

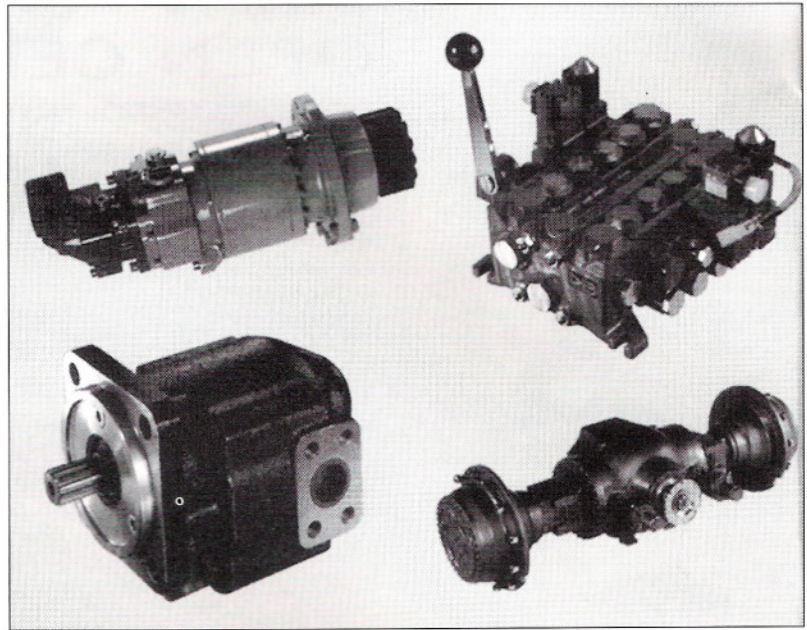
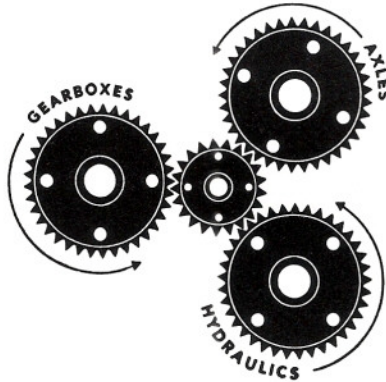
# HYDRECO®

MOBILE  
CONTROL VALVES



V37-100A, V38-100A, V46-100A  
MVT025, MVT150  
VT SERIES

David Brown Hydraulics is a member of the David Brown Mobile Equipment Drives group which is specifically structured to deliver the best in hydraulic and mechanical drives.



Proven ranges of planetary gearboxes and drive axles complement hydraulic pumps, motors and valves so that the David Brown Mobile Equipment Drives Group is uniquely able to provide drive solutions for all types of machinery. Please see back page for contact addresses.

HYDRECO - DAVID BROWN HYDRAULICS

VALVE RANGES	FLOW gpm (l/min)	PRESSURE psi (bar)	NO. OF SPOOLS	CIRCUIT APPLICATION	CAT NO.
V37 - 100A	70 266	2500 172	1,2,3	TANDEM	001 US
V38 - 100A	100 378	2500 172	1,2,3	TANDEM	
V46 - 100A	40 151	3000 207	2,3	TANDEM	
MVT025	25 95	3000 207	1,2,3	TANDEM	
MVT150	150 568	3000 207	2,3	TANDEM	
VT30B	100 378	3000 207	1	HAULER TRUCK	
STV08	25 95	3000 207	1,2,3	STEERING VALVE	002 US
STV13	10-50 38-189	2250 155	1	STEERING VALVE	
STV16	50-100 189-379	2500 172	1	STEERING VALVE	
STV20	100-200 379-757	3000 207	1	STEERING VALVE	
DV13	40 151	2500 172	1	DEMAND VALVE	
DV20	150 568	2000 138	1	DEMAND VALVE	
SPC50	55 208	3000 207	1	STEERING VALVE	003 US
VCC	3&6 11&22	600 41	1,2,3	PILOT CONTROL	004 US



**Design and Performance**

**Features:**

- High capacity pilot-operated system relief valve with many parts common to all valve models.
- SAE 4- bolt porting for high pressure systems. SAE straight thread ports available in single plunger units. Top inlet and outlet plugged but available for use.
- Standardized detent design with many parts common among various detent styles reducing service parts requirements. Detent Kits available, for more information contact factory.
- Housings are machined to take high pressure carry-over kit (Kit no. SKO 151 provides 1 1/4-4-bolt port- split flange ported units only).
- Hollow plunger construction with built-in load hold checks for precise metering.

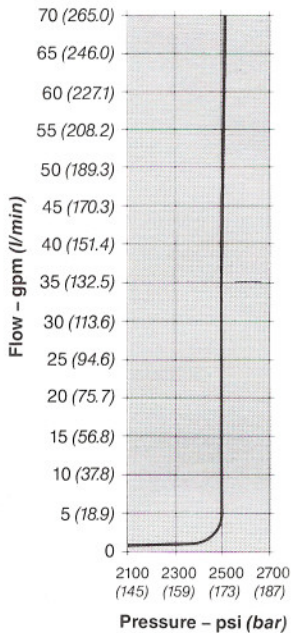
**Performance Data**

Performance tests with oil temperature 120° F (49° C) – viscosity 173-185 SSU at 100° F (37.7° C).

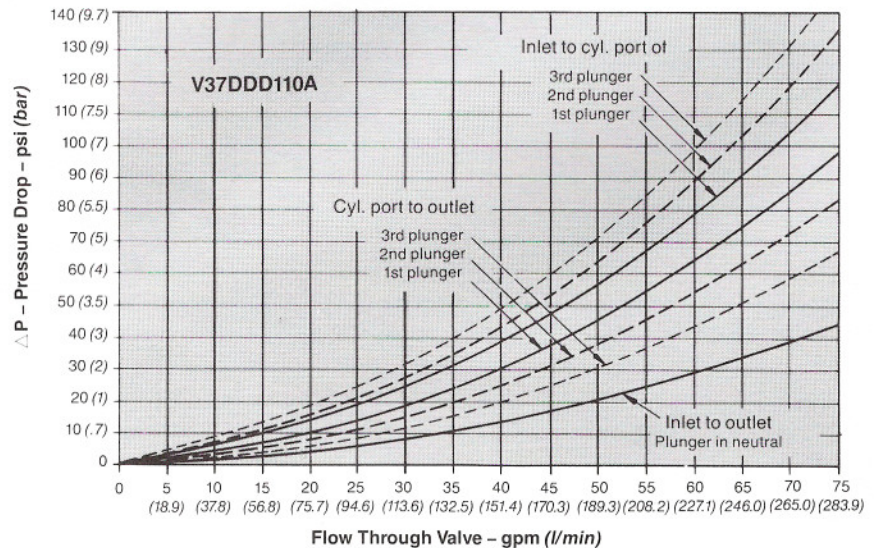
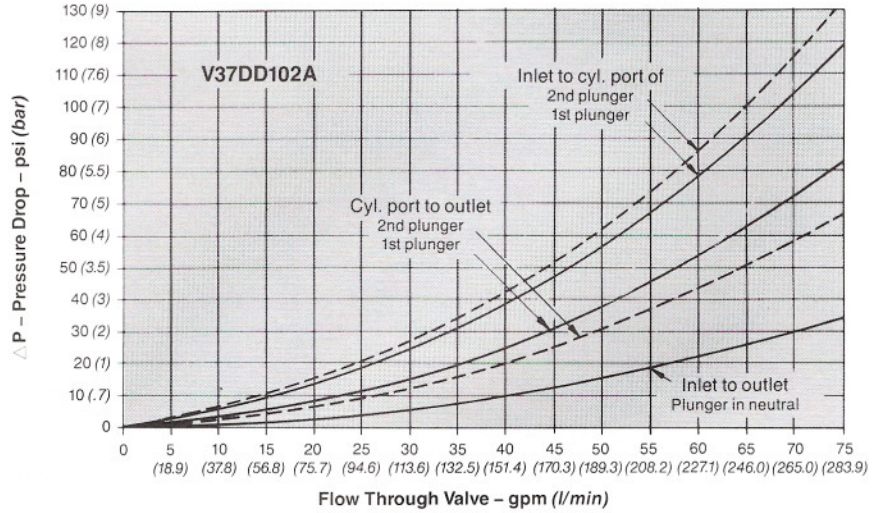
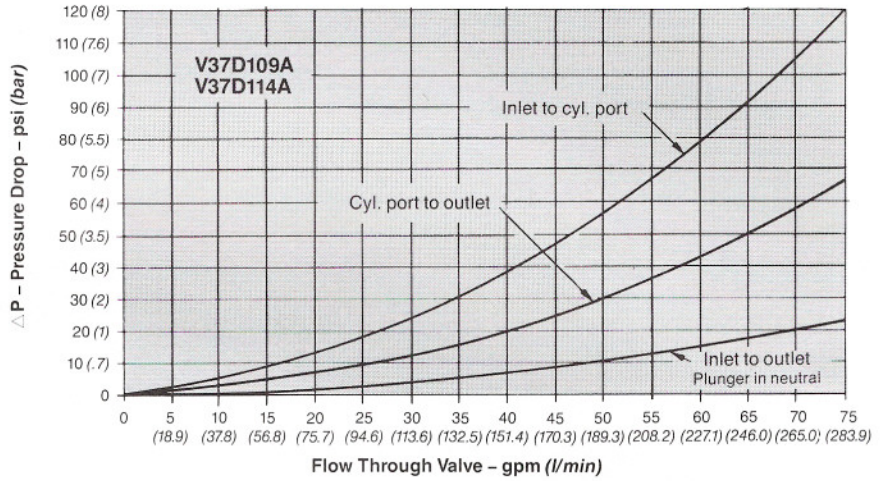
**Pilot-operated Relief**

Relief valve is adjustable from 0-2500 psi (0-172 bar) and can be installed in either side of valve (same side as "B" cylinder ports is standard location).

**Relief Curve**

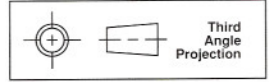


**Performance Data**

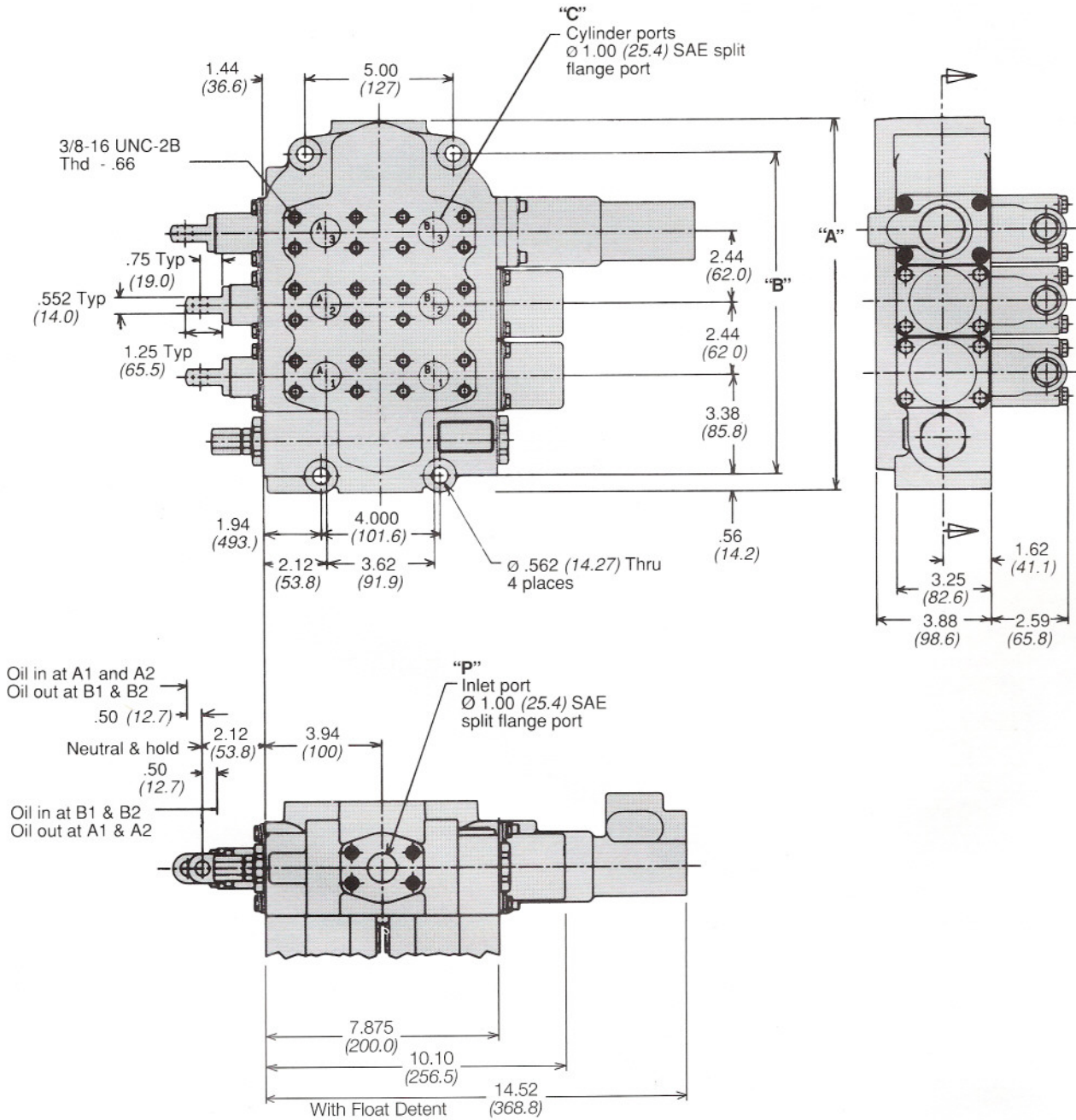




Tandem Circuit 70 gpm (266 l/min), 2500 psi (172 bar) max. rating



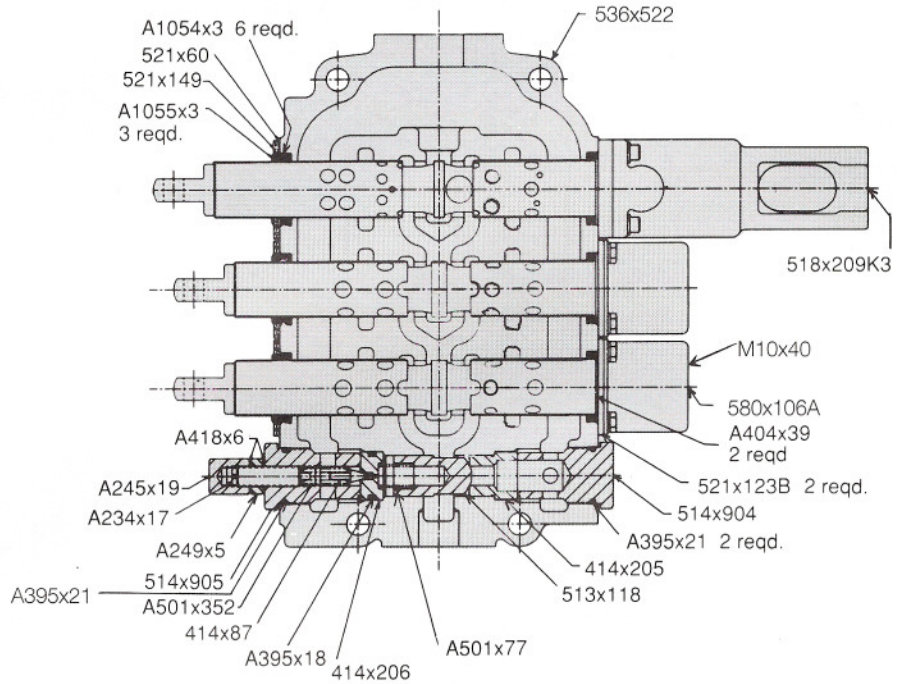
Installation Dimensions  
V37DDF



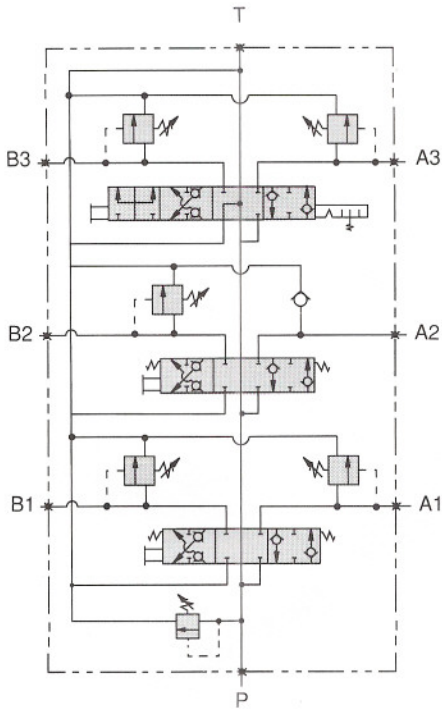
Dimensions shown are in inches (millimeters).

Tandem Circuit 70 gpm (266 l/min), 2500 psi (172 bar)

Section Drawing  
V37DDF



Schematic



Note items A245x19 and A249x5 must be torqued to 45ft lbs (62 Nm) after relief has been set.

The chart lists standard models. Other configurations are available: units with electric, mechanical or hydraulic detents, float spools, jog steer spools and airshift. For available modifications, please consult the factory.

Model	"A" Dim. in. (mm)	"B" Dim. in. (mm)	"C" Port Sizes	"P" Port Side	"P" Port Top	"T" Port Side	"T" Port Top	Approx. Net Wt. lb. (kg)
V37D114A V37M114A	7.75 (196.85)	6.06 (153.92)	1 <sup>5</sup> / <sub>16</sub> -12 UNF-2B	1 <sup>5</sup> / <sub>16</sub> -12 UNF-2B	Plugged Same As Side	1 <sup>5</sup> / <sub>8</sub> -12 UNF-2B	Plugged Same As Side	33 (15)
V37D109A V37M109A	7.75 (196.85)	6.06 (153.92)	1" SAE Split Flange	1" SAE Split Flange	Plugged Same As Side	1 <sup>1</sup> / <sub>4</sub> SAE Split Flange	Plugged Same As Side	33 (15)
V37DD102A	10.19 (258.83)	8.50 (215.90)	1" SAE Split Flange	1" SAE Split Flange	Plugged Same As Side	1 <sup>1</sup> / <sub>4</sub> SAE Split Flange	Plugged Same As Side	49 (22)
V37DDD110A	12.62 (269.75)	10.94 (277.88)	1" SAE Split Flange	1" SAE Split Flange	Gage Port Only	1 <sup>1</sup> / <sub>4</sub> SAE Split Flange	Plugged Same As Side	65 (30)



**Design and Performance Features**

- High capacity pilot-operated system relief valve with many parts common to all valve models.
- Hollow plunger construction with built-in load hold checks for precise metering.
- SAE 4- bolt porting for high pressure systems.
- Standardized detent design with many parts common among various detent styles reducing service parts requirements. Detent Kits available, for more information contact factory.
- Housings have machined side and top inlet and outlet with top ports covered but available for use.
- Housings are machined to take high pressure carry-over kit (Kit no. SKO 151).

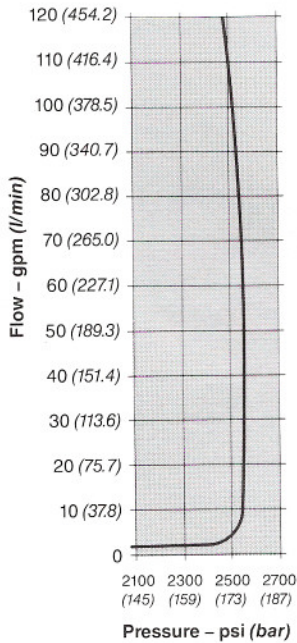
**Performance Data**

Performance tests with oil temperature 120° F (49° C) – viscosity 173-185 SSU at 100° F (37.7° C).

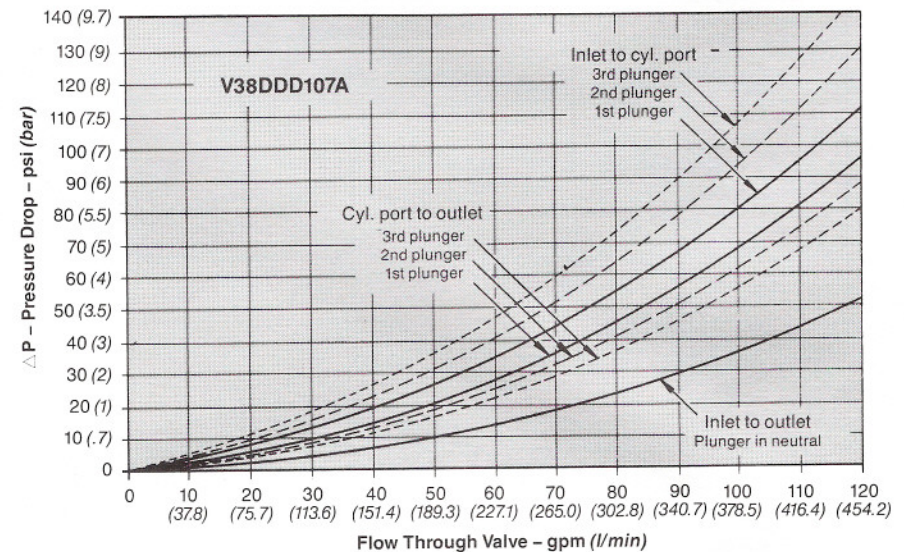
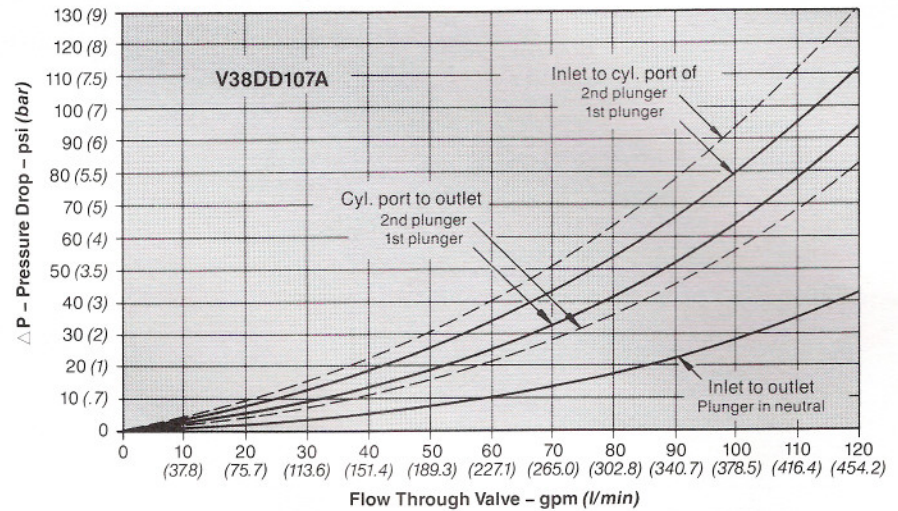
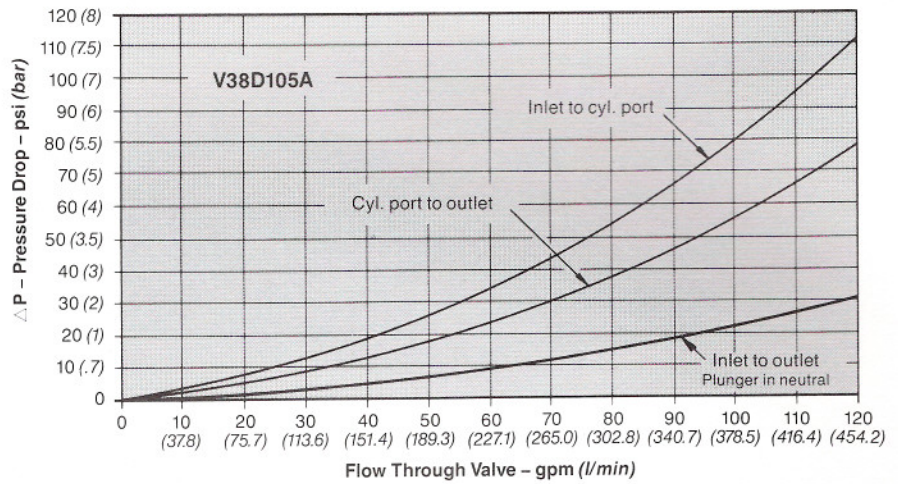
**Pilot-operated Relief**

Relief valve is adjustable from 0-2500 psi (0-172 bar) and can be installed in either side of valve (same side as "B" cylinder ports is standard location).

**Relief Curve**



**Performance Data**

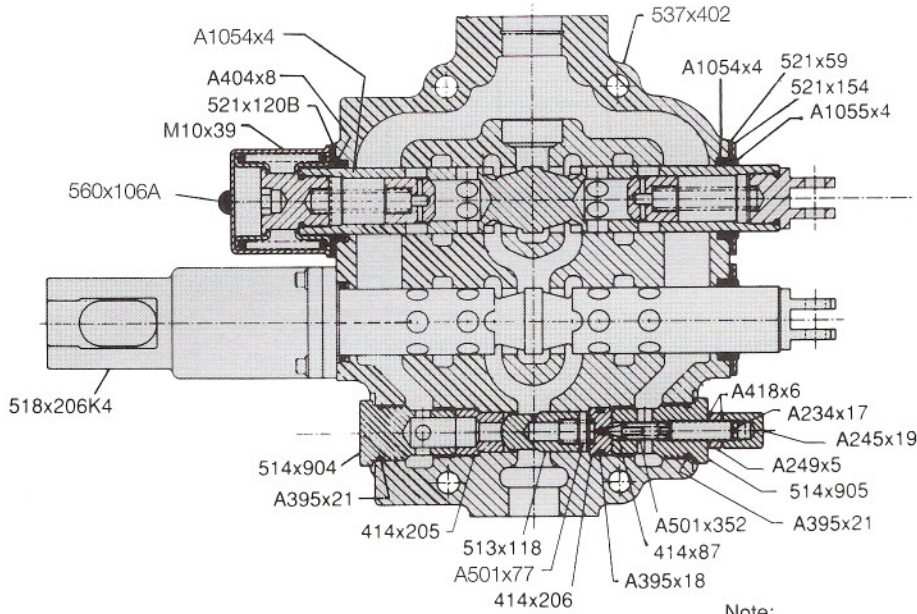






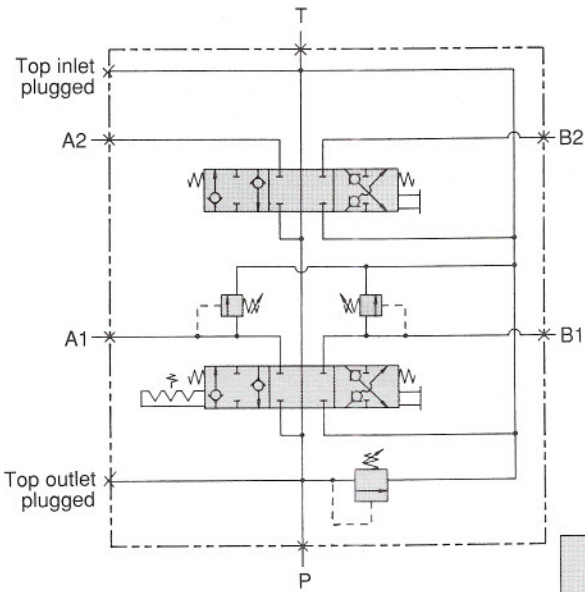
Tandem Circuit 100 gpm (378 l/min), 2500 psi (172 bar)

Section Drawing  
V38DD107A



Note:  
A245x19 & A249x5 to be torqued to  
45 ft. lbs. (62 Nm) after relief has been set

Schematic



The chart lists standard models. Other configurations are available: units with electric, mechanical or hydraulic detents, float spools, jog steer spools and airshift. For available modifications, please consult the factory.

Model	"A" Dim. in. (mm)	"B" Dim. in. (mm)	"C" Port Sizes	"P" Port (Side)	"P" Port (Top)	"T" Port (Side)	"T" Port (Top)	Approx. Net Wt. lb. (kg)
V38D105A	9.44 (239.78)	6.81 (172.97)	1 1/4 SAE Split Flange	1 1/4 SAE Split Flange	1 1/4 SAE Plugged	1 1/2 SAE Split Flange	1 1/4 SAE Plugged	48 (22)
V38DD107A	12.44 (315.98)	9.81 (249.17)	1 1/4 SAE Split Flange	1 1/4 SAE Split Flange	1 1/4 SAE Plugged	1 1/2 SAE Split Flange	1 1/2 SAE Plugged	80 (36)
V38DDD107A	15.44 (392.18)	12.81 (325.37)	1 1/2 SAE Split Flange	1 1/4 SAE Split Flange	1 1/4 SAE Plugged	1 1/2 SAE Split Flange	1 1/2 SAE Plugged	112 (49)



**Design and Performance Features:**

- High capacity pilot operated system relief valve of "in iron" construction for ease of service.
- Hollow plunger construction with built-in load hold checks for precise metering.
- SAE 4-bolt porting, for high-pressure systems.
- High pressure carryover is available.
- Cylinder port reliefs and anti-cavitation valves are available.

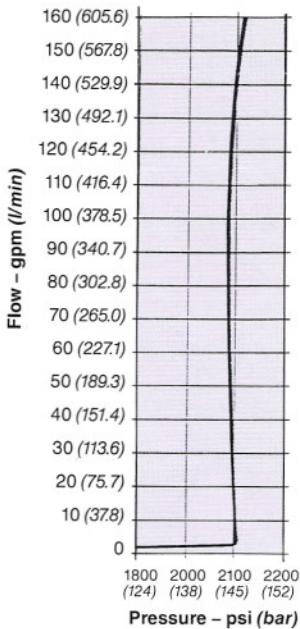
**Performance Data**

Performance tests with oil temperature 120° F (49° C) – viscosity 173-185 SSU at 100° F (37.7° C).

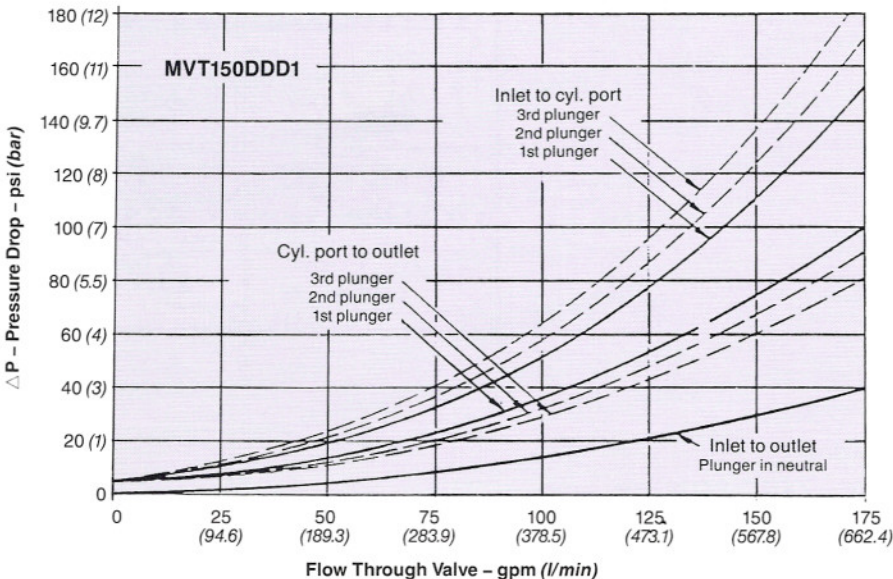
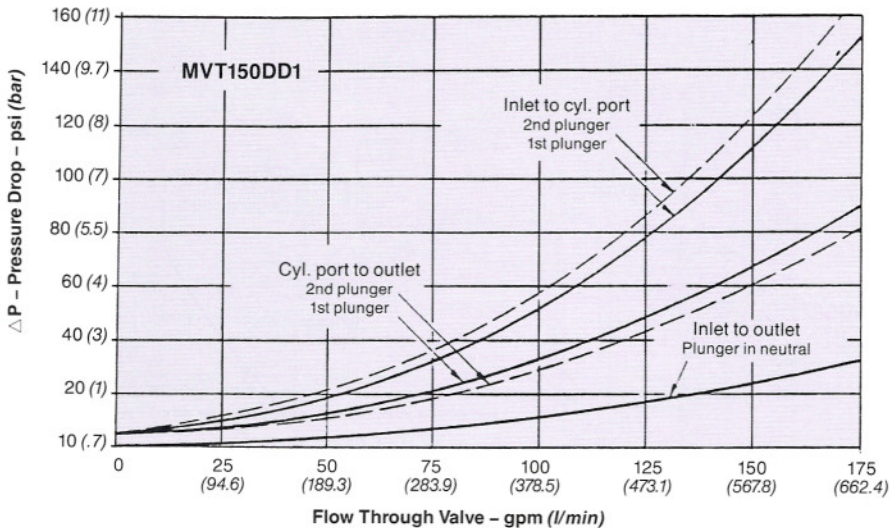
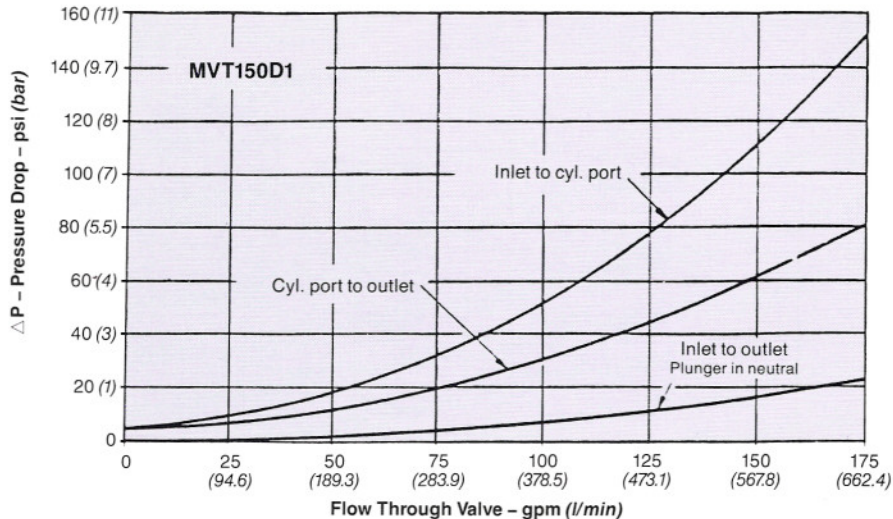
**Pilot-operated Relief**

Relief valve is adjustable from 0-2500 psi (172 bar) and can be installed in either side of valve (same side as "B" cylinder ports is standard location).

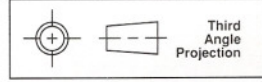
**Relief Curve**



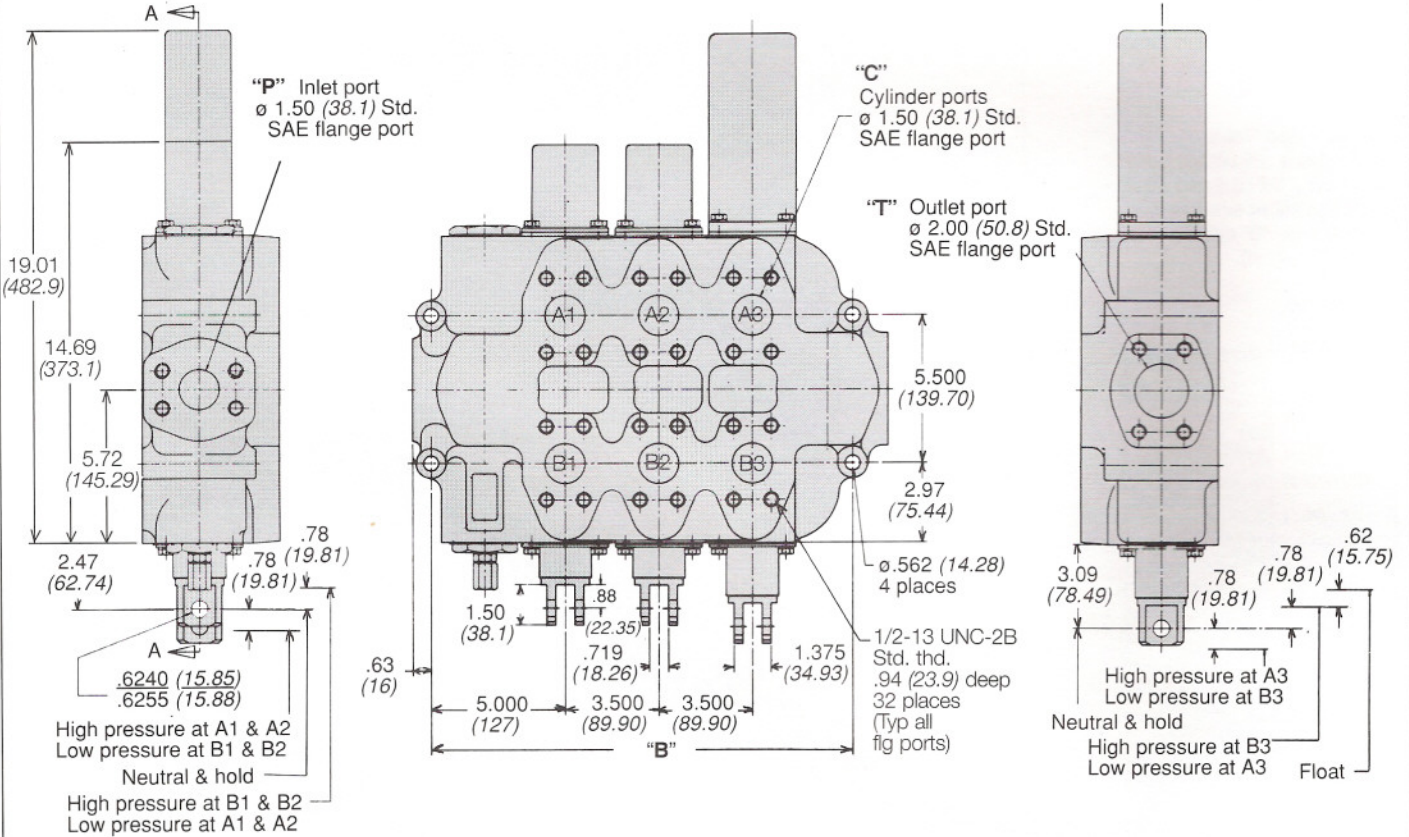
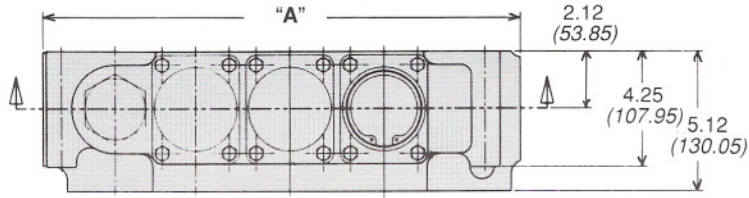
**Performance Data**



Tandem Circuit 150 gpm (567.8 l/min), 3000 psi (207 bar)



Installation Dimensions  
MVT150DDF

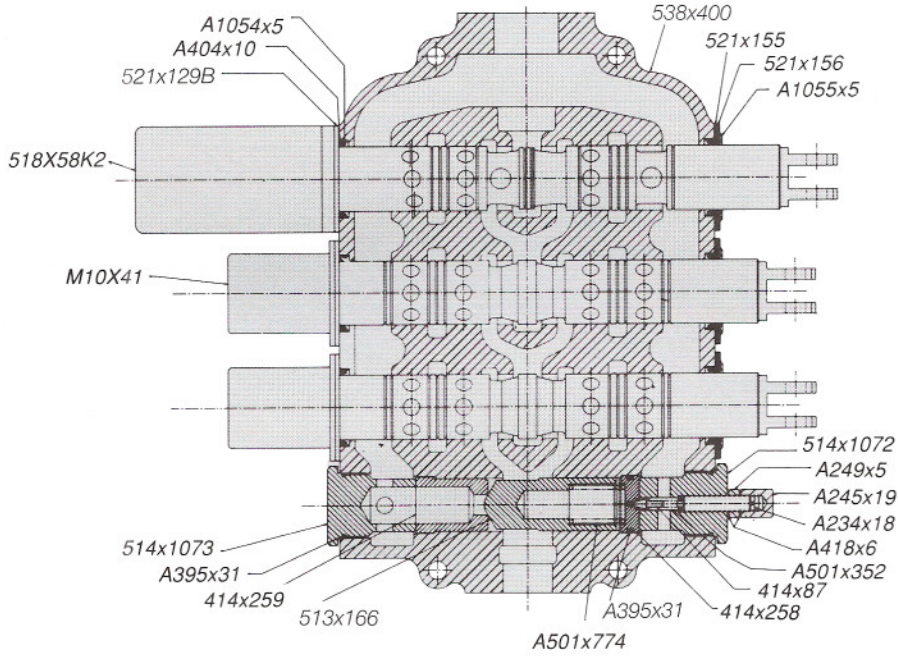


Dimensions shown are in inches (millimeters).

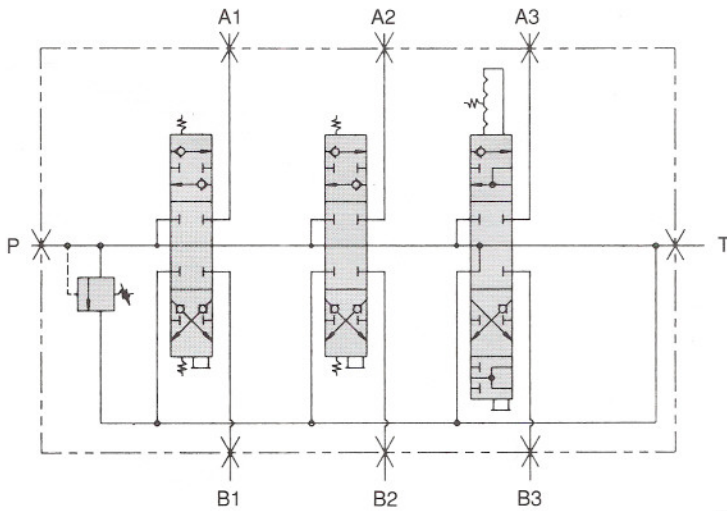


Tandem Circuit 150 gpm (567.8 l/min), 3000 psi (207 bar)

Section Drawing  
MVT150DDF



Schematic



Model	"A" Dim. in. (mm)	"B" Dim. in. (mm)	"C" Port Sizes	"P" Port (Side)	"T" Port (Side)	Approx. Net Wt. lb. (kg)
MVT150DD16	14.25 (361.95)	12.25 (311.10)	1 1/2" SAE Split Flange	1 1/2" SAE Split Flange	2" SAE Split Flange	145 (66)
MVT150DDD	17.75 (450.85)	15.75 (400.05)	1 1/2" SAE Split Flange	1 1/2" SAE Split Flange	2" SAE Split Flange	175 (77)

The chart lists standard models. Other configurations are available: units with electric, mechanical or hydraulic detents, float spools, jog steer spools and airshift. For available modifications, please consult the factory.



*MANUFACTURING LOCATIONS IN*

■ USA  
David Brown Hydraulics Inc  
Franklin Park, IL60131

■ ENGLAND  
David Brown Hydraulics Ltd  
Poole, Dorset

*WORLDWIDE SERVICE FROM  
DAVID BROWN MOBILE EQUIPMENT DRIVES GROUP  
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