



Series: **BIR-PC**

INTERCHANGE: ISO 7241-1 series "A"

MAIN APPLICATIONS

- Agricultural equipment

"BIR-PC" is a poppet valve quick coupling series with a pressure release poppet valve that allows the connection with residual pressure trapped in the circuit. It is used mainly on agricultural equipment with a closed circuit where internal residual pressure is generated due to thermal expansion when couplings are disconnected. It is available in size 1/2 which is the most common interchange. In addition the modular version (I12PC) is offered with metric threads or other types.

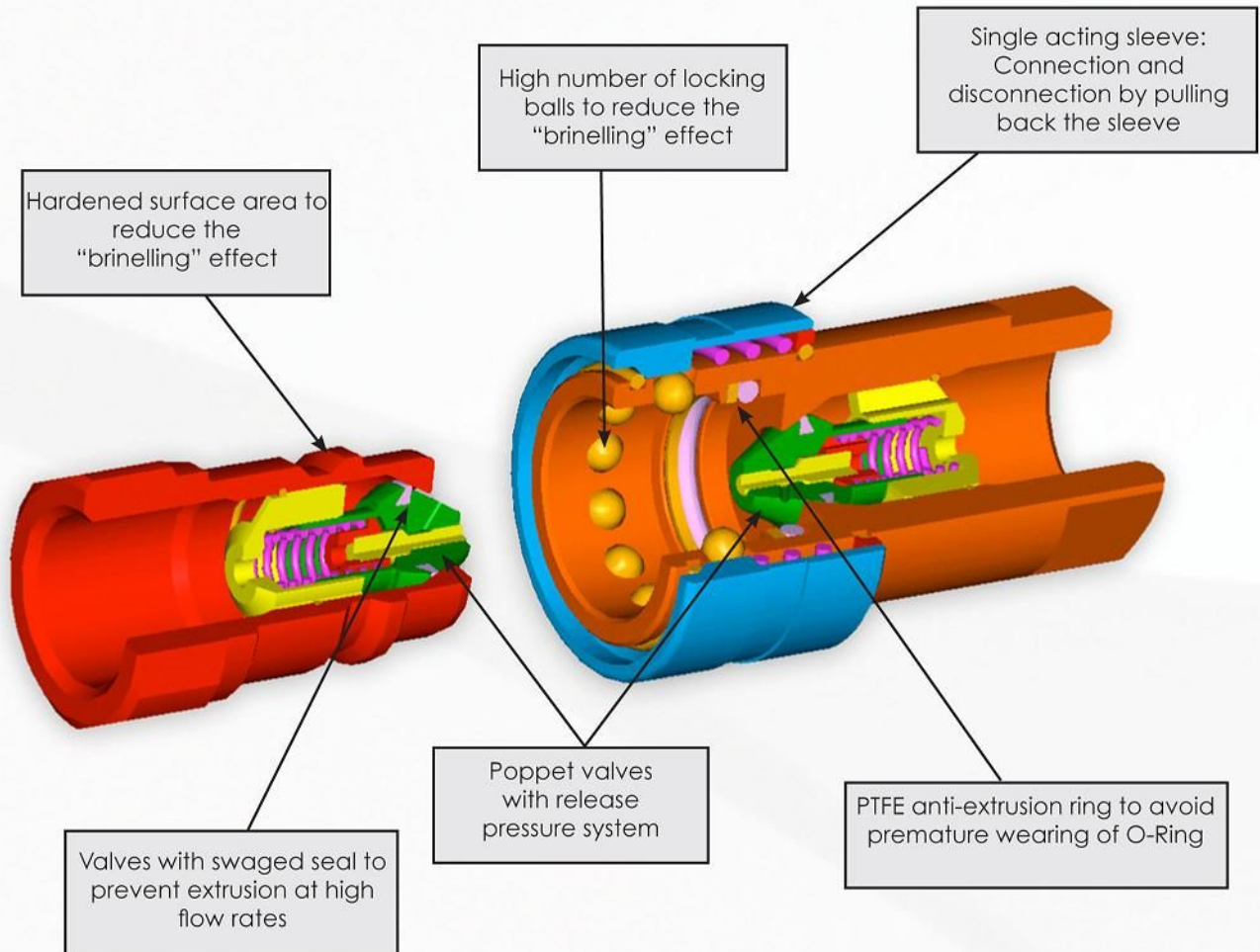


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A CONSTANT FLOW OF SOLUTIONS

TECHNICAL FEATURES AND OPTIONS

- Interchangeability: ISO 7241-1 series "A"
- 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: Allowed in the male coupling, female coupling or both
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT
- On request: I12PC version with metrics DIN threads
- Construction material: Carbon steel
- Surface treatment: CrIII zinc plated
- Springs: C72 steel
- Balls: Hard steel 100 C6
- Seals: standard in NBR (Nitrile)
- Anti-extrusion rings: PTFE



BENEFITS

- The poppet valves with release pressure system allows manual connection with high internal residual pressure.
- Shape of internal parts is designed to reduce turbulence and pressure drop.
- 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 in the circuit. Connection is allowed only with residual pressure trapped in the circuit.
- Use protection whenever connecting or disconnecting with high temperature (max. allowed 80°C, 176 °F).
- When the couplings are disconnected, it is suggested to use the protection caps (BIR12).

PERFORMANCE

Description	Size	ISO Size	Rated flow		Max. flow suggested		Connect force °		Disconnect force		Spillage*
			l/min	GPM	l/min	GPM	N	lbf	N	lbf	
BIR12PC	1/2	12,5	45	11,93	90	23,85	70	15,75	55	12,38	2,10

Description	Max. operating pressure						Burst pressure					
	Coupled		Male		Female		Coupled		Male		Female	
	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi	MPa	psi
BIR12PC	25	3625	25	3625	25	3625	80	11600	80	11600	100	14500

° Connect force without residual pressure. The force increase to increasing of internal residual pressure.
Max. residual pressure: 25 Mpa (3625 psi).

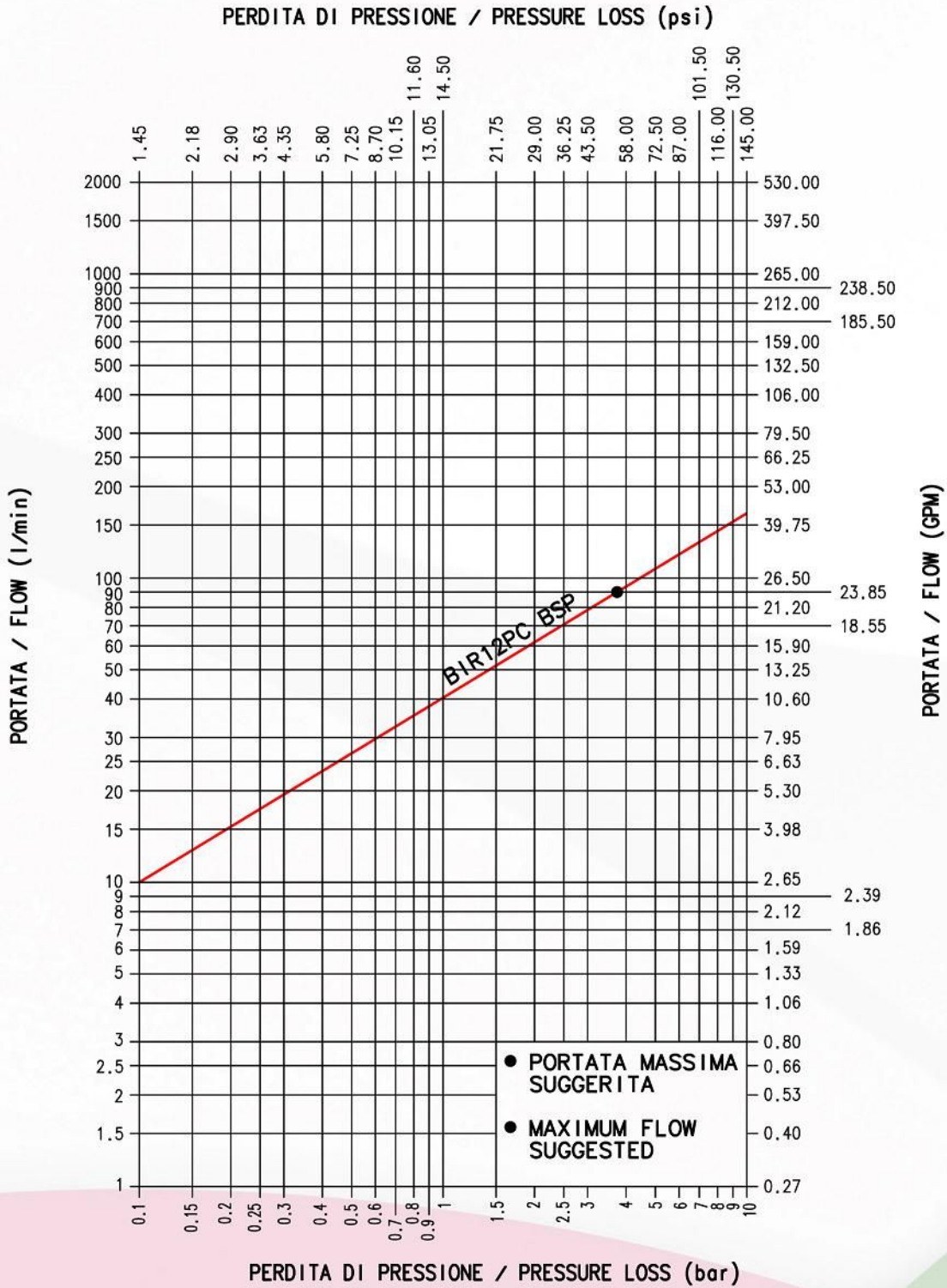
* Spillage is an indicative value of the fluid loss per couple-uncouple cycle without residual pressure.

• Temperature range:

- Standard seals NBR (Nitrile): from -20 °C to +100 °C (from -4 °F to +212 °F).

PRESSURE DROP

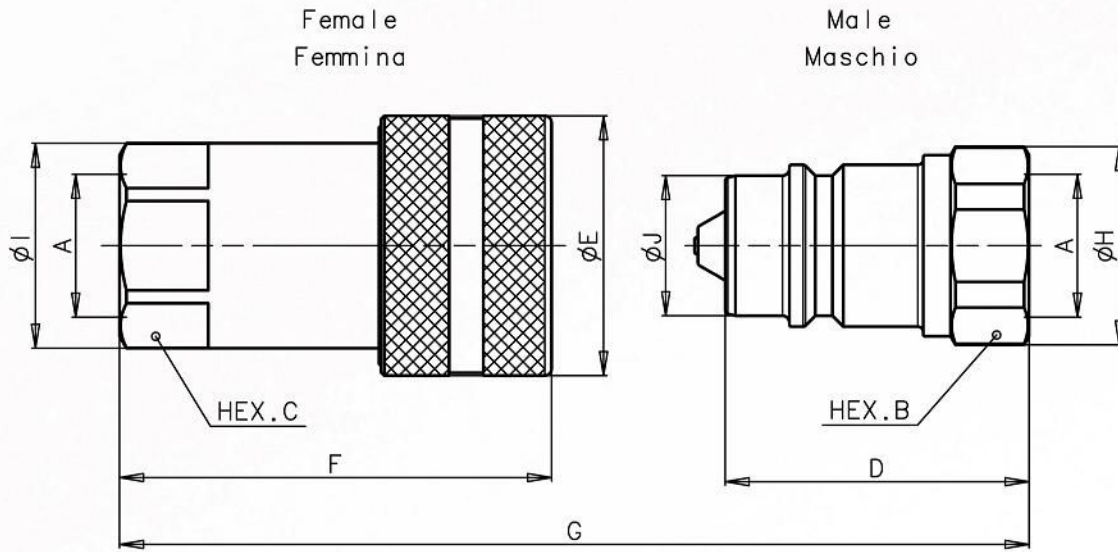
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 TESTS IN ACCORDANCE WITH ISO 7241-2



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

OVERALL DIMENSIONS



FEMALE BSPB THREAD (DIN 3852)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
BIR12PC BSP	1/2	mm Inch	27 1,06	27 1,06	44,5 1,75	38 1,50	63,3 2,49	86,3 3,40	29 1,14	30 1,18	20,5 0,81	Kg lb	0,084 0,19	0,245 0,54

FEMALE NPT THREAD (ANSI B.1.20.3)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
BIR12PC NPT	1/2	mm Inch	27 1,06	27 1,06	44,5 1,75	38 1,50	63,3 2,49	86,3 3,40	29 1,14	30 1,18	20,5 0,81	Kg lb	0,090 0,20	0,250 0,55

The texts, data and illustrations indicated in this catalogue, may be changed by Stucchi S.p.A at any time without notice. (CAT. BIR-PC - EN - March 2008).