



Directional Control Valves
Technical Information
Model 1125



TYPICAL APPLICATIONS

Car transport haulers, small backhoes, utility trucks, and mini-excavators

STANDARD FEATURES

- All valves supplied with clevis end spools
- Power-beyond port machined and plugged (use whenever a downstream valve is required)
- Cast-iron body
- Chrome plated spools select fit to body for leakage control
- Load-check for each spool to prevent load drop before raise
- All porting options machined and plugged
- Individually boxed and labeled



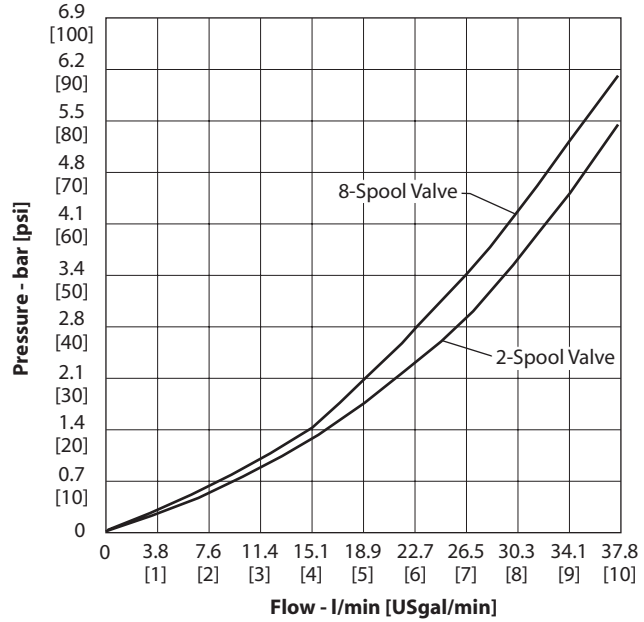
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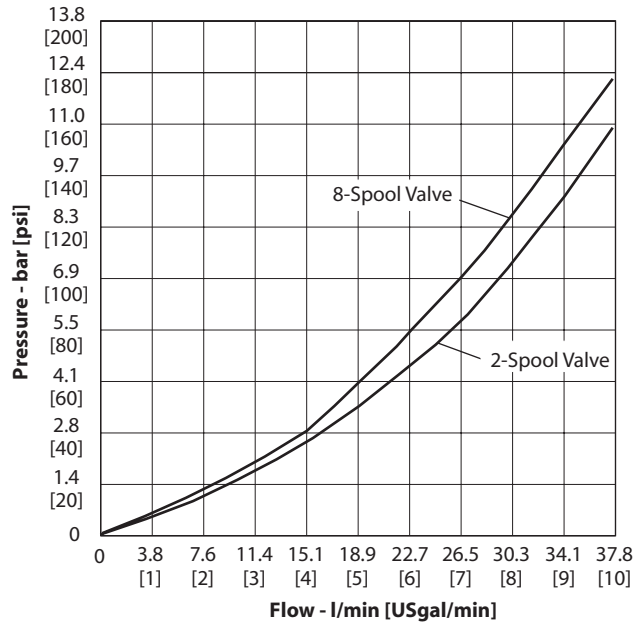
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PRESSURE DROP CURVES

Pressure vs. flow $P \rightarrow T$



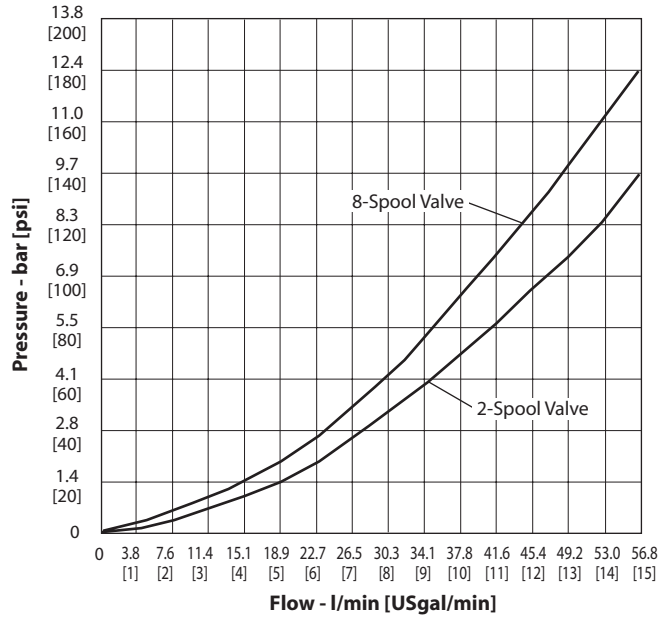
Pressure vs. flow $P \rightarrow A/B$



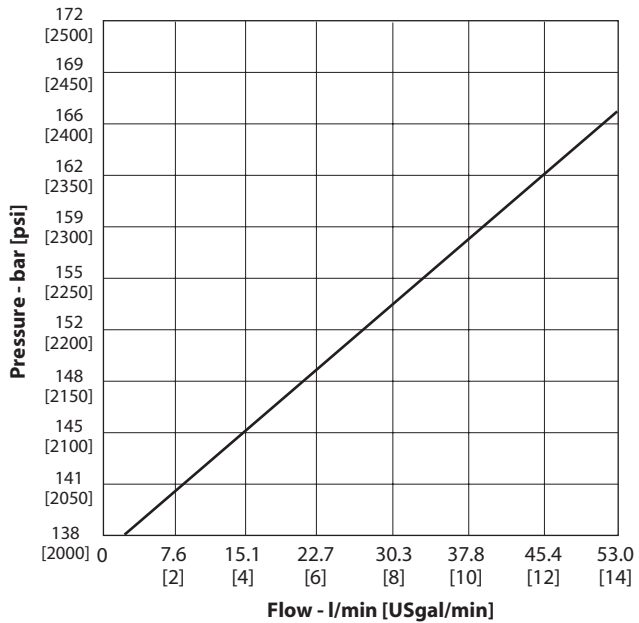


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PRESSURE DROP CURVES *Pressure vs. flow A/B→T*
 (continued)



PRESSURE RISE CURVES *Pressure vs. flow P→T*
 (SYSTEM RELIEF VALVE SVPR)



With system relief SVPR set to 138 bar [2000 psi] at 2.8 l/min [0.75 US gal/min]



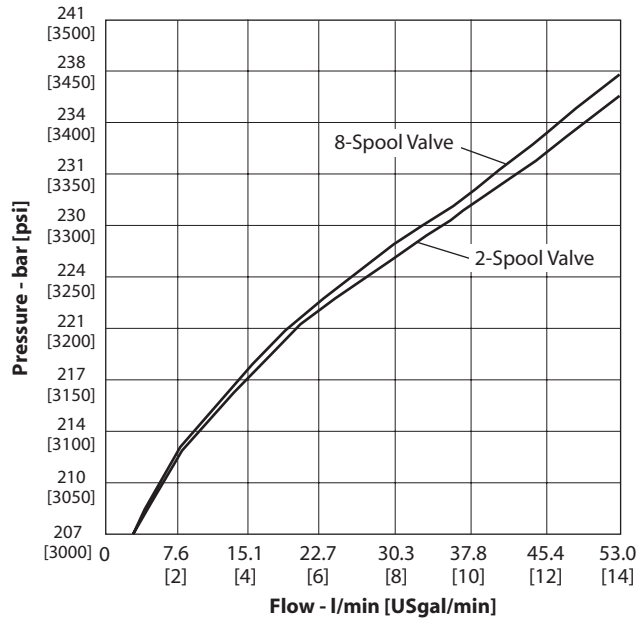
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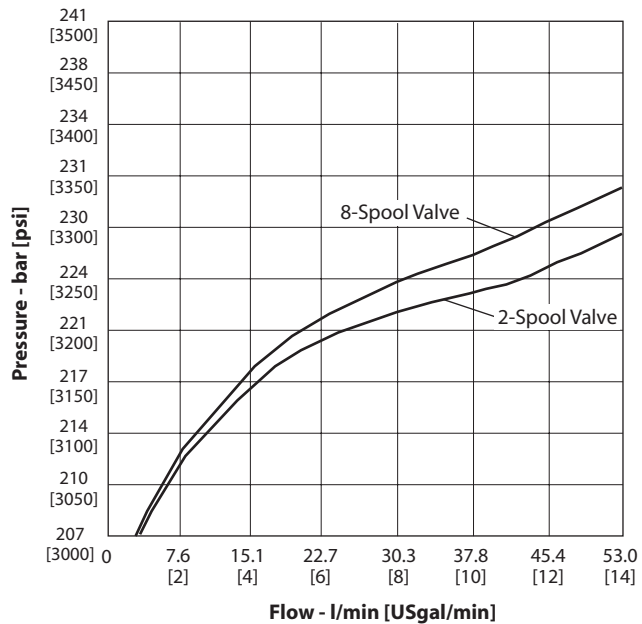
PRESSURE RISE CURVES (WORK PORT RELIEF VALVE SVLP)

Pressure vs. flow P→A/B



With work port relief SVLP set to 206 bar [3000 psi] at 2.8 l/min [0.75 US gal/min]

Pressure vs. flow A/B→T



With work port relief SVLP set to 206 bar [3000 psi] at 2.8 l/min [0.75 US gal/min]



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PORTING

SVPB	Inlet/outlet	7/8-14 SAE 10
	Locations available	Inlet - top Outlet - top on both sections SVSB and SVPB
SVB	Work ports	3/4-16 SAE 8, 7/8-14 SAE 10
SVHC	Power beyond	Power-beyond port machined and plugged. Remove plug and install internal plug for power-beyond feature. 7/8-14 SAE 10

HANDLES SVM

Code	Description
H	Standard handle with C-hook kit (156B8587)
P	Pivot-block handle kit (156B8302)

TECHNICAL DATA

Maximum pressure	205 bar	[3000 psi]
Maximum tank line pressure	70 bar	[1000 psi]
Maximum oil flow	38 l/min	[10 US gal/min]
Spool travel in and out from neutral	4.8 mm	[0.19 in]
Maximum port leakage at 69 bar [1000 psi] 21 mm²/sec (cSt) [102 SUS]	16 cm ³ /min	[1 in ³ /min]
Maximum lift check leakage at 70 bar [1000 psi] 21 mm²/sec (cSt) [102 SUS]	82 cm ³ /min	[5 in ³ /min]
Minimum oil temperature	-29 °C	[-20° F]
Maximum oil temperature	82° C	[180° F]
Ambient temperature range	-29° to 60° C	[-20° to 140° F]
Minimum viscosity	6 mm ² /sec (cSt)	[45 SUS]
Maximum viscosity	440 mm ² /sec (cSt)	[2000 SUS]
Fluid cleanliness per ISO 4406	19/16	
Standard spool forces: Dry	205 N	[46 lbf]

OPTIONS

Spool types

Code	Symbol	Description
O		4-way, 3-position Closed center motor Work-ports open to tank in neutral position
T		4-way, 4-position Open center Work-ports blocked to tank in neutral position
V		3-way, 3-position Open center Work-ports blocked to tank in neutral - B port



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OPTIONS (continued)

Spool actions SVMB

Code	Description
D	3-position detent (156B8315)
S	Spring centered (156B8399)

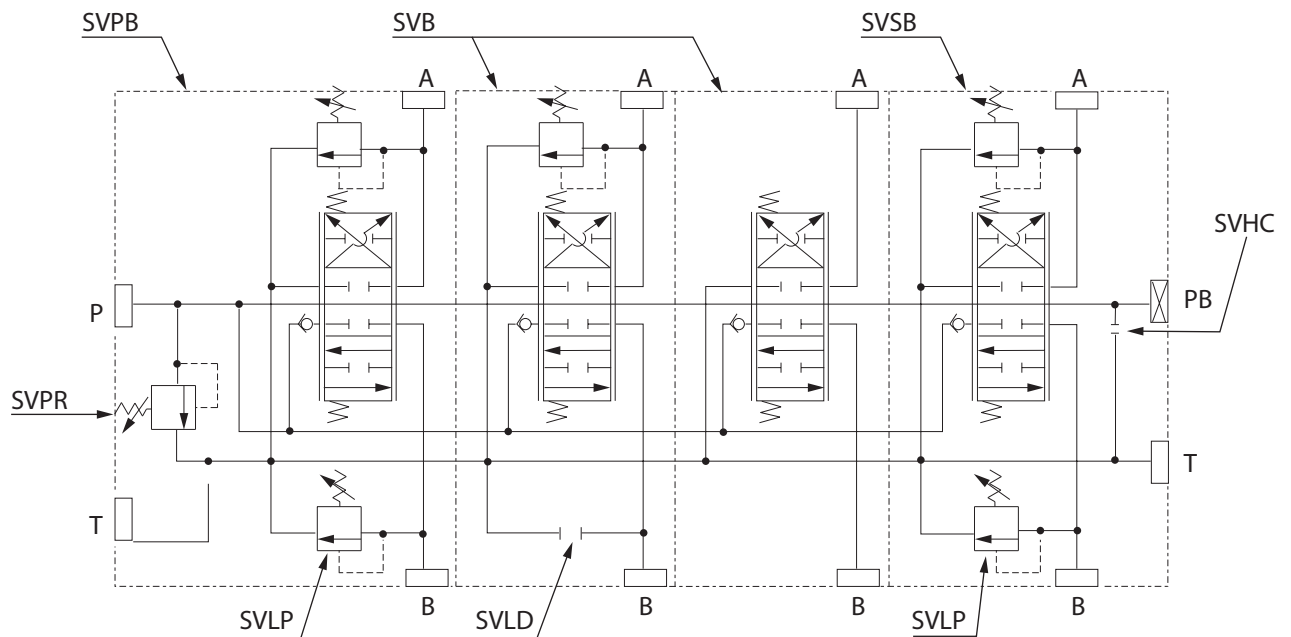
Relief valve SVLP

Code	Description
3	Pilot operated relief valve <ul style="list-style-type: none"> • 0.4 bar/l [20 psi/gal] rise • No restrictions on setting up to 207 bar [3000 psi] • Standard setting 138 bar [2000 psi] crack pressure at 2.9 l/min [0.75 US gal/min]

Work port relief valve SVLP

156B8311 34–172 bar [500–2500 psi]	Std. Setting - 83 bar [1200 psi] crack pressure at 2.9 l/min [0.75 US gal/min]
156B8312 172–206 bar [2500–3000 psi]	Std. Setting - 172 bar [2500 psi] crack pressure at 2.9 l/min [0.75 US gal/min]

TYPICAL CIRCUIT

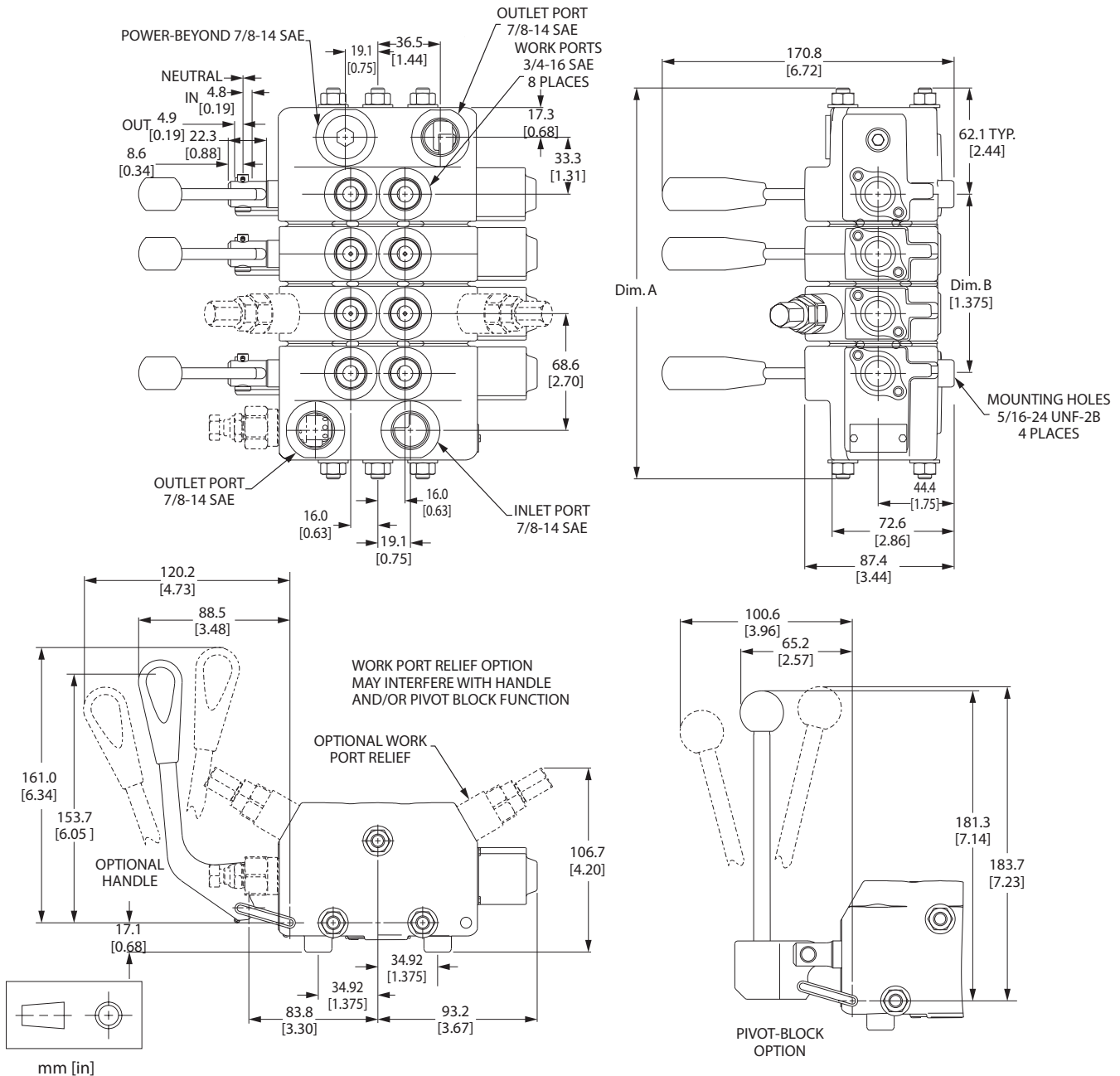




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DIMENSIONS



Spools	Sections	Dimension A	Dimension B	Spools	Sections	Dimension A	Dimension B
2	I & O	158.8 [6.25"]	1.375	6	I & O & 4B	298.5 [11.75"]	6.875
3	I & O & B	193.5 [7.62"]	2.750	7	I & O & 5B	333.5 [13.13"]	8.250
4	I & O & 2B	228.6 [9.00"]	4.125	8	I & O & 6B	368.3 [14.50"]	9.625
5	I & O & 3B	263.7 [10.38"]	5.50	I = INLET O = OUTLET			



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EXPLODED VIEW

