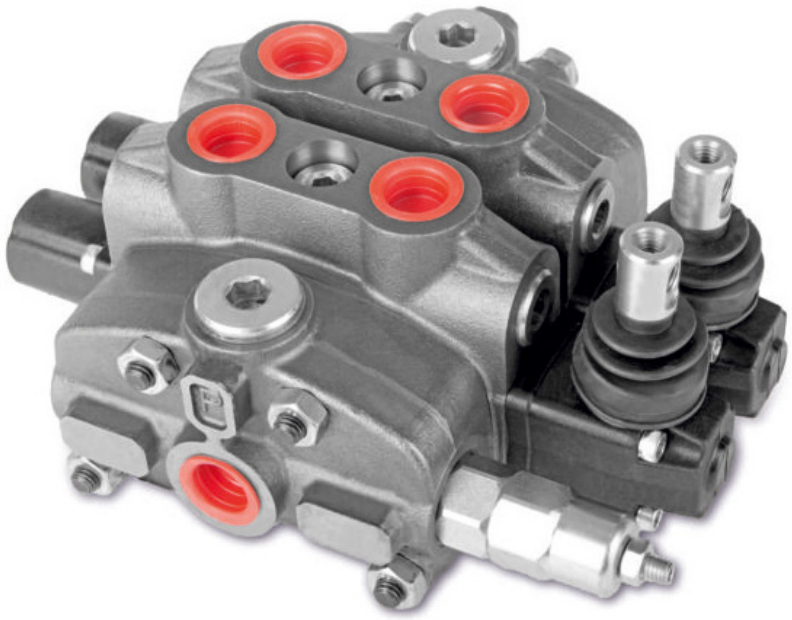
ORVAL HYDRAULIC

SECTIONAL
VALVES

ORV-PD100





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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 Dpt.

Warning!: All specifications of this catalog refer to the standard product at this date (01/2020). 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

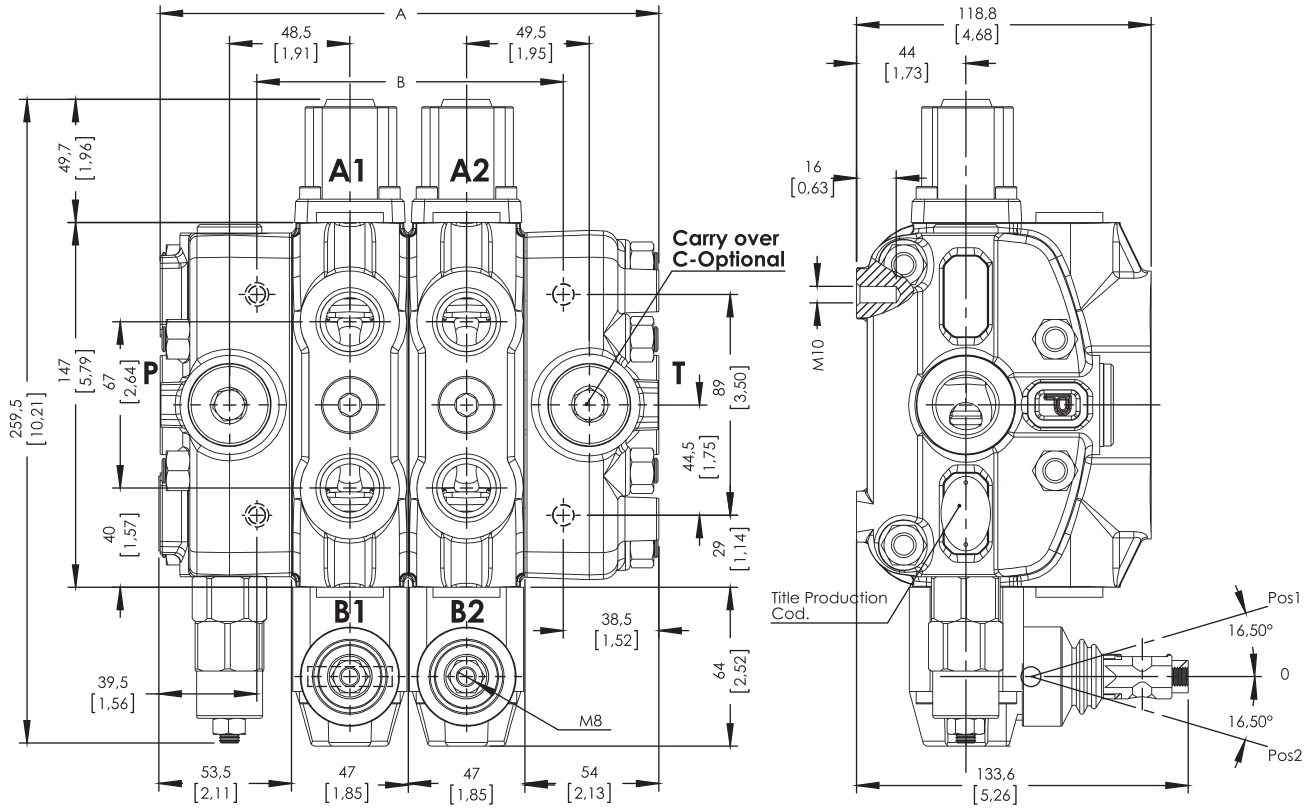
Nominal Flow Rating / Displacement	100 l/min	26 U.S.G.P.M
Maximum Working Pressure (Series Circuit)	210 Bar	3050 PSI
Maximum Working Pressure (Parallel Circuit)	315 Bar	4600 PSI
Max. Back Pressure	25 Bar	360 PSI
Oil Temperature with NBR Seals	-20 to 80 C°	-4 to 176 F °
with FPM (Viton) Seals	-20 to 100 C°	-4 to 212 F °
Oil Viscosity – Operating Range	From 15 to 75 mm2/s	From 15 to 75 cSt
Minumum / Maximum	12 / 400 mm2/s	12 / 400 cSt
Oil Filtration	≤30 µ	
Ambiant Temperature Range	-35 to 60 C°	-31 to 140 F °
Number Of Spools	1 to 12	
Internal Leakage (at 100 bar (1450 PSI), 40C° (110 F°), 46 cSt – A(B)–T)	4 cm3/min	0,24 in3/min
Max. Level Of Contamination	19/16 - ISO 4406	
Tie rod tightening torque	40 Nm	30 lbft

Not: This catalogue shows technical specifications measured with mineral oil of 46 mm2/s-46 cSt viscosity at 40 C° temparture.

Features

• Simple, compact and heavy duty designed sectional valves from 1 to 12 sections for open and closed center hydraulic systems.
• Optionaly Carry-Over port only tandem circuit.
• Fitted with a main pressure relief valve.
• Interchangeable spool diametre is 20 mm – 0,79 in.
• Available manual, pneumatic, hydraulic and electro-pneumatic spool control kits.

DIMENSIONAL DATA



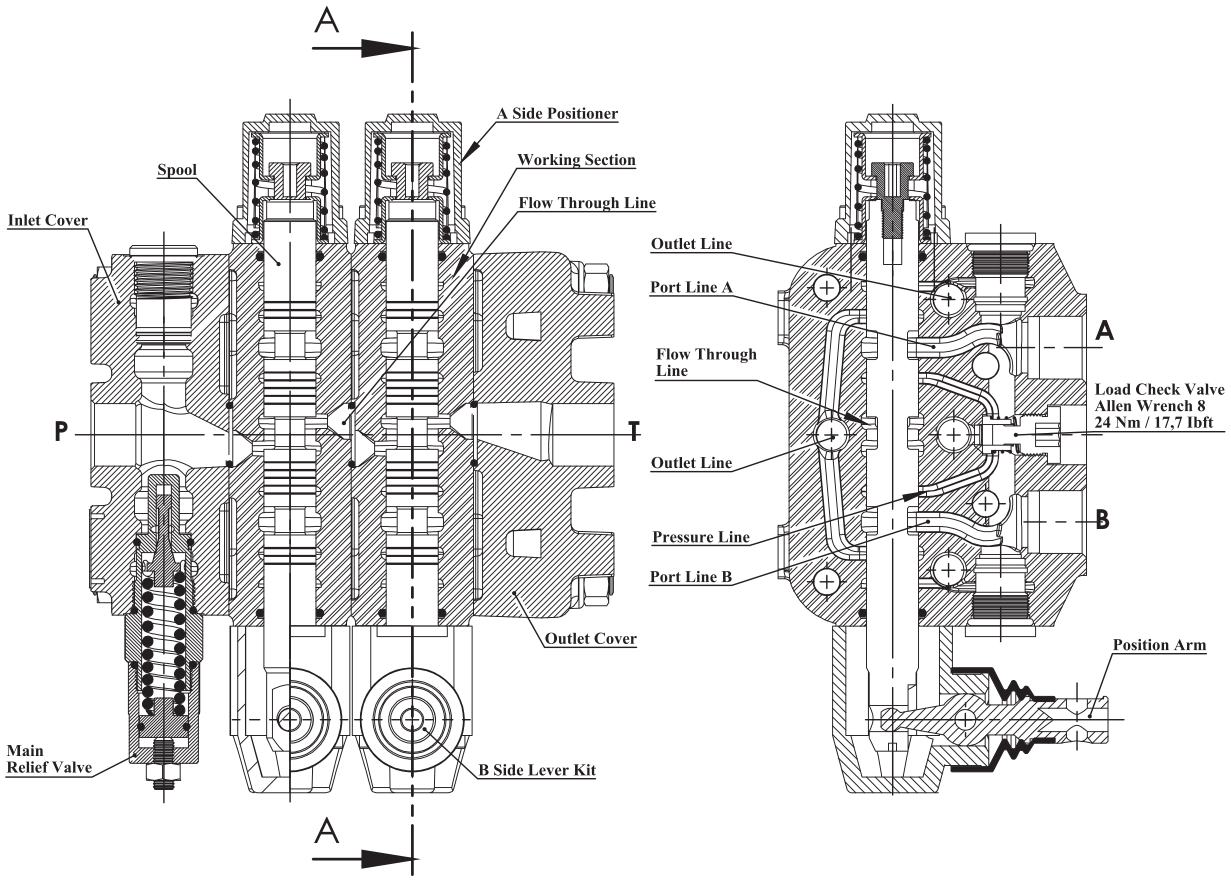
TYPE	A		B		Weight	
	mm	in	mm	in	Kg	lb
ORV- PD100-1P	201.5	7.94	123.5	4.86	10.90	24.03
ORV- PD100-2P	248.5	9.79	170.5	6.71	15.60	34.39
ORV- PD100-3P	295.5	11.64	217.5	8.56	20.30	44.75
ORV- PD100-4P	342.5	13.49	264.5	10.41	25.00	55.12
ORV- PD100-5P	389.5	15.34	311.5	12.26	29.70	65.48
ORV- PD100-6P	436.5	17.19	358.5	14.11	34.40	75.84
ORV- PD100-7P	483.5	19.04	405.5	15.96	39.10	96.20
ORV- PD100-8P	530.5	20.89	452.5	17.81	43.80	96.56
ORV- PD100-9P	577.5	22.74	499.5	19.66	48.50	106.92
ORV- PD100-10P	624.5	24.59	546.5	21.51	53.20	117.29
ORV- PD100-11P	671.5	26.44	593.5	23.36	57.90	127.65
ORV- PD100-12P	718.5	28.29	640.5	25.11	62.60	138.01

STANDARD THREADS

PORT	BSP (Iso 228) 1/2" Series	BSP (Iso 228) 3/4"Series	UN-UNF (Iso 11926-1)	Metric (Iso 262)
P Inlet	G 1/2	G 3/4	1 1/16-12 UN	M27x2
A-B Ports	G 1/2	G 3/4	7/8-14 UNF	M22x1.5
T Outlet	G 3/4	G 3/4	1 1/16-12 UN	M27x2
Pneumatic	G 1/4	G 1/4	NPTF 1/8 - 27	NPTF 1/8 - 27
Carry-Over	G 3/8	G 3/8	3/4-16 UNF	G 3/8

HYDRAULIC CIRCUIT

Parallel

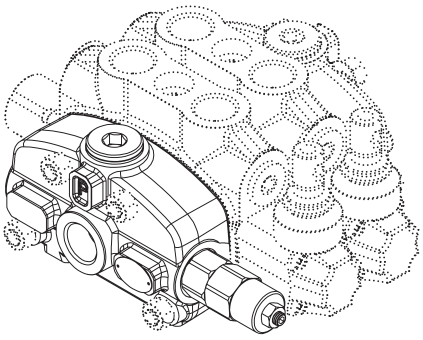


Code: ORV PD100-2P (SD(LA)-SMR2-125-PP)/P-1A-STL-SR/ P-1A-STL-SR/ SO-PT1 / SGT

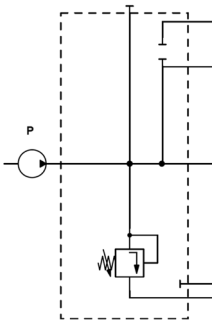
HYDRAULIC CIRCUIT

Inlet Cover – Pump Side

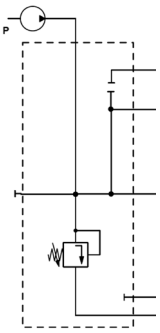
SD - Side inlet with direct pressure relief valve
TD - Top inlet with direct pressure relief valve
SP - Side inlet with relief valve blanking plug



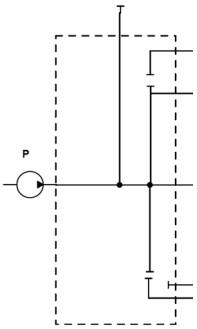
Type = SD



Type = TD

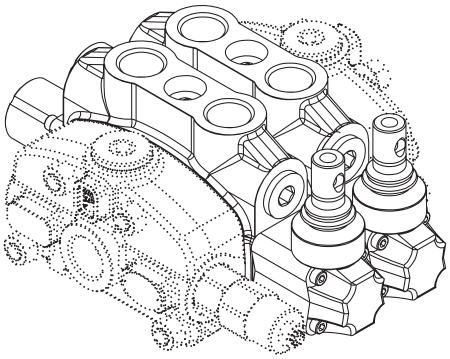


Type = SP

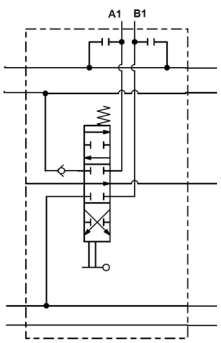


Working Sections

P – Parallel



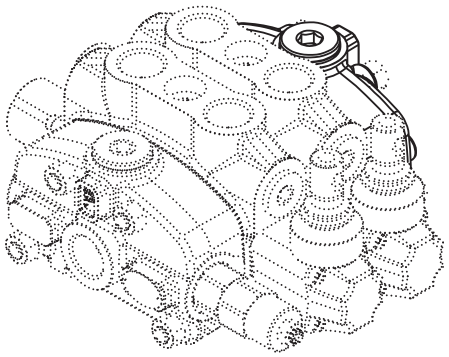
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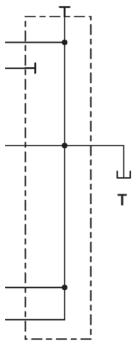
HYDRAULIC CIRCUIT

Outlet Cover (Tank Side)

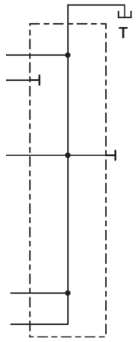
SO - Side outlet
TO - Top outlet
TCO - Top outlet with carry-over
TC - Top outlet with closed centre



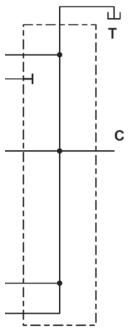
Type = SO



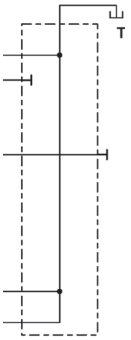
Type = TO

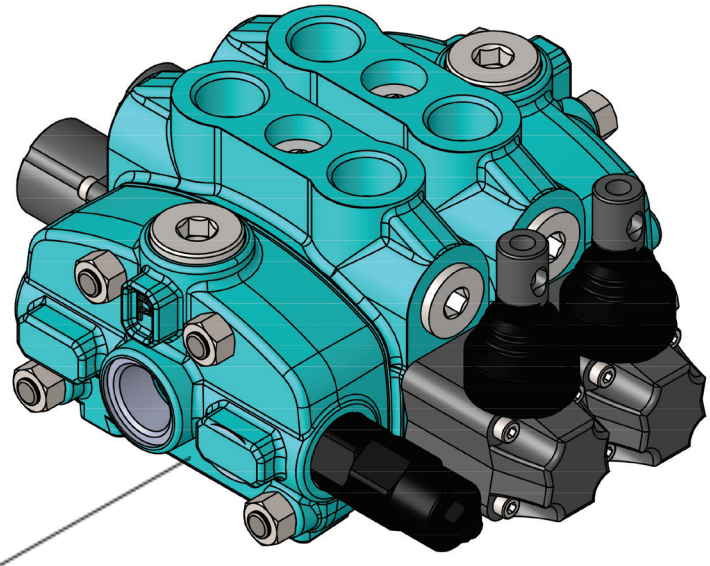


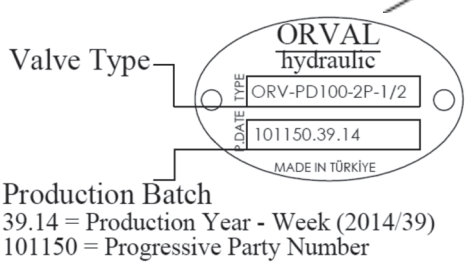
Type = TCO



Type = TC





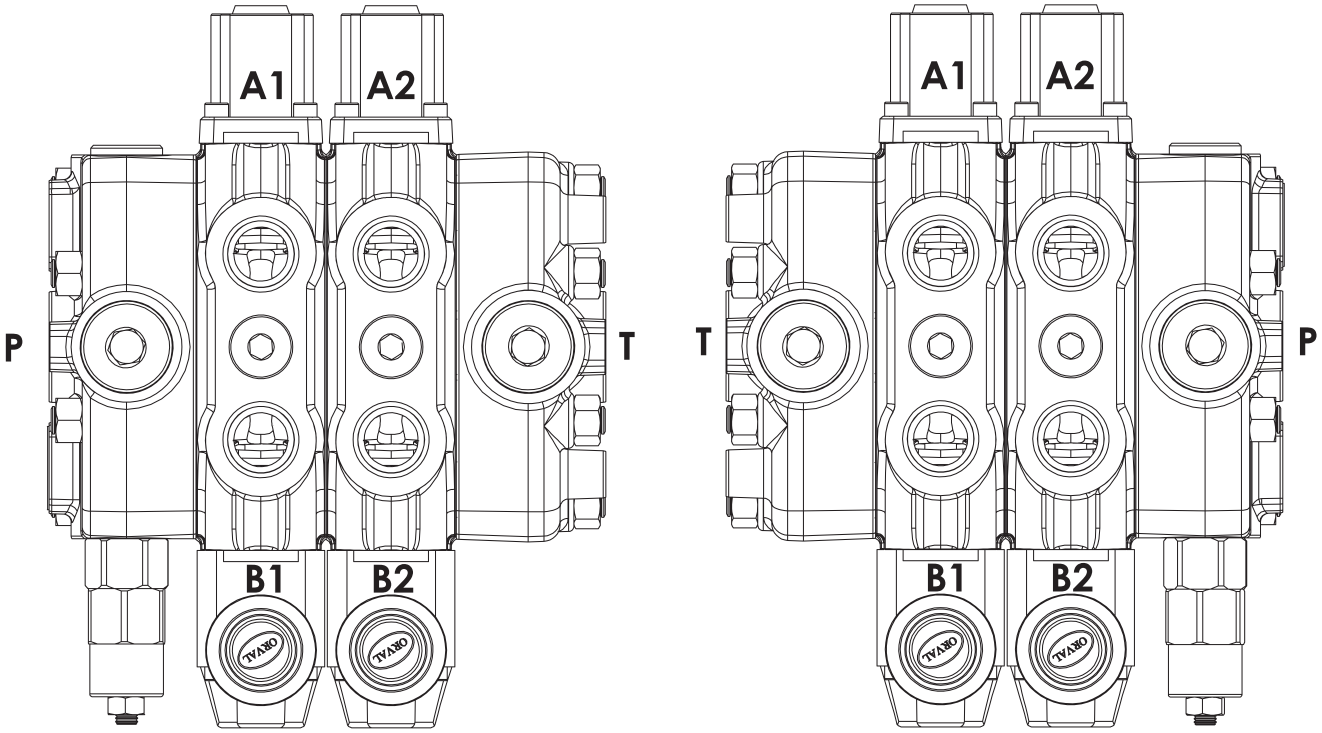


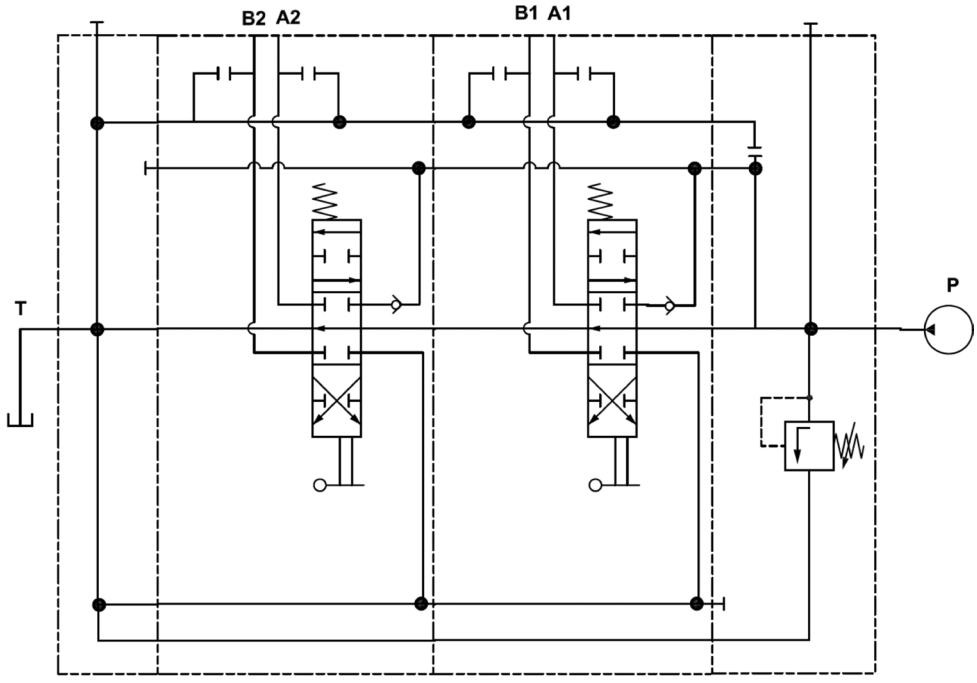
39.14 = Production Year - Week (2014/39)
101150 = Progressive Party Number

HYDRAULIC CIRCUIT

Standard Configurations With Top Inlet And Outlet Ports - RH (Right Inlet)

A symetrical body allows the reverse assembly of spool.

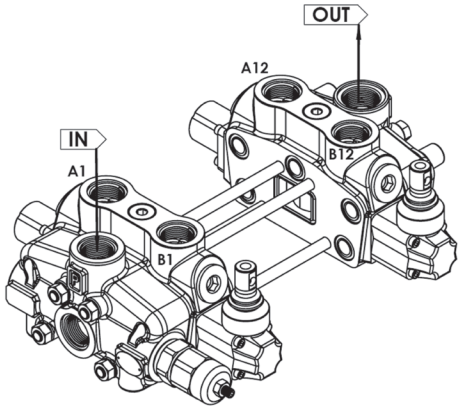


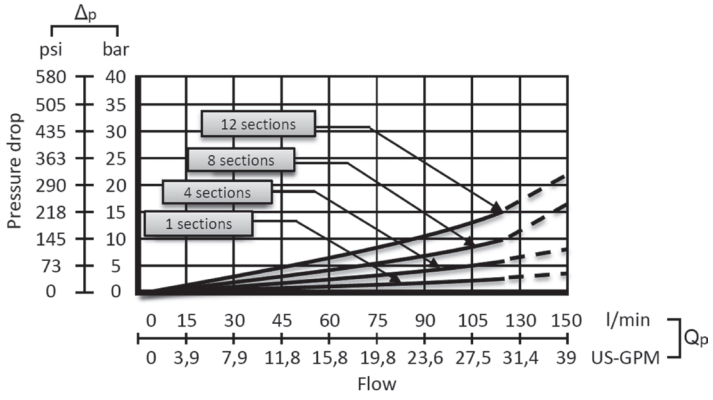


Code: ORV PD100-2P (SD(RA)-SMR2-125-PP)/P-1A-STL-SR/ P-1A-STL-SR/ SO-PT1 /

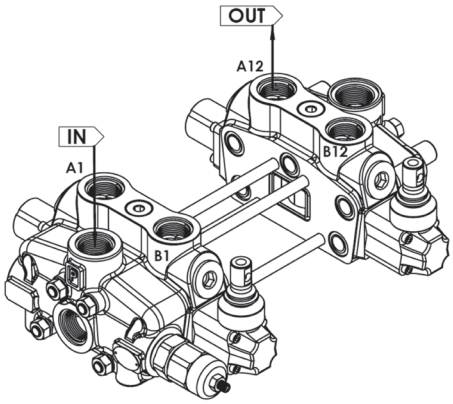
PERFORMANCE DATA AND CURVE

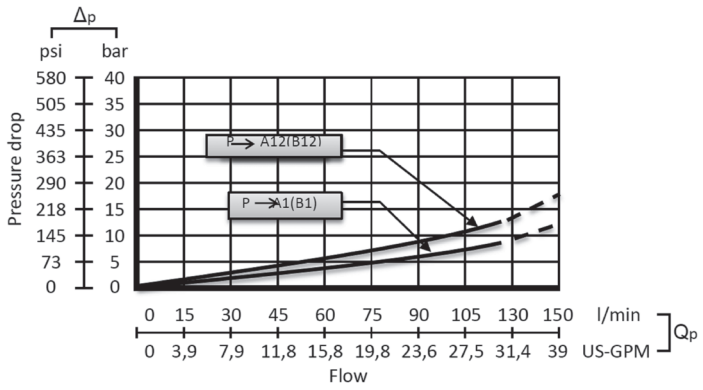
Open Center - Pressure Drop (P-T)



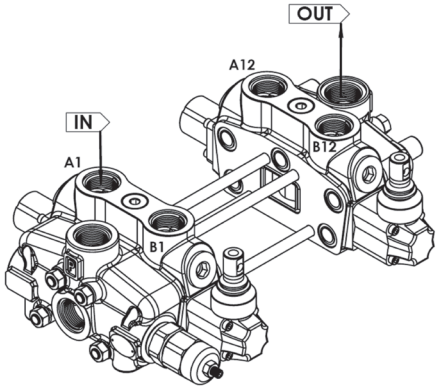


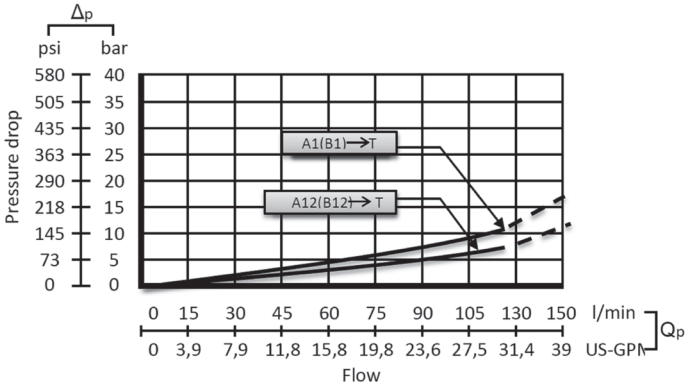
Inlet to Work Port - Pressure Drop (P-A/B)





Work Port to Outlet - Pressure Drop (A/B-T)





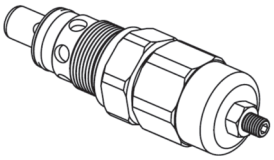
INLET RELIEF OPTIONS

Direct Pressure Relief Valve

Code:

SMR2 – 125

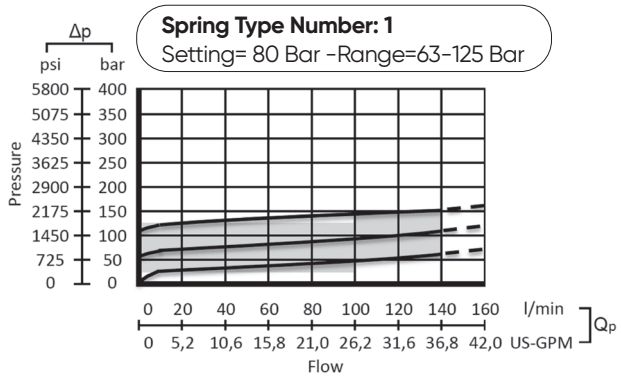
- Pressure Setting Bar in (Standard 125 bar)
- Standard Main Relief Spring Type -2



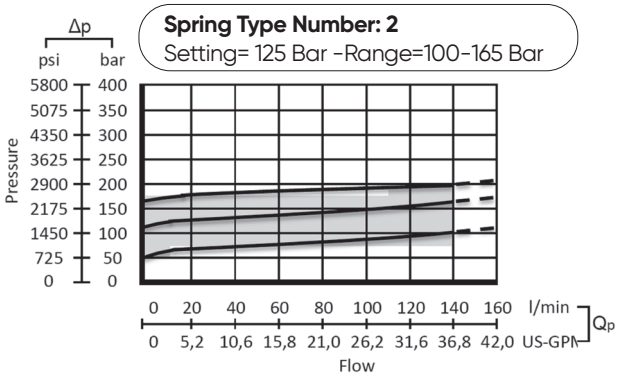


Performance Data

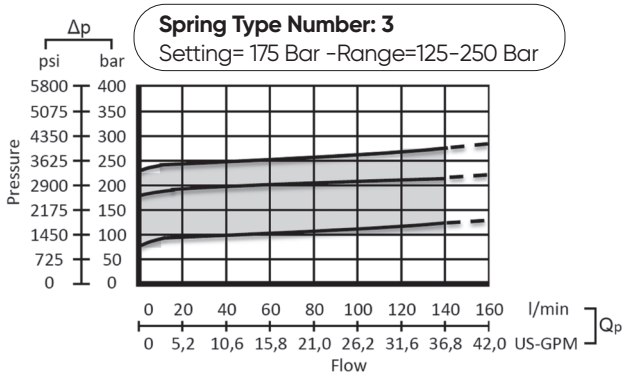
Spring Type Number: 1
Setting= 80 Bar -Range=63-125 Bar



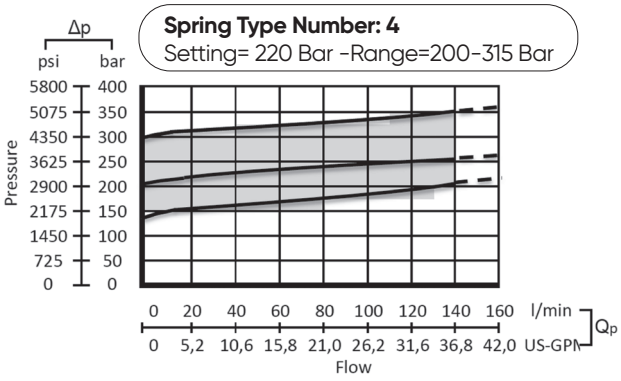
Spring Type Number: 2
Setting= 125 Bar -Range=100-165 Bar



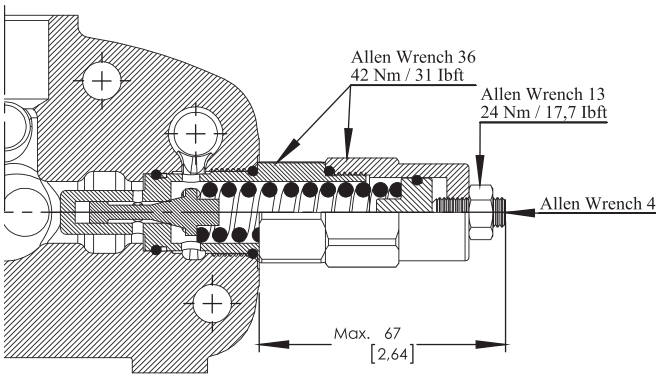
Spring Type Number: 3
Setting= 175 Bar -Range=125-250 Bar

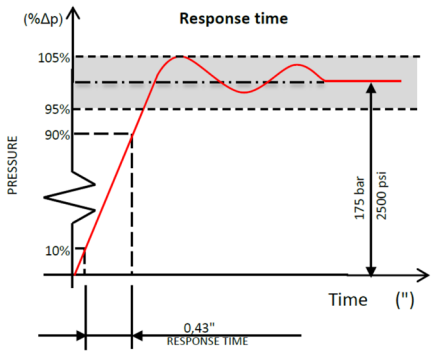


Spring Type Number: 4
Setting= 220 Bar -Range=200-315 Bar



Adjustment Type on Valve



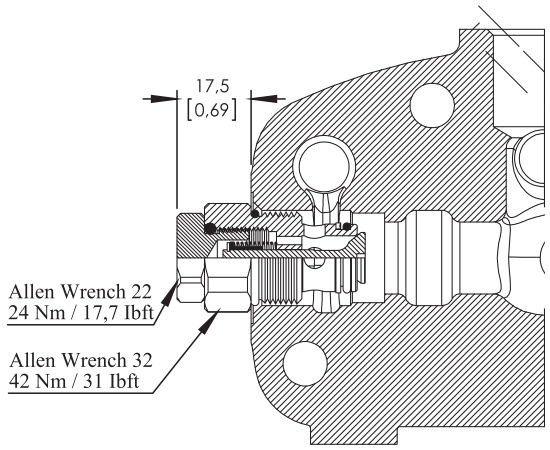


INLET RELIEF OPTIONS

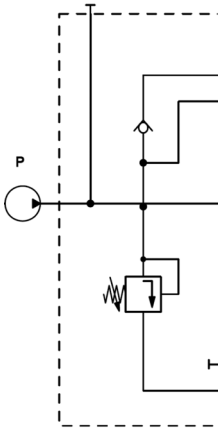
Direct Pressure Relief Valve

Kit No: **PAC**

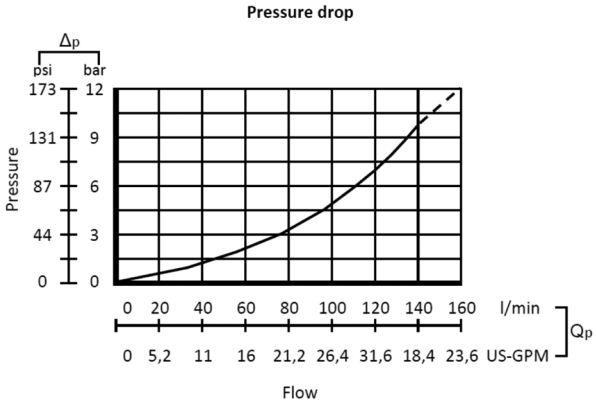
Sectional Appearance



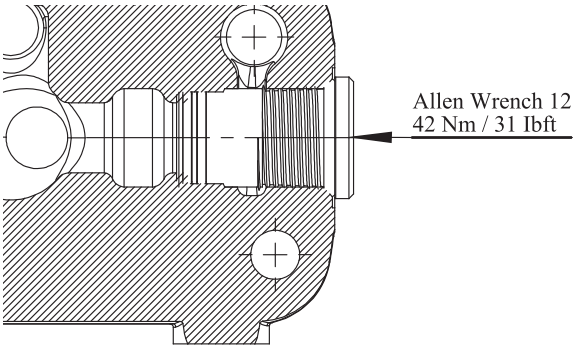
Diagram

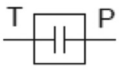


Performance Data



Relief Blanking Plug - SP

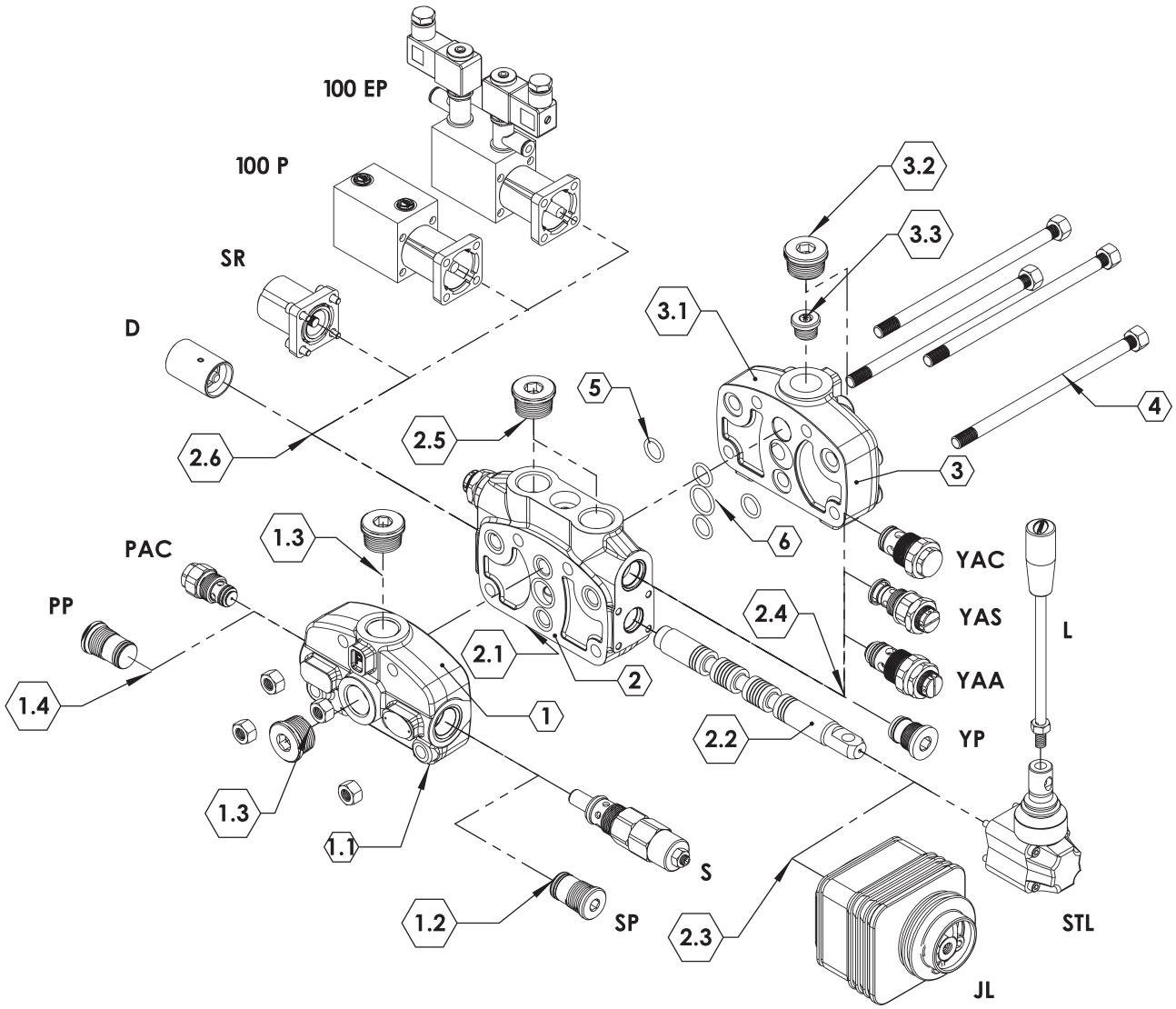




ORDERING CODES

Order Example

				2.2		2.4						3.2		
ORV PD100-2P	(	SD-SMR2-125-PP	)	/	P-1A-	STL-	YAC-SR		/	P-1A-STL-150P	/	SO-PT1-CO	/	SGT
		1	1.2	1.4	2.1	2.3	2.6					3.1	3.3	
Base Code "0"					1 st Section					Following Section		Output Section		



ORDERING CODES

1- Inlet Section

ORV PD100-2P PD100 = Valve Type-(PD)- Sectional
(100) - Max. Flow Rate
2P =Sections Quantity
SD = Side inlet with direct pressure relief valve (1SD100100)
TD = Top inlet with direct pressure relief valve (1TD100100)
SP = Side inlet with relief valve blanking plug (1SP100100)

2- Working Section

P = Parallel (2P100100)

3- Output Section

SO = Side outlet (3SO100100)
TO = Top outlet (3TO100100)
TCO = Top outlet with carry-over (3TCO100100)
TC = Top outlet with closed centre (3TC100100)

4- Assembling Kit

Tie rod kit for 1 section valve - (4TRK1100100)
Tie rod kit for 2 section valve - (4TRK2100100)
Tie rod kit for 3 section valve - (4TRK3100100)
Tie rod kit for 4 section valve - (4TRK4100100)
Tie rod kit for 5 section valve - (4TRK5100100)
Tie rod kit for 6 section valve - (4TRK6100100)
Tie rod kit for 7 section valve - (4TRK7100100)
Tie rod kit for 8 section valve - (4TRK8100100)
Tie rod kit for 9 section valve - (4TRK9100100)
Tie rod kit for 10 section valve - (4TRK10100100)
Tie rod kit for 11 section valve - (4TRK11100100)
Tie rod kit for 12 section valve - (4TRK12100100)

5-6- O_Ring Kit

5. -17.00x2.65 NBR 70 SH O-Ring seal (3 Qty.) (5MK150100)
6. -34.60x2.65 NBR 70 SH O-Ring seal (1 Qty.) (6MK150100)

1.*-Inlet Options

1.1 Inlet Cover
Body = Standard (11BS100100)
1.2 Inlet Relief
SMR1-080 – (12SMR1150080)–Range 63-125 bar
Setting 80 bar
SMR2-125 – (12SMR2150125)– Range 100-160 bar
Setting 125 bar
SMR3-175 – (12SMR3150175)– Range 125-250 bar
Setting 175 bar
SMR4-220 – (12SMR4150220)–Range 200-315 bar
Setting 220 bar
1.3 Ports Plug
PA1 = G1/2 Top and side input - (13PA180100)
PA2= G3/4 Top and side input –(13PA280100)
1.4 Inlet Valve
PAC =Inlet anti-cavitation valve –(14PAC150100)
PP(SP) = Relief valve blanking plug –(14PSP150100)

2.*- Working Options

2.1 Working Section
PA = Without ports valve prearrangement, with parallel circuit - Body (21BSPA100100)
2.2 Spool Options
1A -(22SS100110) – 3 Positions ,Double acting
2A -(22SS100120) – 3 Positions ,Double acting
A to tank B Blocked
3A -(22SS100130) – 3 Positions ,Double acting
B to tank A blocked
4A -(22SS100140) – 3 Positions ,Double acting
A and B tank
5A -(22SS100150) – 3 Positions ,Single acting on
A (A to tank)
6A -(22SS100160) – 3 Positions ,Single acting on
B (B to tank)
2.3 Lever Options
L = Standard HandLever (L=120mmxM10) - (7L040100)
JL =Joystick lever for two sections operation (5JL 080100)
STL = Standard Lever –(23STL150100)
HL = Remote Cable Kit – (80HL80100)
2.4 Port Relief Valves
Anti-Shock Valve
YAS (T1-50) – (24YAC150050)–Range 35-70 bar
Setting 50 bar
YAS (T1-100) – (24YAC150100)–Range 63-220 bar
Setting 100 bar
YAS (T1-200) – (24YAC150200)–Range 180-350 bar
Setting 200 bar
Anti-Shock and Anti-Cavitation Valve
YAA (T1-63) – (24YAA150063)–Range 35-70 bar
Setting 50 bar
YAA (T1-100) – (24YAA150100)–Range 63-220 bar
Setting 100 bar
YAA (T1-200) – (24YAA150200)–Range 180-350 bar
Setting 200 bar
YAC - Anti Cavitation– (24YAS150100)
YP- A and B ports valve blanking plug (24YP150100)
DST-A and B ports valve blanking plugs with
connection to tank–(24DST150100)
2.5 Ports Plug Options
PL1 =Plug for single action spool for 2A-3A, G1/2
(25PL180100)
PL2 =Plug for single action spool for 2A-3A, G3/4
(25PL280100)
2.6 Spool Positioners
SR=Spring Return in neutral position – (26SR150100)
D =Detent in position 1, neutral and 2 -(26D150100)
100P=ON/OFF Pneumatic – (2645P150100)
100EP=12 VDC ON/OFF electro-pneumatic
(26150EP150112)
100EH= 12 VDC/24 VDC ON/OFF electro-hydraulic
(36150EH100112)

3.*- Working Options

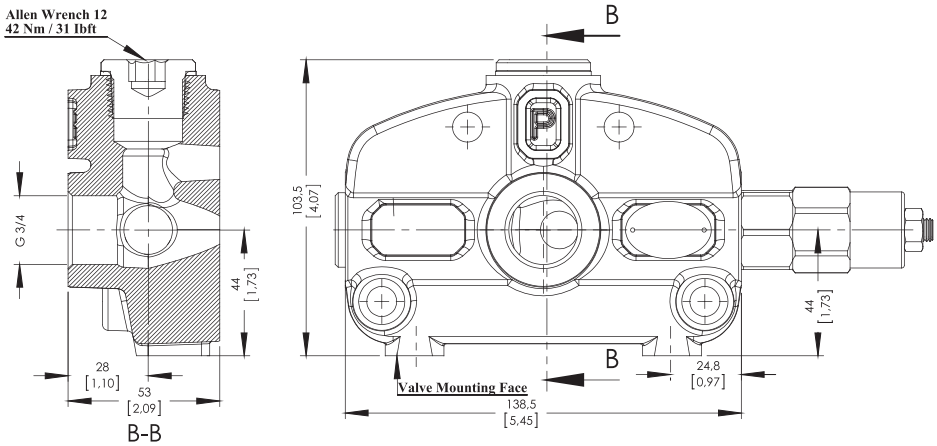
3.1 Working Section
Body = Standard (31BS100100)
3.2 Output Plug
PT1 =G3/4 Top and Side output (32PT180100)
3.3 Circuits Options
CO =G3/8 Carry–Over Connector (33CO150100)

INLET COVER- PUMP SIDE

LH Inlet Valve Options

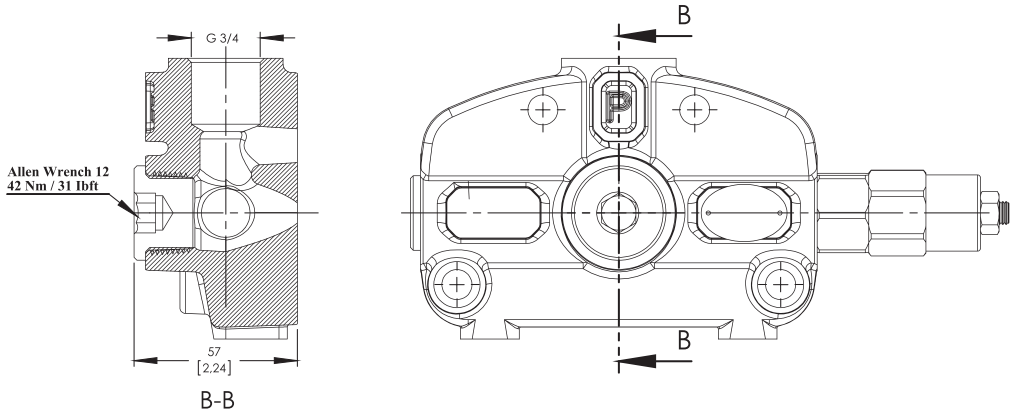
Type No: **SD**

Sectional Appearance



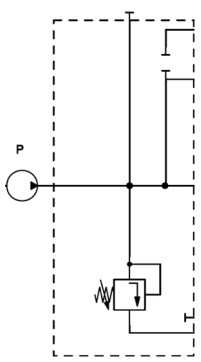
Type No: **TD**

Sectional Appearance

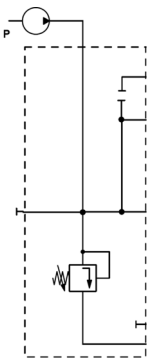


Hydraulic Diagram

Type No: **SD**



Type No: **TD**

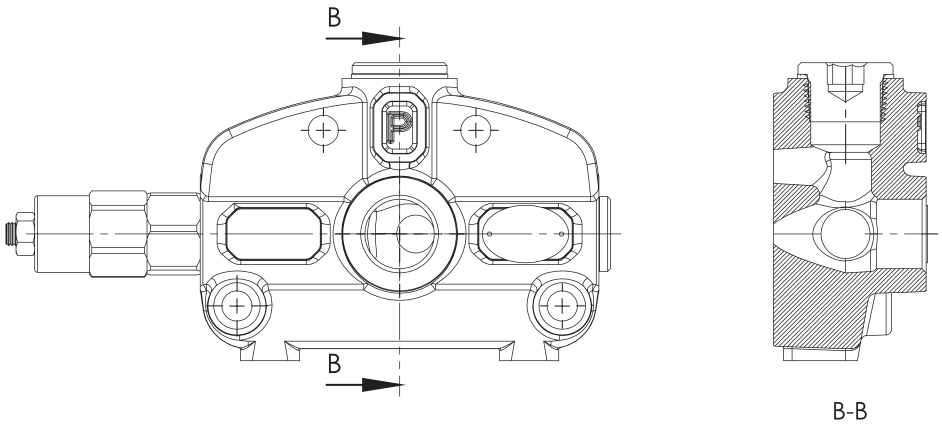


INLET COVER- PUMP SIDE

RH Inlet Valve Options

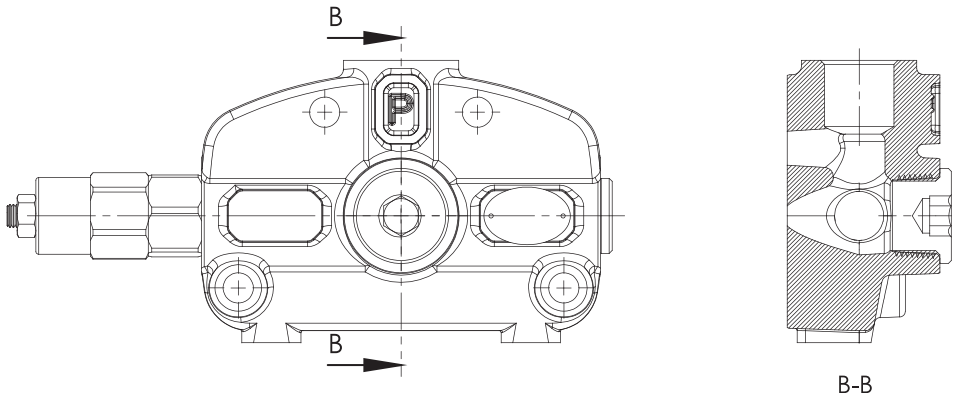
Type No: **RA**

Sectional Appearance



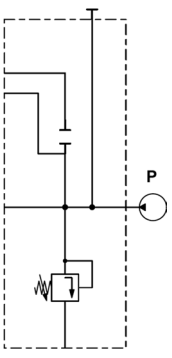
Type No: **RB**

Sectional Appearance

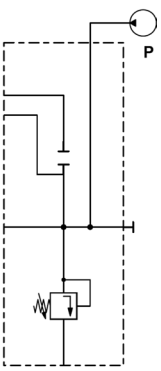


Hydraulic Diagram

Type No: **RA**

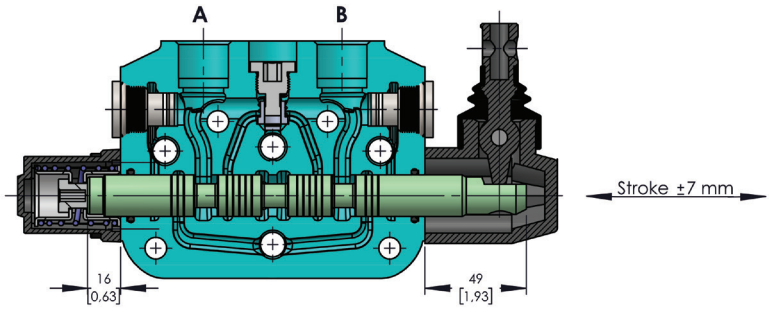


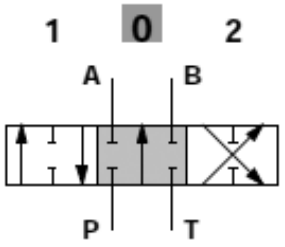
Type No: **RB**

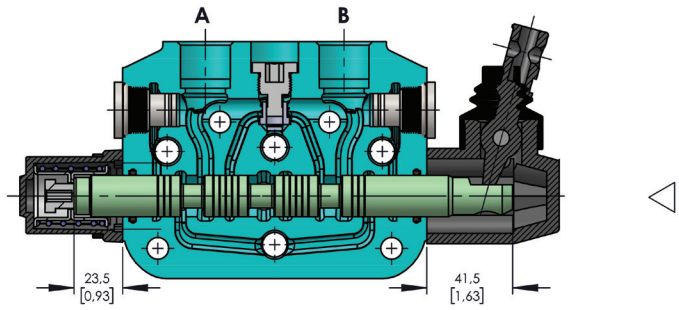


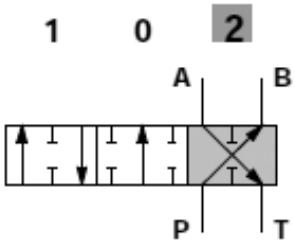
SPOOL OPTIONS

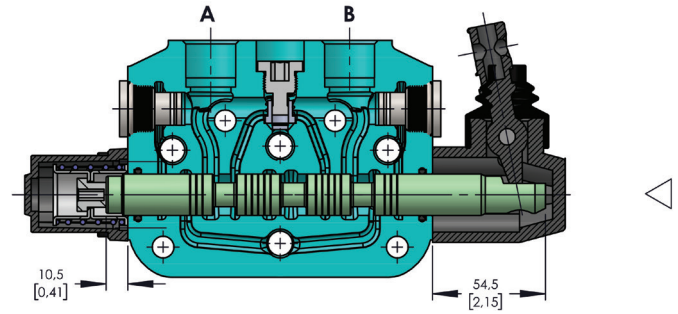
Spool Type - 1A

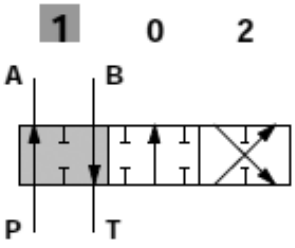




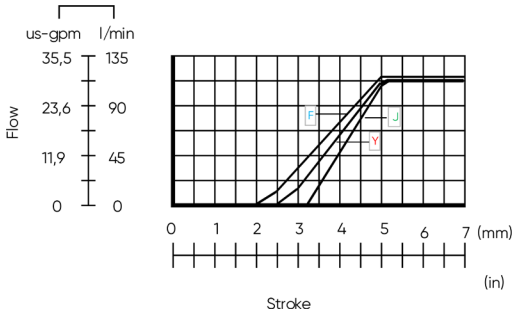








Performance Curve And Data

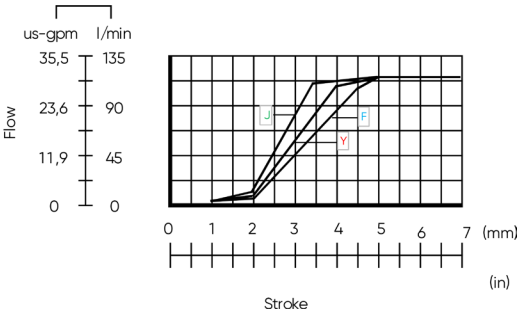


Qin = 100 l/min

F P (on ports) = 63bar / 900 psi

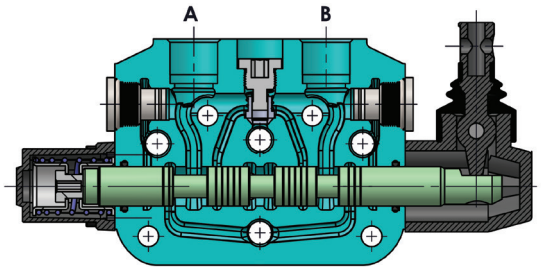
Y P (on ports) = 100bar / 1450 psi

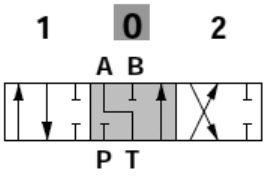
J P (on ports) = 250bar / 3600 psi



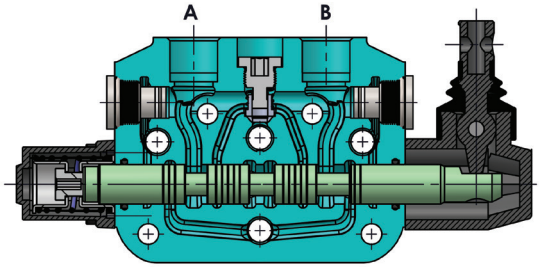
SPOOL OPTIONS

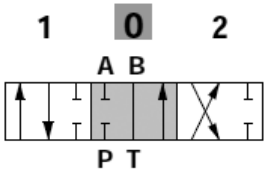
Spool Type - 2A



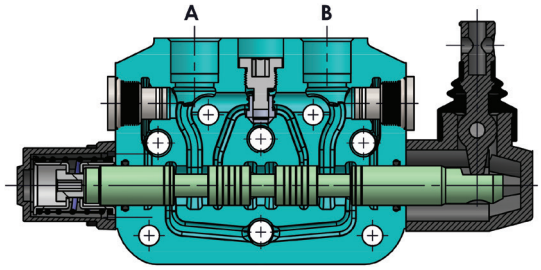


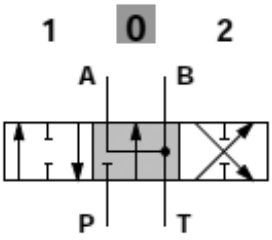
Spool Type - 3A



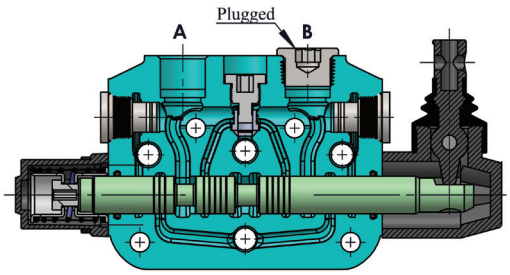


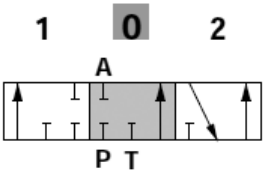
Spool Type - 4A





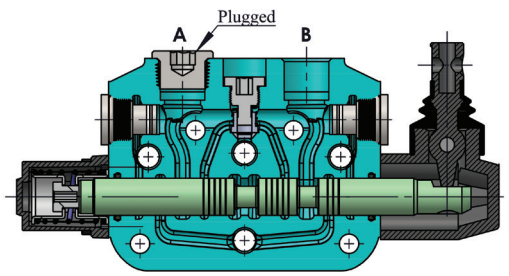
Spool Type - 5A

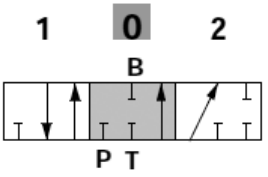




"B" port plugged

Spool Type - 6A





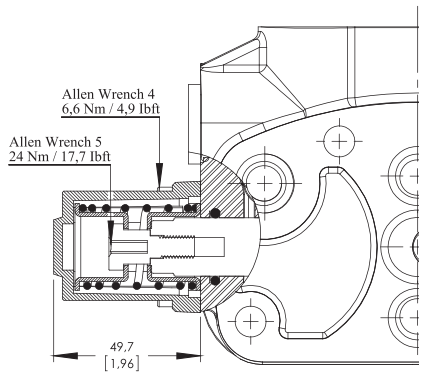
"A" port plugged

SPOOL POSITIONERS – SIDE OF RETURN

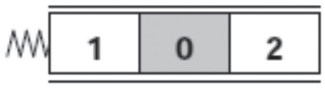
With Spring Return in Neutral Position

Kit No: **SR**

Sectional Appearance



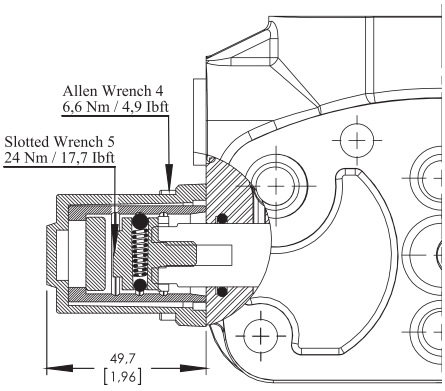
Diagram



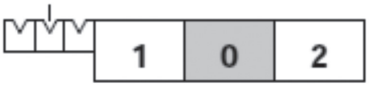
With Detent

Kit No: **D**

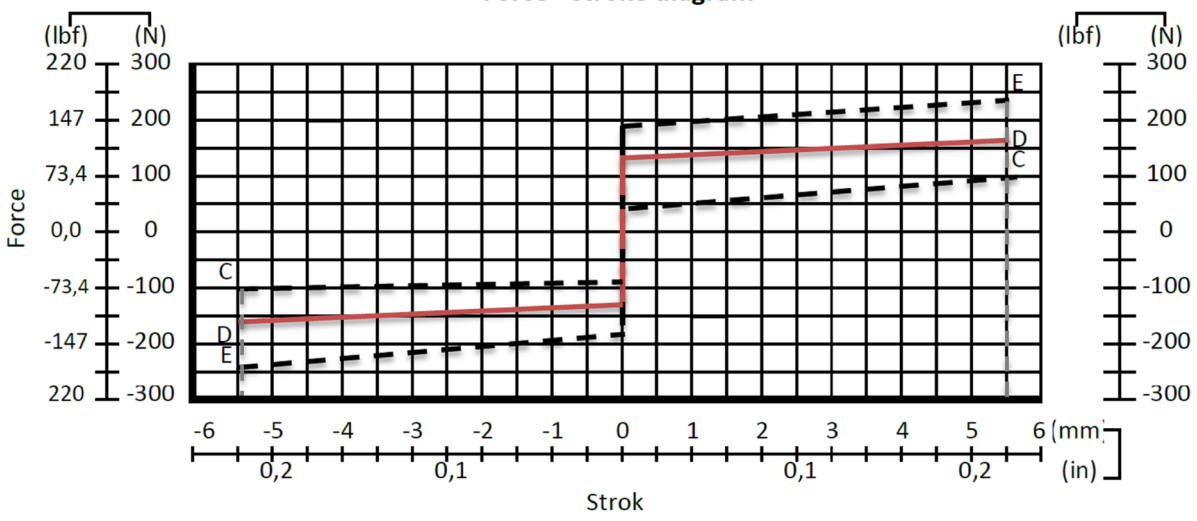
Sectional Appearance



Diagram



Force - stroke diagram

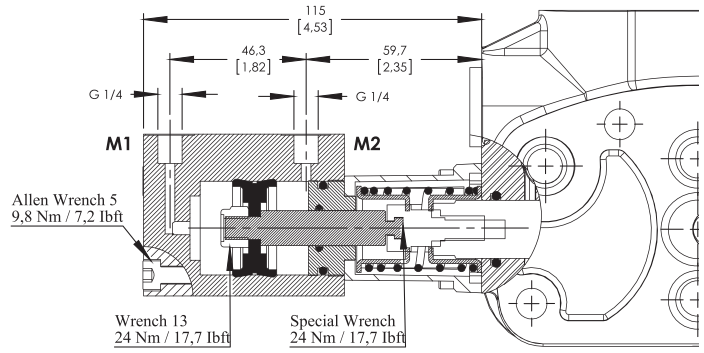


SPOOL POSITIONERS – SIDE OF RETURN

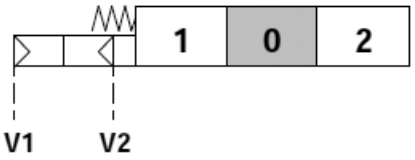
ON/OFF Pneumatic Control

Kit No: **100P**

Sectional Appearance



Diagram



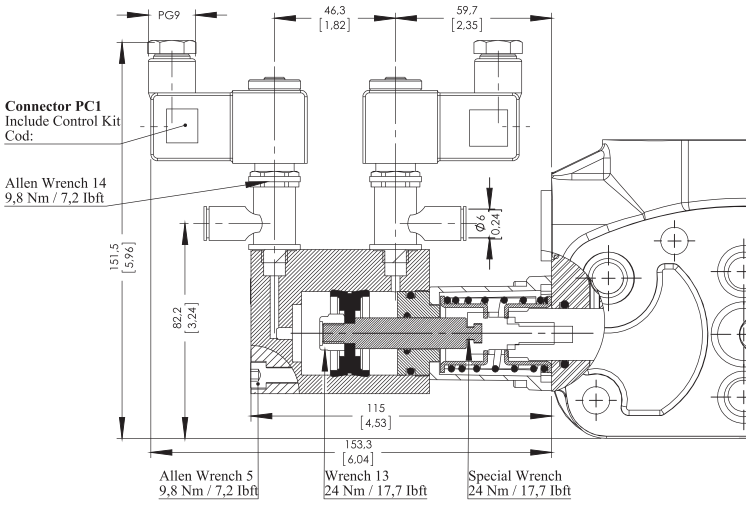
Operating Features

Pilot Pressure .....: 6 Bar (Max. 10) / 87 Psi (Max. 145)

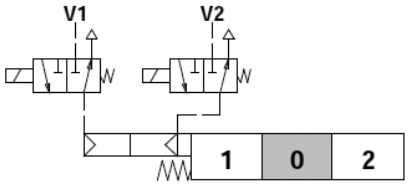
ON/OFF Electro-Pneumatic Control

Kit No: **100EP**

Sectional Appearance



Diagram



Operating Features

Pilot Pressure .....: 6 Bar (Max. 10) / 87 Psi (Max. 145)

Selenoid Operating Features

Nominal Voltage.....: 12VDC / 24 VDC

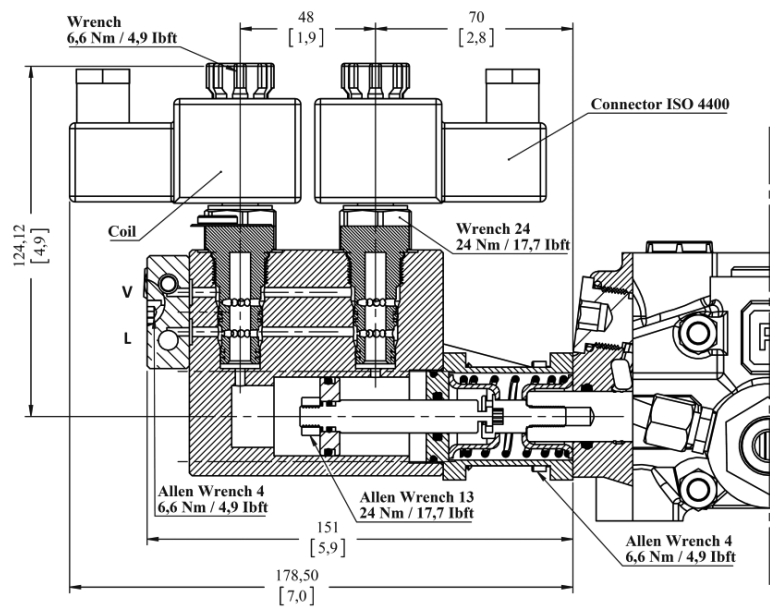
Power Rating.....: 6 W

SPOOL POSITIONERS – SIDE OF RETURN

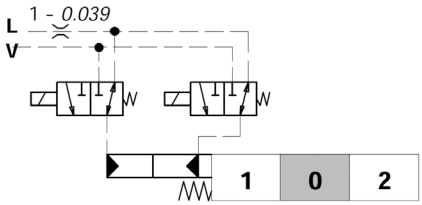
ON/OFF Electro - Hydraulic Control

Kit No: **100EH**

Sectional Appearance



Diagram



Operating Features

Pilot Pressure .....: 10 Bar / 145 Psi
: 50 Bar / 725 Psi
Max back pressure on drain L....:25 Bar / 360 Psi

Selenoid Operating Features

Coil Connection.....: ISO 4400
Nominal voltage.....: 12 VDC / 24 VDC
Power rating.....: 21 W
Duty cycle.....: %100
Protection type.....: IP 65
Nominal voltage tolerance.....: ±10
Max temperatures.....: 100 C°
Stroke.....: ±5,5 mm

ORDER CODE

External Pilot Collector
COL 11 - 10COL1001 – Kit For Section 1
COL 12 - 10COL1001 – Kit For Section 2
COL 13 - 10COL1001 – Kit For Section 3
COL 14 - 10COL1001 – Kit For Section 4
COL 15 - 10COL1001 – Kit For Section 5
COL 16 - 10COL1001 – Kit For Section 6
COL 17 - 10COL1001 – Kit For Section 7
COL 18 - 10COL1001 – Kit For Section 8

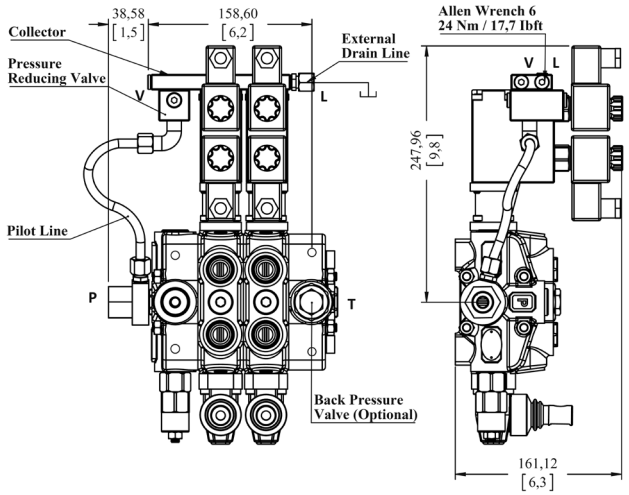
Standard Pilot Collector
COL 21 - 10COL2001 – Kit For Section 1
COL 22 - 10COL2001 – Kit For Section 2
COL 23 - 10COL2001 – Kit For Section 3
COL 24 - 10COL2001 – Kit For Section 4
COL 25 - 10COL2001 – Kit For Section 5
COL 26 - 10COL2001 – Kit For Section 6
COL 27 - 10COL2001 – Kit For Section 7
COL 28 - 10COL2001 – Kit For Section 8

SPOOL POSITIONERS – SIDE OF RETURN

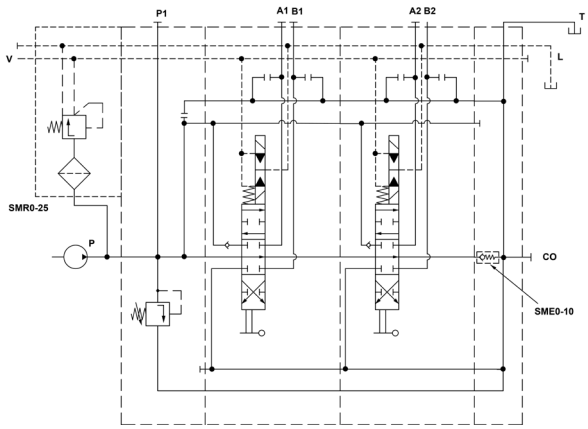
ON/OFF Electro - Hydraulic Control Connections

Connection Type 1: **Collector kit for external pilot and drain**

Sectional Appearance



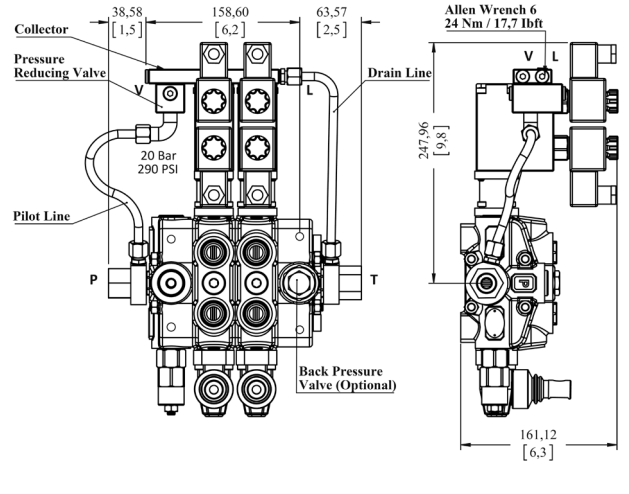
Diagram



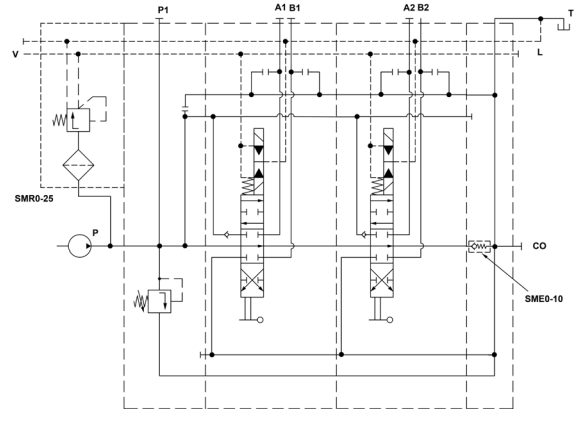
Operating Features
External Pressure Reducing Valve .....: 20 Bar / 290 Psi (For V line)
Code= ORV PD100-2P (SD(LA)-SMR2-125-PP)/P-1A-STL-100EH/ P-1A-STL-100EH (SMR0 -COL12-12V)/ SO-PT1 / SGT

Connection Type 2: **Collector kit with pilot and drain lines**

Sectional Appearance



Diagram



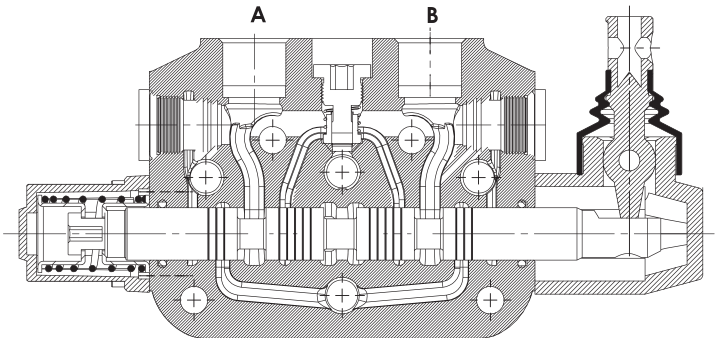
SMR 0-25 Valve Operating Features (Pressure reducing valve)
Outlet Pressure .....: 20 Bar / 290 Psi
Max. Flow.....: 8 l/min
Filtering .....:80 µ
Code= ORV PD100-2P (SD(LA)-SMR2-125-PP)/P-1A-STL-100EH/ P-1A-STL-100EH (SMR0 –COL22-12V)/ SO-PT1 / SGT

WORKING SECTION KIT

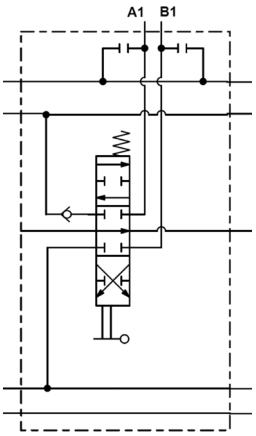
With Port Valves Type

Kit No: **AA**

Sectional Appearance



Diagram

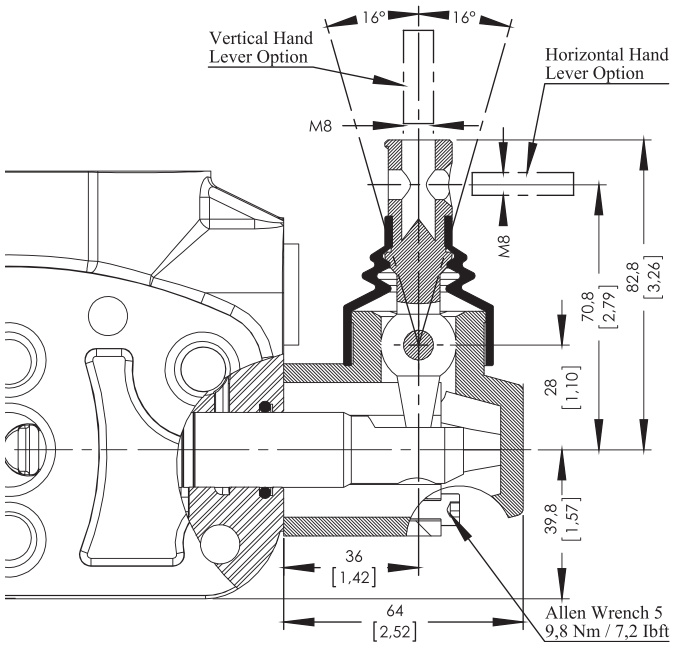


SPOOL POSITIONERS – SIDE OF LEVER CONTROL

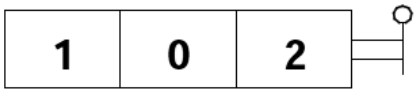
Lever Controls

Kit No: **STL - L0**

Sectional Appearance

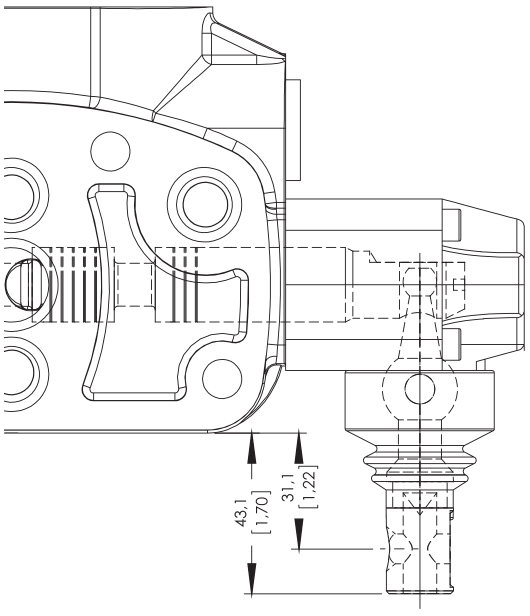


Diagram

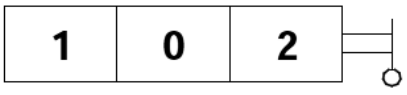


Kit No: **STL - L180**

Sectional Appearance



Diagram



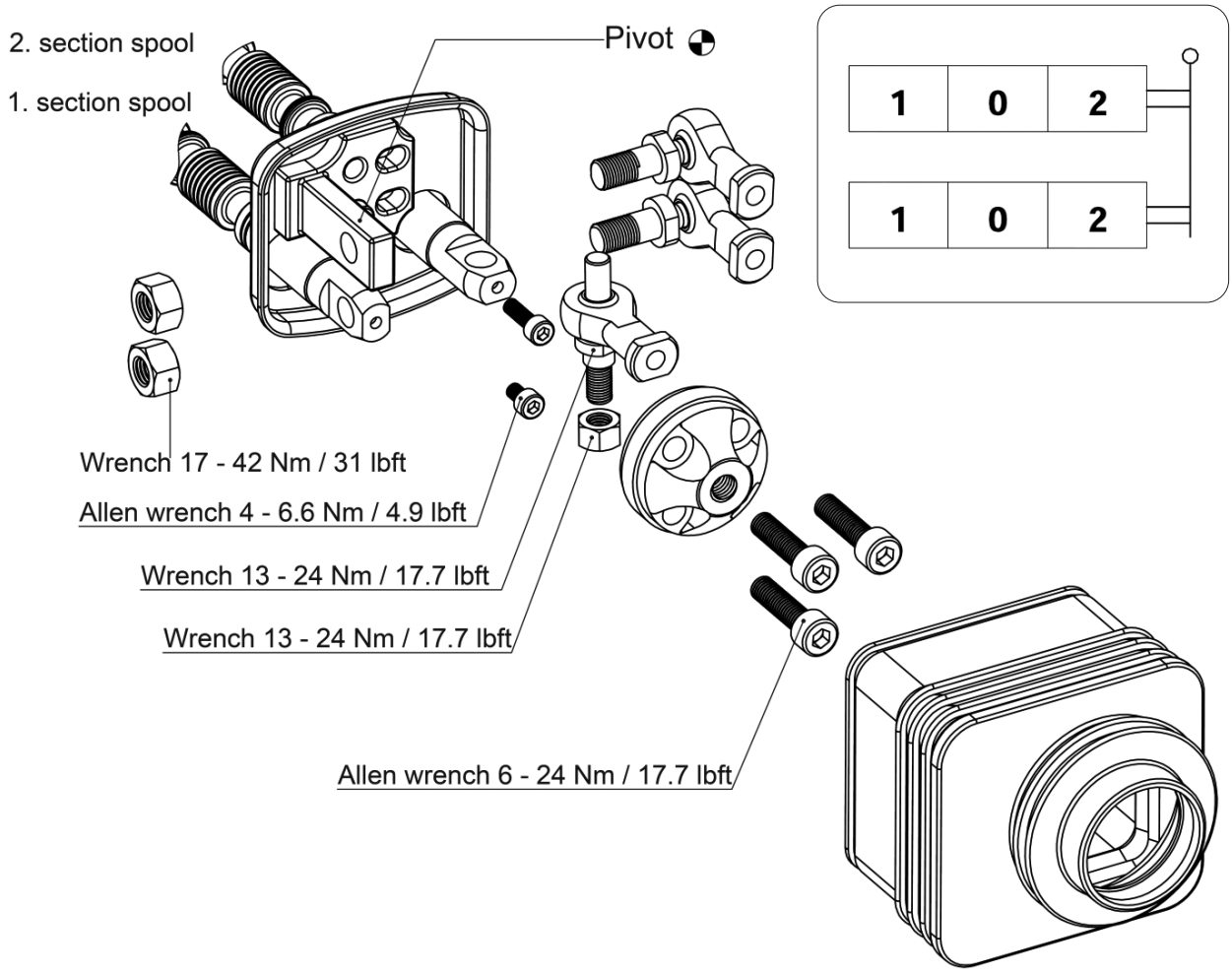
Note: Arm lever pivot box is aluminium cap protected. And it can be rotated 180º.

SPOOL POSITIONERS – SIDE OF LEVER CONTROL

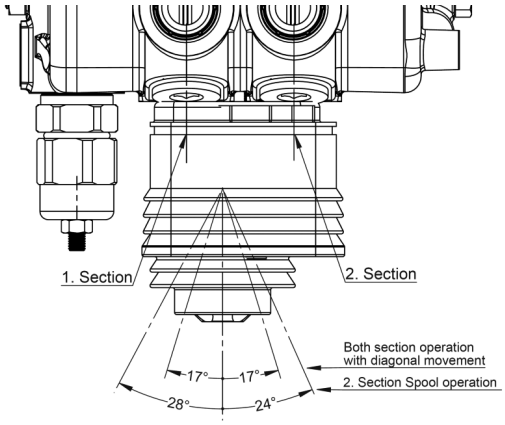
Lever Controls - Joystick

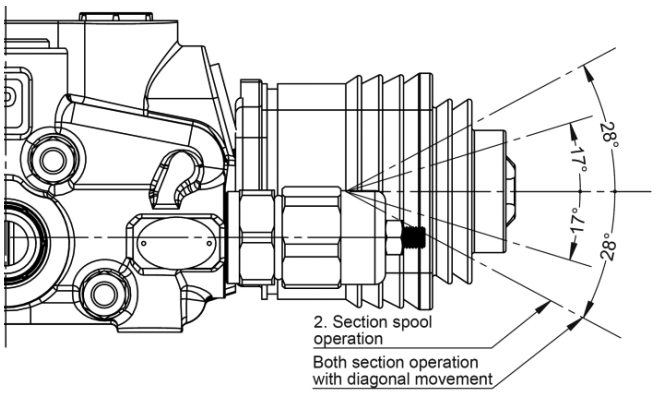
Kit No: **JL**

Exploded View | Diagram



Operation Angle:



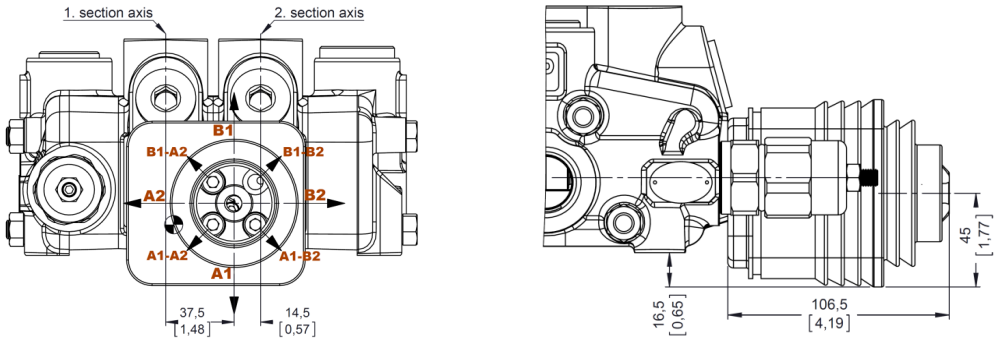


SPOOL POSITIONERS – SIDE OF LEVER CONTROL

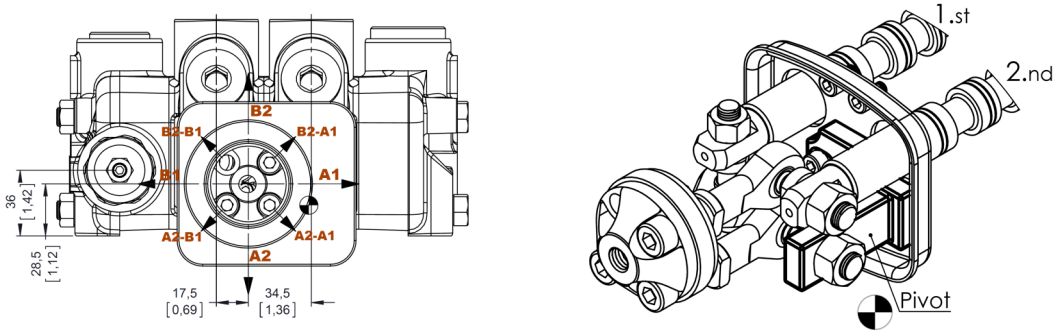
Lever Controls - Joystick

Dimensions and movement sceme

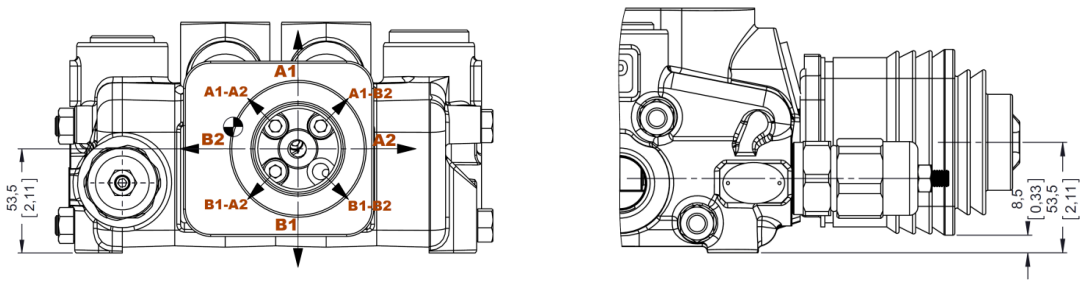
Type No: **JL1** — **Application:** Pivot placed down on the Left



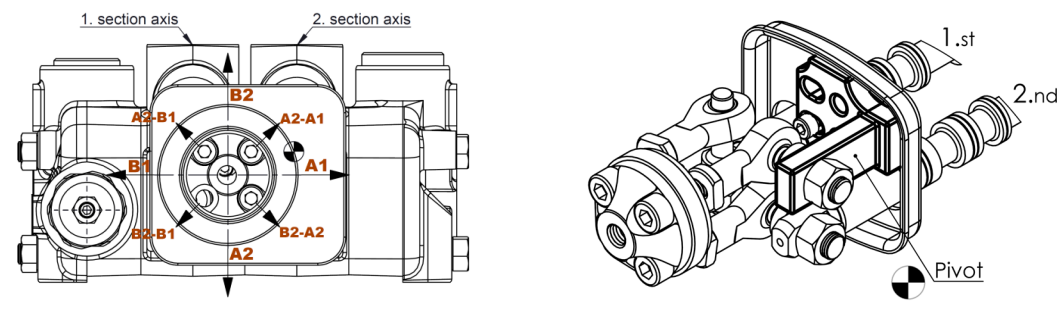
Type No: **JL2** — **Application:** Pivot placed down on the right



Type No: **JL3** — **Application:** Pivot placed above on the Left



Type No: **JL4** — **Application:** Pivot placed above on the right



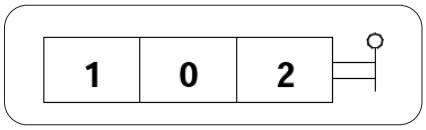
SPOOL POSITIONERS – SIDE OF LEVER CONTROL

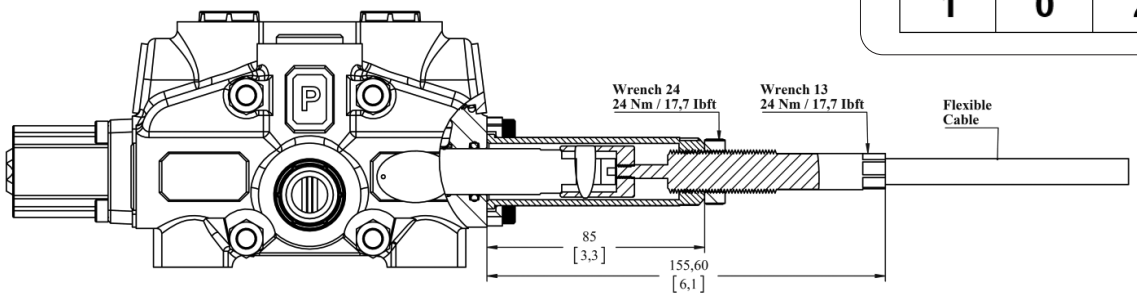
Lever Controls - Cable Control

Kit No: **HL**

Sectional Appearance | Diagram

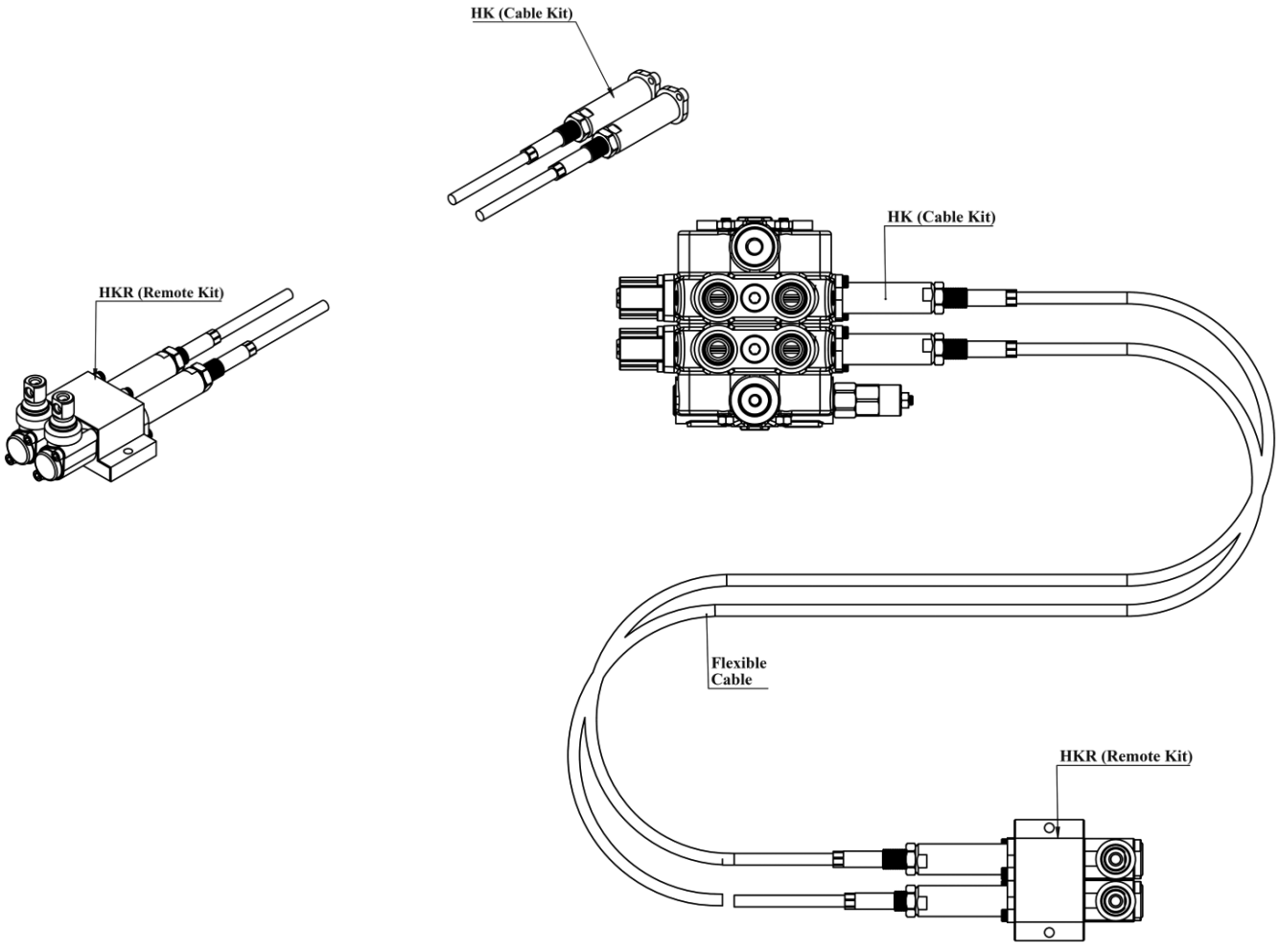
Waterproof cap prearranged for remote control with flexible cable.





Note: Remote cable control is several options. Please indicte the cable length demanded and contact our sales department.

Example Operation

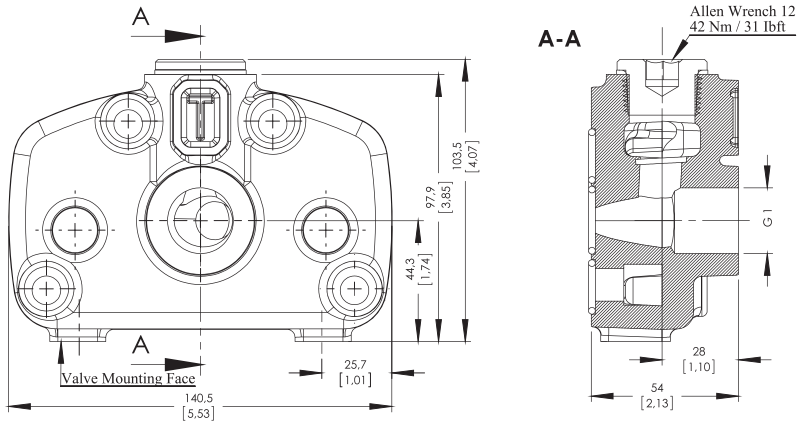


OUTLET COVER - TANK SIDE

Output Cover Options

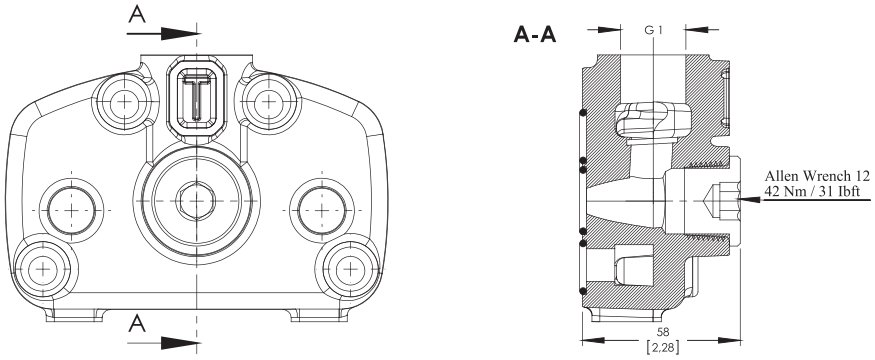
Kit No: **SO**

Sectional Appearance



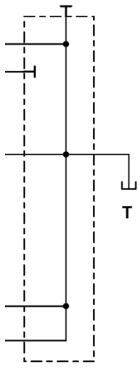
Type No: **TO**

Sectional Appearance

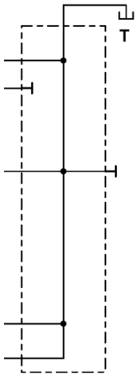


Hydraulic Diagram

Type No: **SO**



Type No: **TO**

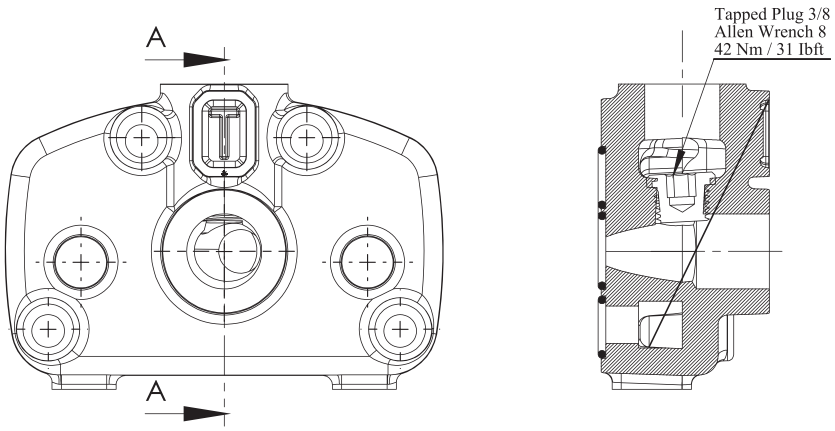


OUTLET COVER - TANK SIDE

Output Cover Options

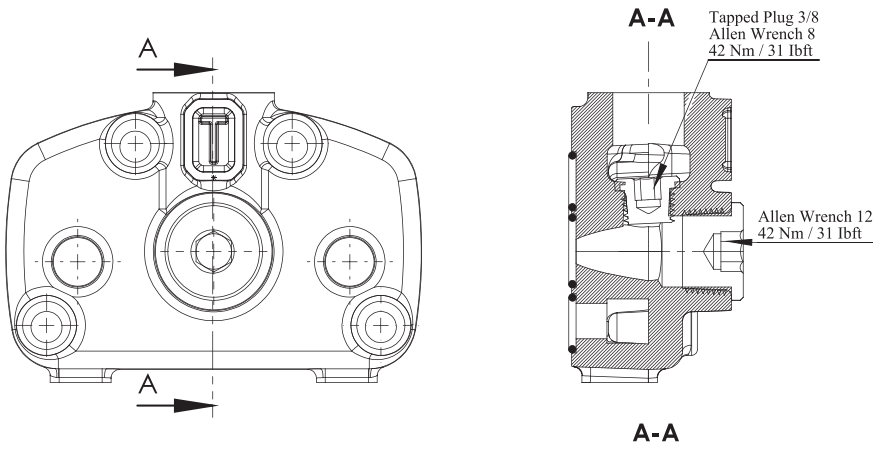
Kit No: **TCO**

Sectional Appearance



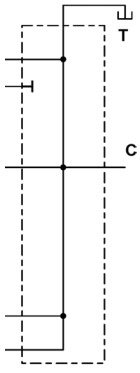
Kit No: **TC**

Sectional Appearance

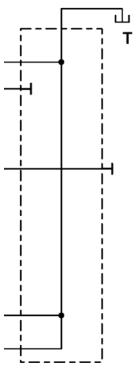


Hydraulic Diagram

Type No: **TCO**



Type No: **TC**



PORT VALVES OPTIONS

Anti Shock Valves

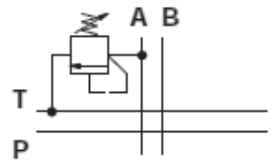
Code:

YAS-1 (T1-100)

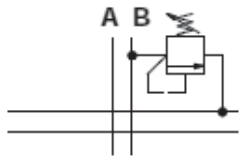
- → **Pressure Setting in Bar**
- → **Adjusting type T=With screw , L=Valve Set / Spring Type (1,2,3)**
- → **1 = Mounted Port A , 2 = Mounted Port B , 3 = Mounted Port A and B**

Hydraulic Diagram

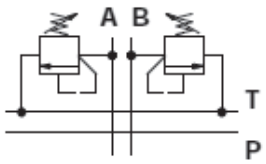
Kit No: **YAS1**



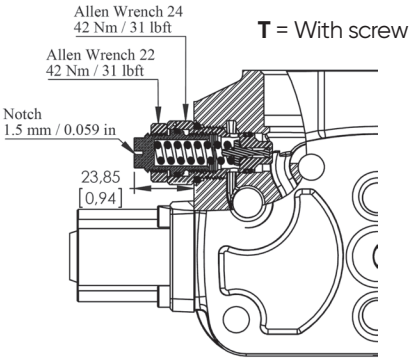
Kit No: **YAS2**



Kit No: **YAS3**

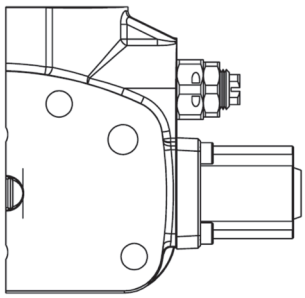


Adjustment Type on Valve:



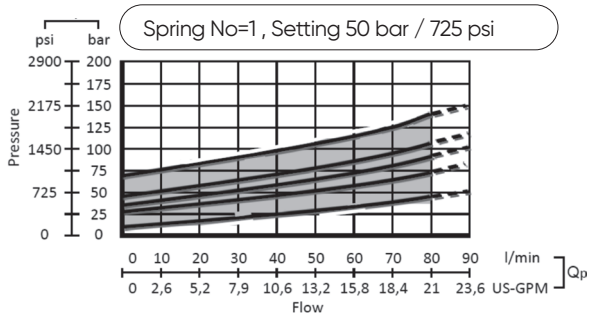
T = With screw

L = Valve set

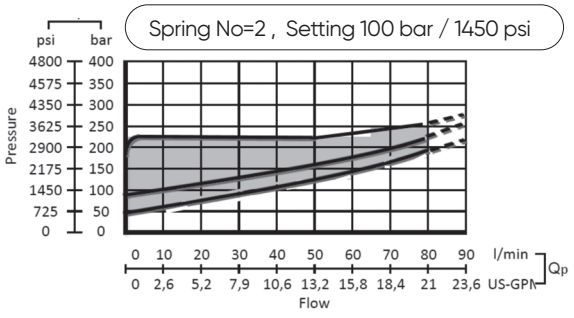


Performance Data:

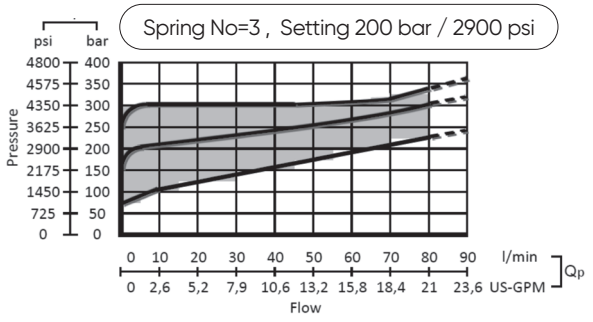
Spring No=1 , Setting 50 bar / 725 psi

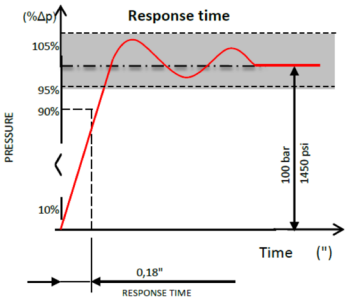


Spring No=2 , Setting 100 bar / 1450 psi



Spring No=3 , Setting 200 bar / 2900 psi





PORT VALVES OPTIONS

Anti shock And Anti Cavitation Valves

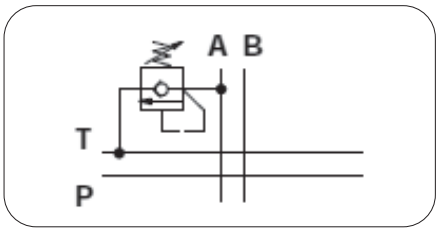
Code:

YAA-1 (T1-100)

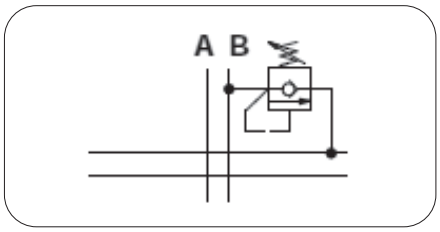
- **Pressure Setting in Bar**
- **Adjusting type T=With screw , L=Valve Set / Spring Type (1,2,3)**
- **1 = Mounted Port A , 2 = Mounted Port B , 3 = Mounted Port A and B**

Hydraulic Diagram

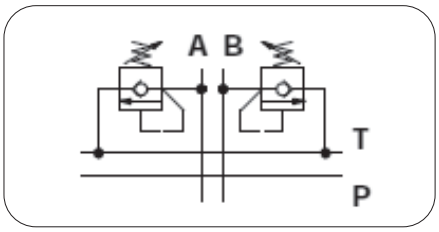
Kit No: **YAA1**



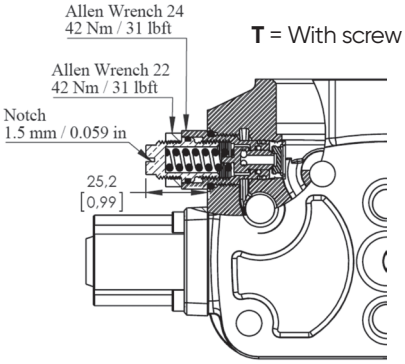
Kit No: **YAA2**



Kit No: **YAA3**

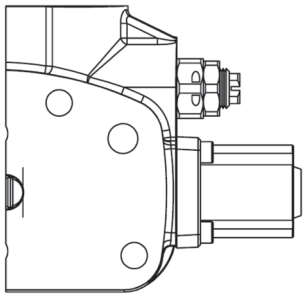


Adjustment Type on Valve:



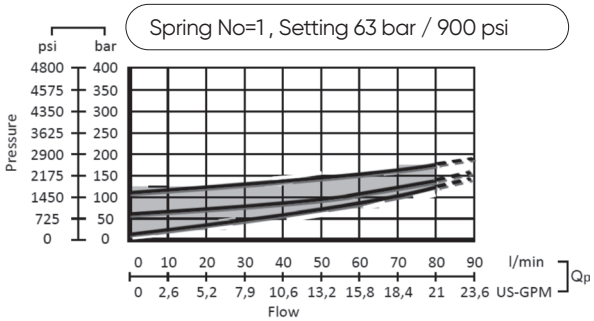
T = With screw

L = Valve set

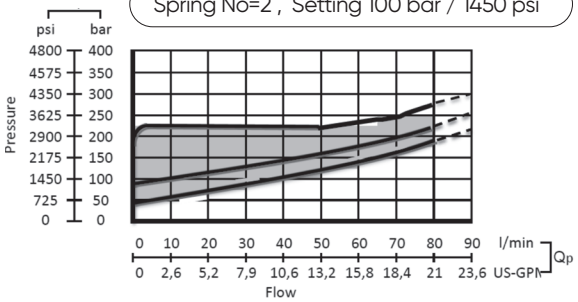


Performance Data:

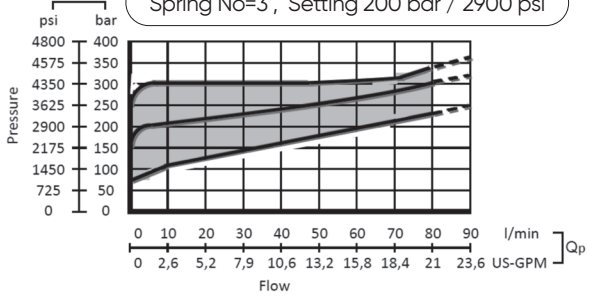
Spring No=1 , Setting 63 bar / 900 psi

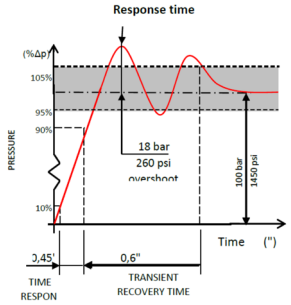


Spring No=2 , Setting 100 bar / 1450 psi



Spring No=3 , Setting 200 bar / 2900 psi





PORT VALVES OPTIONS

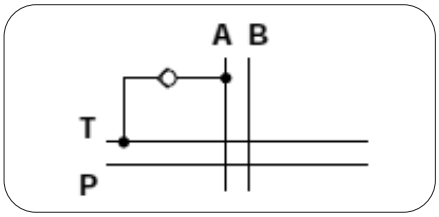
Anti Cavitation Valves

Code:

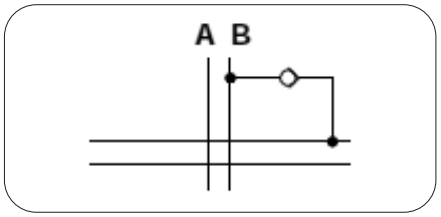
YAC-1 → **1 =** Mounted Port A , 2=Mounted Port B , 3=Mounted Port A and B

Hydraulic Diagram

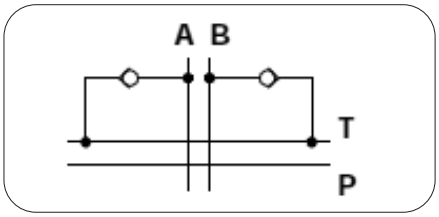
Kit No: **YAC1**



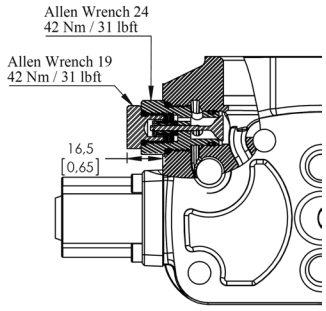
Kit No: **YAC2**

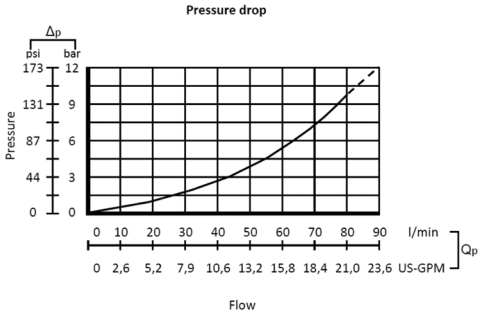


Kit No: **YAC3**



Adjustment Type on Valve And Data:



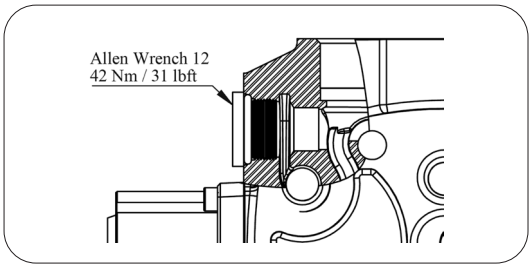


Valve Blaking

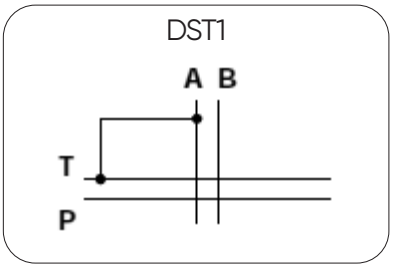
Plug with tank connection

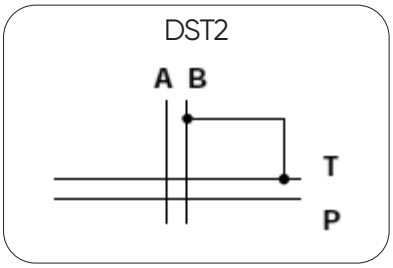
DST-1 (1:Mounted port A – 2:Mounted port B)

Sectional Appearance



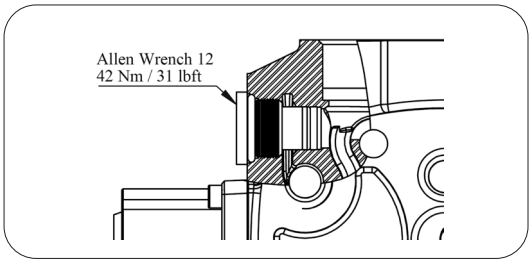
Hydraulic Diagram

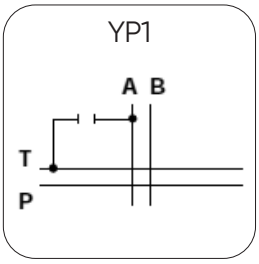


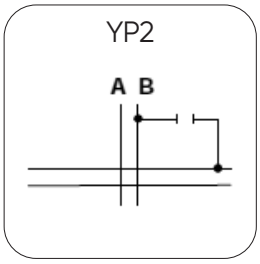


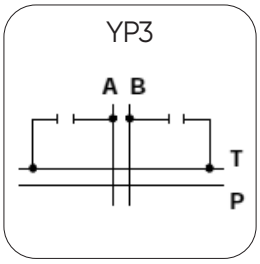
Plug

YP-1 (1:Mounted port A – 2:Mounted port B – 3:Mounted port A and B)









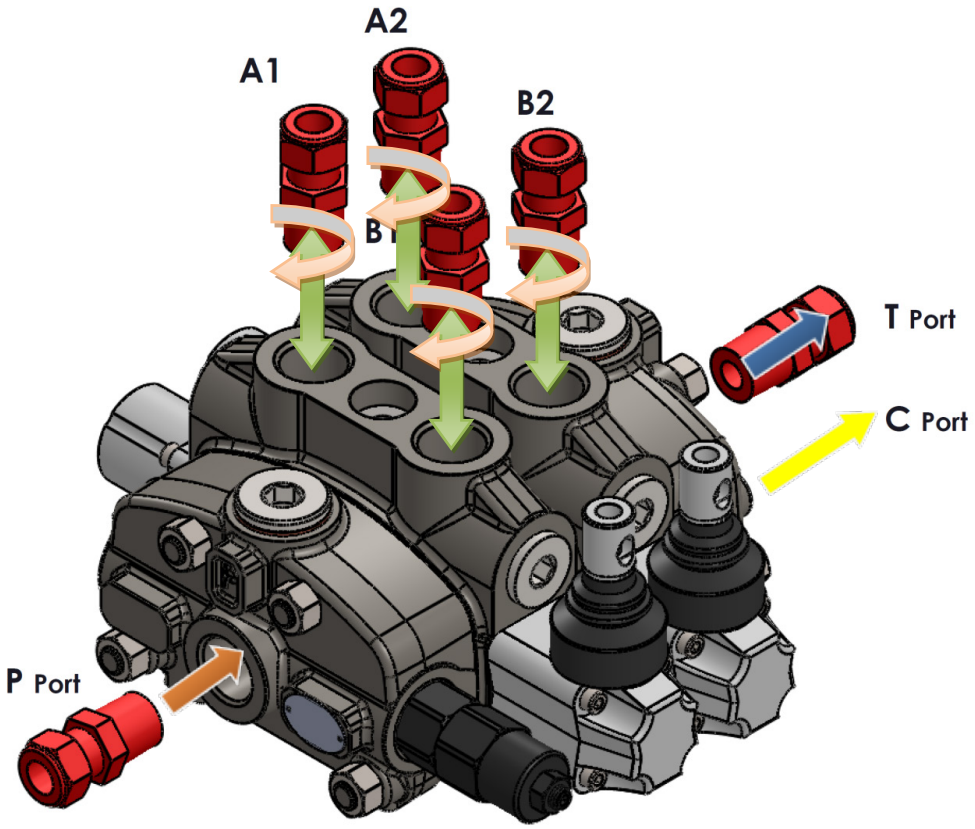
INSTALLATION AND MAINTENANCE

The ORV-PD100 valve is assembled and tested as per the technical specification of this catalog. Before the final installation on your equipment, follow the below recommendation:

• The valve can be assembled in any position, in order to prevent body deformation and spool sticking mount the product on a flat surface;

• In order to prevent the possibility of water entering the lever box and spool control kit, do not use high pressure wash down directly on the valve;

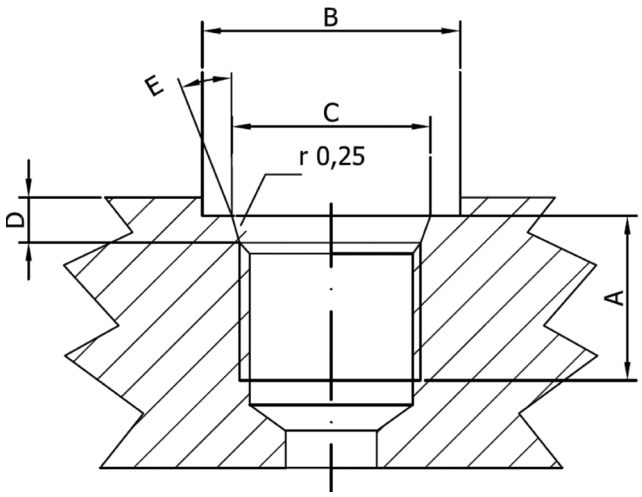
• Before painting, ensure plastic port plugs are tightly in place.



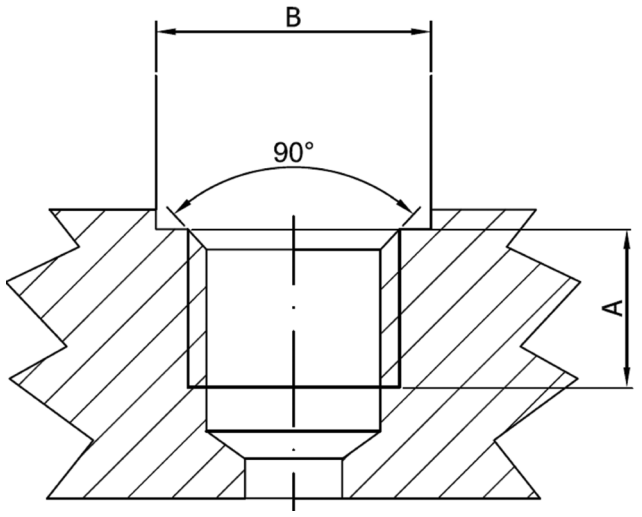
Threads Type (Nm / lbft)	P Port	A and B Port	T Port
BSP (ISO 228/1)	G 1/2	G 1/2	G 3/4
With O--Ring seal	50 / 36.9	50 / 36.9	70 / 51.6
With copper washer	60 / 44.3	60 / 44.3	70 / 51.6
With steel and rubber washer	60 / 44.3	60 / 44.3	70 / 51.6
BSP (ISO 228/1)	G 3/4	G 3/4	G 3/4
With O--Ring seal	70 / 51.6	70 / 51.6	70 / 51.6
With copper washer	70 / 51.6	70 / 51.6	70 / 51.6
With steel and rubber washer	70 / 51.6	70 / 51.6	70 / 51.6
UN--UNF (ISO 11926--1)	11/16--12 UNF--2B	7/8--14 UNF--2B	11/16--12 UNF--2B
With O--Ring seal	95 / 70	30 / 22.1	95 / 70

TECHNICAL DATA

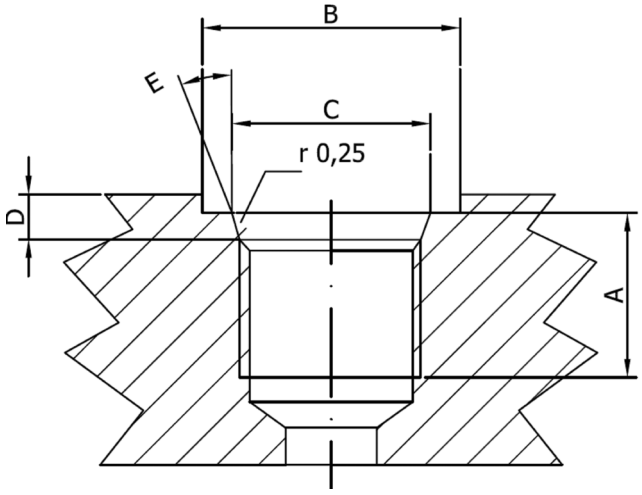
Ports Dimensional Data



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"		G3/4		G1	
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

ORVAL HYDRAULIC

ORV PD100



ORIGINAL VALVE

ORVAL HYDRAULIC

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