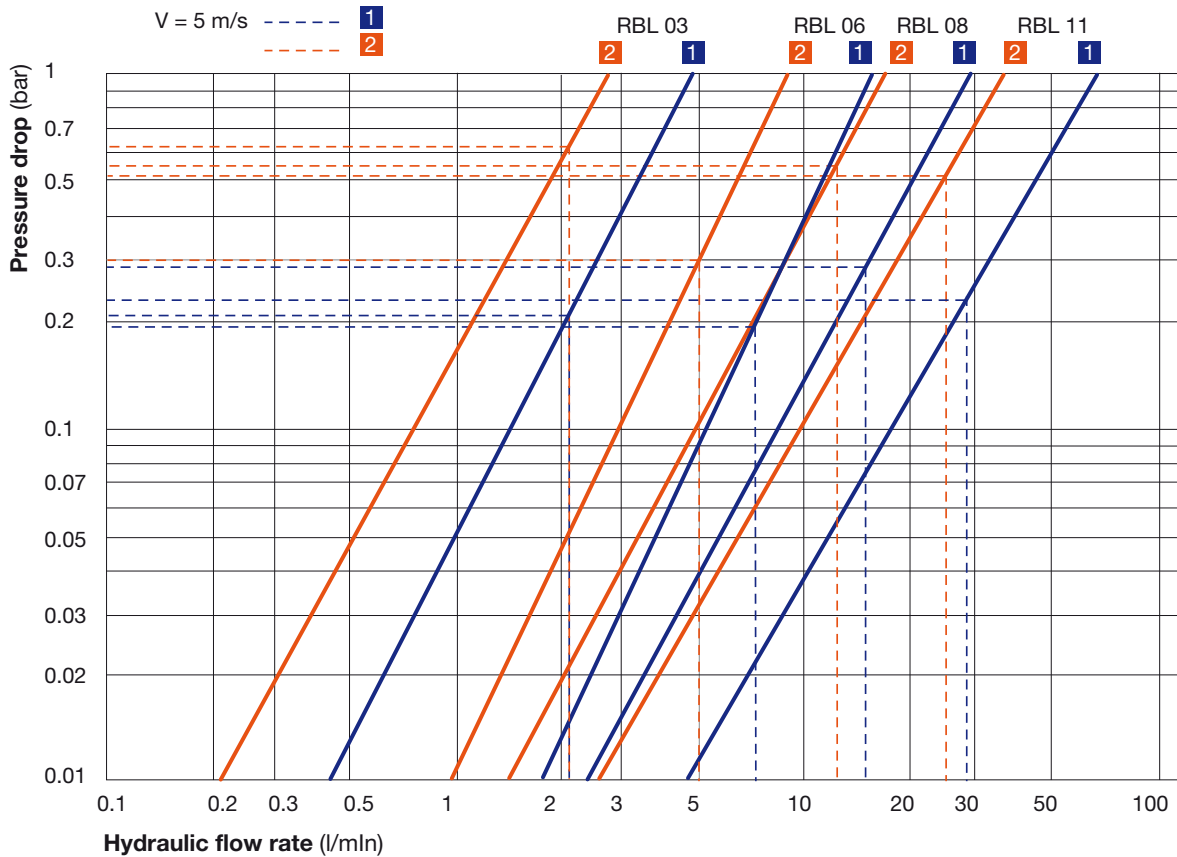
No shutoff



- Full flow socket and plug

Socket: **code OS**
 Plug: **full flow**

Flow rate / pressure drop hydraulic charts



RBL 03

1 Cv = 0.34
 2 Cv = 0.19

RBL 06

1 Cv = 1.08
 2 Cv = 0.62

RBL 08

1 Cv = 2.06
 2 Cv = 1.16

RBL 11

1 Cv = 4.69
 2 Cv = 2.51

1 Single shutoff circuit
 2 Double shutoff circuit

Test conditions
 - Test fluid: water

Options

Push-button lock

Code **VD**



Recommended for frequent disconnection or if protective gloves are worn.

Fixing for protective dust cap on socket

Code **FB**

The protective dust cap must be ordered separately.
See page 11.



How to create your socket part-number



RBL03.1100/IC / JE / OD / VD / FB

Standard socket
(pages 8 to 11)

Construction: AISI 316L stainless steel
Seals: nitrile (NBR)
Shutoff: simple
No special options

Tightness (pages 4 and 5)

JV • JV/OX • JE • JE/OX • JK • JS3

Shutoff (page 6)

OS • OD

Options (page 7)

Push-button lock: VD • **Cap fixing:** FB

How to create your plug part-number



Full flow

RBL03.6100/IC



Self-shutoff

RBL03.7100/IC / JS3

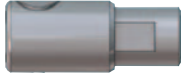

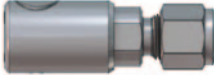
Standard plug
(pages 8 to 11)




Construction: AISI 316L stainless steel
Seals: nitrile (NBR)

Tightness (pages 4 and 5)

JV • JV/OX • JE • JE/OX • JK • JS3

RBL 03 part-numbers


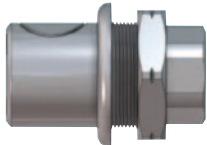


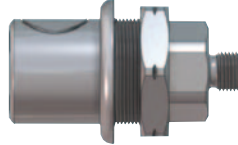


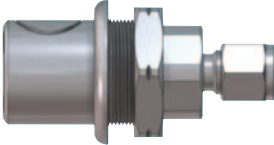

Sockets		Recessed sockets	
	Part-numbers	Fittings	Part-numbers
	☉ RBL03.1100/IC	G 1/8	RBL03.2100/IC ☉
	RBL03.1110/IC	Rc 1/4	RBL03.2110/IC
	RBL03.1200/IC	NPT 1/8	RBL03.2200/IC
	RBL03.1201/IC	NPT 1/4	RBL03.2201/IC
	RBL03.1311/IC	UN 7/16 (to norm SAE J1926/1)	RBL03.2311/IC
	Part-numbers	Fittings	Part-numbers
	☉ RBL03.1150/IC	G 1/8	RBL03.2150/IC ☉
	RBL03.1151/IC	G 1/4	RBL03.2151/IC
	RBL03.1250/IC	NPT 1/8	RBL03.2250/IC
	RBL03.1251/IC	NPT 1/4	RBL03.2251/IC
	Part-numbers	Fittings	Part-numbers
	RBL03.1766/IC	Ø 6 mm ext.	RBL03.2766/IC
	RBL03.1768/IC	Ø 8 mm ext.	RBL03.2768/IC
	RBL03.1753/IC	Ø 1/4" ext.	RBL03.2753/IC










Full flow plugs		Self-shutoff plugs	
	Part-numbers	Fittings	Part-numbers
	☉ RBL03.6100/IC	G 1/8	RBL03.7100/IC ☉
	-	Rc 1/4	RBL03.7110/IC
	RBL03.6200/IC	NPT 1/8	RBL03.7200/IC
	RBL03.6201/IC	NPT 1/4	RBL03.7201/IC
	-	UN 7/16 (to norm SAE J1926/1)	RBL03.7311/IC
	Part-numbers	Fittings	Part-numbers
	☉ RBL03.6150/IC	G 1/8	RBL03.7150/IC ☉
	☉ RBL03.6151/IC	G 1/4	RBL03.7151/IC
	RBL03.6250/IC	NPT 1/8	RBL03.7250/IC
	RBL03.6251/IC	NPT 1/4	RBL03.7251/IC
	Part-numbers	Fittings	Part-numbers
	RBL03.6766/IC	Ø 6 mm ext.	RBL03.7766/IC
	RBL03.6768/IC	Ø 8 mm ext.	RBL03.7768/IC
	RBL03.6753/IC	Ø 1/4" ext.	RBL03.7753/IC

* Characteristics of stainless steel pipes: compliant with ISO 1127 class D4 and ASTM A 269 class 1 (installation instructions RV1300100)

Protective dust caps: see page 11.

RBL 06 part-numbers

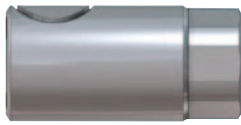













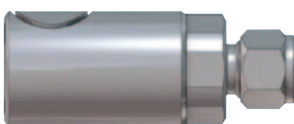
Sockets			Recessed sockets		
	• Female thread	Part-numbers	Fittings	Part-numbers	
		RBL06.1100/IC	G 1/8	RBL06.2100/IC	
		RBL06.1101/IC	G 1/4	RBL06.2101/IC	
		RBL06.1102/IC	G 3/8	RBL06.2102/IC	
		RBL06.1103/IC	G 1/2	RBL06.2103/IC	
		RBL06.1111/IC	Rc 1/4	RBL06.2111/IC	
		RBL06.1200/IC	NPT 1/8	RBL06.2200/IC	
		RBL06.1201/IC	NPT 1/4	RBL06.2201/IC	
		RBL06.1202/IC	NPT 3/8	RBL06.2202/IC	
	RBL06.1314/IC	UN 9/16 (to norm SAE J1926/1)	RBL06.2314/IC		
	• Male thread 60° cone	Part-numbers	Fittings	Part-numbers	
		RBL06.1150/IC	G 1/8	RBL06.2150/IC	
		RBL06.1151/IC	G 1/4	RBL06.2151/IC	
		RBL06.1152/IC	G 3/8	RBL06.2152/IC	
		RBL06.1153/IC	G 1/2	RBL06.2153/IC	
		RBL06.1250/IC	NPT 1/8	RBL06.2250/IC	
		RBL06.1251/IC	NPT 1/4	RBL06.2251/IC	
		RBL06.1252/IC	NPT 3/8	RBL06.2252/IC	
	RBL06.1253/IC	NPT 1/2	RBL06.2253/IC		
	• For calibrated stainless steel pipe*	Part-numbers	Fittings	Part-numbers	
		RBL06.1766/IC	Ø 6 mm ext.	RBL06.2766/IC	
		RBL06.1768/IC	Ø 8 mm ext.	RBL06.2768/IC	
		RBL06.1770/IC	Ø 10 mm ext.	RBL06.2770/IC	
		RBL06.1753/IC	Ø 1/4" ext.	RBL06.2753/IC	
		RBL06.1755/IC	Ø 3/8" ext.	RBL06.2755/IC	
	RBL06.1756/IC	Ø 1/2" ext.			






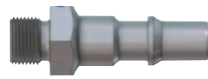




Full flow plugs			Self-shutoff plugs		
	• Female thread	Part-numbers	Fittings	Part-numbers	
		RBL06.6100/IC	G 1/8	RBL06.7100/IC	
		RBL06.6101/IC	G 1/4	RBL06.7101/IC	
		RBL06.6102/IC	G 3/8	RBL06.7102/IC	
		-	Rc 1/4	RBL06.7111/IC	
		RBL06.6200/IC	NPT 1/8	RBL06.7200/IC	
		RBL06.6201/IC	NPT 1/4	RBL06.7201/IC	
		RBL06.6202/IC	NPT 3/8	RBL06.7202/IC	
	-	UN 9/16 (to norm SAE J1926/1)	RBL06.7314/IC		
	• Male thread 60° cone	Part-numbers	Fittings	Part-numbers	
		RBL06.6150/IC	G 1/8	RBL06.7150/IC	
		RBL06.6151/IC	G 1/4	RBL06.7151/IC	
		RBL06.6152/IC	G 3/8	RBL06.7152/IC	
		RBL06.6153/IC	G 1/2	RBL06.7153/IC	
		RBL06.6250/IC	NPT 1/8	RBL06.7250/IC	
		RBL06.6251/IC	NPT 1/4	RBL06.7251/IC	
	RBL06.6252/IC	NPT 3/8	RBL06.7252/IC		
	• For calibrated stainless steel pipe*	Part-numbers	Fittings	Part-numbers	
		RBL06.6766/IC	Ø 6 mm ext.	RBL06.7766/IC	
		RBL06.6768/IC	Ø 8 mm ext.	RBL06.7768/IC	
		RBL06.6770/IC	Ø 10 mm ext.	RBL06.7770/IC	
		RBL06.6753/IC	Ø 1/4" ext.	RBL06.7753/IC	
	RBL06.6755/IC	Ø 3/8" ext.	RBL06.7755/IC		

* Characteristics of stainless steel pipes: compliant with ISO 1127 class D4 and ASTM A 269 class 1 (installation instructions RV1300100)

Protective dust caps: see page 11.

RBL 08 part-numbers


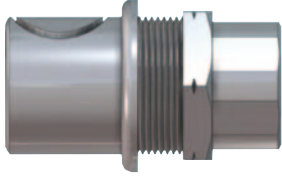






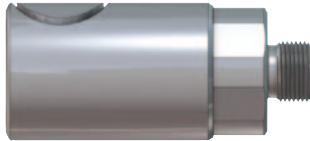
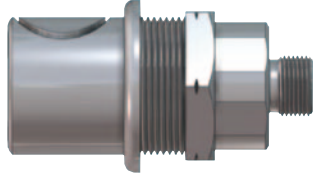






Sockets		Recessed sockets	
	Part-numbers	Fittings	Part-numbers
	 RBL08.1101/IC	G 1/4	RBL08.2101/IC 
	 RBL08.1102/IC	G 3/8	RBL08.2102/IC 
	 RBL08.1103/IC	G 1/2	RBL08.2103/IC 
	RBL08.1112/IC	Rc 3/8	RBL08.2112/IC
	RBL08.1201/IC	NPT 1/4	RBL08.2201/IC
	RBL08.1202/IC	NPT 3/8	RBL08.2202/IC
	RBL08.1203/IC	NPT 1/2	RBL08.2203/IC
RBL08.1319/IC	UN 3/4 - 16 (to norm SAE J1926/1)	RBL08.2319/IC	
	Part-numbers	Fittings	Part-numbers
	 RBL08.1151/IC	G 1/4	RBL08.2151/IC 
	 RBL08.1152/IC	G 3/8	RBL08.2152/IC 
	 RBL08.1153/IC	G 1/2	RBL08.2153/IC 
	RBL08.1251/IC	NPT 1/4	RBL08.2251/IC
	RBL08.1252/IC	NPT 3/8	RBL08.2252/IC
RBL08.1253/IC	NPT 1/2	RBL08.2253/IC	
	Part-numbers	Fittings	Part-numbers
	RBL08.1770/IC	Ø 10 mm ext.	RBL08.2770/IC
	RBL08.1772/IC	Ø 12 mm ext.	RBL08.2772/IC
	RBL08.1755/IC	Ø 3/8" ext.	RBL08.2755/IC
RBL08.1756/IC	Ø 1/2" ext.	RBL08.2756/IC	

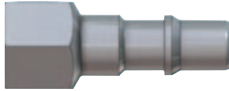








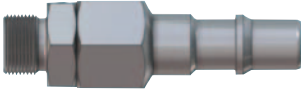
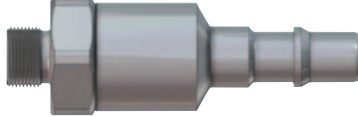





Full flow plugs		Self-shutoff plugs	
	Part-numbers	Fittings	Part-numbers
	 RBL08.6101/IC	G 1/4	RBL08.7101/IC 
	 RBL08.6102/IC	G 3/8	RBL08.7102/IC 
	RBL08.6103/IC	G 1/2	RBL08.7103/IC
	-	Rc 3/8	RBL08.7112/IC
	RBL08.6201/IC	NPT 1/4	RBL08.7201/IC
	RBL08.6202/IC	NPT 3/8	RBL08.7202/IC
	RBL08.6203/IC	NPT 1/2	RBL08.7203/IC
-	UN 3/4 - 16 (to norm SAE J1926/1)	RBL08.7319/IC	
	Part-numbers	Fittings	Part-numbers
	 RBL08.6151/IC	G 1/4	RBL08.7151/IC 
	RBL08.6152/IC	G 3/8	RBL08.7152/IC 
	RBL08.6153/IC	G 1/2	RBL08.7153/IC
	-	NPT 1/4	RBL08.7251/IC
	-	NPT 3/8	RBL08.7252/IC
RBL08.6253/IC	NPT 1/2	RBL08.7253/IC	
	Part-numbers	Fittings	Part-numbers
	RBL08.6770/IC	Ø 10 mm ext.	RBL08.7770/IC
	RBL08.6772/IC	Ø 12 mm ext.	RBL08.7772/IC
	RBL08.6755/IC	Ø 3/8" ext.	RBL08.7755/IC
RBL08.6756/IC	Ø 1/2" ext.	RBL08.7756/IC	

* Characteristics of stainless steel pipes: compliant with ISO 1127 class D4 and ASTM A 269 class 1 (installation instructions RV1300100)

Protective dust caps: see page 11.

RBL 11 part-numbers

Sockets			Recessed sockets		
	• Female thread	Part-numbers	Fittings	Part-numbers	
	 RBL11.1102/IC	G 3/8	RBL11.2102/IC 		
	 RBL11.1103/IC	G 1/2	RBL11.2103/IC 		
	 RBL11.1104/IC	G 3/4	RBL11.2104/IC 		
	RBL11.1113/IC	Rc 1/2	RBL11.2113/IC		
	RBL11.1202/IC	NPT 3/8	RBL11.2202/IC		
	RBL11.1203/IC	NPT 1/2	RBL11.2203/IC		
	RBL11.1204/IC	NPT 3/4	RBL11.2204/IC		
RBL11.1322/IC	UN 7/8 - 14 (to norm SAE J1926/1)	RBL11.2322/IC			
	• Male thread 60° cone	Part-numbers	Fittings	Part-numbers	
	 RBL11.1152/IC	G 3/8	RBL11.2152/IC 		
	 RBL11.1153/IC	G 1/2	RBL11.2153/IC 		
	 RBL11.1154/IC	G 3/4	RBL11.2154/IC 		
	RBL11.1252/IC	NPT 3/8	RBL11.2252/IC		
	RBL11.1253/IC	NPT 1/2	RBL11.2253/IC		
RBL11.1254/IC	NPT 3/4	RBL11.2254/IC			

Full flow plugs			Self-shutoff plugs		
	• Female thread	Part-numbers	Fittings	Part-numbers	
	 RBL11.6101/IC	G 1/4	-		
	 RBL11.6102/IC	G 3/8	RBL11.7102/IC 		
	 RBL11.6103/IC	G 1/2	RBL11.7103/IC 		
	 RBL11.6104/IC	G 3/4	RBL11.7104/IC 		
	-	Rc 1/2	RBL11.7113/IC		
	-	NPT 3/8	RBL11.7202/IC		
	RBL11.6203/IC	NPT 1/2	RBL11.7203/IC		
RBL11.6204/IC	NPT 3/4	RBL11.7204/IC			
-	UN 7/8 - 14 (to norm SAE J1926/1)	RBL11.7322/IC			
	• Male thread 60° cone	Part-numbers	Fittings	Part-numbers	
	 RBL11.6152/IC	G 3/8	RBL11.7152/IC 		
	RBL11.6153/IC	G 1/2	RBL11.7153/IC 		
	 RBL11.6154/IC	G 3/4	RBL11.7154/IC 		
	-	NPT 1/2	RBL11.7253/IC		
RBL11.6254/IC	NPT 3/4	-			

Protective dust caps must be ordered separately (supplied if an order is placed for an self-shutoff plug)

Stainless steel cap for socket:
RBE xx.8500/IC



Stainless steel cap for plug:
RBE xx.8550/IC



Chloroprene steel cap for plug:
RBE xx.8550/BC



Replace xx with the bore diameter of the corresponding socket or plug. E.g.: RBL 03.8550 = cap for a plug with bore diameter 3 mm.

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



Global presence of the Stäubli Group

- Stäubli units
- Agents

International sales coordination

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