

Series: **IRBO**

INTERCHANGE: ISO 7241-1 series "B"

MAIN APPLICATIONS

- Industrial equipment
- Cooling system

"IRBO" is a poppet valve quick couplings series interchangeable with international standard ISO 7241-1 "B", manufactured in brass and with springs and locking balls in stainless steel. "IRBO" series offers corrosive resistance for applications compatible with brass in industrial applications.

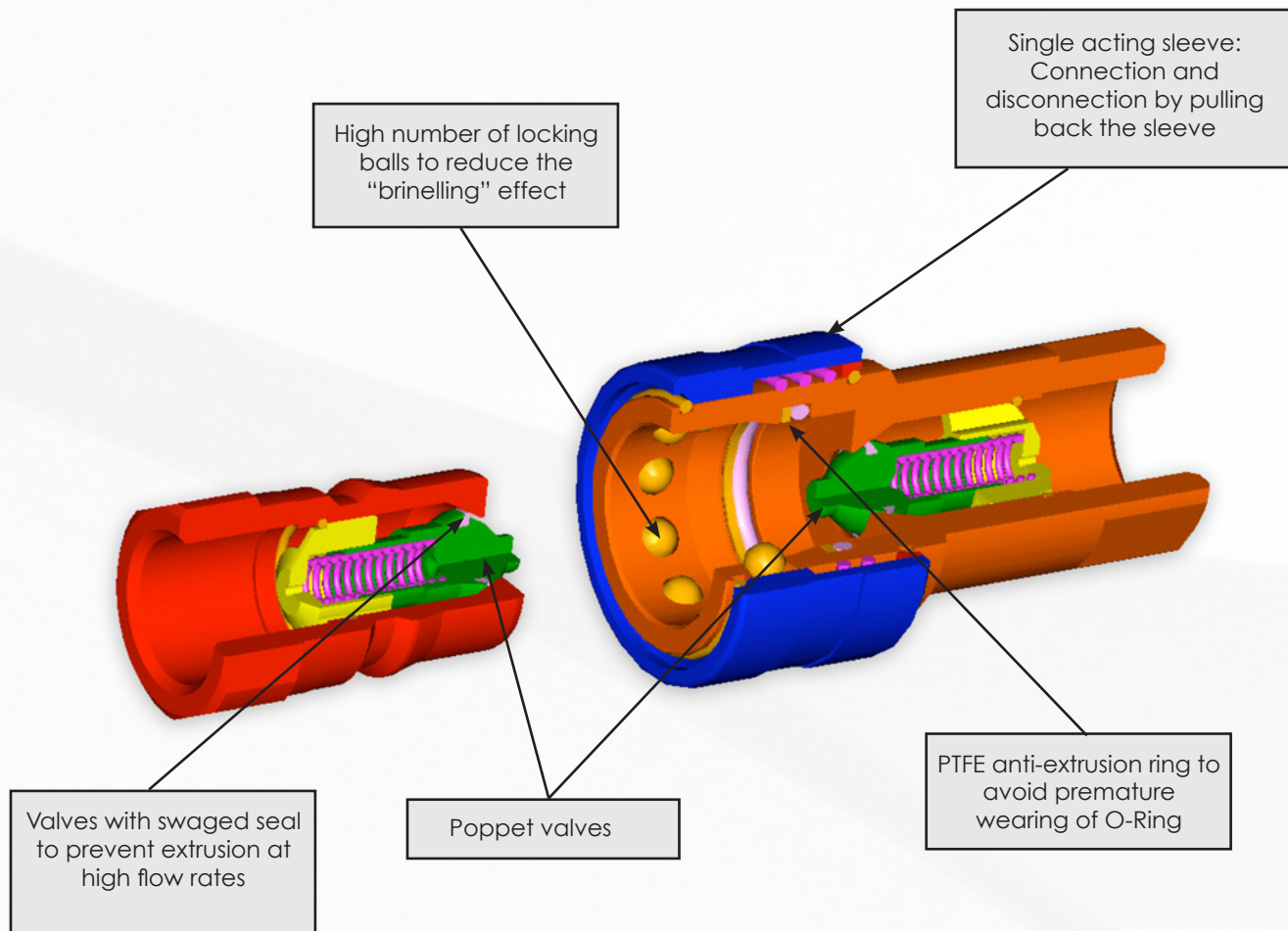


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TECHNICAL FEATURES AND OPTIONS

- Interchangeability: ISO 7241-1 series "B"
- Valve system: Poppet valve
- Mechanical connection: Locking balls
- Connection system: Pulling back the sleeve and pushing one half towards the other
- Disconnection system: Pulling back the sleeve
- Connection with residual pressure: Not allowed
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT
- On request: Free flow version (no valving)
- Construction material: Brass
- Springs: AISI 302
- Balls: AISI 316
- Seals: standard in VITON
- Seals on request: NBR, EPDM
- Anti-extrusion rings: PTFE



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.
- Superior corrosion resistance compared to zinc plating.
- Compact slim design.
- Simple to use.

HOW TO USE

- Before connecting clean the mating parts of the couplings to avoid contamination in the circuit.
- To couple 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 uncouple pull back the sleeve of the female coupling, pull out the mating half.

WARNING!

- Do not couple-uncouple with flow and/or pressure in the circuit.
- Use protection whenever connecting or disconnecting with high temperature (max. allowed 80°C, 176 °F).

PERFORMANCE

Description	Size	ISO Size	Rated flow		Max. flow suggested		Connect force		Disconnect force		Spillage *
	Inch	mm	l/min	GPM	l/min	GPM	N	lbf	N	lbf	ml
IRBO18	1/8	5,0	3	0,80	6	1,59	75	16,88	35	7,88	0,18
IRBO14	1/4	6,3	12	3,18	24	6,36	60	13,50	30	6,75	0,33
IRBO38	3/8	10,0	23	6,10	46	12,19	95	21,38	35	7,88	2,20
IRBO12	1/2	12,5	45	11,93	90	23,85	95	21,38	35	7,88	3,00
IRBO34	3/4	20,0	74	19,61	148	39,22	125	28,13	40	9,00	9,40
IRBO100	1	25,0	100	26,50	200	53,00	140	31,50	40	9,00	14,00

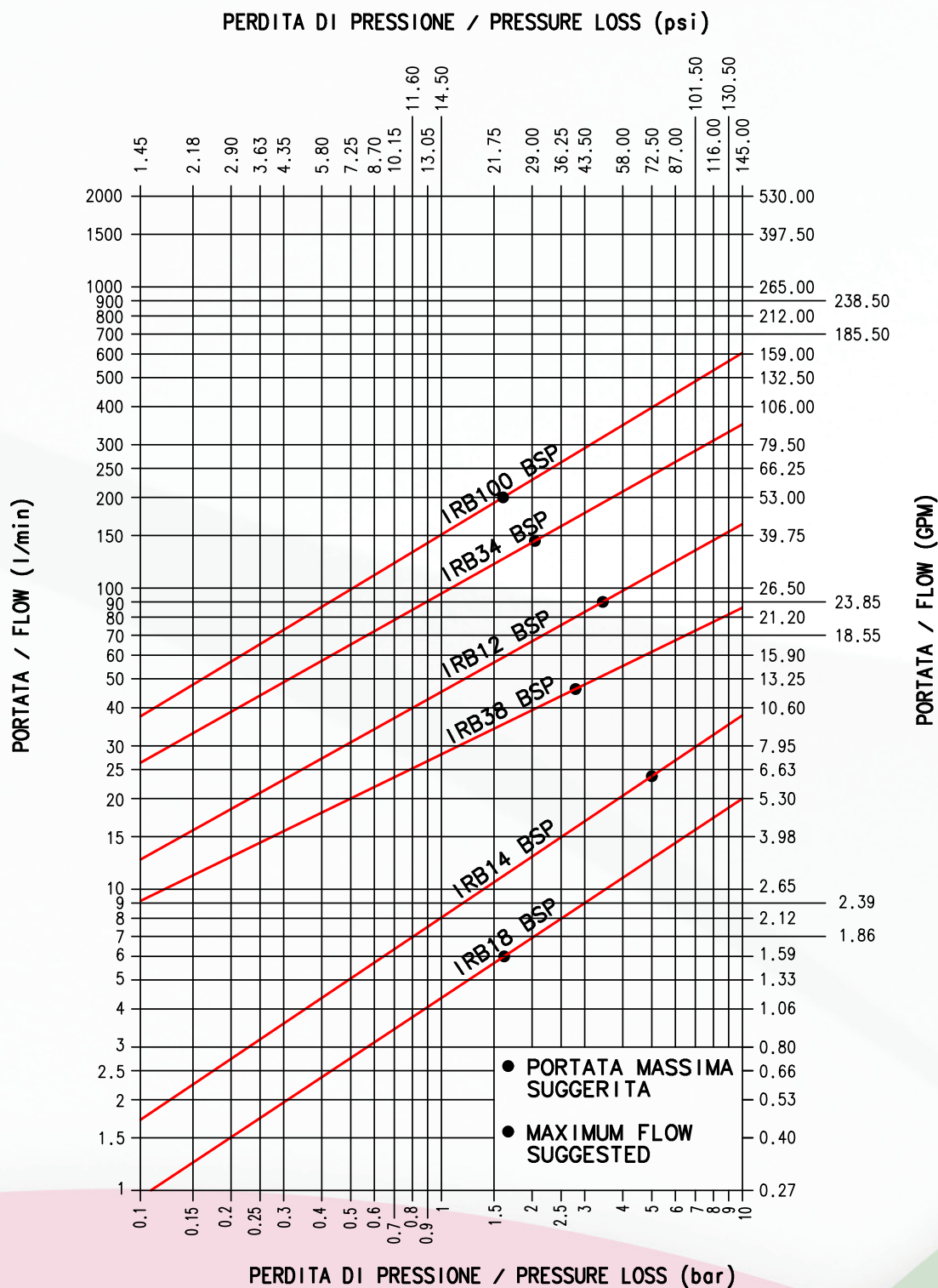
Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
IRBO18	20	2900	20	2900	20	2900	100	14500	100	14500	100	14500
IRBO14	20	2900	20	2900	20	2900	100	14500	100	14500	100	14500
IRBO38	16	2320	16	2320	16	2320	80	11600	70	10150	80	11600
IRBO12	16	2320	16	2320	16	2320	80	11600	70	10150	80	11600
IRBO34	12,5	1813	12,5	1813	12,5	1813	60	8700	45	6525	60	8700
IRBO100	10	1450	10	1450	10	1450	40	5800	40	5800	40	5800

* Spillage is an indicative value of the fluid loss per couple-uncouple cycle.

- Temperature range:
 - Standard seals VITON: from -15°C to +180°C (from +5 °F to +356 °F).
 - NBR (Nitrile) seals: from -20 °C to +100 °C (from -4 °F to +212 °F).
 - EPDM (Ethylene Propylene) seals: from -40°C to +150°C (from -40 °F to +302 °F).

PRESSURE DROP

TESTS ESEGUITI IN CONFORMITA' A ISO 7241-2
TESTS IN ACCORDANCE WITH ISO 7241-2



FLUIDO: OLIO ISO VG32
TEMPERATURA: 40°C
VISCOSITA': 28.8-35.2 mm²/s

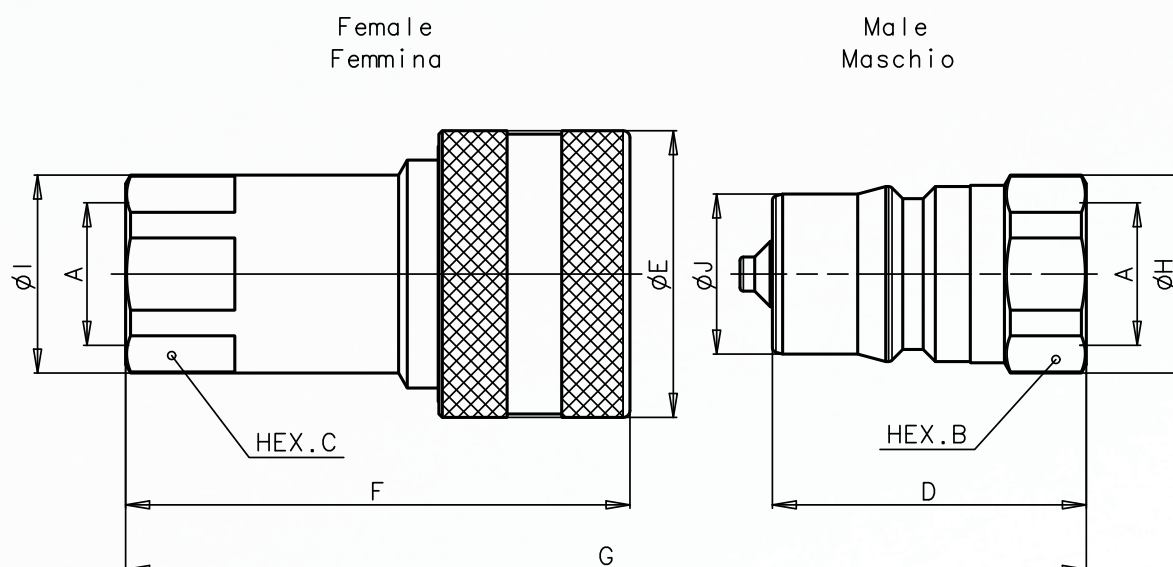
FLUID: OIL ISO VG32
TEMPERATURE: 40°C
VISCOSITY: 28.8-35.2 mm²/s



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OVERALL DIMENSIONS



FEMALE BSPP THREAD (DIN 3852)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
IRBO18 BSP	1/8	mm Inch	14 0,55	14 0,55	30 1,18	23 0,91	48,8 1,92	60,5 2,38	15,8 0,62	15,8 0,62	10,8 0,43	Kg lb	0,018 0,04	0,069 0,15
IRBO14 BSP	1/4	mm Inch	19 0,75	19 0,75	35 1,38	27 1,06	57 2,24	70,7 2,78	20,8 0,82	21,2 0,83	14,2 0,56	Kg lb	0,038 0,08	0,131 0,29
IRBO38 BSP	3/8	mm Inch	24 0,94	24 0,94	41 1,61	34 1,34	66 2,60	82,7 3,26	26 1,02	27 1,06	19,1 0,75	Kg lb	0,072 0,16	0,236 0,52
IRBO12 BSP	1/2	mm Inch	27 1,06	27 1,06	46 1,81	42 1,65	73,9 2,91	92,6 3,65	29 1,14	29 1,14	23,5 0,93	Kg lb	0,110 0,24	0,344 0,76
IRBO34 BSP	3/4	mm Inch	36 1,42	36 1,42	55 2,17	50 1,97	90,1 3,55	111,1 4,37	38,5 1,52	38,5 1,52	31,4 1,24	Kg lb	0,218 0,48	0,605 1,33
IRBO100 BSP	1	mm Inch	41 1,61	41 1,61	66 2,60	60 2,36	106,2 4,18	133,2 5,24	44,8 1,76	44,8 1,76	37,7 1,48	Kg lb	0,353 0,78	0,926 2,04

FEMALE NPT THREAD (ANSI B.1.20.3)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
IRBO18 NPT	1/8	mm Inch	14 0,55	14 0,55	30 1,18	23 0,91	48,8 1,92	60,5 2,38	15,8 0,62	15,8 0,62	10,8 0,43	Kg lb	0,020 0,04	0,075 0,17
IRBO14 NPT	1/4	mm Inch	19 0,75	19 0,75	35 1,38	27 1,06	57 2,24	70,7 2,78	20,8 0,82	21,2 0,83	14,2 0,56	Kg lb	0,040 0,09	0,130 0,29
IRBO38 NPT	3/8	mm Inch	24 0,94	24 0,94	41 1,61	34 1,34	66 2,60	82,7 3,26	26 1,02	27 1,06	19,1 0,75	Kg lb	0,075 0,17	0,230 0,51
IRBO12 NPT	1/2	mm Inch	27 1,06	27 1,06	46 1,81	42 1,65	73,9 2,91	92,6 3,65	29 1,14	29 1,14	23,5 0,93	Kg lb	0,115 0,25	0,345 0,76
IRBO34 NPT	3/4	mm Inch	36 1,42	36 1,42	55 2,17	50 1,97	90,1 3,55	111,1 4,37	38,5 1,52	38,5 1,52	31,4 1,24	Kg lb	0,220 0,49	0,605 1,33
IRBO100 NPT	1	mm Inch	41 1,61	41 1,61	66 2,60	60 2,36	106,2 4,18	133,2 5,24	44,8 1,76	44,8 1,76	37,7 1,48	Kg lb	0,360 0,79	0,940 2,07