DIRECTION CONTROL VALVE / 700 BAR (10,000PSI)

The hydraulic directional control valves are used for directing fluid flow as per application requirement and are rated for system pressures up to 700bar (10,000PSI). These valves may be actuated using electrically operated solenoid valves or manual lever (rotary type) and find usage in a variety of applications including test benches, torquing, jacks, bolting and tensioning equipment where ultra high pressures are required.

Bemco Fluidtechnik (FLUIDIK) offers a complete range of high pressure valves as detailed below,

Model Code	Type	Flow Config.	Actuation	Max Pressure	Max Flow
FM3SEW...	3-way/ 2-position (3/2)	U, C	Solenoid	700 bar	20 LPM
FM4SEW...	4-way/ 2-position (4/2)	D, Y	Solenoid	700 bar	20 LPM
F4RDC...	4-way/ 3-position (3/2)	E, H, J, F, G, P, U, M, L	Manual	700 bar	10 LPM
NHF06...	2-way/ 2-position (2/2)	NC	Solenoid	700 bar	8 LPM

KEY FEATURES & BENEFITS

FLUIDIK 700bar direction control valve series is available as 2/2 type in normally closed (NC) form for unloading/ decompression functions, as 3/2 configuration in NO or NC type and 4/2 in either D or Y circuits with solenoid actuation. The solenoid coils are available in 24V DC or 220V AC voltages.

The manual valve series (rotary type) are available as 4/3 detent type with variety of flow configurations.

COMMON APPLICATIONS

- Hydraulic Torque Wrenches
- Hydraulic Jacks
- Bolt Tensioning
- Hydraulic Riveting
- Hydraulic Crimping Tools/ Cable Crimping
- Bearing and Gear Pullers
- Punching Tools
- Rescue Cutters and Equipment
- Nut Splitters
- Swaging Tools
- Specialised Work-holding & Clamping

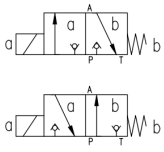
Refer the following pages for detailed product information and contact us to discuss hydraulic requirements.

SOLENOID POPPET VALVE - FM3…

3/2 Type | 700bar | CETOP3

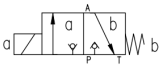
Specification/ Technical Data

Max. Operating Pressure	700 bar
Maximum Flow	20 lpm
Max. Internal Leakage	0.3ml/min
Max Pr. On T port	80 bar
Actuation	Solenoid
Min. Voltage (of nominal)	85%
Material	Cast Body
Media	Mineral Oil
Oil Temperature Range	+10 to 80°C
Oil Viscosity	ISO VG 46-100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any
Weight (approx.)	2.5Kg

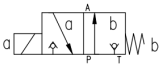




FM3… directional control valves are 3/2 direct operated poppet type valves rated for operating pressures up to 700bar. The valves use wet-pin type 24VDC or 220VAC solenoid coils and meet CETOP3 mounting requirements as per ISO4401. The valves are designed for vertical stacking and come with in-built manual override feature.



C

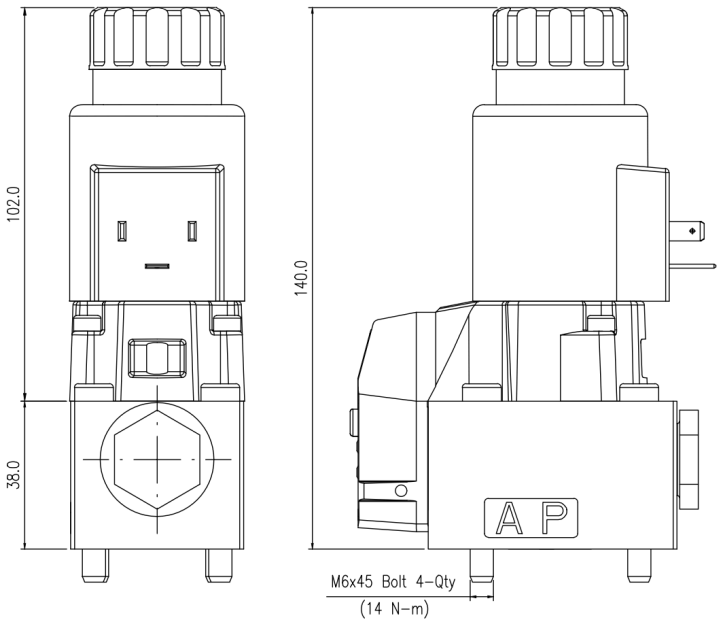


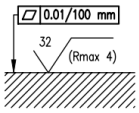
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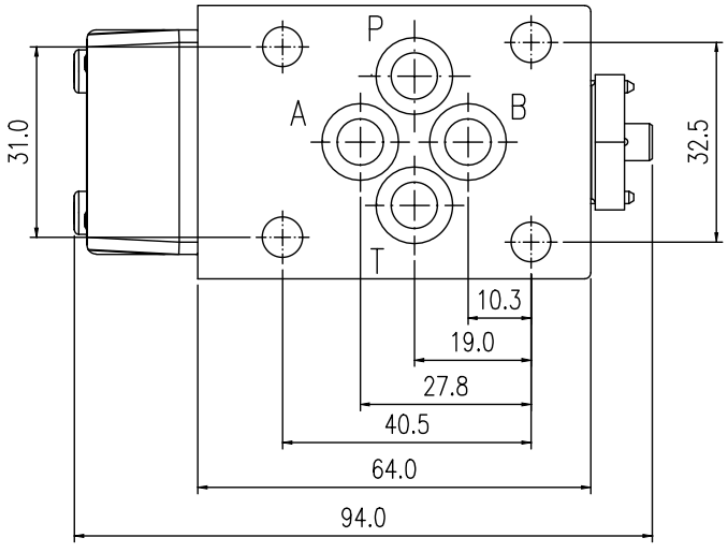
Note: Consult factory for pneumatically actuated valves

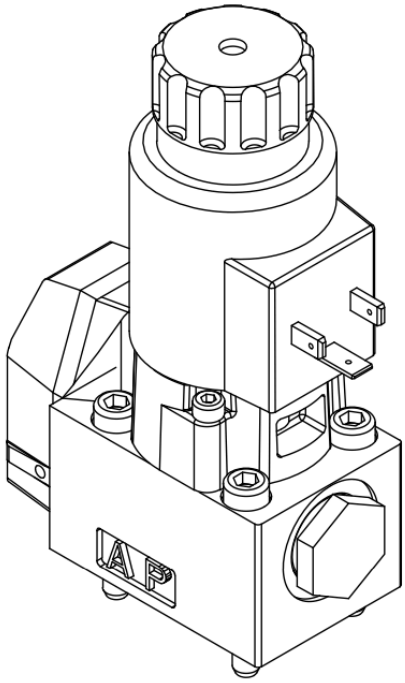
Ordering Information

Basic Code		FM3SEW
Type	C/U	C/U
Actuation	Solenoid	No code
Sol. Voltage	G24/ A220	G24/A220
Seal Material	Viton	No code
Version		1x









Note: Add suitable orifice or throttle in A line for hydraulic jack applications

Spare List

SealKit	SSVFM3-41x

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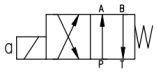
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SOLENOID POPPET VALVE - FM4...

4/2 Type | 700bar | CETOP3

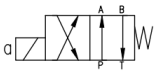
Specification/ Technical Data

Max. Operating Pressure	700 bar
Maximum Flow	20 lpm
Max. Internal Leakage	0.3ml/min
Max Pr. On T port	80 bar
Actuation	Solenoid
Min. Voltage (of nominal)	85%
Material	Cast Body
Media	Mineral Oil
Oil Temperature Range	+10 to 80°C
Oil Viscosity	ISO VG 46-100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any
Weight	3.0Kg





FM4... directional control valves are 4/2 direct operated poppet type valves rated for operating pressures up to 700bar. The valves use wet-pin type 24VDC or 220VAC solenoid coils and meet CETOP3 mounting requirements as per ISO4401. The valves are designed for vertical stacking and come with in-built manual override feature.

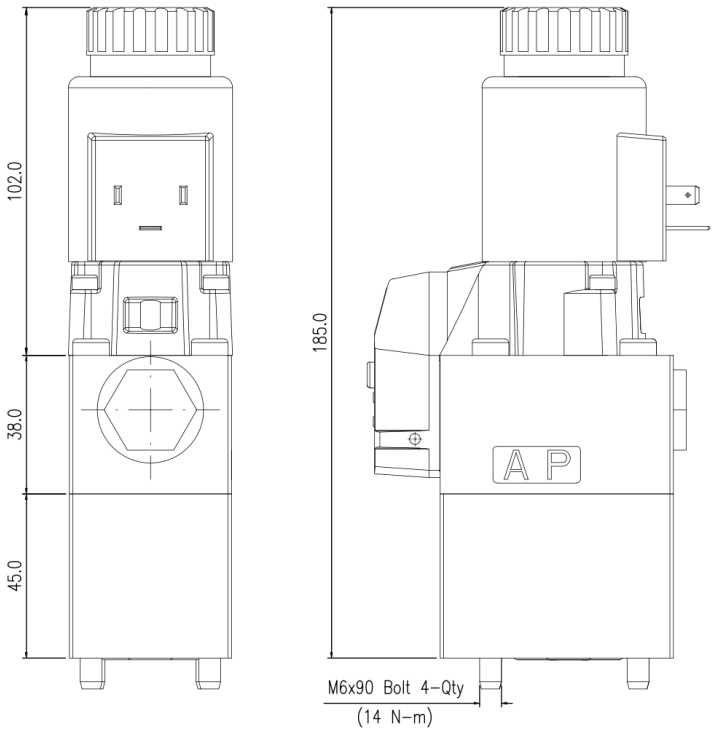


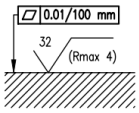
D

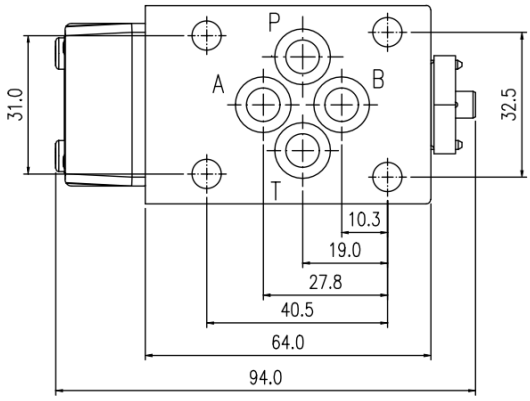
Note: Consult factory for pneumatically actuated valves

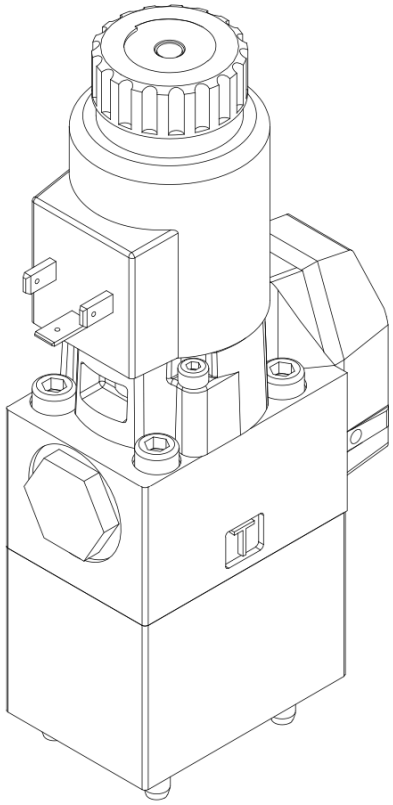
Ordering Information

Basic Code		FM4SEW
Type	Flow Pattern D	D
Pump Flow	1 <5lpm, 5 if >5lpm	5
Actuation	Solenoid	No code
Sol. Voltage	G24/ A220	G24/A220
Seal Material	Viton	No code
Version		1x









Note: Add suitable orifice or throttle in A line for hydraulic jack applications

Spare List

SealKit	SSVFM3-41x

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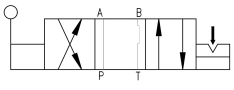
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ROTARY DIRECTION CONTROL VALVE (F4RDC)

4/3 Type | Rotary Valve | 700 bar

Specification/ Technical Data

Max. Working Pressure	700 bar
Max Oil Flow	10 LPM
Mounting	Sub-Plate
Design	Rotary Disc Type
Body Material	Steel/ Aluminium
Operation	Detent Hand Lever
Interface	Factory Standard
Media	Mineral Oil
Oil Temperature Range	+10 to 60°C
Oil Viscosity	ISO VG 46-100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any
Weight (approx.)	1.5 Kg (1.0Kg)





F4RDC valves are 4-way, 3-position manual valves that use a rotational movement to open, close and divert pressurised oil flow rather than the conventional sliding type design with spool. Unlike conventional valves, these "rotary" valves are compact, reduce internal leakages and are suitable for high pressure applications like hydraulic jacks, strand pullers and tensioning equipment.

A variety of flow paths are available as indicated in the following pages of the document and come with detent actuation as standard. The valves are available with both carbon steel or light weight high strength aluminium body.

The mounting is a sub-plate design with factory standard interface with specially designed hand lever for easy actuation. The valve is to be operated before pressurising or after depressurising the system to ensure longer life of the valve and prevent damage to internal components.

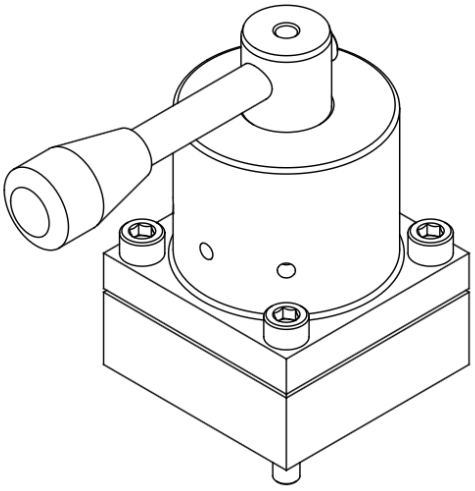
Consult factory for any customisation for higher flows, spool types or MOC requirements.

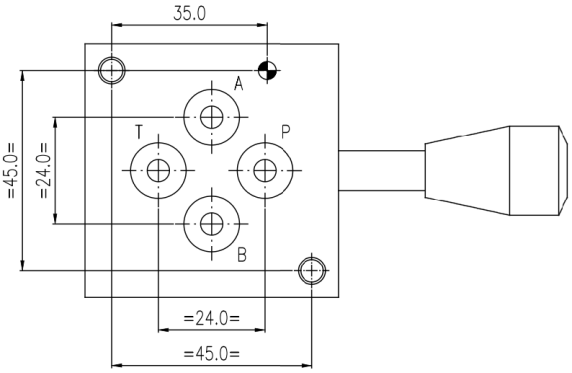
Refer Page 2 for spool options

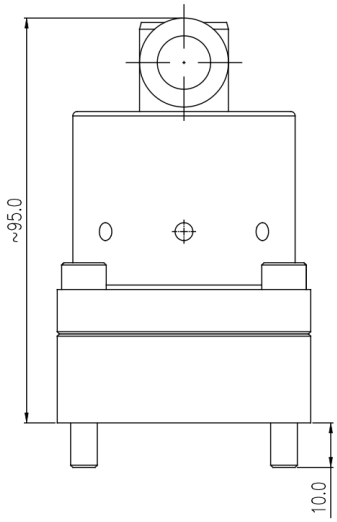
Ordering Information

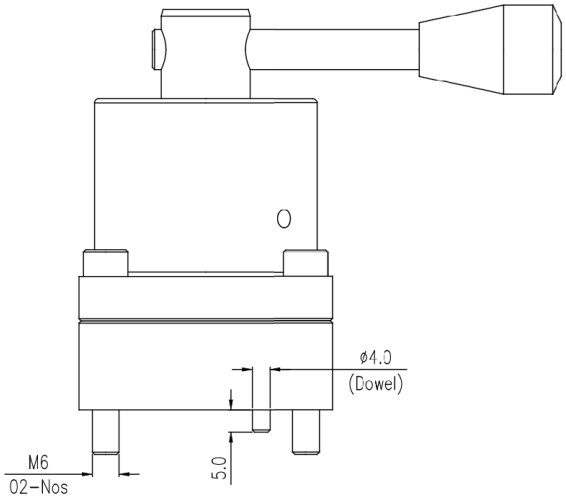
Basic Code	Rotary DCV	F4RDC
Spool Type	E, H, J, F, G, P, U, M, L	G
Version	1x	1x
Body MOC	Steel / Aluminium	AL

Dimensions

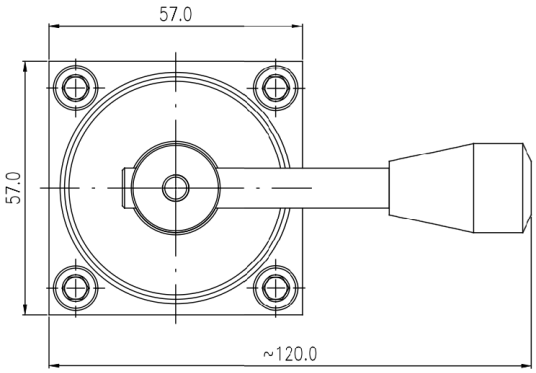






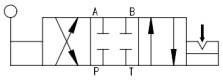


Rectangular Ring ø6xø10x2thk x 4nos
All dimensions in mm

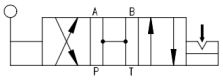


Spool Options

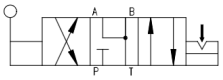
E-Spool



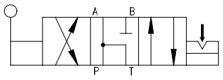
H-Spool



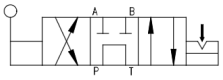
J-Spool



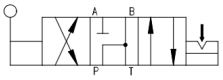
F-Spool



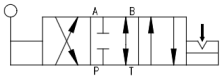
G-Spool



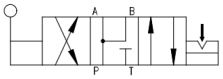
P-Spool



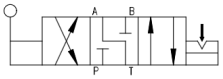
U-Spool



M-Spool



L-Spool



Spare List

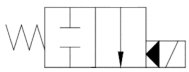
SealKit	SSVF4RDC1x

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2/2 SOLENOID VALVE - 700BAR (NHF 06)

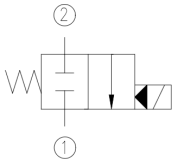
2/2 Type | Normally Closed | Screw-in Cartridge



Specification/ Technical Data

Max. Operating Pressure	700 bar
Maximum Flow	8 lpm
Max. Internal Leakage	0.3ml/min
Flow Direction	2 to 1
Actuation	Solenoid
Min. Voltage (of nominal)	85%
Material	Carbon Steel
Media	Mineral Oil
Oil Temperature Range	+10 to 80°C
Oil Viscosity	ISO VG 46-100
Oil Cleanliness (ISO 4406)	20/18 /15
Orientation	Any
Weight (approx.)	1.8 Kg





228 (NC)

Ordering Information

Basic Code		NHF
Size/ NG	NG6	06
Type	NC - 228	228
Sol. Voltage	G12, 24/ A220	G12..A220
Seal Material	Viton	No code
Version		1x

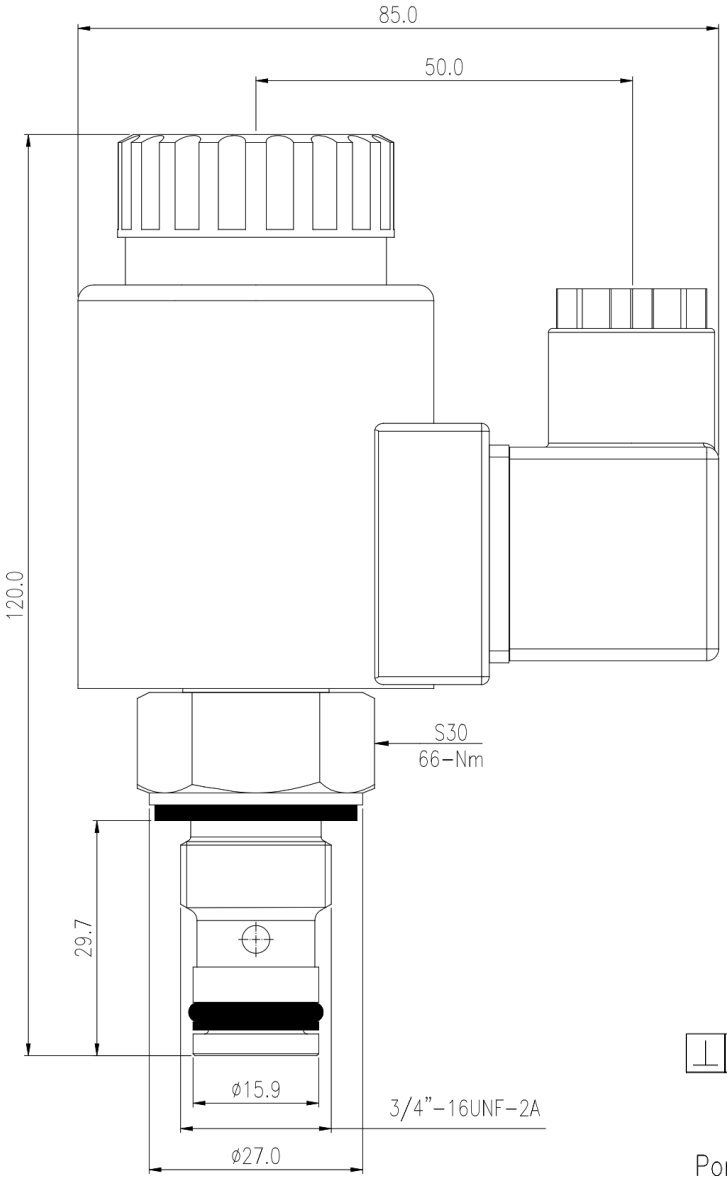
NHF 06 valves are high pressure solenoid-operated direct-acting spool type 2-way and 2-position directional control valves that may be actuated by either DC or AC voltages to open the oil path. Once the coils are energised, the spool opens and allows oil flow. The valve is designed for low pressure drop due to its design and is available in either 12/24VDC or 220VAC versions.

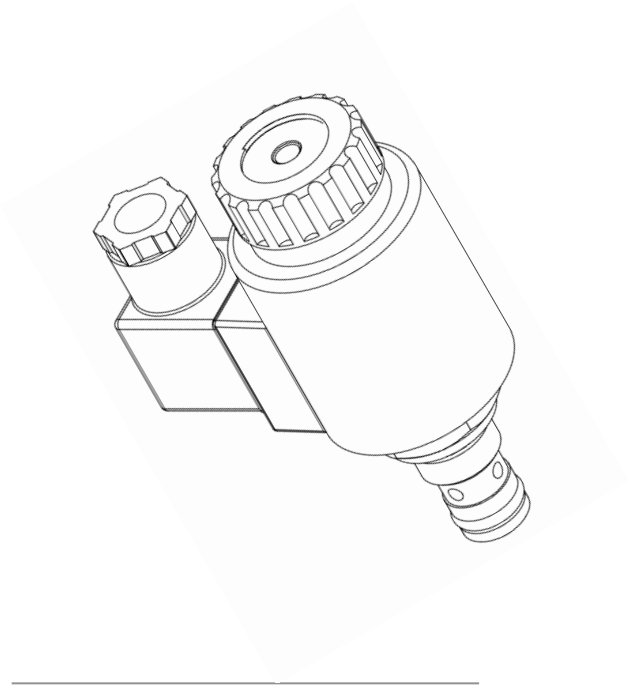
The valves are ideal for unloading function where the valve may experience high pressures, but are not designed for pressure holding due to internal design limitations. A manual override feature is available as standard. The valves may only be used in flow direction 2 to 1 and are designed for intermittent 700bar applications. For continuous operation, the maximum pressures are limited upto 550bar.

The valve may also be used for decompression or decay of pressures to avoid stress, noise and damage to hydraulic components caused by sudden release of stored hydraulic energy in cylinders (actuators) and/ or hydraulic circuits.

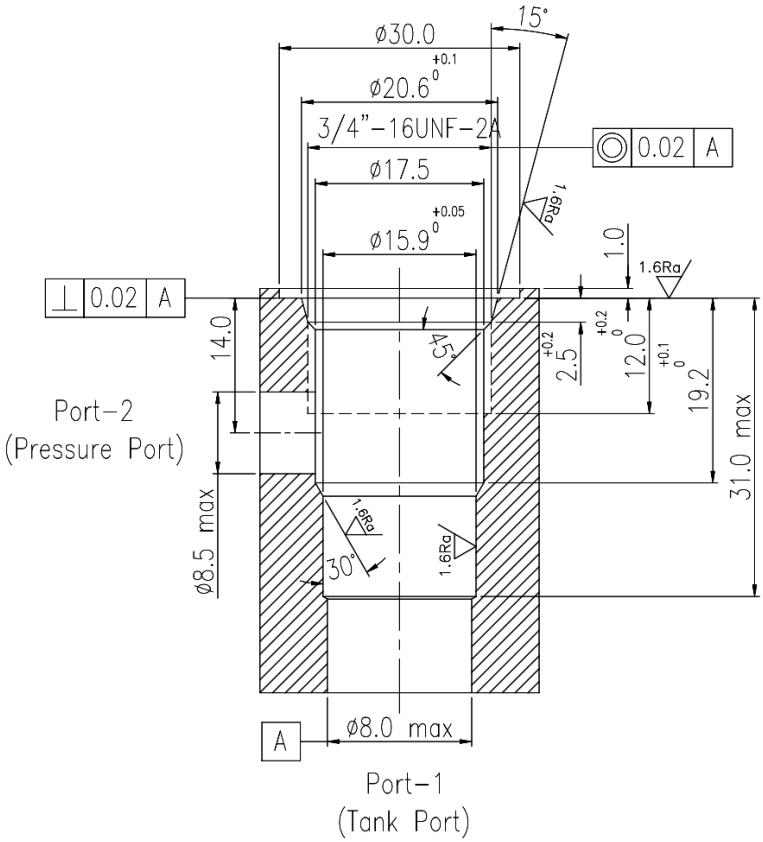
Consult factory or use FLUDIK FM3… type of 3/2 poppet type valves or FM4… 4/2 poppet type valves for continuous high pressures upto 700bar or for pressure holding functions.

Dimension Details





Cavity Details



Spare List

SealKit	SSVNHF061x

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