

IRBX SERIES

INTERCHANGE > ISO 7241-1 "B"



Stucchi®



TECHNICAL FEATURES AND OPTIONS



Interchange

ISO 7241-1 "B"



Sealing description

FKM (VITON®)



Connection system

Single acting sleeve



Available sizes

From 1/8" to 1"



Material

Stainless steel (AISI 316L)
Retainer in brass



Available threads

BSP - NPT



Operating pressure

Up to 250 bar



Locking mechanism

Locking Ball system



Flow rate

Up to 200 L/Min



Temperature (°C)

-15° / +180°



Valving style

Poppet



Connection under pressure

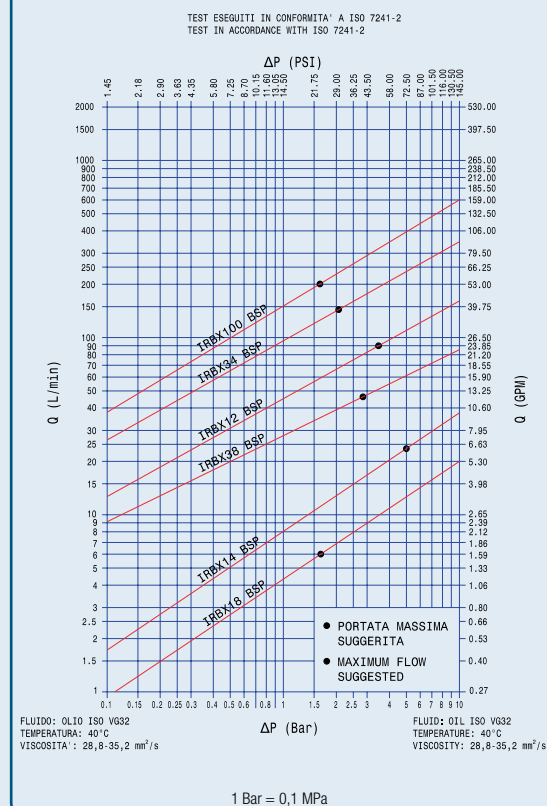
Connection: not allowed
Disconnection: not allowed

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.
- Good corrosion resistance.
- Compact slim design.
- Simple to use.

HOW TO USE

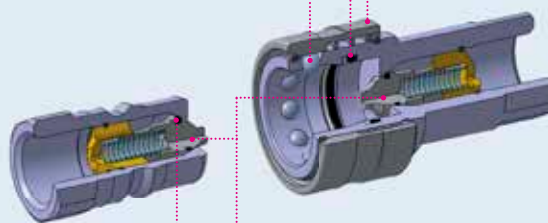
- Before to connect, clean the mating surface of the couplings to avoid dirt inclusion in the circuit.
- To connect pull back the sleeve of the female coupling, align the female with the male coupling and push one into the other until both halves are fully connected and release the sleeve.
- To disconnect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



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

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



Valves with crimped seal to prevent extrusion at high flow rates

Poppet valves

MAIN APPLICATIONS



Agriculture



Oil & Gas



Industry



High Pressure



Cooling



Refrigeration



Earth Moving



Vehicles



Hydraulic Equipment



Chemical & Food Industry

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	IRBX18	6	1,59	75	16,88	35	7,88	0,18
1/4	6,3	IRBX14	24	6,36	60	13,50	30	6,75	0,33
3/8	10,0	IRBX38	46	12,19	90	20,25	35	7,88	2,20
1/2	12,5	IRBX12	90	23,85	125	28,13	45	10,13	3,00
3/4	20,0	IRBX34	148	39,22	135	30,38	55	12,38	9,40
1	25,0	IRBX100	200	53,00	140	31,50	40	9,00	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	IRBX18	25	3625	25	3625	25	3625	140	20300	140	20300	140	20300
1/4	IRBX14	25	3625	25	3625	25	3625	140	20300	140	20300	140	20300
3/8	IRBX38	20	2900	20	2900	20	2900	100	14500	100	14500	100	14500
1/2	IRBX12	20	2900	20	2900	20	2900	100	14500	100	14500	100	14500
3/4	IRBX34	16	2320	16	2320	16	2320	80	11600	80	11600	80	11600
1	IRBX100	12,5	1813	12,5	1813	12,5	1813	60	8700	60	8700	60	8700

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

Different possible configurations

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®

IRBX PL full flow version without valves upon request.

Internal retainer in stainless steel 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.

Material:

-Construction: Stainless steel AISI 316L

-Springs: AISI 302

-Locking ball: AISI 316



WARNING

A defect, a wrong choice or an improper use of products, can cause injury to persons, animals and objects.

Connection under pressure are under residual pressure.

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.

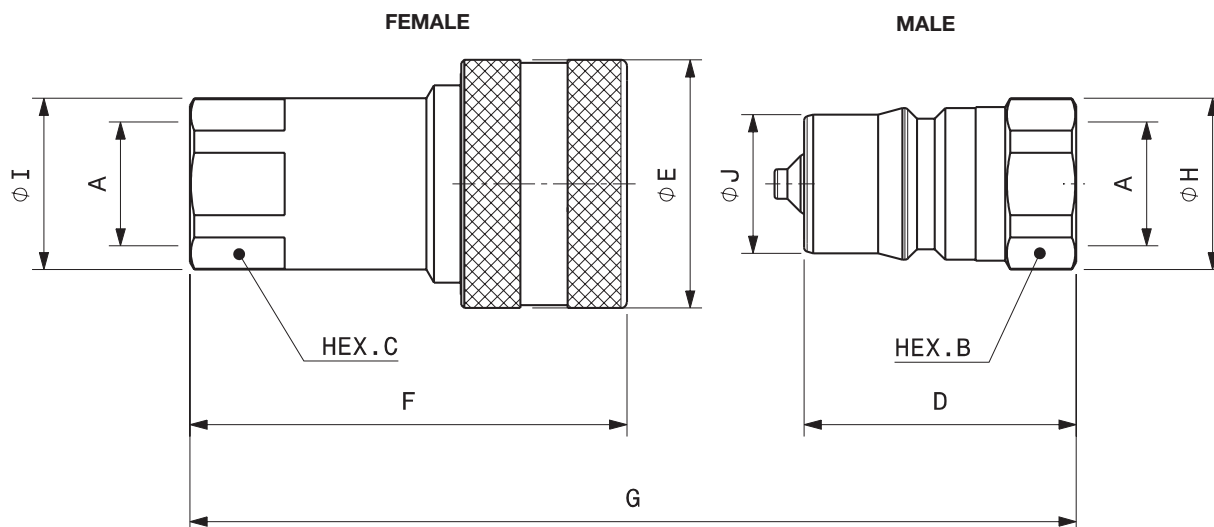
Make sure that the medium used is compatible with seal and material as indicated for each series.

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	mm	inch	Kg	Lbs				
1/8"	F IRBX18 BSP	Female	804600100	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 IRBX18 BSP	Male	804600101						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 IRBX14 BSP	Female	804600102	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	0,27
	M IRBX14 BSP	Male	804600103						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 IRBX38 BSP	Female	804600104	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	0,23	0,50
	M IRBX38 BSP	Male	804600105						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 IRBX12 BSP	Female	804600106	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	0,33	0,72
	M IRBX12 BSP	Male	804600107						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,10	0,23
3/4"	F IRBX34 BSP	Female	804600108	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	0,58	1,27
	M IRBX34 BSP	Male	804600109						D	55,0	2,17	B	36,0	1,42	H	38,5	1,52	J	31,4	1,24	0,21	0,45
1"	F IRBX100 BSP	Female	804600110	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 IRBX100 BSP	Male	804600111						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,34	0,74

Port description: FEMALE THREAD NPT (ANSI B.1.20.1)

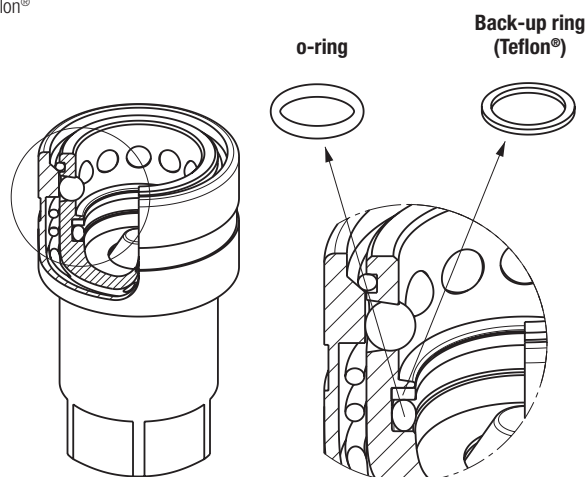
BODY SIZE	Descriptive Code	Item Code		ISO DN	PORT (A)	Overall Length		Length			Hex		Overall Diameter			Body Diameter			Weight			
						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	Kg	Lbs			
1/8"	F IRBX18 NPT	Female	804601100	5,0	1/8"	G	60,5	2,38	F	48,8	1,92	C	14,0	0,55	I	15,8	0,62	E	23,0	0,91	0,07	0,15
	M IRBX18 NPT	Male	804601101						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 IRBX14 NPT	Female	804601102	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	0,27
	M IRBX14 NPT	Male	804601103						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 IRBX38 NPT	Female	804601104	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	0,23	0,50
	M IRBX38 NPT	Male	804601105						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 IRBX12 NPT	Female	804601106	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	0,33	0,72
	M IRBX12 NPT	Male	804601107						D	46,0	1,81	B	27,0	1,06	H	29,0	1,14	J	23,5	0,93	0,11	0,24
3/4"	F IRBX34 NPT	Female	804601108	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	0,58	1,28
	M IRBX34 NPT	Male	804601109						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 IRBX100 NPT	Female	804601110	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	0,89	1,96
	M IRBX100 NPT	Male	804601111						D	66,0	2,60	B	41,0	1,61	H	44,8	1,76	J	37,7	1,48	0,34	0,74



SPARE KIT SEAL FOR FEMALE

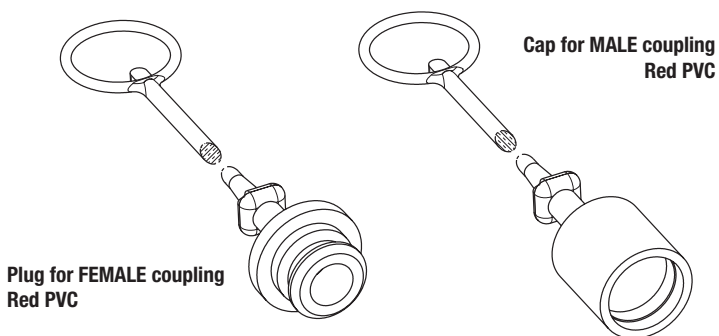
Repair kit / OR+BK		
Body Size	Description	Part Number
1/8"	F IRBX18	815700214
1/4"	F IRBX14	815700216
3/8"	F IRBX38	815700218
1/2"	F IRBX12	815700220
3/4"	F IRBX34	815700222
1"	F IRBX100	815700224

O-Ring in VITON®
BackUp in Teflon®



PROTECTIVE CAPS FOR IRBX SERIES

Protective caps are always recommended to protect the couplings from damage, dirt inclusion, and will increase the product life. The protective caps for IRBX 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"	IRBX14	815000032	815000033	PVC/Red
3/8"	IRBX38	815000034	815000035	PVC/Red
1/2"	IRBX12	815000036	815000037	PVC/Red
3/4"	IRBX34	815000038	815000039	PVC/Red
1"	IRBX100	815000040	815000041	PVC/Red