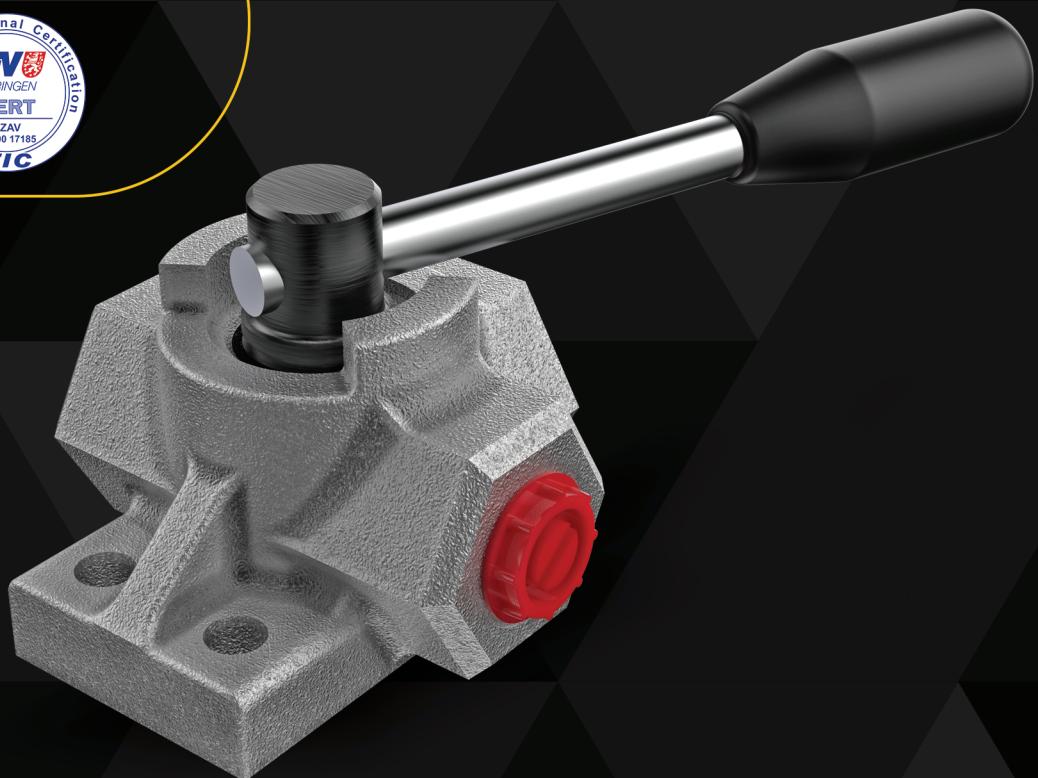


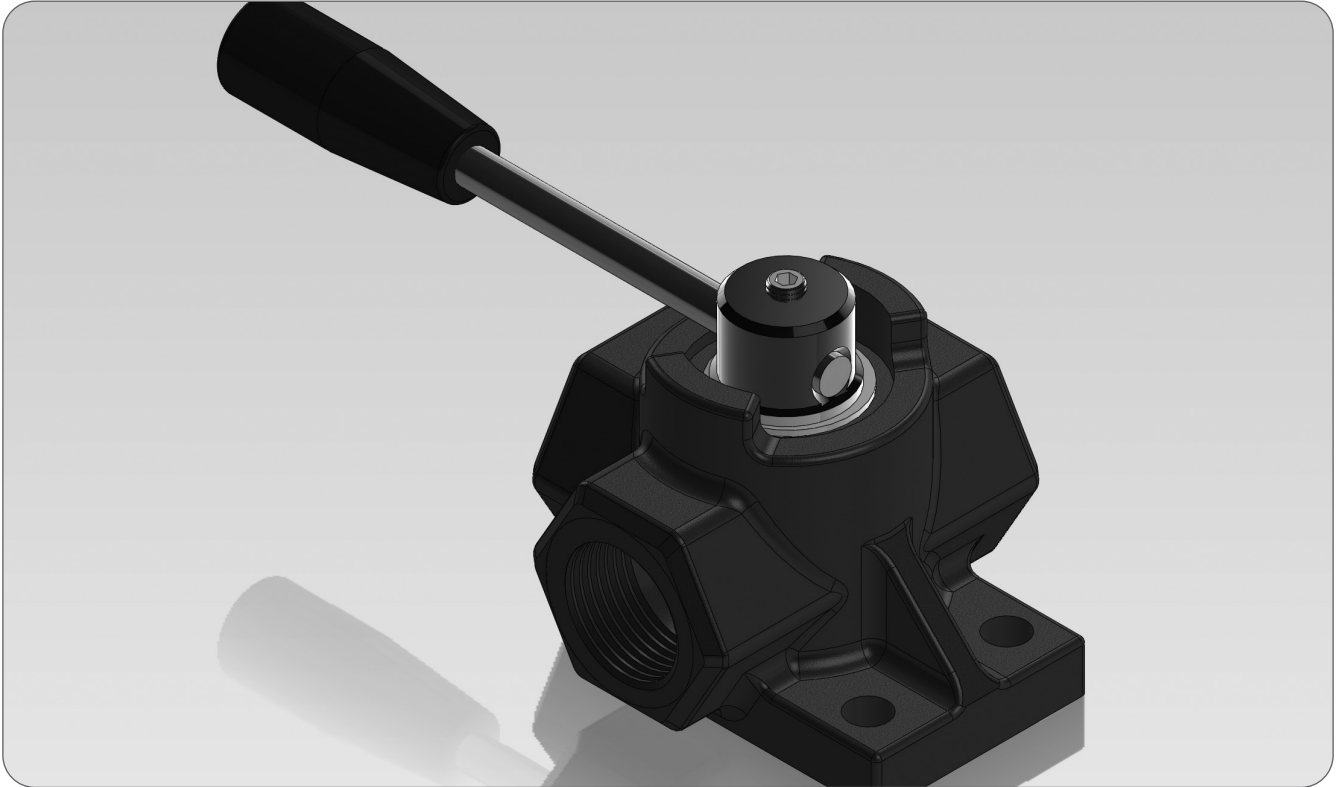


THREE
WAY VALVES

ORV-3YV

CE





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Additional Informations

Note: This catalog shows the product in the most standard configurations. For Other Configurations, more detailed information or special request, Please contact Customer Service Dept.

Warning! :All specifications of this catalog refer to the standard product at this date (03/2013) . ORVAL, oriented to a continuous improvement, reserves the right to discontinue, modify or revise the specifications, without notice.

ORVAL IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN INCORRECT USE OF THE PRODUCT.

WORKING CONDITIONS

MODEL	3YV60	3YV90	3YV140	3YV200
Nominal Flow Rating / Displacement	60 l/min 21 U.S.G.P.M	90 l/min 21 U.S.G.P.M	140 l/min 21 U.S.G.P.M	200 l/min 21 U.S.G.P.M
Maximum Operating Pressure	315 Bar 4600 PSI	315 Bar 4600 PSI	315 Bar 4600 PSI	250 Bar 3600 PSI
Number of Available Ways	3	3	3	3
Oil Temperature with NBR Seals	-20 to 80 C° (-4 to 176 F °)			
with FPM (Viton) Seals	-20 to 100 C° (-4 to 212 F °)			
Oil Viscosity – Operating Range Minimum / Maximum	From 10 to 75 mm ² /s - 10 / 400 mm ² /s From 10 to 75 cSt - 10 / 400 cSt			
Oil Filtration	≤30 μ			
Ambiant Temperature Range	-35 to 60 C° - (-31 to 140 F °)			
Internal Leakage (at 100 bar (1450 PSI), 40C° (110 F°), 46 cSt – A(B)–T)	3 cm ³ /min 0,18 in ³ /min			
Max. Level Of Contamination	19/16 - ISO 4406			

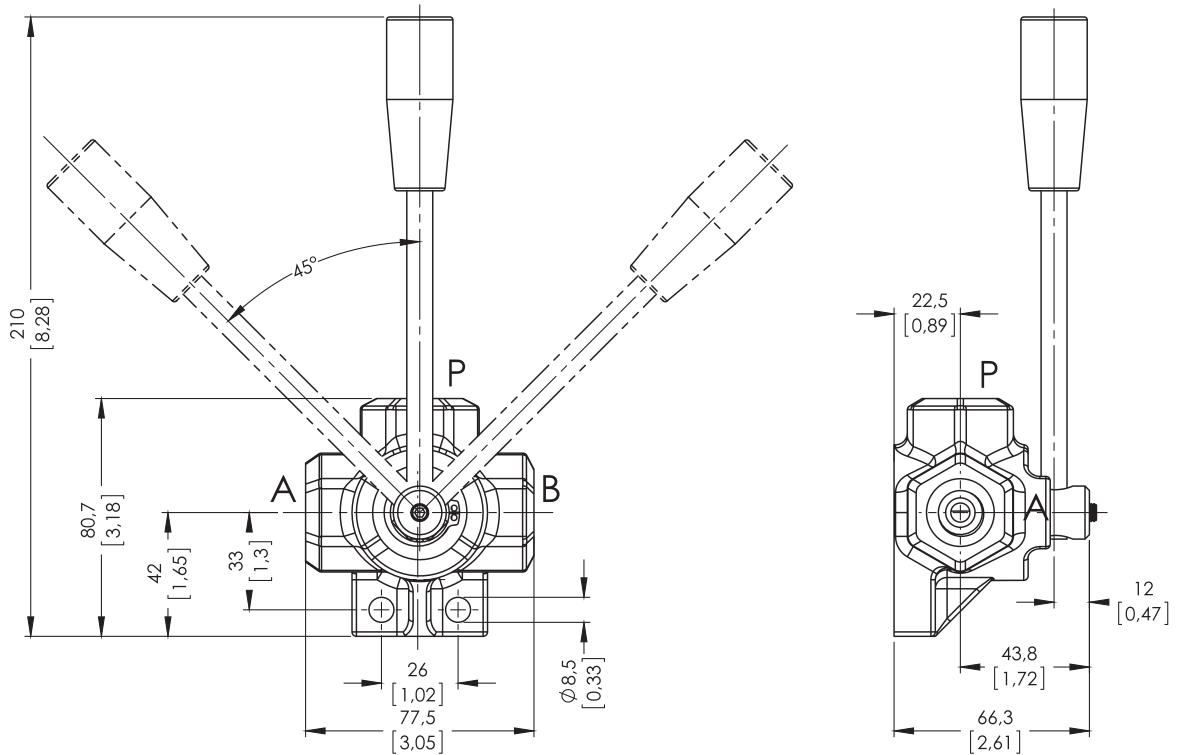
Not: This catalogue shows technical specifications measured with mineral oil of 46 mm²/s-46 cSt viscosity at 40 C° temperature. V Rotary spool diverter valve position cannot be changed when valve is pressurized.

PORTS THREADS AND STANDARD THREADS

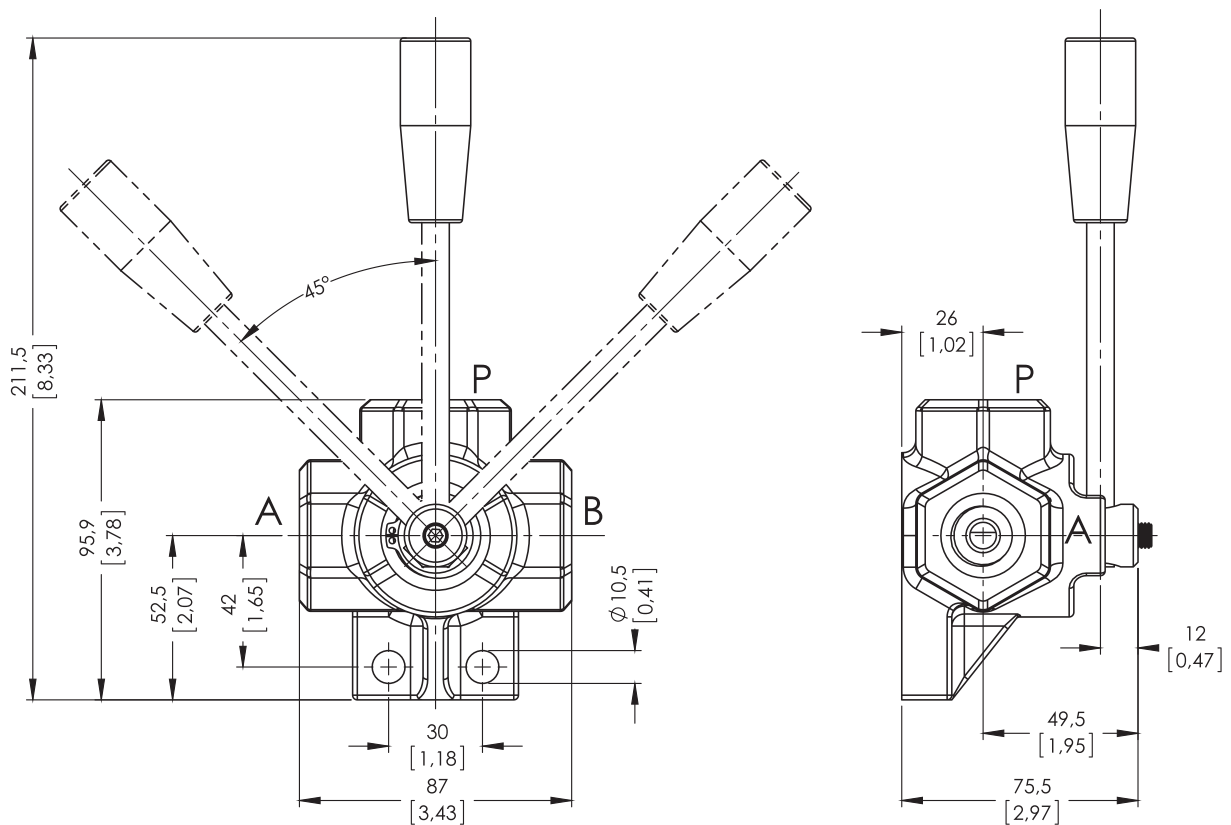
MODEL	BSP (Iso 228)	UN-UNF (Iso 11926-1)	Metric (Iso 262)
3YV 60	G 3/8	3/4 - 16 UNF	M18x1.5
3YV 90	G 1/2	7/8 - 14 UNF	M22x1,5
3YV 140	G 3/4	1 1/16 - 12 UNF	M27x2
3YV 200	G 1	1 5/16 - 12 UNF	-

DIMENSIONAL DATA

3 – Way V 60/3 valve

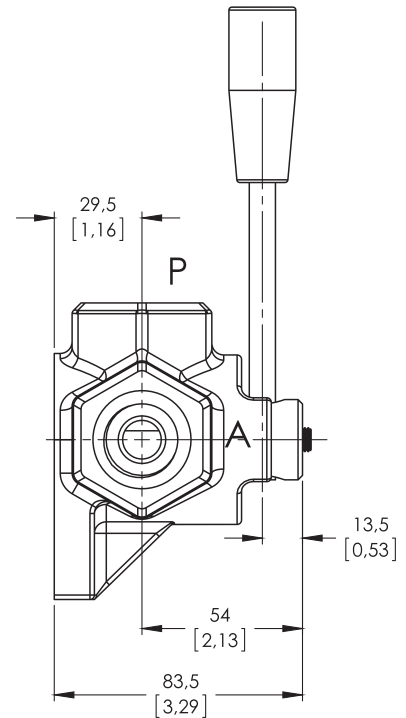
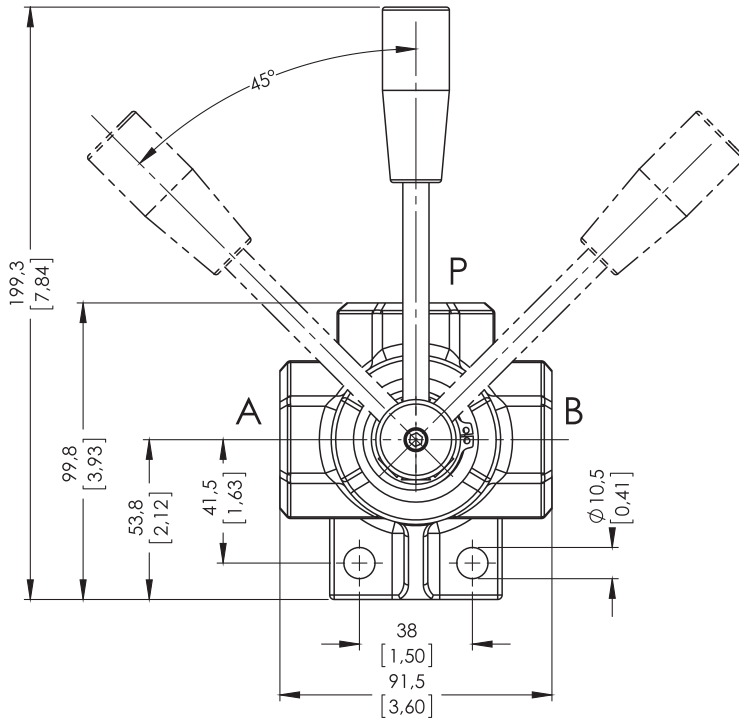


3 – Way V 90/3 valve

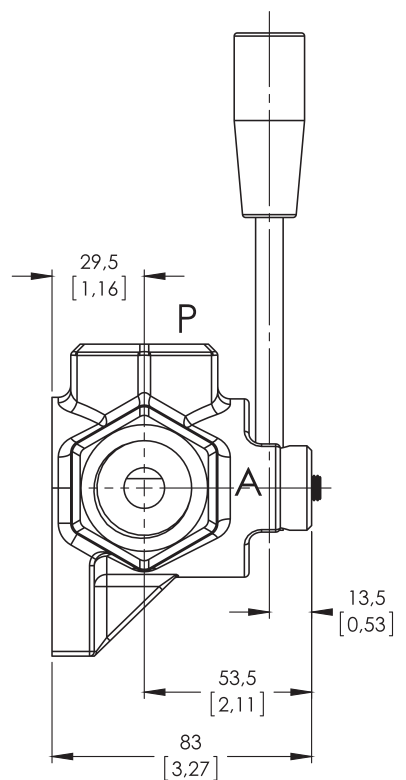
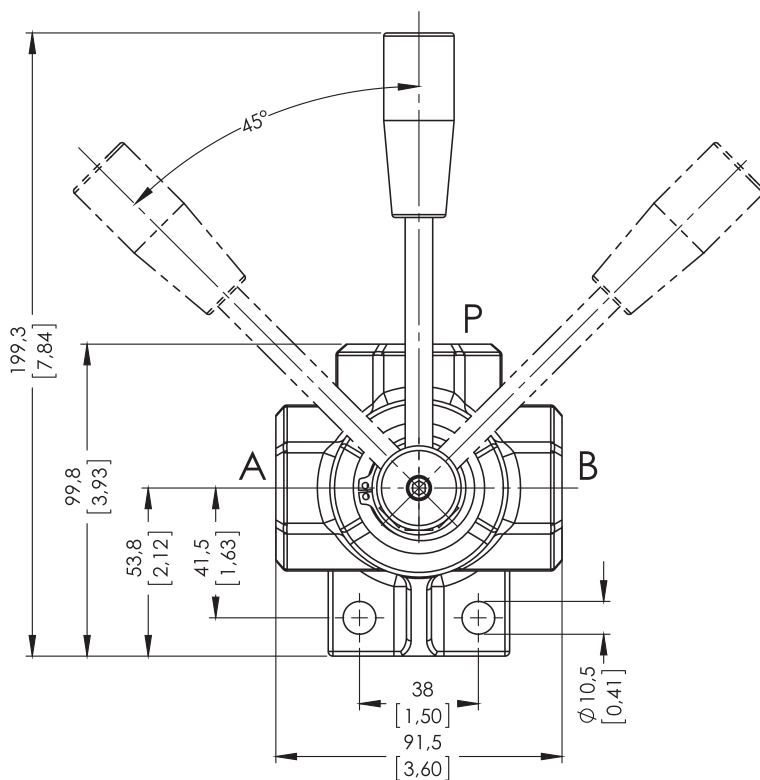


DIMENSIONAL DATA

3 – Way V 140/3 valve



3 – Way V 200/3 valve

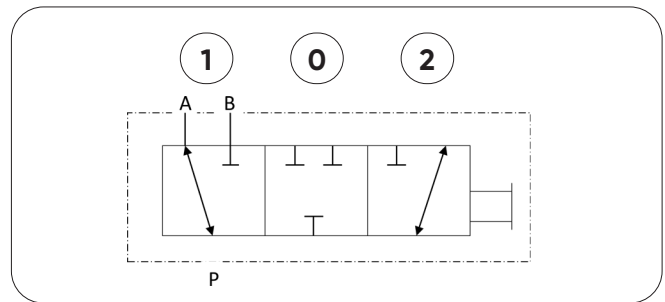
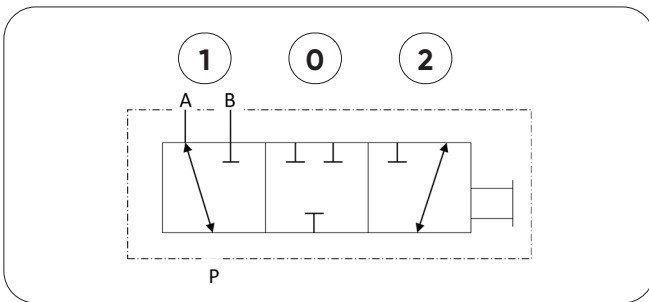
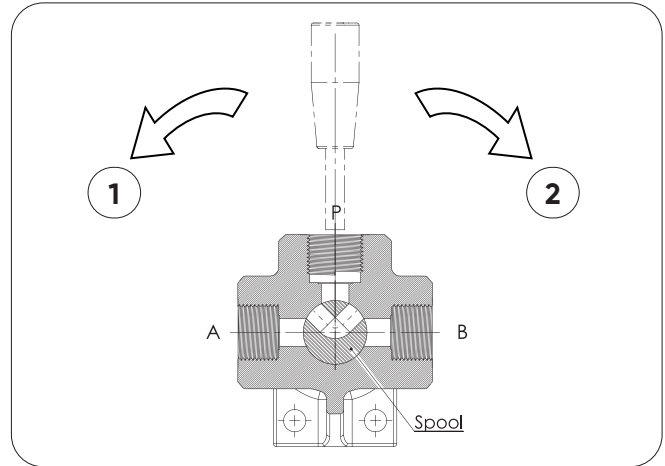
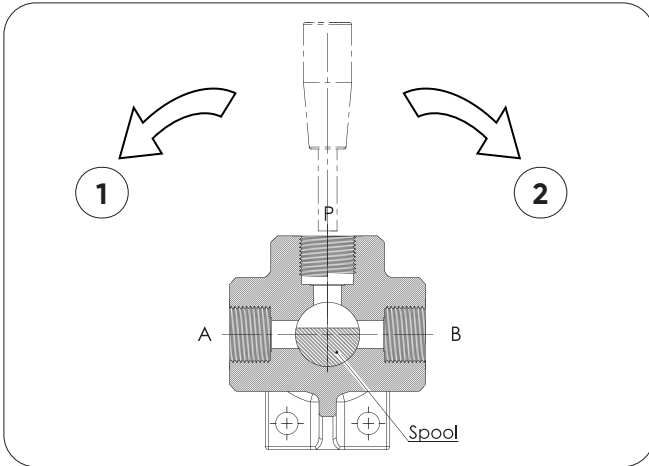


HYDRAULIC CIRCUIT

3-Way valve - (V Series)

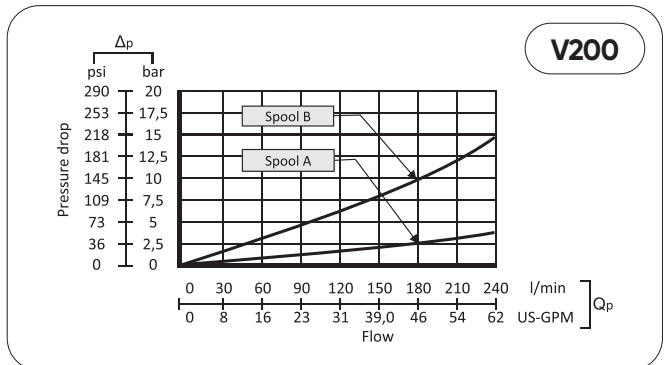
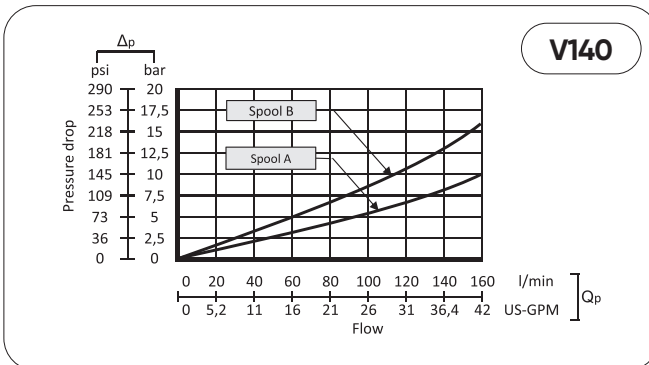
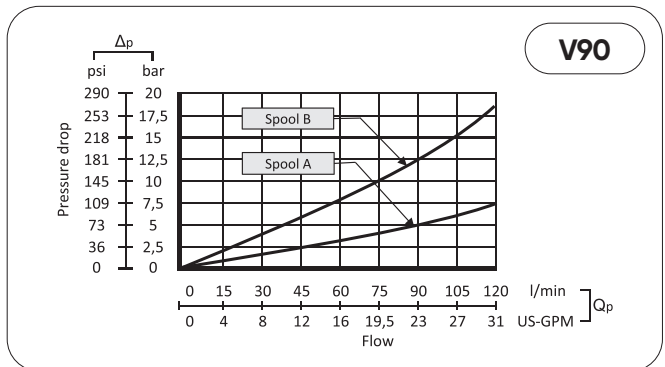
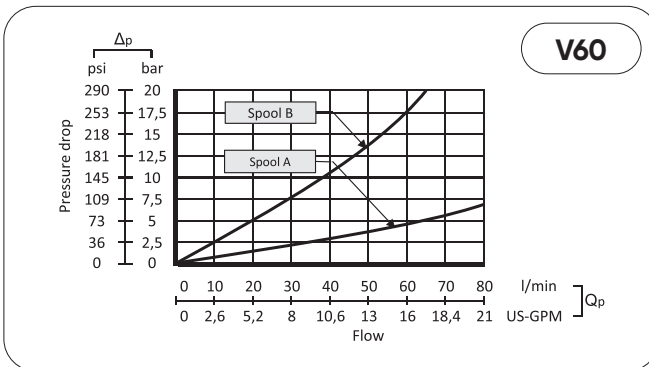
Spool type A

Spool type B



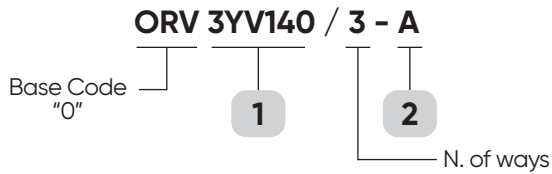
Performance Data And Curve

Pressure drop versus flow P → A (B): spool in position 1 (2)



ORDERING CODES

Order Example



1- Body

- 3YV 60** = 3/8" Output – 60 lt Body (1BV60100)
- 3YV 90** = 1/2" Output – 90 lt Body (1BV90100)
- 3YV 140** = 3/4" Output – 140 lt Body (1BV140100)
- 3YV 200** = 1" Output – 200 lt Body (1BV200100)

2- Spool

- 3YV60 -A** = Open Center (2O60100)
- 3YV60 -B** = Closed Center (2C60100)
- 3YV90 -A** = Open Center (2O90100)
- 3YV90 -B** = Closed Center (2C90100)
- 3YV140/3YV200 -A** = Open Center (2O140100)
- 3YV140/3YV200 -B** = Closed Center (2C140100)

3-4 O-ring

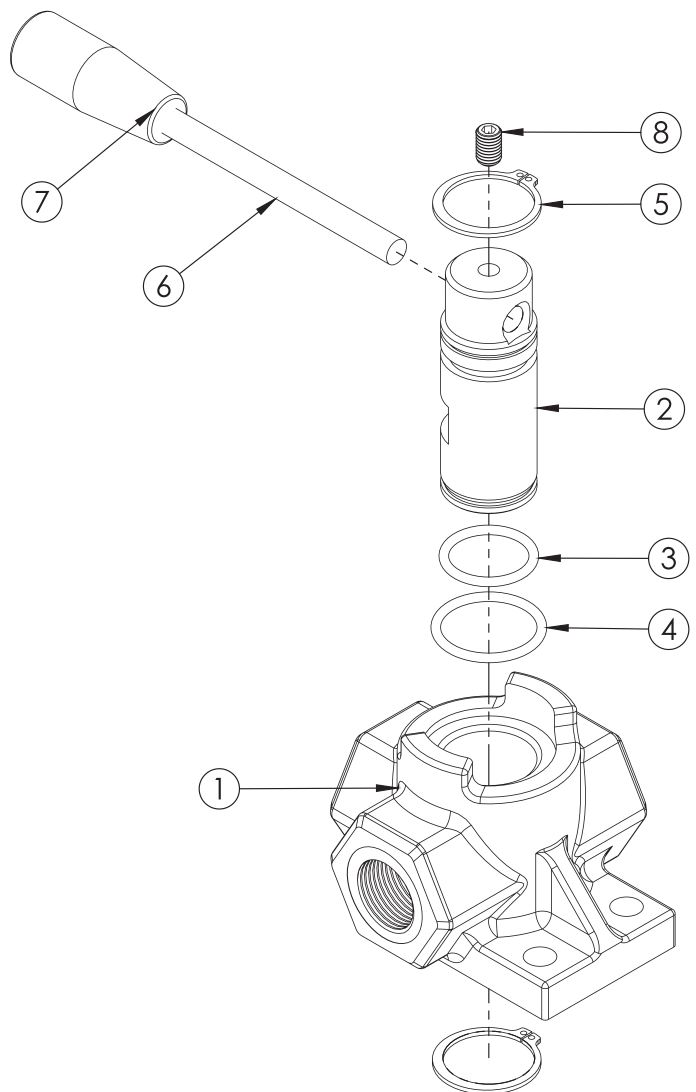
- 3YV60 Series 16x3 and 20x3 O-rings** (3SO60100)
- 3YV90 Series 19x3 and 24x3 O-rings** (3SO90100)
- 3YV140 Series 25x3 and 30x3 O-rings** (3SO140100)
- 3YV200 Series 25x3 and 30x3 O-rings** (3SO200100)

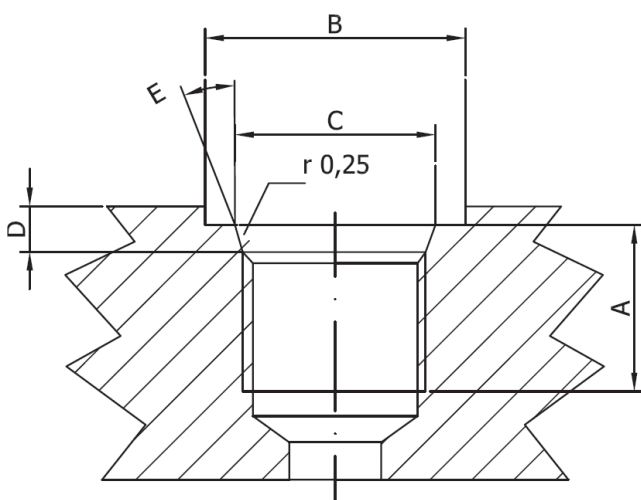
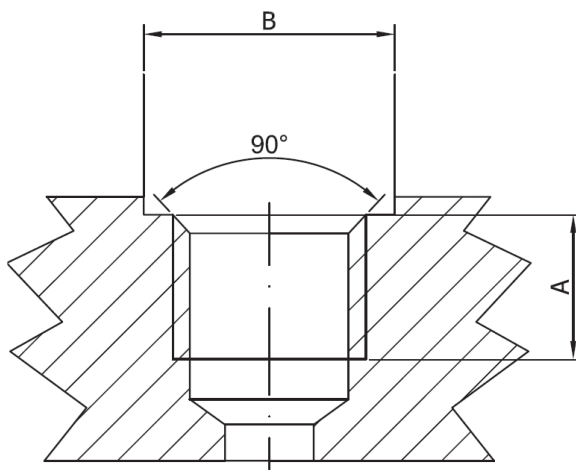
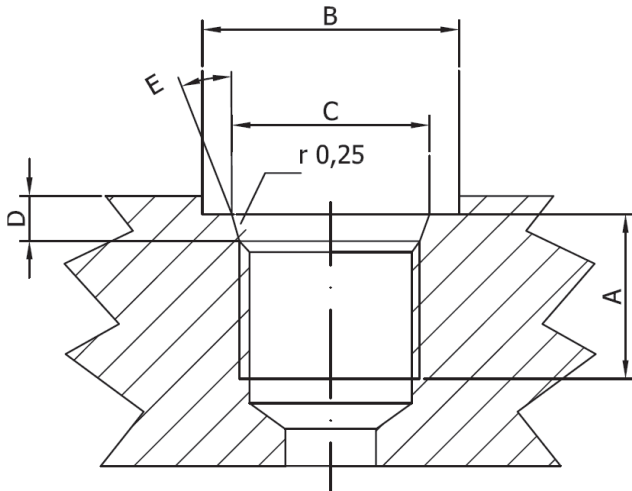
5- Circlip

- 3YV60 Series 20x1,2** (3SO80100)
- 3YV90 Series 24x1,2** (3TO80100)
- 3YV140 Series 30x1,5** (3TCO80100)
- 3YV200 Series 30x1,5** (3TCO80100)

6-7- HandLevel

- L** = Standard HandLever (L=120mmxM8) - (7L040100)
- 8-3YV60 Series = M6x10** (8SO60100)
- 3YV90, 3YV140, 3YV200 = M8x200** (8SO90100)



TECHNICAL DATA
Ports Dimensional Data

SAE UN-UNF (ISO 725)

Dimensions	7/8-14 UNF SAE10		1"1/16-12 UN SAE12		1"5/16-12 UN SAE16	
	mm	in				
A	17	0,67	20	0,79	20	0,79
B	34	1,34	41	1,61	49	1,92
C	23,9	0,94	29,2	1,15	35,5	1,40
D	2,5	0,10	3,3	0,13	3,3	0,13
E	15°		15°		15°	

BSP (ISO 228)


Dimensions	G 1/2"		G 3/4		G 1	
	mm	in				
A	16	0,63	18	0,71	20	0,79
B	27	1,06	33	1,30	40	1,57

METRIC (ISO 262)



Dimensions	M22x1,5 ISO 262		M27x2 ISO 262	
	mm	in		
A	16	0,63	18	0,71
B	31,5	1,24	37,7	1,48

ORIGINAL VALVE



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