



## Series: **IRS-V**

**INTERCHANGE:** ISO 7241-1 series "A"

### MAIN APPLICATIONS

- Agricultural equipment

"IRS-V" is the poppet valve female coupling with panel mounting double action sleeve that allows connection and disconnection operation with a push-pull action that acts as a breakaway function. They are mainly used in agricultural tractor applications where the breakaway function is requested to avoid breakage of the hydraulic connections during unintended disconnection.

It is available in size 1/2 for interchangeability in according ISO 7241-1 series "A". Available are the modular version (I12VA) with metric and other port options and connectable with residual pressure version (IRS12VAPC).

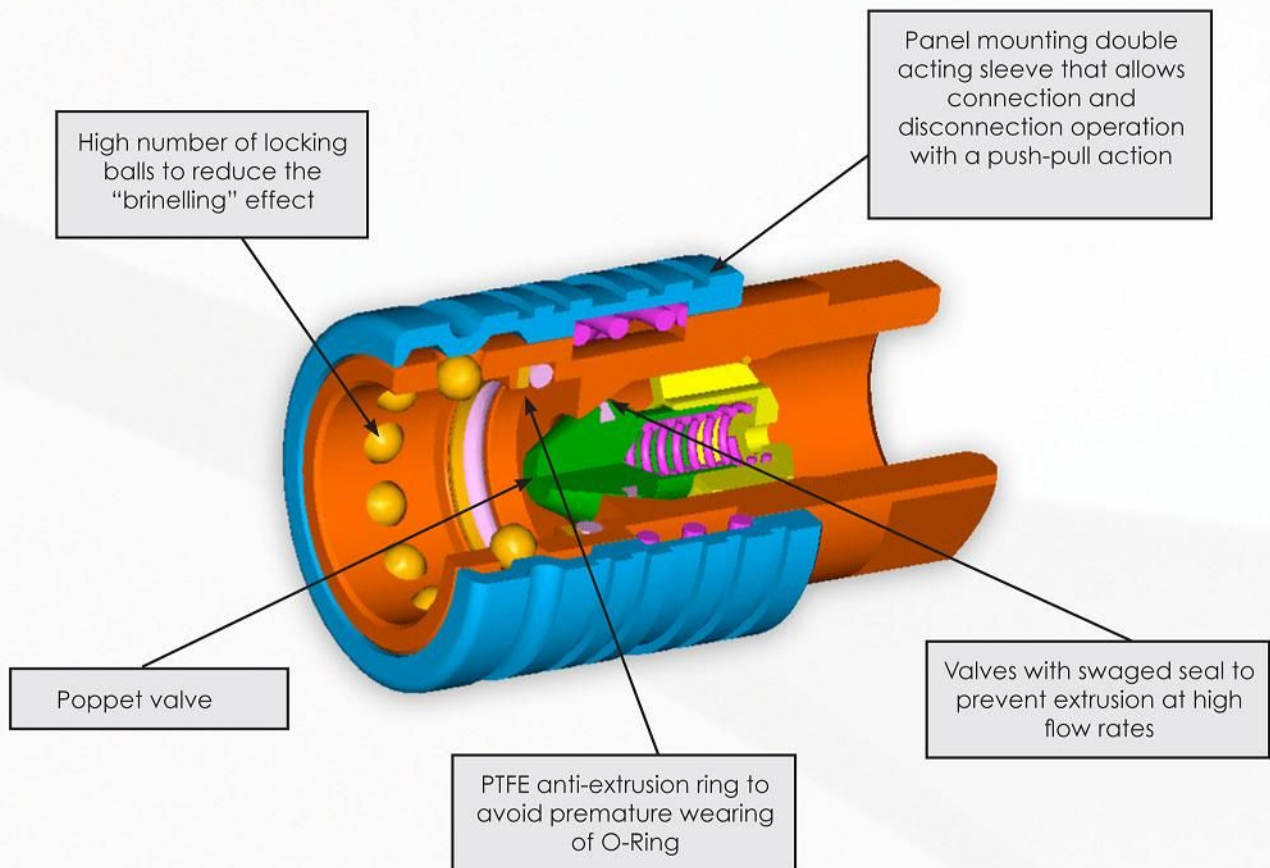


**Stucchi**<sup>®</sup>

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: Pushing the male coupling (push)
- Disconnection system: Pulling the male coupling (pull)
- Connection with residual pressure: Not allowed
- Disconnection with residual pressure: Not allowed
- Threads available: BSP, NPT
- Available: I12VA version with metrics DIN threads or other port options and IRS12VAPC version connectable with residual pressure
- Construction material: Carbon steel
- Surface treatment: CrIII zinc plated
- Springs: C72 steel
- Balls: Hard steel 100 C6
- Seals: standard in NBR (Nitrile)
- Anti-extrusion: PTFE



## BENEFITS

- Breakaway function to avoid breakage of the hydraulic connections in case of strong axial force.
- 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

- For the breakaway function, the coupling must be mounted in a panel locking the sleeve using seeger/snap rings.
- Before connecting clean the mating parts of the couplings to avoid contamination in the circuit.
- To couple push the male coupling into the female coupling.
- To uncouple pull the male coupling.

## 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).
- When the couplings are disconnected, it is suggested to use the protection caps.  
The Nylon clip cap for F-A13 or the Pvc cap for F-B1R12 are suitable.

## 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	
IRS12VA	1/2	2,5	45	11,93	90	23,85	120	27,00	95	21,38	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
IRS12VA	25	3625	-	-	25	3625	80	11600	-	-	1000	14500

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

° Tested with male coupling B1R12.

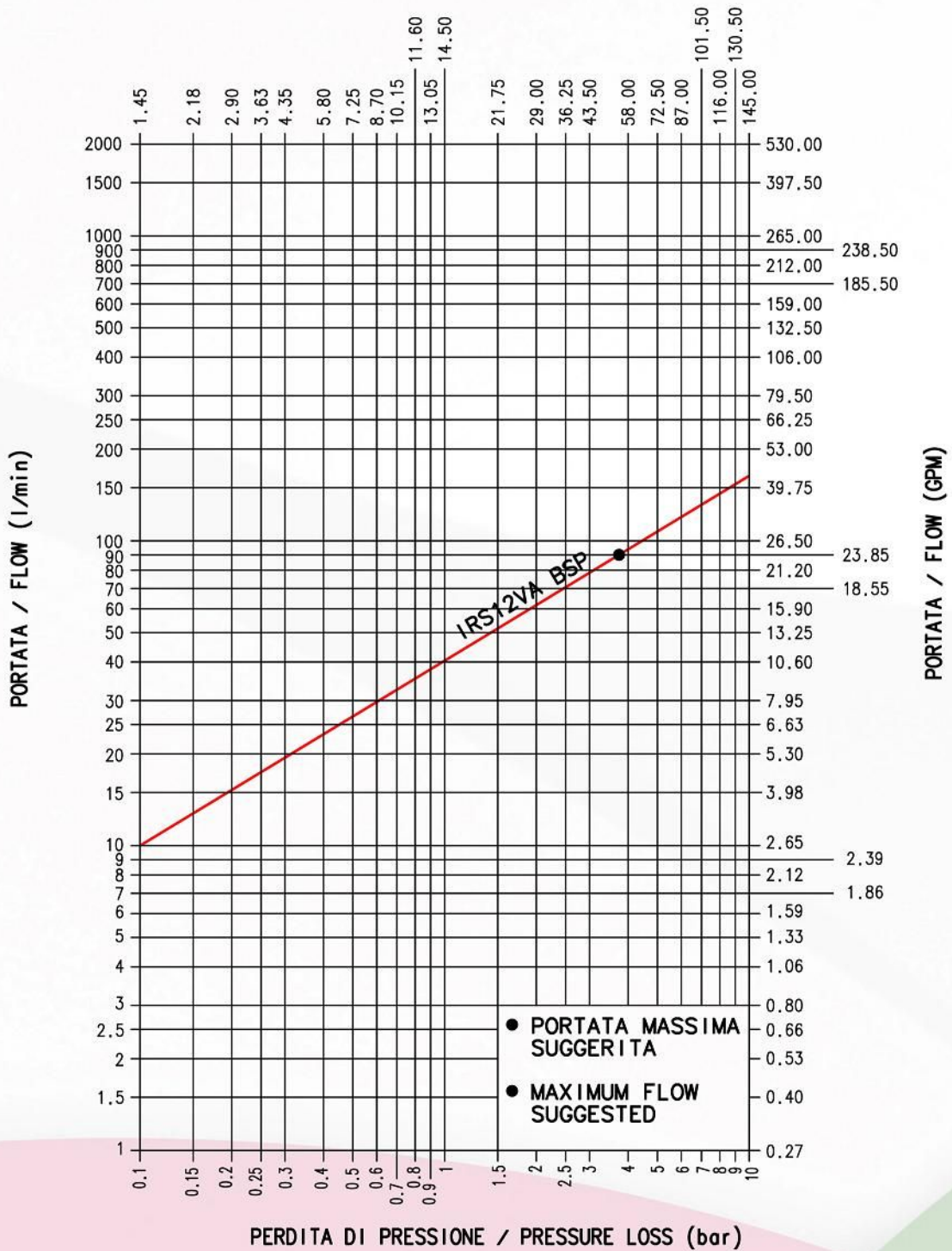
• Temperature range:

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

**PRESSURE DROP**

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

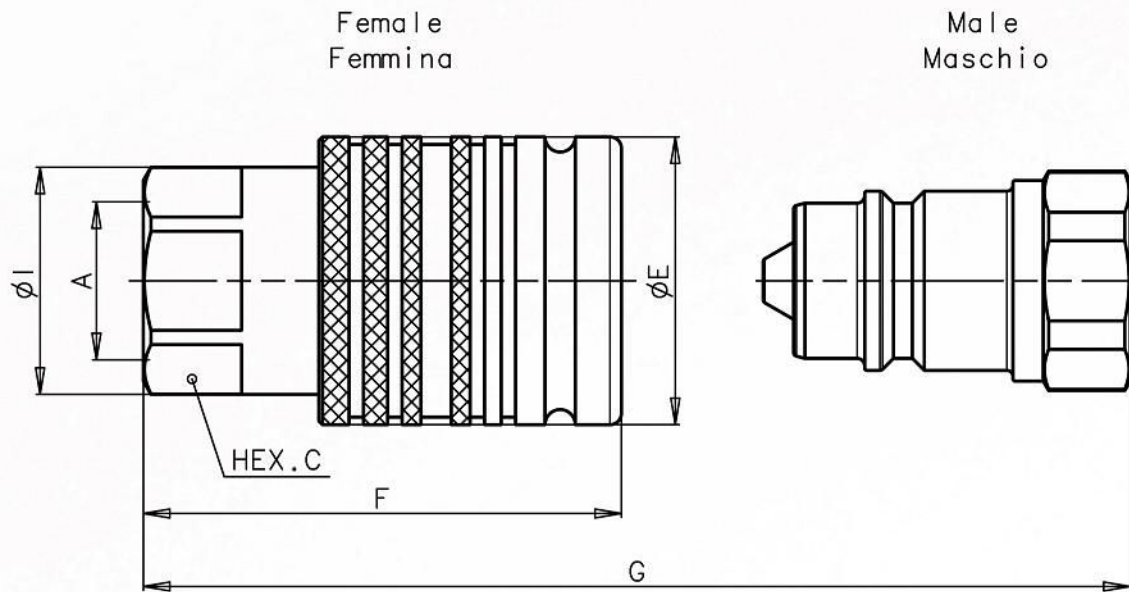
PERDITA DI PRESSIONE / PRESSURE LOSS (psi)



FLUIDO: OLIO ISO VG32  
 TEMPERATURA: 40°C  
 VISCOSITA': 28.8-35.2 mm<sup>2</sup>/s

FLUID: OIL ISO VG32  
 TEMPERATURE: 40°C  
 VISCOSITY: 28.8-35.2 mm<sup>2</sup>/s

## OVERALL DIMENSIONS



### FEMALE BSPB THREAD (DIN 3852)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
IRS12VA BSP	1/2	mm Inch	- -	27 1,06	- -	38 1,50	63,2 2,49	(F+D) -21,5 (F+D) - 0,85	- -	30 1,18	- -	Kg lb	- -	0,275 0,61

### FEMALE NPT THREAD (ANSI B.1.20.3)

Description	A	Unit	B	C	D	E	F	G	H	I	J	Unit	Weight	
													Male	Female
IRS12VA NPT	1/2	mm Inch	- -	27 1,06	- -	38 1,50	63,2 2,49	(F+D) - 21,5 (F+D) - 0,85	- -	30 1,18	- -	Kg lb	- -	0,265 0,58

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