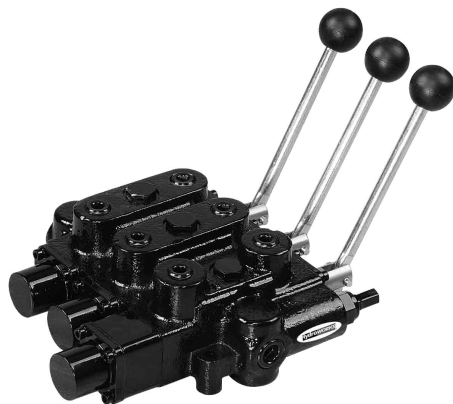
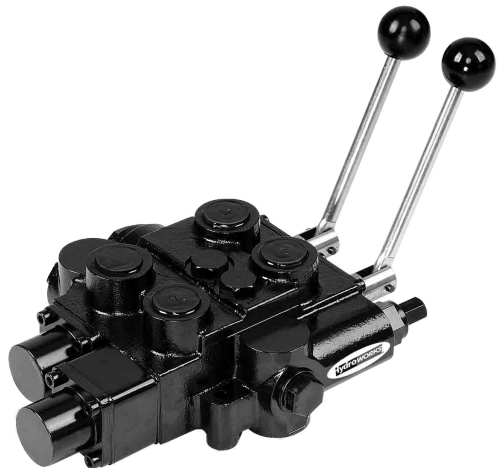


MONO-BLOCK DIRECTIONAL CONTROL VALVE

INSTRUCTION MANUAL

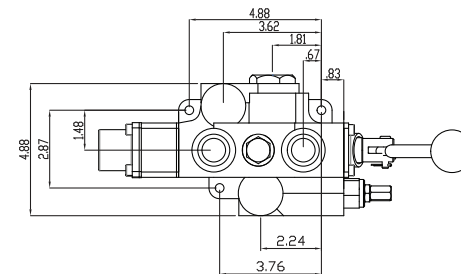
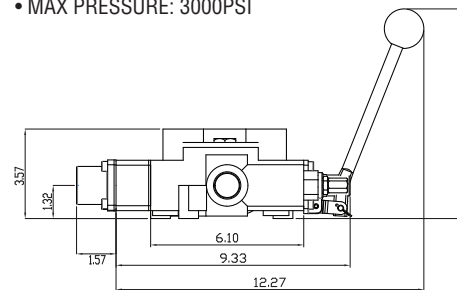


MONO-BLOCK DIRECTIONAL CONTROL VALVE

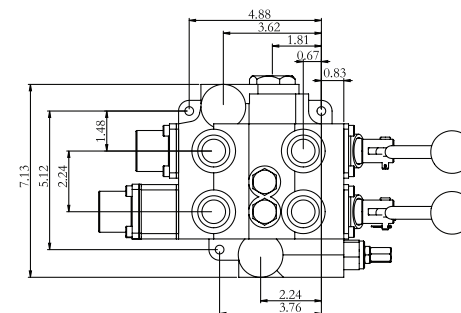
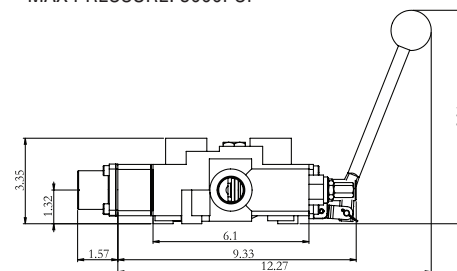
INSTRUCTION MANUAL

INSTALLATION DIMENSION:

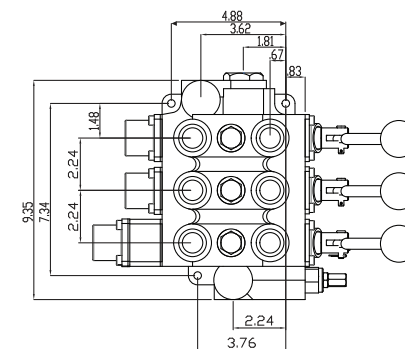
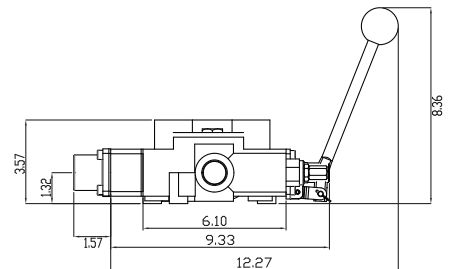
- CAPACITY: 30GPM
- MAX PRESSURE: 3000PSI



- CAPACITY: 30GPM
- MAX PRESSURE: 3000PSI



- CAPACITY: 30GPM
- MAX PRESSURE: 3000PSI



MONO-BLOCK DIRECTIONAL CONTROL VALVE

INSTRUCTION MANUAL

FEATURES:

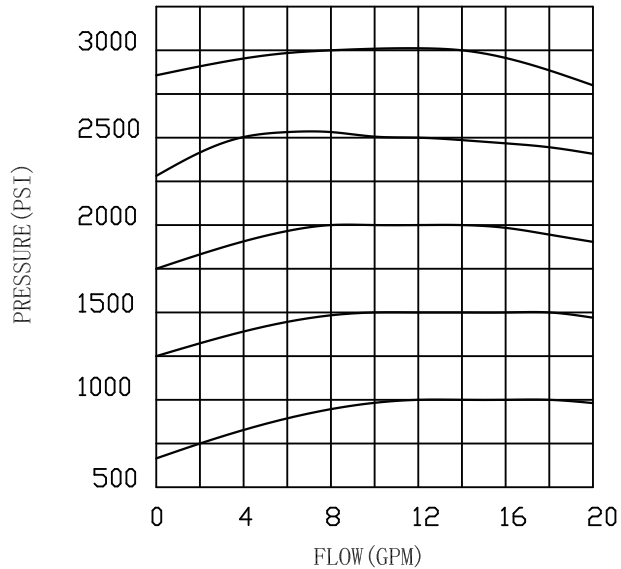
- Economical mono-block construction of high tensile strength gray cast iron.
- Load check on each spool.
- Hard chrome plated spool.
- Optional 4 Position Float on 1st
- Differential poppet style relief, adjustable from 1500 to 3000psi, relief preset at 2000PSI
- Power beyond and closed center capability
- I/O port 1/2" NPT; 3/4" NPT; 3/4" BSP; #8SAE; #10SAE available
- Working port 1/2" NPT; 3/4" NPT; 1/2" BSP; #8SAE; #10SAE available

RECOMMENDED SYSTEM:

PARALLEL CIRCUIT
 MAXIMUM OPERATING PRESSURE 3,000 PSI
 MAXIMUM OPERATING TEMPERATURE 180°F
 MAXIMUM TANK PORT PRESSURE 500 PSI
 RECOMMEND SYSTEM FILTRATION ISO 4406 19/17/14

RELIEF VALVE 110 SUS OIL AT 115°F

CURVES AT VARIOUS SET POINTS
 110 SUS OIL AT 115°F

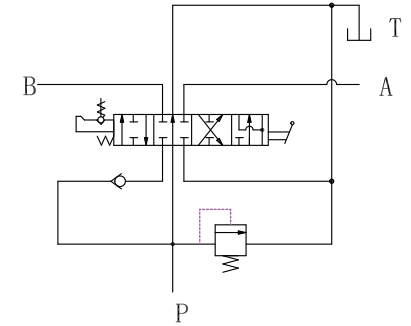


MONO-BLOCK DIRECTIONAL CONTROL VALVE

INSTRUCTION MANUAL

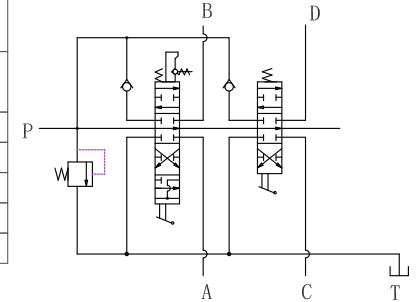
SINGLE SPOOL VALVE PRESSURE DROP VALUES

1- Spool Pressure Drop Values 110 SUS OIL AT 115°F ΔP-PSI			
Flow (GPM)	Inlet to outlet	Inlet to A or B	A or B to Outlet
5	2	8	3
10	5	17	6
15	9	35	12
20	21	58	21
25	26	86	34



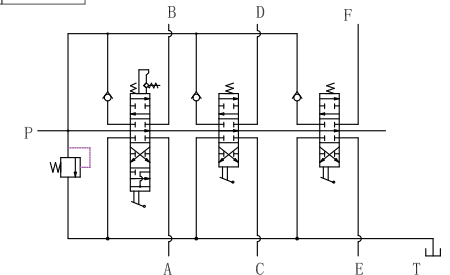
2-SPOOL VALVE PRESSURE DROP VALUES

2- Spool Pressure Drop Values 110 SUS OIL AT 115°F ΔP-PSI					
Flow (GPM)	Inlet to outlet	Inlet to A or B	Inlet to C or D	A or B to Outlet	C or D to Outlet
5	3	11	11	2	2
10	8	22	24	8	5
15	16	38	42	15	11
20	28	57	68	27	19
25	44	83	101	43	29



3-SPOOL VALVE PRESSURE DROP VALUES

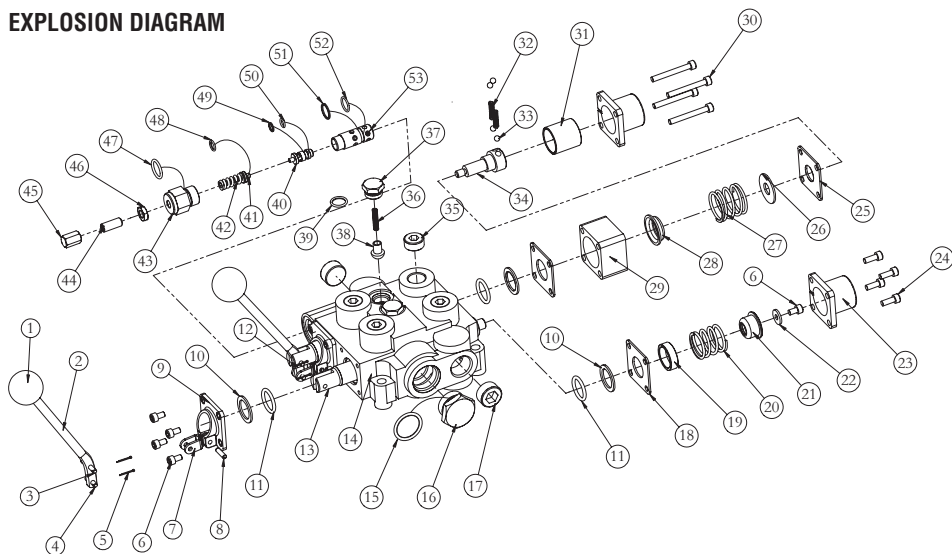
3-Spool Pressure Drop Values 110 SUS OIL AT 115°F ΔP-PSI							
Flow (GPM)	Inlet to outlet	Inlet to A or B	Inlet to C or D	Inlet to E or F	A or B to Outlet	C or D to Outlet	E or F to Outlet
5	2	9	9	11	4	3	2
10	10	18	20	25	14	9	6
15	22	33	41	49	32	22	13
20	37	56	68	78	51	36	21
25	58	83	101	118	76	55	32



MONO-BLOCK DIRECTIONAL CONTROL VALVE

INSTRUCTION MANUAL

EXPLOSION DIAGRAM



PARTS LIST

Part No.	Description	Q'ty	Kits Description	Part No.	Description	Q'ty	Kits Description
14	Valve Body	1		22	Spring Adapter	2	Spool Action Kit (Spring Center Kit)
15	O-ring	1		20	Spring	2	
16	Conversion Plug	1		18	Gasket	2	
17	3/4" Plug	2		36	Spring	2	Load Check Set
35	1/2" Plug	4		37	Plug	2	
10	Spool Backup	4	Spool Kit	39	O-ring	2	
11	Spool O-ring	4			38	Spring Adapter	2
13	Spool	2		45	Acorn Nut	1	Relief Cartridge
1	Knob	2	Handle Kit	44	Set Screw	1	
6	Screw	9			43	Nut	
9	Handle Bracket	2			41	Spring Adapter	1
2	Handle	2			40	Piston	1
3	Clevis Pin	2			53	Piston Sleeve	1
5	Cotter Pin	4			46	Nut	1
4	Clevis Pin	2			47	O-ring	1
7	Connecting Board	4			42	Spring	1
8	Pin	2			48	O-ring	1
6	Screw	1		Spool Action Kit (Spring Center Kit)	49	Back-up Washer	1
19	Spring Sleeve	2			50	O-ring	1
21	Stop Cup	2			51	Back-up Washer	1
24	Cap Screw	4			52	O-ring	1
23	Attachment Cover	2					

*The diagram is for 2-spool. In this series, 1-spool, 2-spool and 3-spool mono block valve are similar.

MONO-BLOCK DIRECTIONAL CONTROL VALVE

INSTRUCTION MANUAL

PARTS LIST

Part No.	Description	Q'ty	Kits Description
12	Spool	1	Spool Action Kit (Spring Center W/Float Detent Kit)
25	Retainer Plate	1	
26	Washer	1	
27	Float Spring	1	
28	Stop Cup	1	
29	Float Spacer	1	
30	Cap Screw	4	
31	Float Detent Sleeve	1	
32	Detent Spring	2	
33	Steel Ball	4	
34	Detent Retainer	1	

ADJUSTABLE RELIEFS – An adjustable relief valve is standard on all mono-block directional valves. The standard factory setting is 2,000PSI. Other setting can be specified. The relief pressure is adjusted by removing Acorn Nut (Parts No.45), and turning the Adjusting Screw (Part No.44). Turning the Adjusting Screw clockwise will increase the pressure and counter-clockwise will decrease the pressure (a pressure gauge must be installed in the inlet line whenever the relief pressure is adjusted). Adjustable pressure range is 1500psi to 3000psi. Do not backout adjusting screw to the point it falls out.

⚠ WARNING

⚠ All hydraulic valve must be properly installed into the hydraulic system to prevent personal injury and/or property damage. Further, the improper servicing of a valve may result in personal injury and/or property damage. Please read and understand all catalog and service information before starting, as with all mechanical work the proper tools, knowledge, and safety equipment are required, always wear safety glasses.

⚠ Make sure all pressure has been relieved in the hydraulic lines before installing or servicing a hydraulic valve.

⚠ Escaping hydraulic fluid under pressure can have sufficient force to penetrate skin, causing serious personal injury. Do not use your hand to check for hydraulic leaks.

⚠ Before installing or servicing a hydraulic component make sure all weight has been removed from the cylinders or motors before disconnecting hydraulic lines.

⚠ Disconnecting the hydraulic lines while the cylinder or motor is under load may result in the unexpected rapid movement of machine resulting in serious personal injury.

⚠ Do not exceed the operating specifications for pressure, flow or temperature, all hydraulic systems require a means to limit the maximum pressure. This requires either a pressure relief valve in the system or a pump that has pressure compensation.

⚠ Overpressure may cause sudden and unexpected failure of a component in the hydraulic system resulting in serious personal injury, always use a gauge when adjusting a relief valve.