

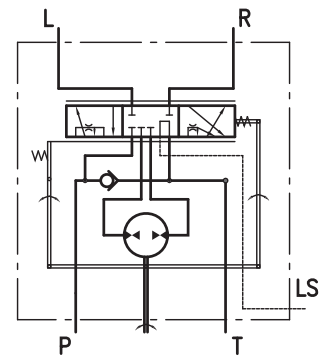
# HYDROSTATIC STEERING UNITS TYPE HKUL.../5DT



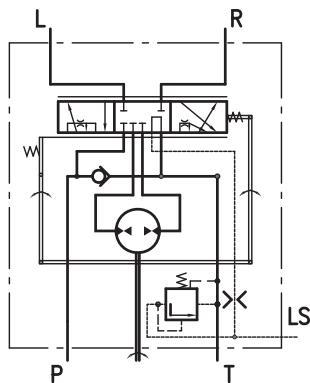
“M+S Hydraulic” introduce a new large size of steering unit HKUL “Closed Center - Non Reaction and Load Sensing Outlet” with Dynamic Load Signal.

HKUL is a load steering unit specially developed for large displacement in order to minimize flow loss. HKUL is extremely suitable for large vehicles, which maximum speed does not exceed 60 km/h and works together with dynamic priority valve.

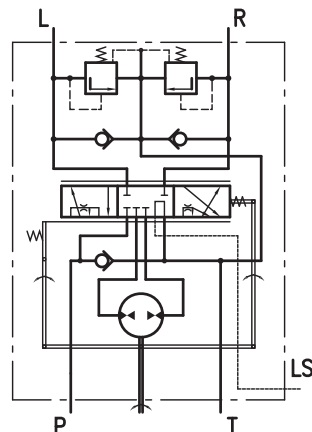
HKUL is available in versions with different valves that are required in hydraulic steering circuit for protection of the steering unit and steering cylinders.



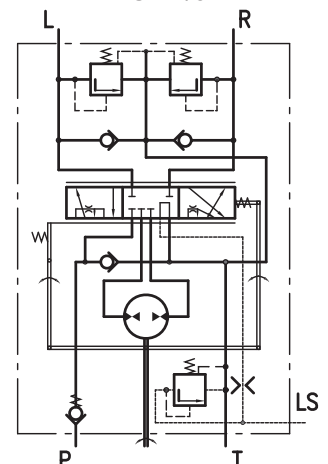
Closed Center - Non Reaction  
HKUL.../5DT



Closed Center - Non Reaction  
HKULR.../5DT



Closed Center - Non Reaction  
HKULV.../5DT



Closed Center - Non Reaction  
HKULS.../5DT

## SPECIFICATION DATA

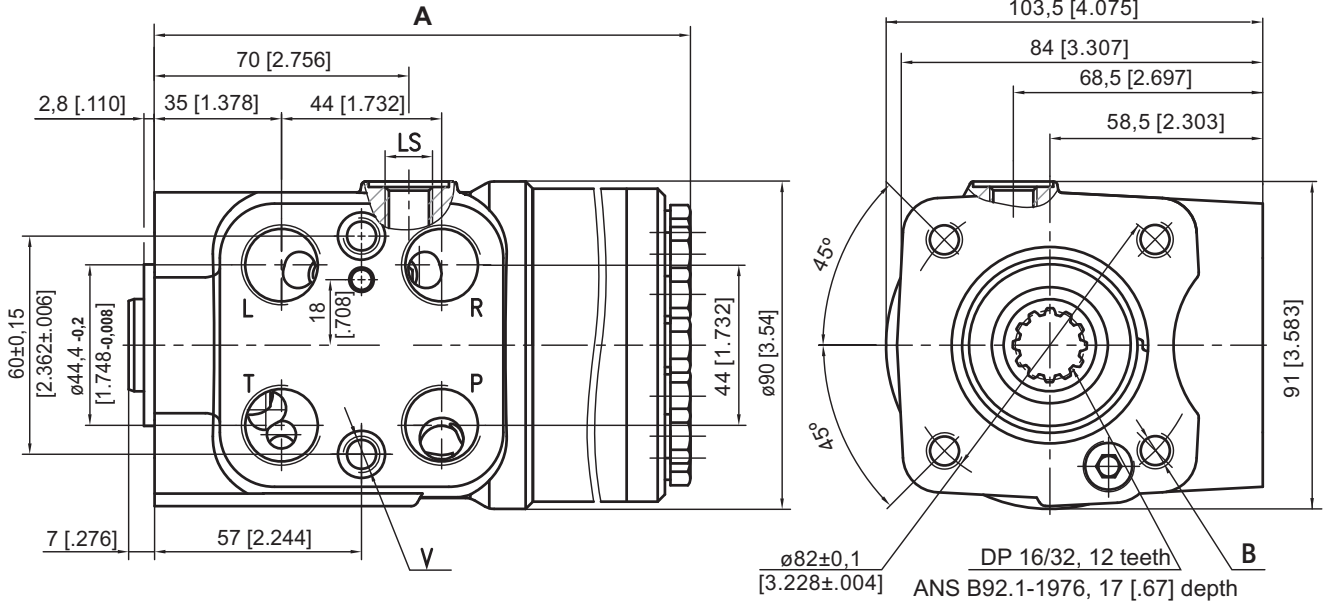
Parameters	Type				
	HKUL... 500/5DT	HKUL... 630/5DT	HKUL... 800/5DT	HKUL... 1000/5DT	
Displacement	cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	495 [30.2]	623,6 [38.05]	793 [48.4]	990 [60.4]
Rated Flow	lpm [GPM]	50 [13.2]*	63 [16.6]*	70 [18.5]**	70 [18.5]***
Rated Pressure	bar [PSI]	175 [2540]			
LS-Valve Pressure		80	100	125	150
Settings	bar [PSI]	[1160]	[1450]	[1810]	[2175]
Shock Valves Pressure		140	160	180	200
Settings	bar [PSI]	[2030]	[2320]	[2610]	[2900]
Max. Cont. Pressure in Line T	bar [PSI]	20 [290]			
- standard		40 [580]			
Max. Torque at Servoamplifying	Nm [lb-in]	3,0 [26]			
Max. Torque w/o Servoamplifying	Nm [lb-in]	120 [1065]			
Weight	kg [lb]	8,2 [18.1]	8,9 [19.6]	9,8 [21.6]	10,8 [23.8]
Dimension A	mm [in]	202 [7.95]	219,3 [8.64]	242,17 [9.54]	268,64 [10.58]

\* Rated Flow at 100 RPM

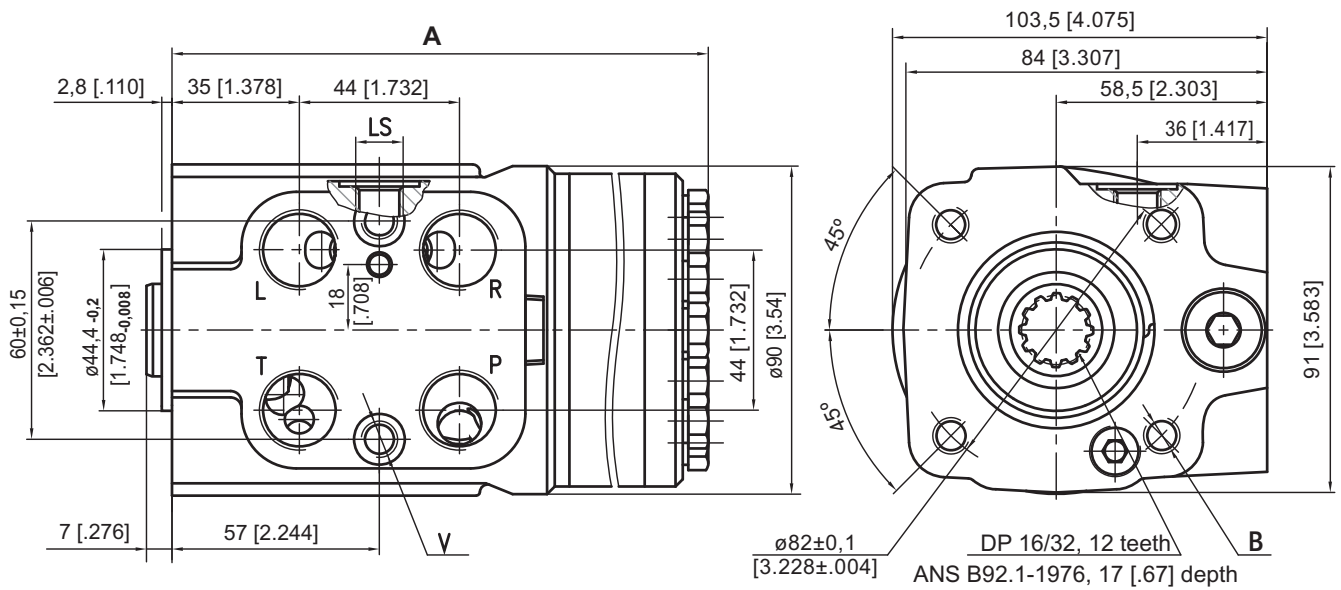
\*\* Max. Rated Flow at 87 RPM

\*\*\* Max. Rated Flow at 70 RPM

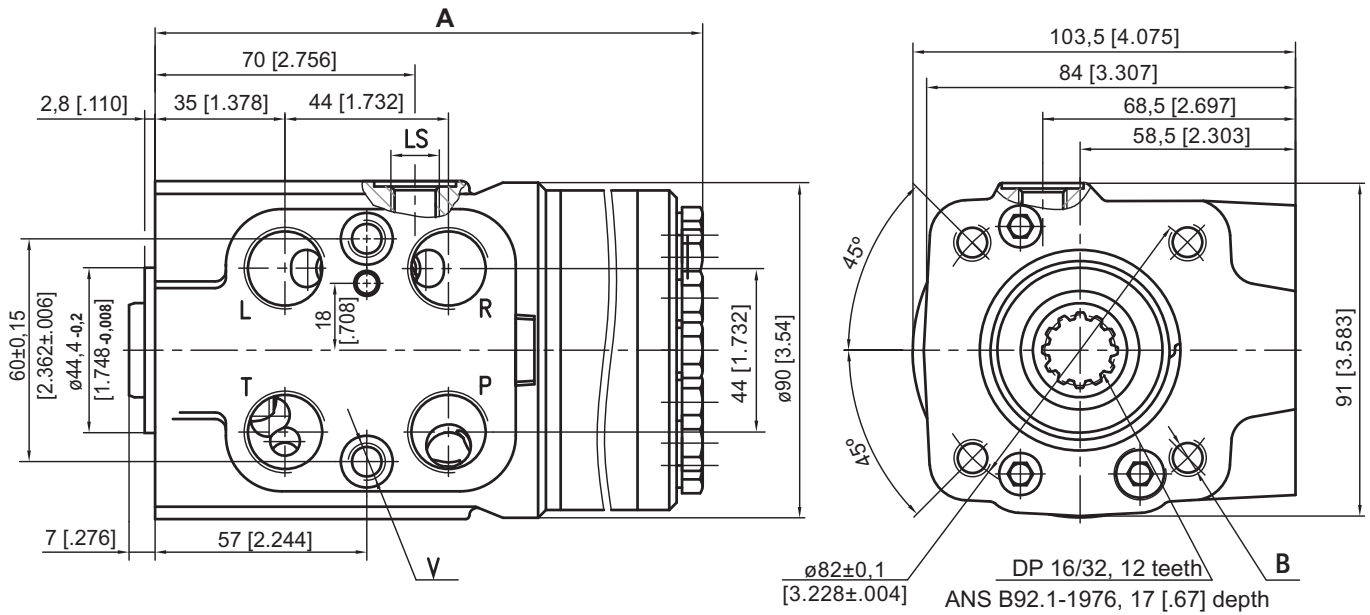
**DIMENSIONS AND MOUNTING DATA - HKUL.../5DT**



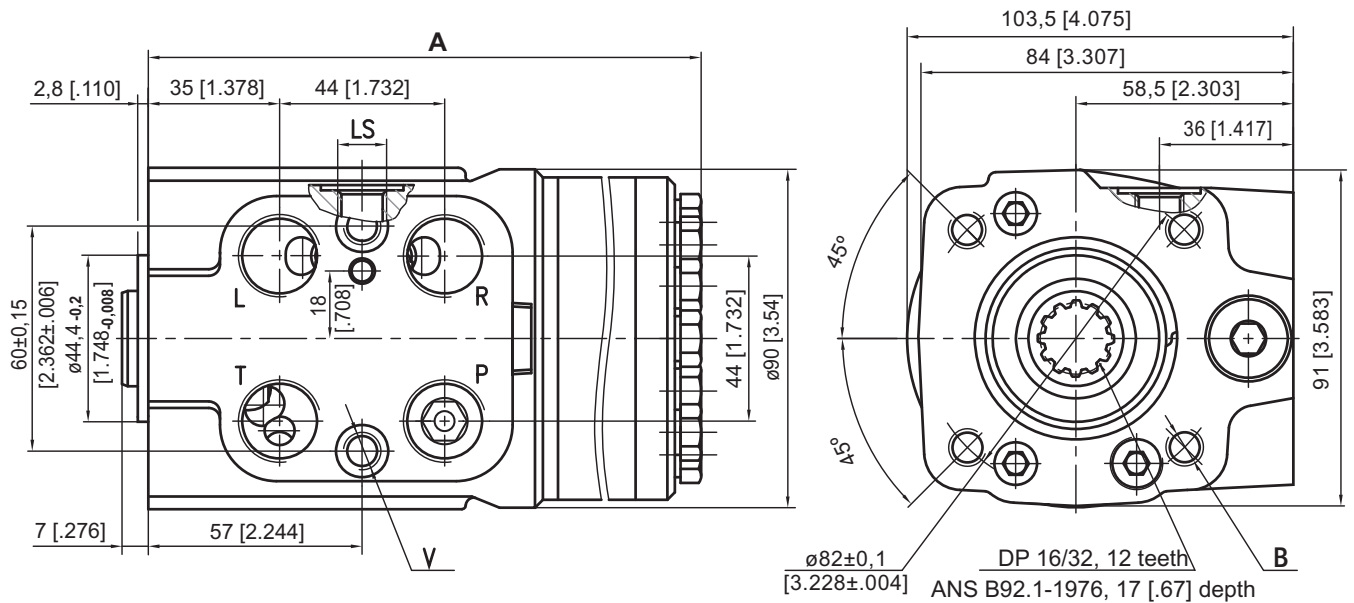
**DIMENSIONS AND MOUNTING DATA - HKULR.../5DT**



**DIMENSIONS AND MOUNTING DATA - HKULV.../5DT**



**DIMENSIONS AND MOUNTING DATA - HKULS.../5DT**



Code	Ports - P*, T, R, L Thread	Column Mounting Thread - B	Valve Mounting Thread - V	LS - Port
-	G1/2 17 [.67] depth	4 x M10 18 [.71] depth	2 x M10x1 16 [.63] depth	G1/4 14 [.55] depth
M	M22x1,5 17 [.67] depth	4 x M10 18 [.71] depth	2 x M10x1 16 [.63] depth	M12x1,5 14 [.55] depth
A	3/4 - 16 UNF O-ring 17 [.67] depth	4 x 3/8 - 16 UNC 15,7 [.62] depth	2 x 3/8 - 24 UNF 14,2 [.56] depth	7/16 - 20 UNF O-ring 12,7 [.50] depth

\*Threaded Ports P min 15 [0.59] depth for pipe mounting.

**ORDER CODE for HKUL.../5DT...**

	1	2	3	4	5	6	7	8	9	10	11
<b>HKUL</b>			<b>/</b>	<b>5</b>	<b>D</b>	<b>T</b>	<b>-</b>			<b>-</b>	

**Pos.1 - Versions (build-in valves)**

Version	Manual Steering Check Valve	Relief Valve	Inlet Check Valve	Cylinder Relief Valve	Anti-Cavitation Valve
omit	•				
<b>R</b>	•	•			
<b>V</b>	•			•	•
<b>S</b>	•	•	•	•	•

**Pos.2 - Displacement code (see Specification Data)**

<b>500</b>	- 495,0 cm <sup>3</sup> /rev [30.20 in <sup>3</sup> /rev]
<b>630</b>	- 623,6 cm <sup>3</sup> /rev [38.05 in <sup>3</sup> /rev]
<b>800</b>	- 793,0 cm <sup>3</sup> /rev [48.40 in <sup>3</sup> /rev]
<b>1000</b>	- 990,0 cm <sup>3</sup> /rev [60.40 in <sup>3</sup> /rev]

**Pos.3 - Versions**

<b>5</b>	- Version 5 "Closed Center - Non Reaction and Load Sensing Outlet"
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**Pos.4 - Signal Type**

<b>D</b>	- Dynamic Load Signal
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**Pos.5 - Priority Valve Connection**

<b>T</b>	- Pipe Mounting
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**Pos. 6 - LS - Valve Pressure Settings, bar\***

<b>80</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>175</b>
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**Pos. 7 - Shock Valves Pressure Settings, bar\*\***

<b>140</b>	<b>160</b>	<b>180</b>	<b>200</b>	<b>240</b>
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**Pos. 8 - Ports**

omit	- BSPP (ISO 228)
<b>A</b>	- SAE (ANSI B 1.1 - 1982)
<b>M</b>	- Metric (ISO 262)

**Pos. 9 - Max. Cont. Pressure in line T**

omit	- Standard
<b>H</b>	- High pressure

**Pos.10 - Option (Paint)\*\*\***

omit	- No Paint
<b>P</b>	- Painted
<b>PC</b>	- Corrosion Protected Paint
<b>PS</b>	- Special Paint****
<b>PCS</b>	- Special Corrosion Protected Paint****

**Pos.11 - Design Series**

omit	- Factory specified
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- Notes:**
- \* Only for HKULR and HKULS
  - \*\* Only for HKULV
  - \*\*\* Colour at customer's request.
  - \*\*\*\* Non painted feeding surfaces, colour at customer's request.

The steering units are mangano-phosphatized as standard.