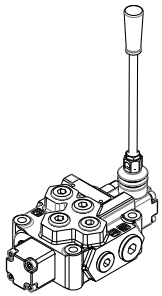
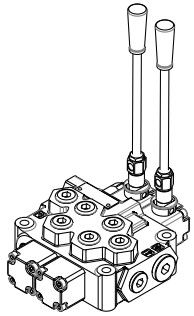
MONO-BLOCK DIRECTIONAL CONTROL VALVE

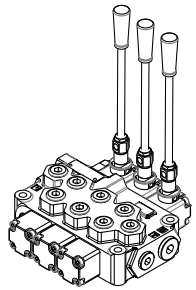
OWNER'S MANUAL



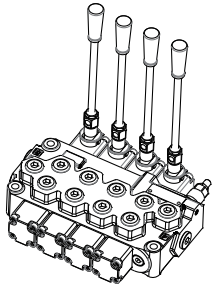
1-Spool



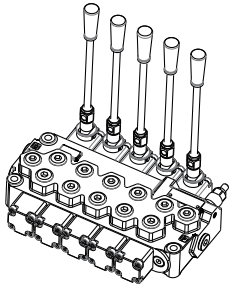
2-Spool



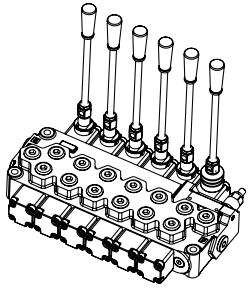
3-Spool



4-Spool



5-Spool



6-Spool

WARNING: Read carefully and understand all **INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautionsmay result in serious personal injury.

Item#s 45462, 45463, 45464,45465, 45466, 45467

Thank you very much for choosing a NORTRAC® Product! For future reference, please complete the owner's record below:

Model: _____ Purchase Date: _____

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

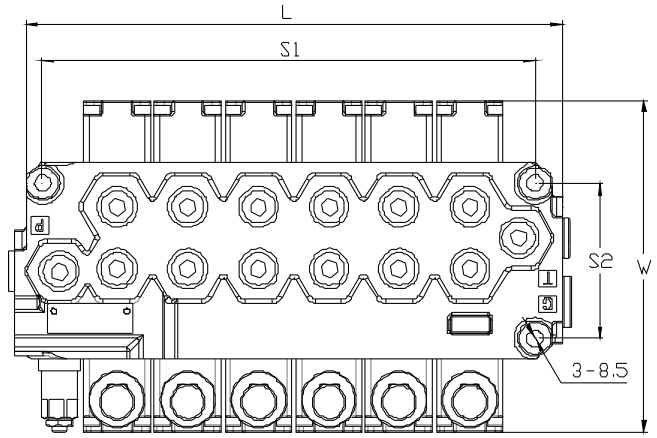
This machine is designed for certain applications only. The distributor strongly recommends that you do not modify or use this machine for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted the distributor to determine if it can or should be performed on the product. For technical questions and replacement parts, please call **1-800-222-5381**.

RECOMMENDED SYSTEM:

PARALLEL CIRCUIT

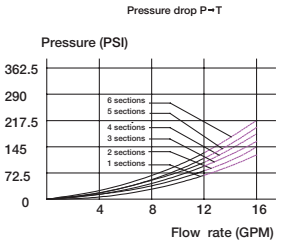
MAXIMUM OPERATING PRESSURE ..... 3,000 PSI
DIFFERENTIAL POPPET STYLE RELIEF ..... 500~3000 PSI
MAXIMUM OPERATING TEMPERATURE ..... 180°F
MAXIMUM TANK PORT PRESSURE ..... 500 PSI
RECOMMEND SYSTEM FILTRATION ..... ISO 4406 19/17/14
FLOW RATING ..... 12 GPM
INLET/OUTLET PORTS ..... 8#SAE
WORKING PORTS ..... 8#SAE

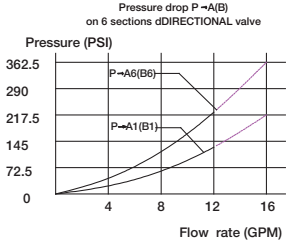
Dimensions

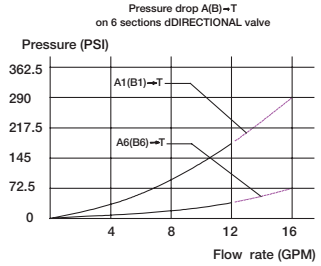


Item#	Product Name	L (mm/ in.)	W (mm/ in.)	S1 (mm/ in.)	S2 (mm/ in.)
45462	1-Spool	96/ 3.78	173/ 6.81	70/ 2.76	81/ 3.19
45463	2-Spool	135/ 5.31	173/ 6.81	110/ 4.33	81/ 3.19
45464	3-Spool	175/ 6.89	173/ 6.81	147/ 5.79	81/ 3.19
45465	4-Spool	212/ 8.35	173/ 6.81	184/ 7.24	81/ 3.19
45466	5-Spool	249/ 9.80	173/ 6.81	221/ 8.70	81/ 3.19
45467	6-Spool	286/ 11.26	173/ 6.81	258/ 10.16	81/ 3.19

Pressure Drop







GENERAL SAFETY REGULATIONS

⚠ **WARNING: Read and understand all instructions.** Failure to follow all instructions listed below may result in serious bodily injury or death, and/or property damage.

⚠ **WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur.** It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

- **Keep the work area clean and dry.** Damp or wet work areas can result in injury.
- **Keep children away from work area.** Do not allow children to handle this product.
- **Always wear ANSI-approved safety glasses and heavy-duty work gloves during assembly and use.** Do not wear loose clothing or jewelry which can get caught in moving parts.
- **Store idle equipment.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
- **Use the right tool for the job.** Do not attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this equipment, and do not use this equipment for a purpose for which it was not intended.
- **Check for damaged parts.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace damaged or worn parts immediately.
- **Do not overreach.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
- **DO NOT use the equipment when tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating this equipment may result in serious personal injury.
- **Industrial applications must follow OSHA requirements.**

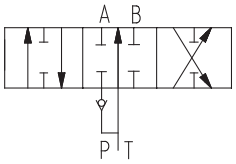
GUIDE TO SAFETY OPERATION

⚠ **WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur.** It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

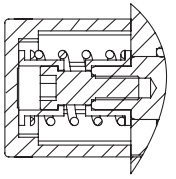
- **All hydraulic valve must be properly installed into the hydraulic system to prevent personal injury and/or property damage.** Further, the improper servicing of a valve may result in personal injury and/or property damage. Please read and understand all catalog and service information before starting, 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.

SPOOL TYPE

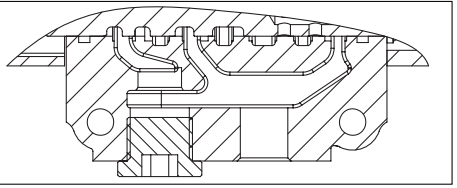


4 way 3 position tandem center
Powers cylinder or motor in both directions (metering capability is very limited).
Pump unloads to tank when spool is in neutral.
cylinder or motor blocked when spool in neutral

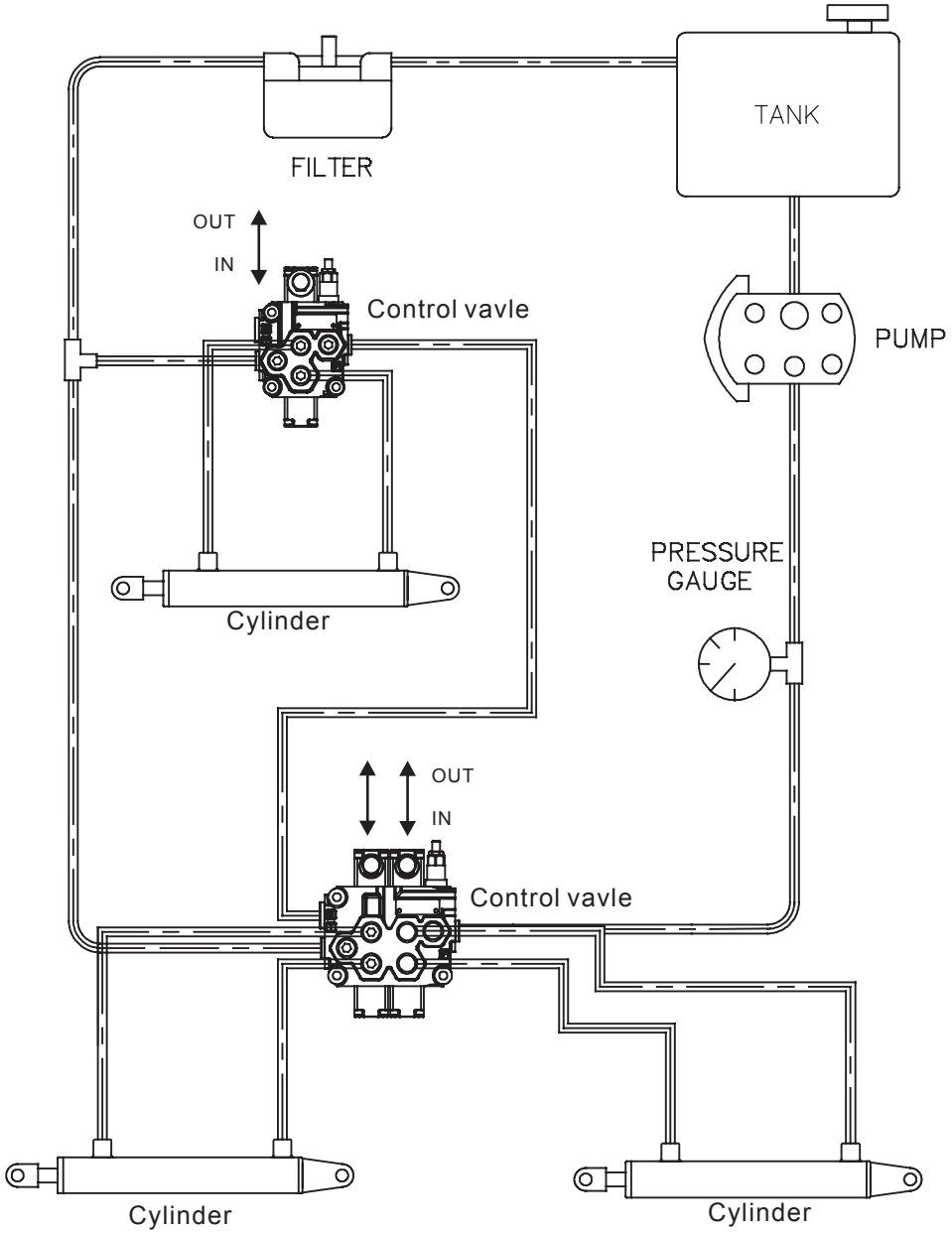


3 position spring center to neutral

Conversion plug installed
To be used with open centre spool options.
Allow the valve to be converted to have power beyond function or be converted from open to closed center.

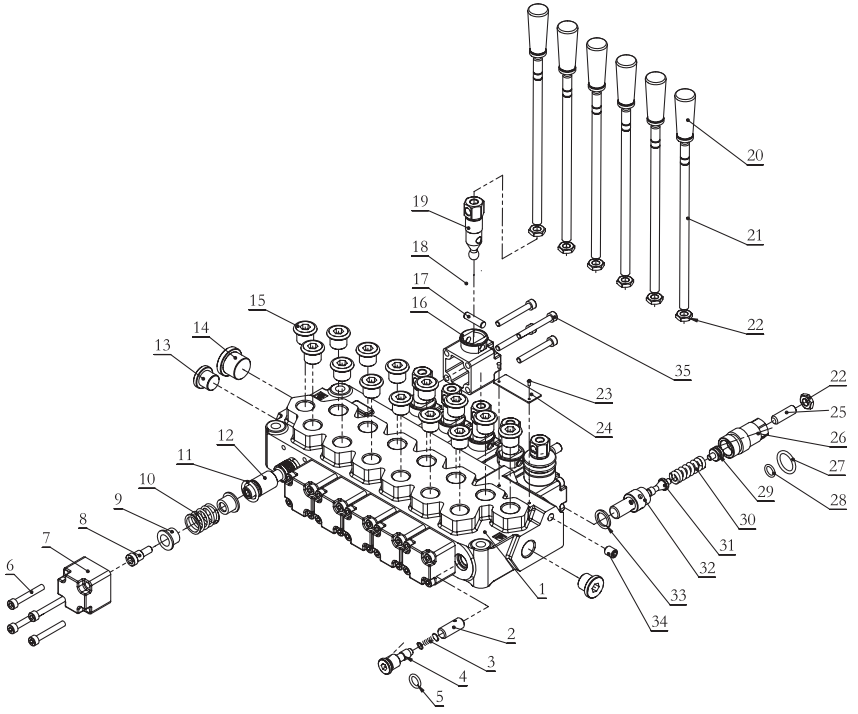


HYDRAULIC CIRCUIT WITH OPTIONAL POWER BEYOND

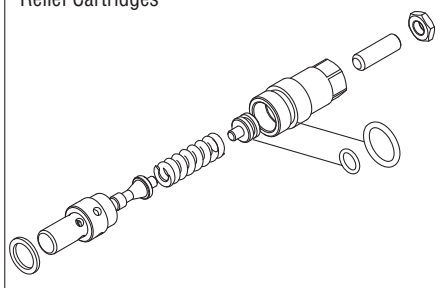


ADJUSTABLE RELIEFS – An adjustable relief valve is standard on all mono-block directional valves. The standard factory setting is 2, 100PSI @ 8 gpm.
The relief pressure is adjusted by removing Acorn Nut (Parts No.22), and turning the Adjusting Screw (Part No. 25). Turning the Adjusting Screw clockwise 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 500psi to 3000psi. Do not backout adjusting screw to the point it falls out.

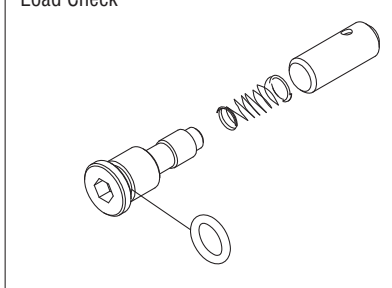
DIAGRAM AND PARTS LIST



Relief Cartridges



Load Check



MONO-BLOCK DIRECTIONAL CONTROL VALVE

Part No.	Description	Q'ty	Kits Description	Part No.	Description	Q'ty	Kits Description
1	Valve body	1		21	Screw M5x40	6	Handle Kit
2	Piston	1	Load Check Set	22	Nut M8	7	
3	Spring	1		23	Rivet	2	
4	Screw	1		24	Nameplate	1	
5	O-ring	1		25	Screw M8X25	1	Relief Cartridge
6	Screw M5x35	24		26	Nut	1	
7	Spring Adapter	6	Spool Kit	27	O-ring	1	
8	Screw	6		28	O-ring	1	
9	Spring Sleeve	12		29	Piston	1	
10	Spring	6		30	Spring	1	
11	O-ring	12		31	Piston	1	
12	Spool	6		32	Piston sleeve	1	
13	Plug	2		33	Washer	1	
14	1/2" Plug	1		34	Screw M8x10	2	
15	Plug	14		35	Screw M5x40	24	
16	Fixed Adapter	6	Handle Kit				
17	Pin Φ6X22	6					
18	Rubber sleeve	6					
19	The top rod	6					
20	The handle sleeve	6					

For replacement parts and technical questions, please call **1-800-222-5381.**

WARRANTY
1-year limited warranty

NORTRAC®

Distributed by
Northern Tool + Equipment Co., Inc.
Burnsville, MN 55306
Made in China

Size: 145x210mm 157g铜版纸 REV 02/15/17 2.09.05.30.531