IRA0.M24 Valve Series

METRIC Cartridge - 400 bar

Direct acting with anti-cavitation - Poppet Type

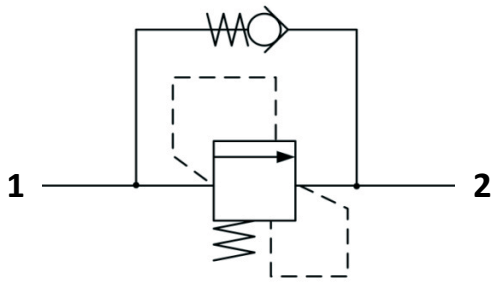
Description

The IRA valve combines in one compact insert cartridge the typical function of shock relief valve and anticavitation through the check valve. In the pressure relief function it's a side-in nose-exhaust valve, with very low pressure rise thanks to the smart deflector design.
When the pressure at the high pressure inlet (1) reaches the valve setting, the valve starts to open to tank (2).
In the free reverse flow function a very light bias spring allows for ease of flow passage from nose to side (2 to 1).
High precision machining guarantees quick response to load changes, limited hysteresis and reduced internal and external leakage.

Technical Features

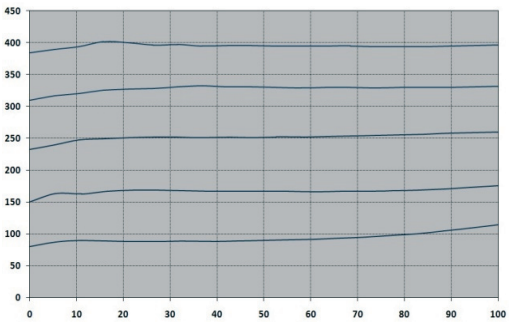
All external surfaces are zinc plated and corrosion-proof.
All valve parts are made of high strength steel. Both internal and external poppets are hardened and ground to guarantee minimal wear and to extend service life.
Pressure setting is pre-adjusted by the factory and cannot be changed
Optional spring ranges to 400 bar (5800 psi)
Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
Metric cavity.
1-piece design

Symbols

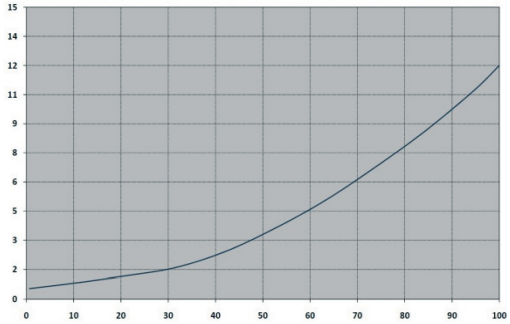


Performance Details

Pressure Relief function (side to nose)



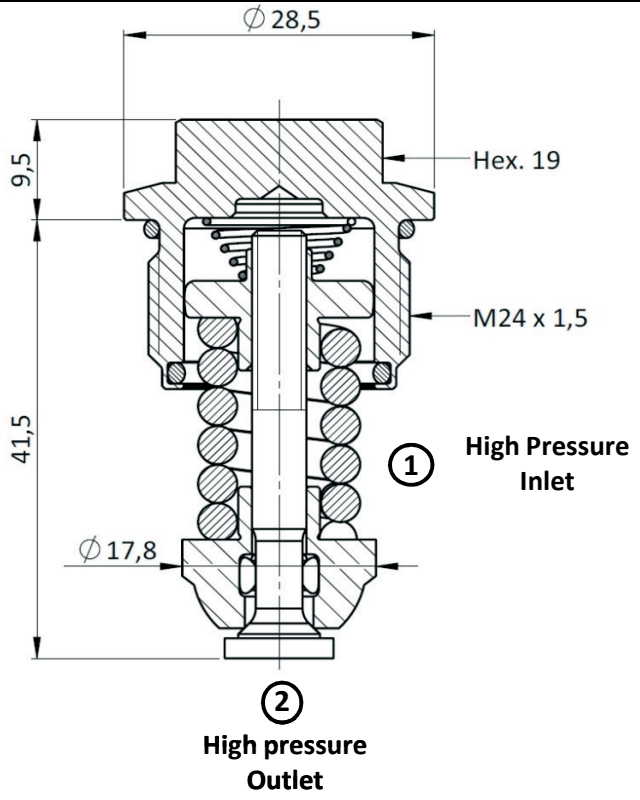
Anti-cavitation function (nose to side)



Technical Data

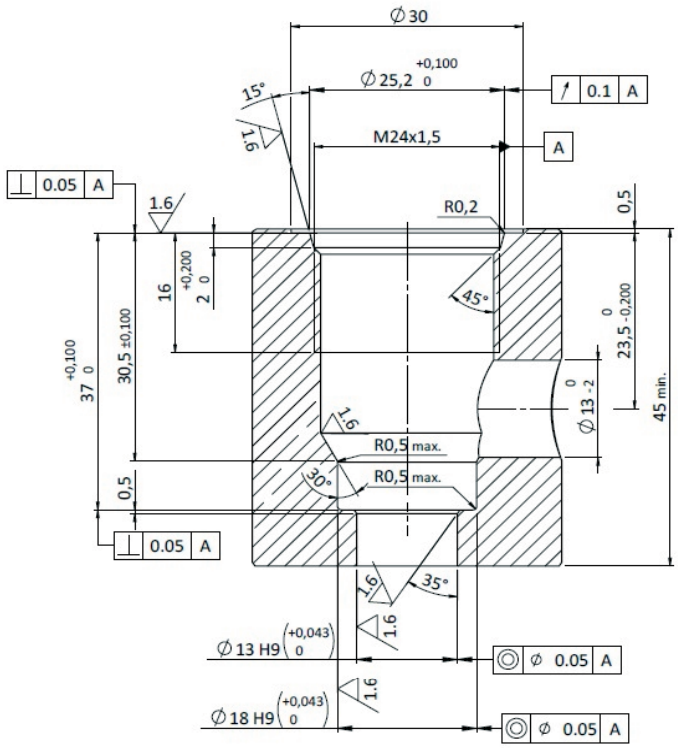
Maximum operating pressure: 400 bar
Maximum flow: 100 l/min
Maximum internal leakage: 1.00 cc/min to 80% of nominal set point
Factory pressure settings established @10 l/min
Reseat pressure: nominal 90% of crack pressure
Anti-cav cracking pressure: <0.5 bar
Temperature: -30°C to 110°C
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt
Orientation: no restrictions
Installation torque: 50-55 Nm
Seal kit code: SK.009 - Weight: 0.100 kg
NOTE: The performance chart illustrates flow handling capacity at maximum setting for each spring range option.
P/Q curves are recorded at T_{Oil} = 40°C and 46 cSt

Cross Section



Cavity Details

VH005



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Ordering Code

I	R	A	0	.	M	2	4	.	0	*	.	*	*	*

Valve Basic Code

Cavity
M24 = Metric M24 x 1.5
UNF cavity available upon request

Marking **0** = Standard factory marking
Customized markings can be done upon request

Spring Range (see table below for available options)

Pressure setting in [bar]
Note: Standard settings are multiple of 5 bars

Spring Ranges

Spring Model Code	Pressure Setting Range [bar]	Spring Model Code	Pressure Setting Range [bar]
N	20-90	**V**	246-320
B	91-170	**W**	321-400
G	171-245		

Options

Coining Kit: In order to minimize external leakage we recommend to coin the cavity using the tool shown above, Code: **CK.004**
Create a chamfer of 0.10 - 0.15 mm

Specifications may change without notice.