

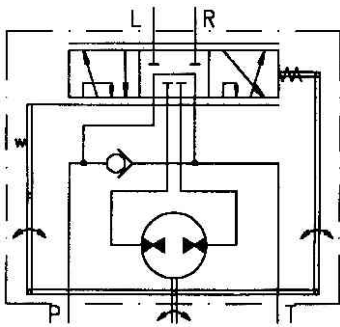


APPLICATION :

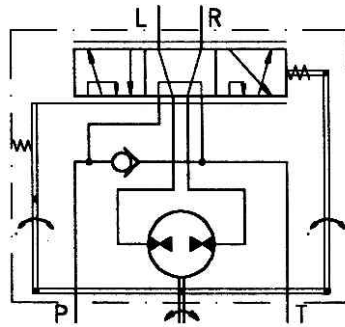
For use on steering of low speed vehicles, extensively used on such as forklifts, tractors, construction equipment, rudder of ship , mowers, mining and industrial positioning requirement.

DESCRIPTION OF UNIT HSU :

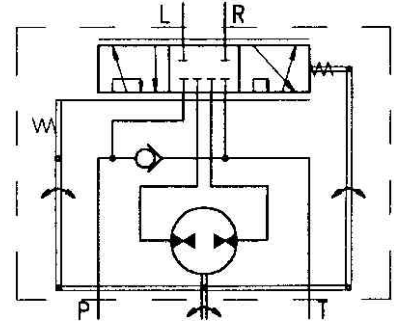
It can be used to control power steering force with light operating force. It is safe, reliable and smooth in the function and operation. This is achieved with hydraulic power from vehicle system entering the pressure port (P) of HSU unit and being directed to steering cylinders through tank posts L (Left) and R (right) by turning input shaft either direction. Return flow from each cylinder is through tank port (T). The HSU unit is complete with metering pump and rotary positioning valve (see above hydraulic circuit diagrams).



HSU.../1 Version -1
Non-Load Reaction
"Open Center"



HSU.../2 Version -2
Load Reaction
"Open Center"



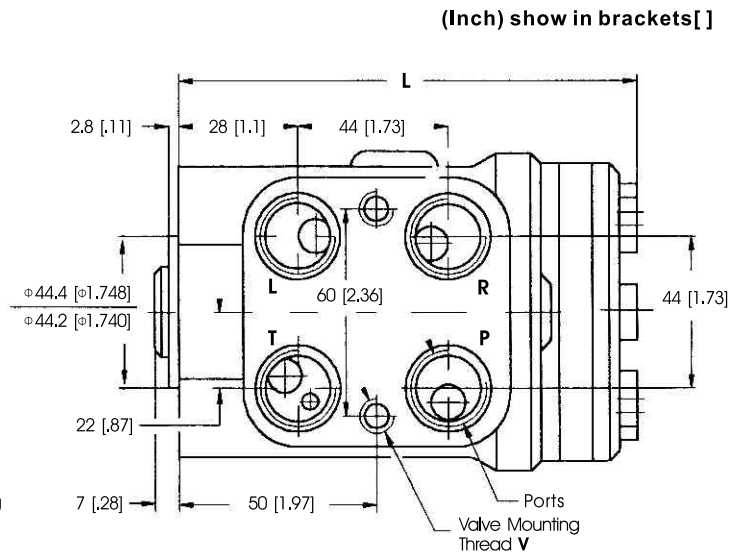
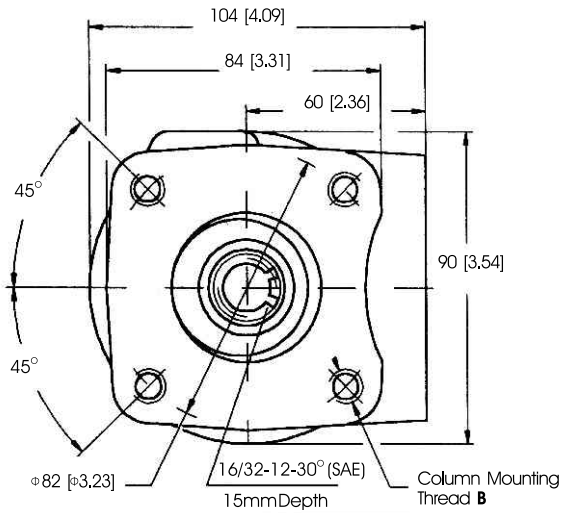
HSU.../3 Version -3
Non-Load Reaction
"Closed Center"

Specifications

Parameters	Type												
	HSU 50	HSU 63	HSU 80	HSU 100	HSU 125	HSU 160	HSU 200	HSU 250	HSU 315	HSU 400	HSU 500	HSU 630	HSU 800
Version	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 2 / 3	1 / 3	1 / 3	1 / 3
Displacement cc/rev (cu. in)	50.8 (3.1)	62.9 (3.8)	79.8 (4.9)	99.6 (6.1)	124.5 (7.6)	159.6 (9.8)	199.4 (12.2)	249.2 (15.2)	316.5 (19.4)	399.7 (24.4)	499.0 (30.6)	629.5 (38.5)	799.2 (48.9)
Rated Flow l/min (gpm)	5 (1.3)	6 (1.6)	8 (2.1)	9 (2.4)	11 (2.9)	15 (4)	17 (4.5)	24 (6.3)	30 (7.9)	40 (10.6)	50 (13.3)	63 (16.8)	80 (21.3)
Rated Pressure bar (PSI)	160 (2320)											140 (2030)	
Max. Pressure in Line T bar (PSI)	20 (290)												
Max. Torque-Powered Nm (lb.-in.)	5 (44)							8 (70)					
D Type Weight kg (lb)	5.75 (12.68)	5.82 (12.83)	5.89 (12.99)	5.96 (13.14)	6.1 (13.45)	6.3 (13.89)	6.5 (14.33)	6.73 (14.98)	7.1 (15.65)	7.5 (16.53)	8.38 (18.47)	9.43 (20.79)	10.89 (24.01)
E Type Weight kg (lb)	6.04 (13.31)	6.11 (13.47)	6.18 (13.62)	6.27 (13.82)	6.4 (14.11)	6.6 (14.55)	6.79 (14.97)	7.02 (15.48)	7.39 (16.29)	7.79 (17.17)	8.67 (19.11)	9.72 (21.43)	11.18 (24.65)
D Type Dimension L mm (in.)	130 (5.12)	132 (5.2)	134 (5.28)	137 (5.39)	140 (5.51)	145 (5.71)	150 (5.91)	156 (6.14)	166 (6.54)	176 (6.93)	189 (7.44)	208 (8.19)	228 (8.98)
E Type Dimension L mm (in.)	140 (5.51)	142 (5.59)	144 (5.67)	146 (5.75)	149 (5.87)	154 (6.06)	159 (6.26)	165 (6.5)	175 (6.89)	185 (7.28)	198 (7.80)	217 (8.54)	237 (9.33)

D Type

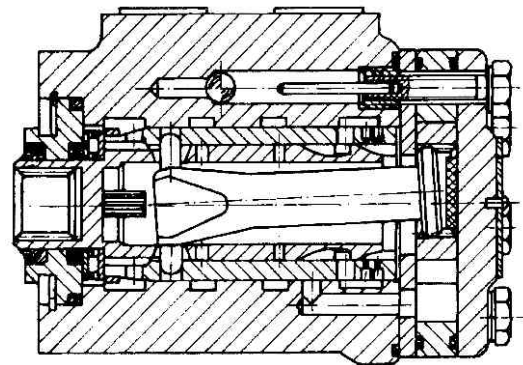
Dimensions and Mounting Data



Thread Ports

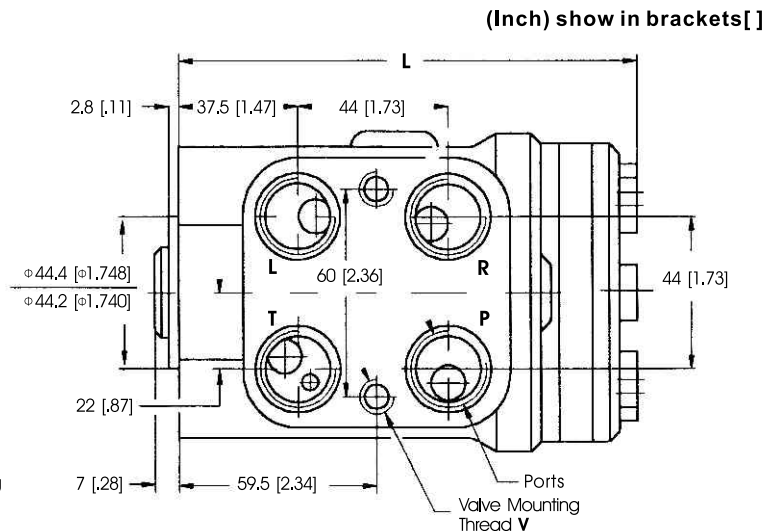
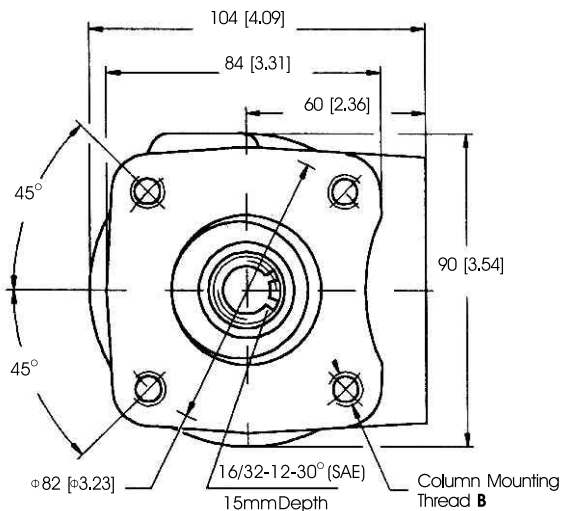
Code	Ports – P, T, R, L Thread	Column Mounting Thread - B	Valve Mounting Thread - V
-	G 1/2 14 mm depth	4 x M10 x 1.5 16 mm depth	2 x M10 x 1 16 mm depth
GA*	G 3/8 14 mm depth	4 x M10 x 1.5 16 mm depth	2 x M10 x 1 16 mm depth
U	3/4 – 16UNF O-ring 14 mm depth	4 x 3/8 – 16UNC 0.63 [16] depth	2 x 3/8 – 24UNF 0.63 [16] depth
UA*	9/16 – 18UNF O-ring 14 mm depth	4 x 3/8 – 16UNC 0.63 [16] depth	2 x 3/8 – 24UNF 0.63 [16] depth
M	M22 x 1.5 14 mm depth	4 x M10 x 1.5 16 mm depth	2 x M10 x 1 16 mm depth

* These threads are for displacements from HSU50 to HSU125 only.



E Type

Dimensions and Mounting Data



Ordering Information

	1	2	3	4	5
HSU		/	-		

Pos.1 Displacement Code

50	-	50.8cc / 3.1 [in.3/r]
63	-	62.9cc / 3.8 [in.3/r]
80	-	79.8cc / 4.9 [in.3/r]
100	-	99.6cc / 6.1 [in.3/r]
125	-	124.5cc / 7.6 [in.3/r]
160	-	159.6cc / 9.8 [in.3/r]
200	-	199.4cc / 12.2 [in.3/r]
250	-	249.2cc / 15.2 [in.3/r]
315	-	316.5cc / 19.4 [in.3/r]
400	-	399.7cc / 24.4 [in.3/r]
500	-	499.0cc / 30.6 [in.3/r]
630	-	629.5cc / 38.5 [in.3/r]
800	-	799.2cc / 48.9 [in.3/r]

Pos.2 Versions Code

1	-	"Open Center - Non Load Reaction"
2	-	"Open Center - Load Reaction"
3	-	"Closed Center - Non Load Reaction"

Pos.3 Ports Code

Omit	-	G 1/2
GA	-	G 3/8
U	-	3/4 - 16 UNF "O" Ring
UA	-	9/16-18 UNF "O" Ring
M	-	Metric

Pos.4 Type Code

Omit	-	D Type
E	-	E Type

Pos.5 Design Series

Omit	-	Factory use only
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