

DIRECTIONAL CONTROL VALVE

3 POSITIONS 4 WAYS DIRECTIONAL CONTROL VALVE

CV3000 series manually operated directional valve



STANDARD VALVES AVAILABLE:

Order code	Work port size	In/out port size
CV3000-1	1/2" NPT	3/4" NPT
CV3000-2	3/4" NPT	3/4" NPT

SPECIFICATIONS:

- Pressure rating
 - maximum design and test pressure..... 2750PSI (190bar)
- Capacity
 - Nominal Flow..... 25GPM(95L/minute) MAX.
- Maximum Operating Temperature..... 180°F (82.2°C)
- Filtration Required(min)..... 10 micrometre
- Maximum Tank Pressure..... 500PSI (35bar)
- Relief Valve Setting..... 2200PSI (152bar)
 - (The relief is set at 3GPM and 120°F)
- Detent Release Pressure 1400PSI (97bar)
- Weight 12LBS (5.45kg)



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STANDARD FEATURES

- The casting body is made of high tensile strength ductile iron.
- Hydraulically balanced, hard chrome plated spool
- In neutral position, both work ports blocked, pump unloads to tank
- Ideal for log splitter applications. Available with 3/4" NPT work ports for higher flow applications
- PRESSURE RELEASE DETENT

This feature provides a pressure release detent for the spool 'out' (hand in) position. When the spool is manually placed in the detent position oil is directed to the 'B' port (the port away from the handle). When the pressure in the 'B' port reaches a preset level the detent will release and the spool will center. The factory setting is 1200 PSI (83bar). The detent release pressure is adjustable by loosening the jam nut and turning the adjusting screw. Turning the adjusting screw clockwise will increase the detent release pressure and counterclockwise will decrease the detent release pressure. NOTE: if the detent release pressure is set too high the spool will not center. If the pressure is too low the detent will not hold. If cap screw item 6 becomes loose detent will not function properly.

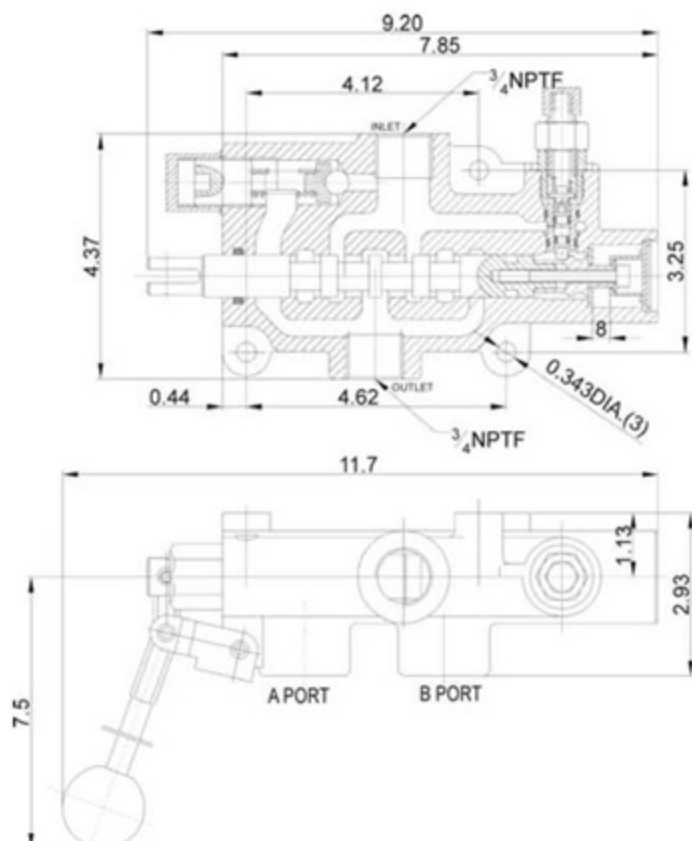
RELIEF VALVE

An adjustable ball spring relief valve is standard on all CV3000 valves. The standard factory setting is 2200 PSI (152bar)@ 3 GPM (11.4L/min) and 120°F (48.9°C). Other settings can be specified. The relief pressure is adjusted by removing nut, and turning the adjusting screw. Turning the adjusting screw clockwise will increase the pressure and counterclockwise will decrease the pressure (a pressure gauge must be installed in the inlet line whenever the relief pressure is adjusted). Do not back out adjusting screw to the point it falls out.

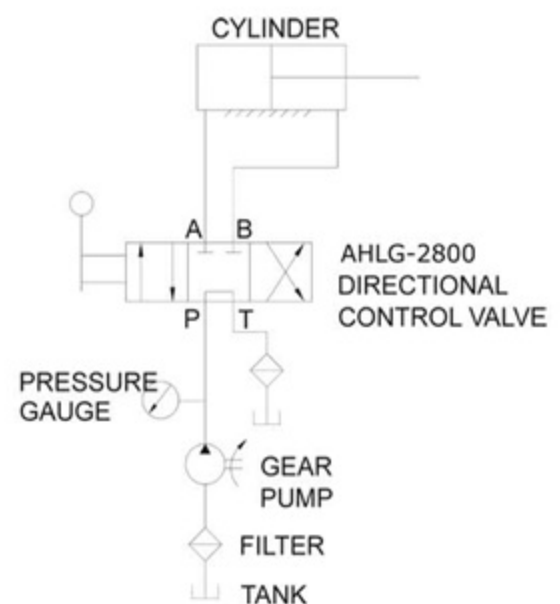
WARNING!

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.

DIMENSIONS FOR ASSEMBLY

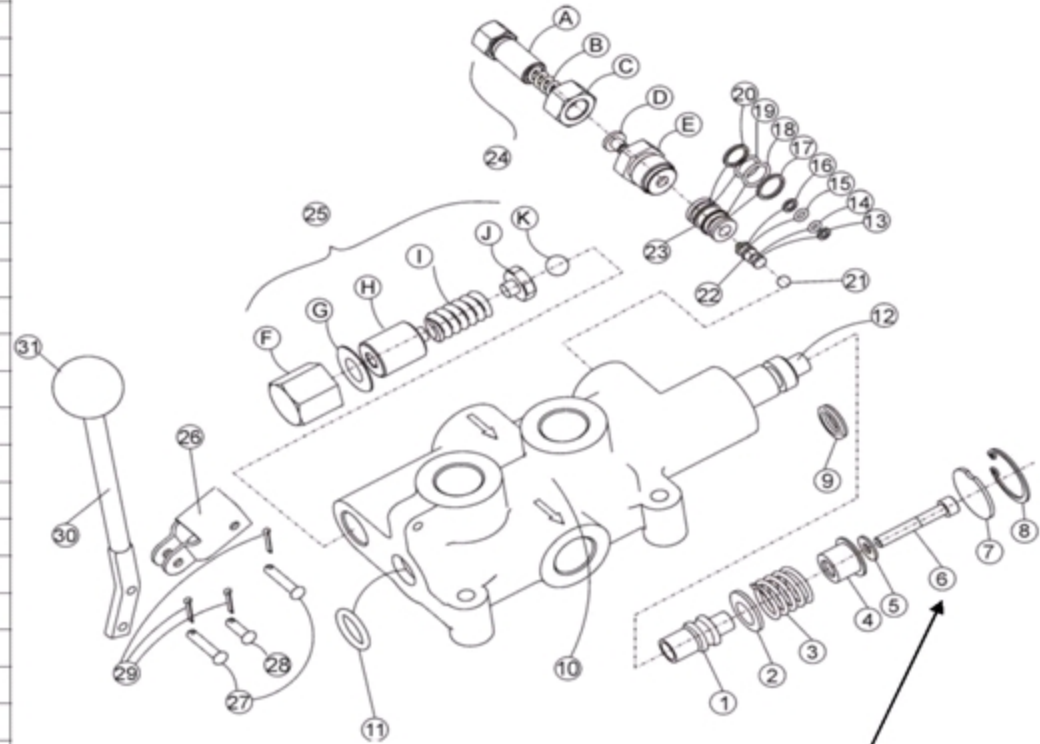


EXAMPLE HYDRAULIC CIRCUIT



CV3000 KITS AND CARTRIDGES

ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	Detent sleeve	25	Relief kit
2	Washer	26	Link
3	Spring	27	Clevis pin
4	Stop cup	28	Clevis pin
5	Washer	29	Cotter pin
6	Cap screw	30	Handle
7	Spacer	31	Knob
8	Snap ring	A	Pressure Release Detent Adjusting Screw
9	U-cup	B	Spring
10	Valve spool	C	Nut
11	O-ring	D	Spring Seat
12	Valve spool	E	Hex Cover
13	Back-up washer	F	Acorn Nut
14	O-ring	G	Aluminum Washer
15	O-ring	H	Relief Adjusting Screw
16	Back-up washer	I	Spring
17	Back-up washer	J	Ball Seat
18	O-ring	K	Steel Ball
19	O-ring	280001	Handle kit (includes items 27 thru 31)
20	Back-up washer	280002	Relief Kit (includes items F thru K)
21	Steel ball	280003	Spring Center Kit (includes items 1 thru 8 and 12)
22	Piston	280004	Detent Sleeve & Piston Kit ((includes items A thru E and 13 thru 24)
23	Piston sleeve	280005	Detent Adjusting Cartridge kit(includes items A thru E and 24)
24	Detent adjusting cartridge	280006	Seal Kit (includes items 9 and 11)



INSTALL WITH LOCTITE 242 ON THE THREADS
TORQUE TO 7-9 FT/LBS



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