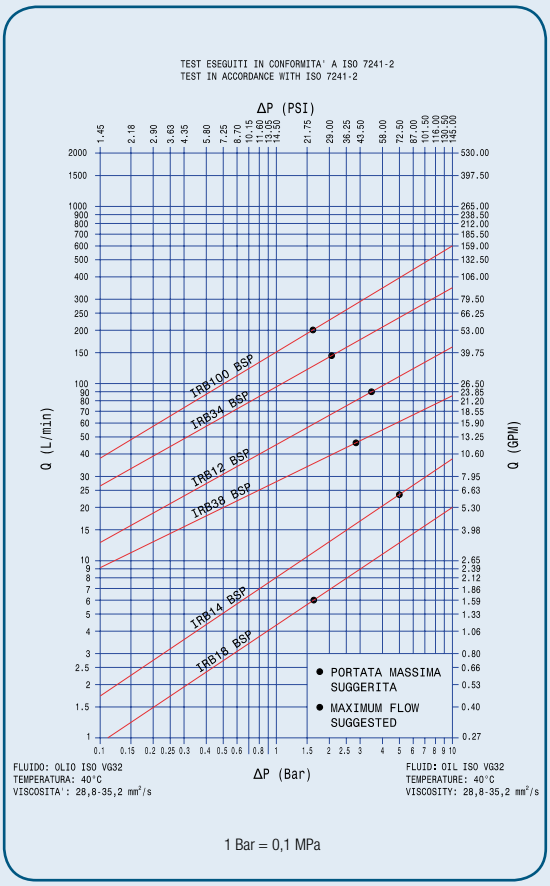
IRB SERIES

INTERCHANGE > **ISO 7241-1 "B"**

Stucchi®



1 Bar = 0,1 MPa

TECHNICAL FEATURES AND OPTIONS

Interchange
ISO 7241-1 "B"

Sealing description
Nitrile NBR

Connection system
Single acting sleeve

Available sizes
From 1/8" to 1"

Material /treatment
Carbon steel /Cr3

Available threads
BSP - NPT

Operating pressure
Up to 350 bar

Locking mechanism
Locking Ball system

Flow rate
Up to 200 L/Min

Temperature (°C)
-20° / +100°

Valving style
Poppet

Connection under pressure
Connection: not allowed
Disconnection: not allowed

BENEFITS

- The poppet valve with elastomer seal provides maximum sealing of the couplings when disconnected.
- Shape of internal parts is designed to reduce turbulence and pressure drop.
- Compact slim design.
- Simple to use.

HOW TO USE

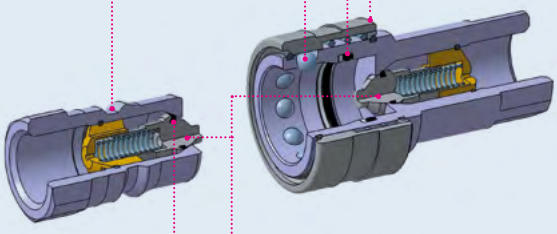
- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To connect pull back the sleeve of the female coupling, align the female with the male coupling and push one into the other until both halves are fully connected and release the sleeve.
- To disconnect push back the sleeve of the female coupling, pull out the mating half.

BackUp rings are designed to prevent extrusion and to avoid premature wearing of O-Ring.

Single acting sleeve: connection and disconnection by pulling back the sleeve

Hardened surface area to reduce the "brinelling" effect

High number of locking balls to reduce the "brinelling" effect



Valves with crimped seal to prevent extrusion at high flow rates

Poppet valves

MAIN APPLICATIONS

ISO B

PERFORMANCES

Size		Series/Size	Max. flow suggested		Connect force		Disconnect force		Spillage*
Inch	mm (ISO)		l/min	GPM	N	lbf	N	lbf	ml
1/8	5,0	IRB18	6	1,59	75	16,88	35	7,88	0,18
1/4	6,3	IRB14	24	6,36	50	11,25	35	7,88	0,33
3/8	10,0	IRB38	46	12,19	80	18,00	45	10,13	2,20
1/2	12,5	IRB12	90	23,85	105	23,63	35	7,88	3,00
3/4	20,0	IRB34	148	39,22	125	28,13	40	9,00	9,40
1	25,0	IRB100	200	53,00	130	29,25	45	10,13	14,00

Size	Series/Size	Max. operating pressure						Burst pressure					
		Coupled		Male		Female		Coupled		Male		Female	
Inch		MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
1/8	IRB18	35	5075	35	5075	35	5075	120	17400	120	17400	120	17400
1/4	IRB14	35	5075	35	5075	35	5075	100	14500	100	14500	100	14500
3/8	IRB38	30	4350	30	4350	30	4350	100	14500	100	14500	100	14500
1/2	IRB12	28	4060	28	4060	28	4060	100	14500	100	14500	100	14500
3/4	IRB34	23	3335	23	3335	23	3335	100	14500	100	14500	100	14500
1	IRB100	18	2610	18	2610	18	2610	80	11600	80	11600	80	11600

*Spillage is an indicative value of the fluid loss during disconnection (according to ISO 7241-2 test method)

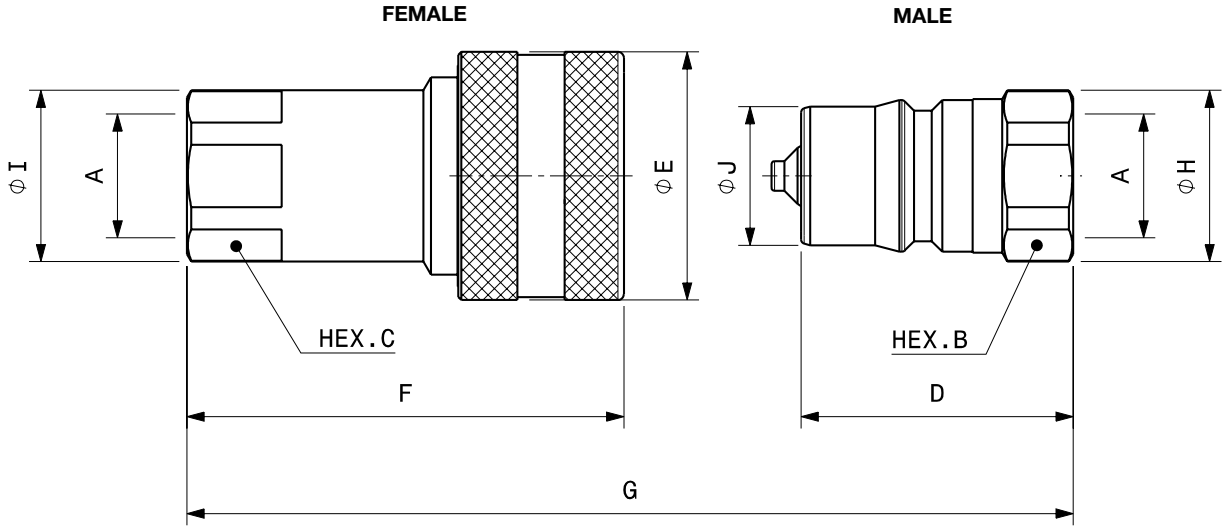
Different configuration possible (see specific catalog):
IRB version construction material: carbon steel; seals: standard in NBR
IRBX version construction material: stainless steel (AISI 316L); seals: standard in Viton®
IRBO version construction material: brass; seals: standard in Viton®
PL version (free flow without valve): available upon request

Temperature range:
IRB = standard seals in NBR (Nitrile) : from -20 °C to +100 °C (from -4 °F to +212 °F)
IRBX, IRBO = Seals in VITON®: from -15°C to +180°C (from +5 °F to +356 °F).
Please read carefully “instruction and warning” for proper selection of the products.

WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.
Never connect or disconnect with dynamic pressure (e.g. pump on).
Do not use the coupling disconnected with high impulse pressure.
Do not couple-uncouple with flow and/or pressure in the circuit.
Do not couple-uncouple when the temperature inside of the circuit is higher than 80 °C (176 °F).
Check the maximum allowable working pressure of the port in use.
Make sure that the medium used is compatible with seal and material as indicated for each series.
In case of doubt please contact Stucchi Technical Support.
The interchangeability is mentioned under the assumption that the manufacturer of the considered products has not changed any dimension.
It is MANDATORY to read and closely follow the instructions. Last updated version always apply at time of installation, see latest written Instructions on Stucchi website (www.stucchi.it) before selecting or using Stucchi products.

OVERALL DIMENSIONS

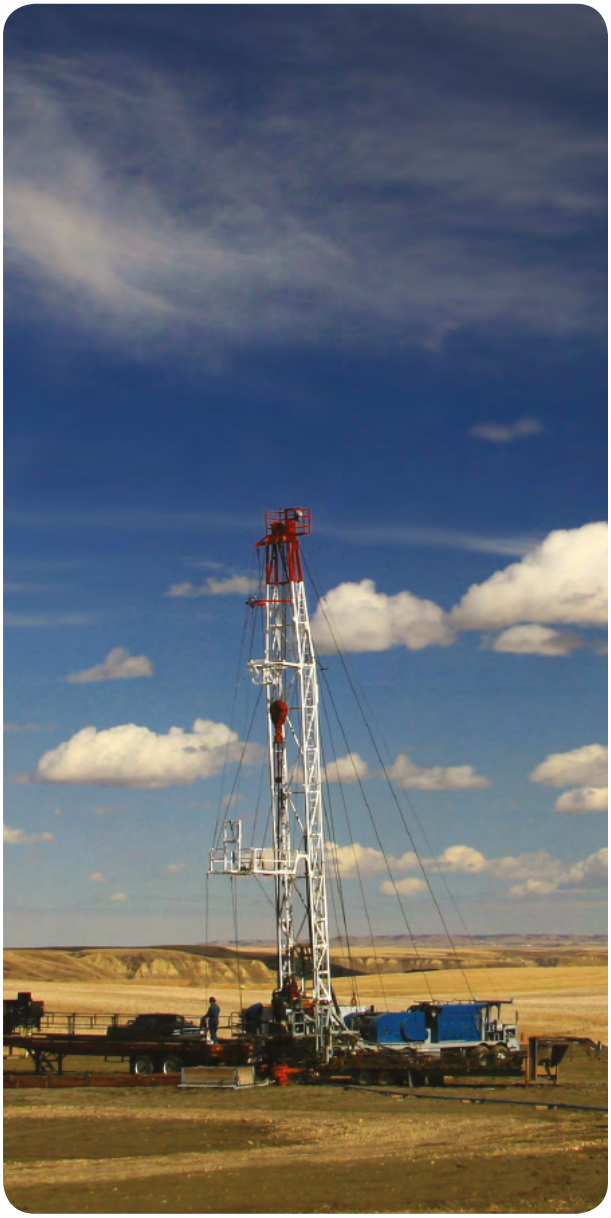


Port description: FEMALE THREAD BSPP (ISO 1179-1)

BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Overall Diameter			Body Diameter			Weight	
							mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Lbs
1/8"	F IRB18 BSP	Female	800600000	5,0	1/8"	G	60,5	2,38	F	48,8	1,92	C	14,0	0,55	I	15,8	0,62	E	23,0	0,91	0,07	0,15
	M IRB18 BSP	Male	800600001						D	30,0	1,18	B	14,0	0,55	H	15,8	0,62	J	10,8	0,43	0,02	0,04
1/4"	F IRB14 BSP	Female	800600002	6,3	1/4"	G	70,7	2,78	F	57,0	2,24	C	19,0	0,75	I	21,2	0,83	E	27,0	1,06	0,12	0,26
	M IRB14 BSP	Male	800600003						D	35,0	1,38	B	19,0	0,75	H	20,8	0,82	J	14,2	0,56	0,04	0,08
3/8"	F IRB38 BSP	Female	800600004	10,0	3/8"	G	82,7	3,26	F	66,0	2,60	C	24,0	0,94	I	27,0	1,06	E	34,0	1,34	0,22	0,49
	M IRB38 BSP	Male	800600005						D	41,0	1,61	B	24,0	0,94	H	26,0	1,02	J	19,1	0,75	0,07	0,15
1/2"	F IRB12 BSP	Female	800600006	12,5	1/2"	G	92,6	3,65	F	73,9	2,91	C	27,0	1,06	I	29,0	1,14	E	42,0	1,65	0,32	0,71
	M IRB12 BSP	Male	800600007						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,10	0,22
3/4"	F IRB34 BSP	Female	800600008	20,0	3/4"	G	111,1	4,37	F	90,1	3,55	C	36,0	1,42	I	38,5	1,52	E	50,0	1,97	0,56	1,24
	M IRB34 BSP	Male	800600009						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	31,4	1,24	0,20	0,45
1"	F IRB100 BSP	Female	800600010	25,0	1"	G	133,2	5,24	F	106,2	4,18	C	41,0	1,61	I	44,8	1,76	E	60,0	2,36	0,86	1,90
	M IRB100 BSP	Male	800600011						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,33	0,72

Port description: FEMALE THREAD NPT (ANSI B1.20.1)

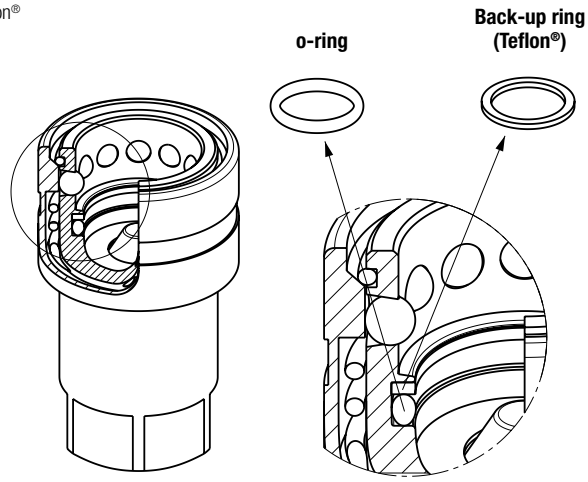
BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length			Length			Hex			Overall Diameter			Body Diameter			Weight	
							mm	inch		mm	inch		mm	inch		mm	inch		mm	inch	Kg	Lbs
1/8"	F IRB18 NPT	Female	800601000	5,0	1/8"	G	60,5	2,38	F	48,8	1,92	C	14,0	0,55	I	15,8	0,62	E	23,0	0,91	0,07	0,15
	M IRB18 NPT	Male	800601001						D	30,0	1,18	B	14,0	0,55	H	15,8	0,62	J	10,8	0,43	0,02	0,04
1/4"	F IRB14 NPT	Female	800601002	6,3	1/4"	G	70,7	2,78	F	57,0	2,24	C	19,0	0,75	I	21,2	0,83	E	27,0	1,06	0,12	0,26
	M IRB14 NPT	Male	800601003						D	35,0	1,38	B	19,0	0,75	H	20,8	0,82	J	14,2	0,56	0,04	0,08
3/8"	F IRB38 NPT	Female	800601004	10,0	3/8"	G	82,7	3,26	F	66,0	2,60	C	24,0	0,94	I	27,0	1,06	E	34,0	1,34	0,22	0,49
	M IRB38 NPT	Male	800601005						D	41,0	1,61	B	24,0	0,94	H	26,0	1,02	J	19,1	0,75	0,07	0,15
1/2"	F IRB12 NPT	Female	800601006	12,5	1/2"	G	92,6	3,65	F	73,9	2,91	C	27,0	1,06	I	29,0	1,14	E	42,0	1,65	0,32	0,71
	M IRB12 NPT	Male	800601007						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,11	0,23
3/4"	F IRB34 NPT	Female	800601008	20,0	3/4"	G	111,1	4,37	F	90,1	3,55	C	36,0	1,42	I	38,5	1,52	E	50,0	1,97	0,56	1,24
	M IRB34 NPT	Male	800601009						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	31,4	1,24	0,21	0,46
1"	F IRB100 NPT	Female	800601010	25,0	1"	G	133,2	5,24	F	106,2	4,18	C	41,0	1,61	I	44,8	1,76	E	60,0	2,36	0,88	1,94
	M IRB100 NPT	Male	800601011						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,34	0,75



SPARE KIT SEAL FOR FEMALE

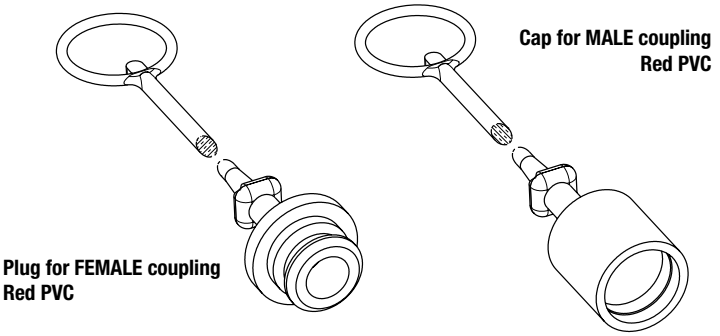
Repair kit / OR+BK		
Body Size	Description	Part Number
1/8”	F IRB18	815700202
1/4”	F IRB14	815700204
3/8”	F IRB38	815700206
1/2”	F IRB12	815700208
3/4”	F IRB34	815700210
1”	F IRB100	815700212

O-Ring in Nitrile
BackUp in Teflon®



PROTECTIVE CAPS FOR IRB SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. The protective caps for IRB series are manufactured in PVC with connection lanyard (standard color red, other colors available upon request).



Protective Cap				
Body Size/Description		Part Number		Material/Color
		Plug for Female	Cap for Male	
1/4”	IRB14	815000032	815000033	PVC/Red
3/8”	IRB38	815000034	815000035	PVC/Red
1/2”	IRB12	815000036	815000037	PVC/Red
3/4”	IRB34	815000038	815000039	PVC/Red
1”	IRB100	815000040	815000041	PVC/Red

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