

## TYPE XY.../1

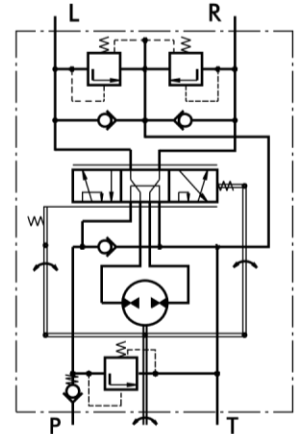
The M+S Hydrostatic Steering units are used in low-speed vehicles which driving speed does not exceed 60 km/h – such as : building machines, fork-lift trucks , harvesting machines , off-highwayequipment and others. These hydraulic units amplify the torque to the steering wheels , with no need of hard mechanical connection.



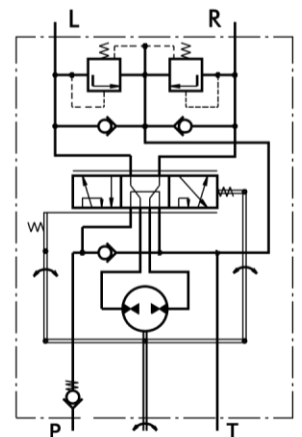
### SPECIFICATION DATA

Parameters	Type				
	XY 85.../1	XY 120.../1	XY 145.../1		
Displacement	cm <sup>3</sup> /rev	84	120	144	
Rated Flow*	lpm	9	12	15	
Rated Pressure	bar	150			
Relief Valve Pressure Settings**	bar	80	100	125	150
Shock Valves Pressure Settings***	bar	200			
Max. Cont. Pressure in Line T	bar	20			
Max. Torque at Servoamplifying	Nm	3,5			
Max. Torque w/o Servoamplifying	Nm	120			
Weight	kg	6,4	6,6	6,8	
Dimension A	mm	136,3	141,5	144,5	

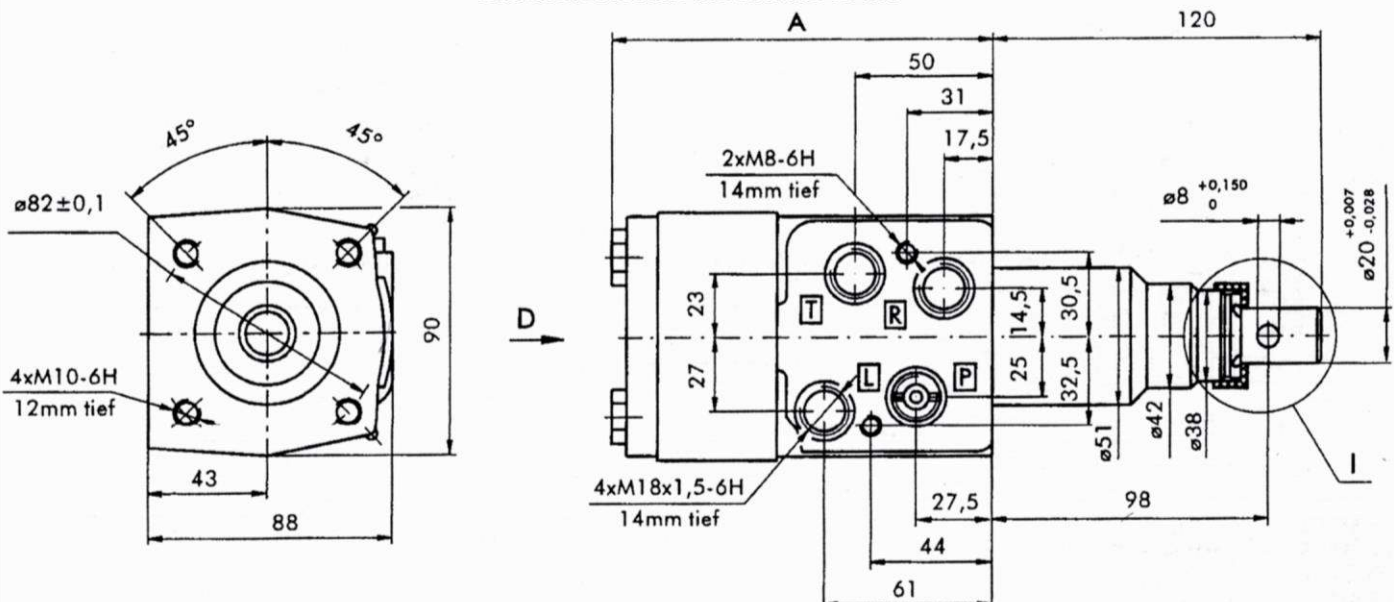
Open Center – Non Reaction  
Version 2 – XY.../2



Open Center – Load Reaction  
Version 1 – XY.../1

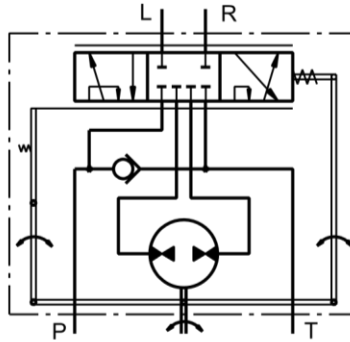


### DIMENSIONS AND MOUNTING DATA



## TYPE HKU.../7

The HKU .../7 is a "closed-Non load rection" Hydrostatik steering unit,designed for integration into system unit, designed for integration,achieving minimal energi loses.



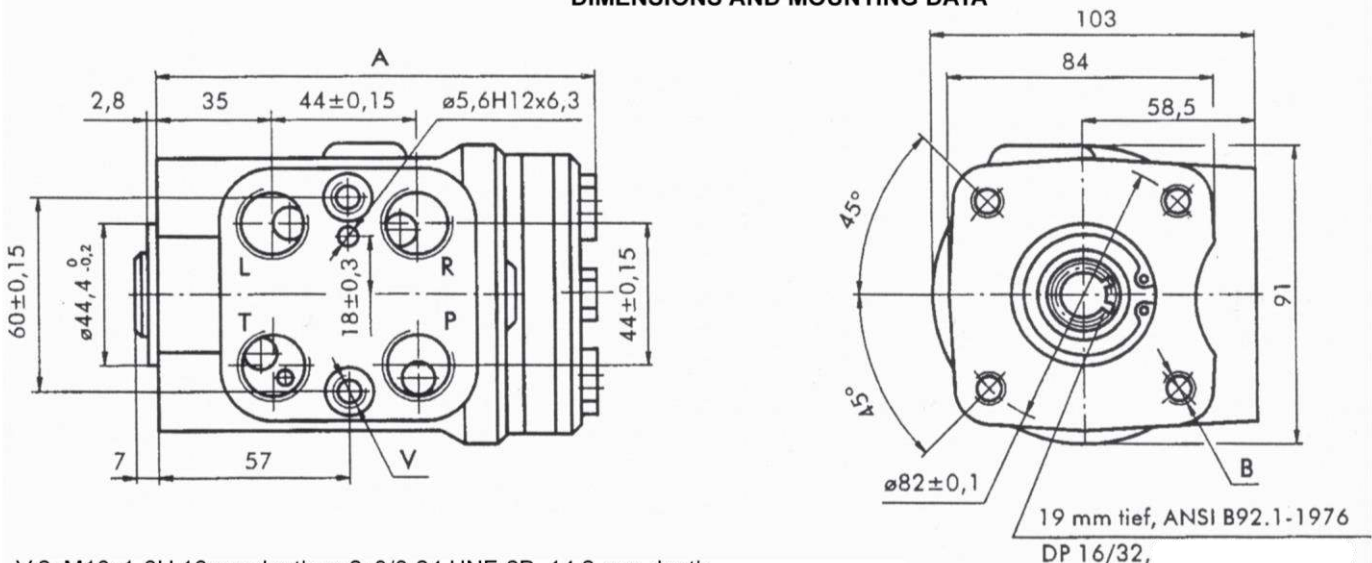
Closed Center  
Non load Reaction  
Vertion 7 – HKU...7



### SPECIFICATION DATA

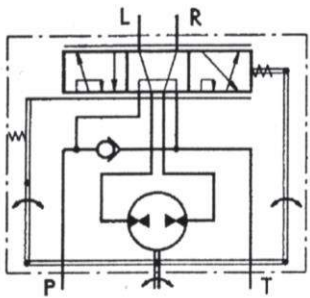
Parameters	Type														
	HKU 40/7	HKU 50/7	HKU 63/7	HKU 80/7	HKU 100/7	HKU 125/7	HKU 160/7	HKU 200/7	HKU 250/7	HKU 320/7	HKU 400/7	HKU 500/7	HKU 630/7	HKU 800/7	
Displacement	cm <sup>3</sup> /rev	39,6	49,5	65,6	79,2	99,0	123,8	158,4	198	247,5	316,8	396	495	623,6	793
Rated Flow*	lpm		5	6	8	10	13	16	20	25	32	40	50	63	80
Rated Pressure	bar	1810	2030	2540											
Max. Cont.Pressure inLineT															
- standard	bar	25													
- highpressure(Hoption)		40													
Max. Torque at Servoamplifing															
-with standard springs	Nm	3,0												26	
-with soft springs(LT option)		1,8													
Max. Torque w/o Servoamplifing		120													
Weight	kg	5,3	5,4	5,5	5,6	5,7	5,8	6,0	6,3	6,5	7,0	7,4	8,0	8,7	9,6
Dimension A	mm	130,8	132,2	133,9	136,2	138,8	142,2	146,8	152,2	158,8	168,2	178,8	192	209,3	232,2

### DIMENSIONS AND MOUNTING DATA



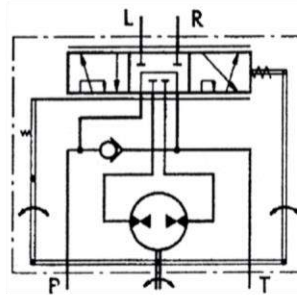
V:2xM10x1-6H,16mm depth or 2x3/8-24 UNF-2B. 14.2 mm depth  
P,T,R,L:G1/2-A (M22x1.5-6H), 17 mm depth or a/4-16 UNF-2B.17 mm depth (o-ring)  
B:4XM10-6H,18 mm depth or 4x3/8-16UNC-2B,15,7 mm depth

The new designed HKU steering units, with radial distribution, incorporate two rotary tracing valves in the housing, which turn on the metering pump.



Open Center - Load Reaction  
Version 3 - XY.../4

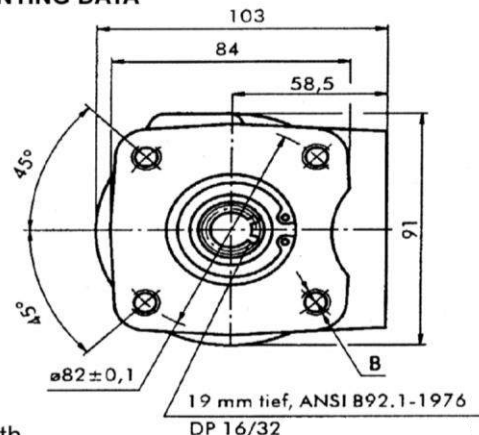
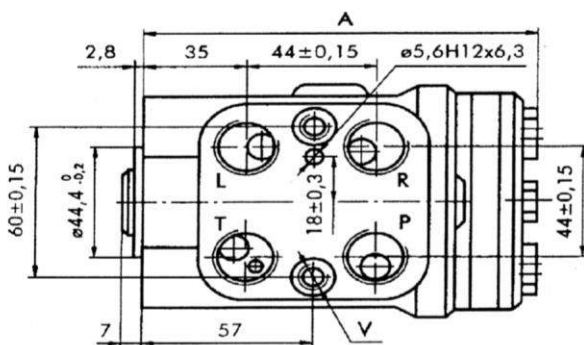
Open Center - Load Reaction  
Version 3 - HKU.../3



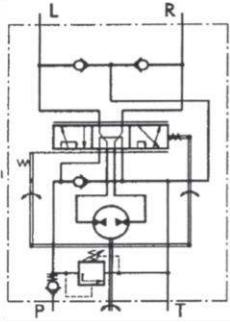
## SPECIFICATION DATA

Parameters	Type															
	HKU 40/3	HKU 50/3	HKU 63/3	HKU 80/3	HKU 100/3	HKU 125/3	HKU 160/3	HKU 200/3	HKU 250/3	HKU 320/3	HKU 400/3	HKU 500/4	HKU 630/4	HKU 800/4	HKU 1000/4	
Displacement cm /rev	39,6	49,5	65,6	79,2	99,0	7.56	9.67	198	247,5	316,8	396	495	623,6	793	990	
Rated Flow* lpm	4	5	6	8	10	13	16	20	25	32	40	50	63	70		
Rated Pressure bar	140			170									140		100	
Max. Cont. Pressure in line T	25															
- standard bar	40															
- high pressure (Hoption)																
Max. Torque at Servoamplifying																
Nm						3,0							3,0			
-with standardsprings						3,0										
-with softsprings (LT option)						1,8										
Max. Torque w/o Servoamplifying	120															
Nm																
Weight kg	5,3	5,4	5,5	5,6	5,7	5,8	6,0	6,3	6,5	7,0	7,4	8,0	8,7	9,6	10,6	
Dimension A mm	5.15	5.20	5.27	5.36	5.47	5.60	5.78	5.99	6.25	6.62	7.04	7.56	8.24	9.14	10.18	

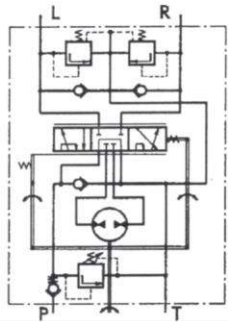
## DIMENSIONS AND MOUNTING DATA



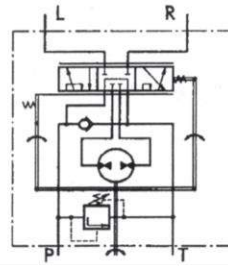
V: 2xM10x1-6H, 16mm depth or 2x3/8-24 UNF-2B. 14.2 mm depth  
P, T, R, L: G1/2-A (M22x1.5-6H), 17 mm depth or a/4-16 UNF-2B. 17 mm depth (o-ring)  
B: 4xM10-6H, 18 mm depth or 4x3/8-16UNC-2B, 15.7 mm depth



Open Center  
Load Reaction  
With Built-in Valves  
Version 3 – HKUS.../3



Open Center  
Load Reaction  
With Built-in Valves  
Version 4 – HKUS.../4



Open Center  
Load Reaction  
With Built-in Valves  
Version 8 – HKUS.../8

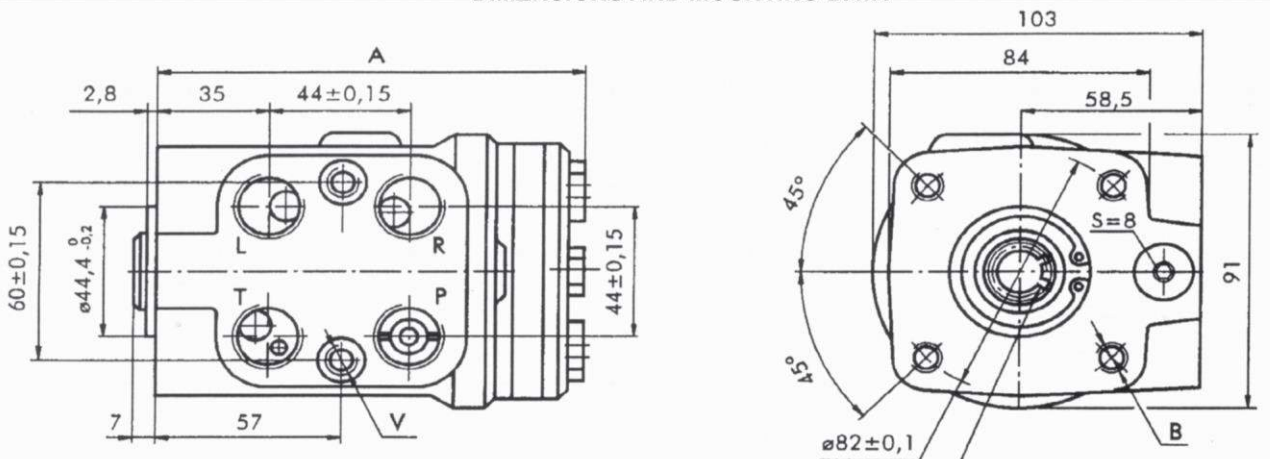


The HKUS Hydrostatic steering unit is Based on the HKU unit but has built-in Relief and check valves. Thus M+S Hydraulic achieves on very compact Steering unit whic compenents in the System.

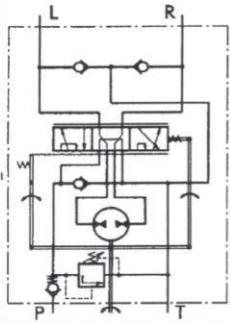
## SPECIFICATION DATA

Parameters	Type												
	HKUS 40/3,4,8	HKUS 50/3,4,8	HKUS 63/3,4,8	HKUS 80/3,4,8	HKUS 100/3,4,8	HKUS 125/3,4,8	HKUS 160/3,4,8	HKUS 200/3,4,8	HKUS 250/3,4,8	HKUS 320/3,4,8	HKUS 400/3,4,8	HKUS 500/3,4,8	
Displacement / cm <sup>3</sup> / rev	39,6	49,5	65,6	79,2	99,0	123,8	158,4	198	247,5	316,8	396	495	
Rated Flow*/ lpm	4	5	6	8	10	13	16	20	25	32	40	50	
Rated Pressure bar	140						170						
Relief Valve Pressure Settings** bar			80	100	125	150	170						
Shock Valves Pressure Settings*** bar			140	160	180	200	220						
Max. Cont.Pressure in LineT bar													
- standard	25												
- highpressure(Hoption)	40												
Max. Torque at Servoamplifying Nm			3,0							3,0			
-with standard springs			1,8							-			
-with soft springs(LT option)													
Max. Torque w/o Servoamplifying Nm	120												
Weight kg	5,3	5,4	5,5	5,6	5,7	5,8	6,0	6,3	6,5	7,0	7,4	8,0	
Dimension A mm	130,8	132,2	133,9	136,2	138,8	142,2	146,8	152,2	158,8	168,2	178,8	192	

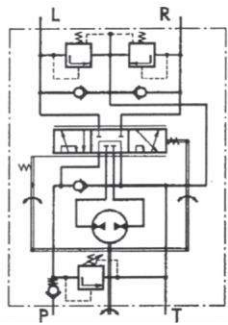
## DIMENSIONS AND MOUNTING DATA



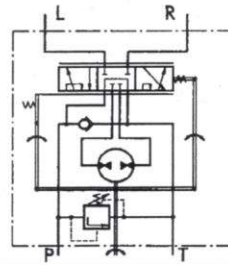
V:2xM10x1-6H,16mm depth or 2x3/8-24 UNF-2B, 14.2 mm depth  
P,T,R,L:G1/2-A (M22x1.5-6H), 17 mm depth or a/4-16 UNF-2B,17 mm depth (o-ring)  
B:4XM10-6H,18 mm depth or 4x3/8-16UNC-2B,15,7 mm depth



Open Center  
Load Reaction  
With Built-in Valves  
Version 3 – HKUS.../3



Open Center  
Load Reaction  
With Built-in Valves  
Version 4 – HKUS.../4



Open Center  
Load Reaction  
With Built-in Valves  
Version 8 – HKUS.../8

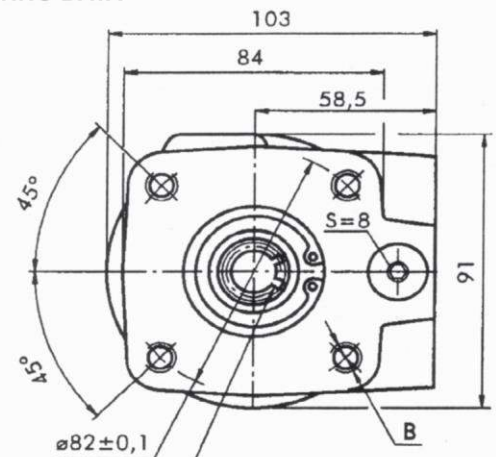
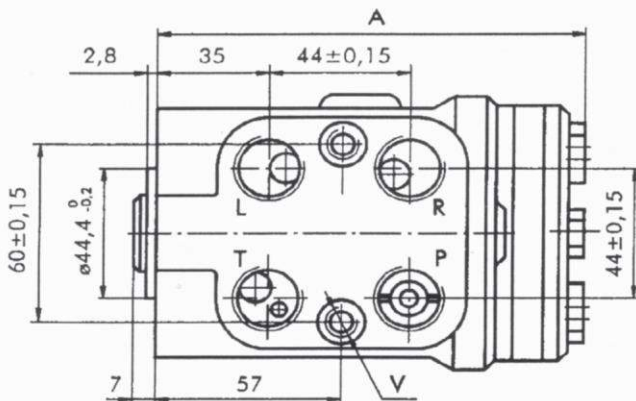


The HKUS Hydrostatic steering unit is Based on the HKU unit but has built-in Relief and check valves. Thus M+S Hydraulic achieves on very compact Steering unit whic compenents in the System.

## SPECIFICATION DATA

Parameters	Type												
	HKUS 40/3,4,8	HKUS 50/3,4,8	HKUS 63/3,4,8	HKUS 80/3,4,8	HKUS 100/3,4,8	HKUS 125/3,4,8	HKUS 160/3,4,8	HKUS 200/3,4,8	HKUS 250/3,4,8	HKUS 320/3,4,8	HKUS 400/3,4,8	HKUS 500/3,4,8	
Displacement / cm <sup>3</sup> / rev	39,6	49,5	65,6	79,2	99,0	123,8	158,4	198	247,5	316,8	396	495	
Rated Flow*/ lpm	4	5	6	8	10	13	16	20	25	32	40	50	
Rated Pressure bar	140						170						
Relief Valve Pressure Settings** bar			80	100	125	150	170						
Shock Valves Pressure Settings*** bar			140	160	180	200	220						
Max. Cont.Pressure in LineT bar													
- standard	25												
- highpressure(Hoption)	40												
Max. Torque at Servoamplifying Nm			3,0							3,0			
-with standard springs			1,8							-			
-with soft springs(LT option)													
Max. Torque w/o Servoamplifying Nm	120												
Weight kg	5,3	5,4	5,5	5,6	5,7	5,8	6,0	6,3	6,5	7,0	7,4	8,0	
Dimension A mm	130,8	132,2	133,9	136,2	138,8	142,2	146,8	152,2	158,8	168,2	178,8	192	

## DIMENSIONS AND MOUNTING DATA

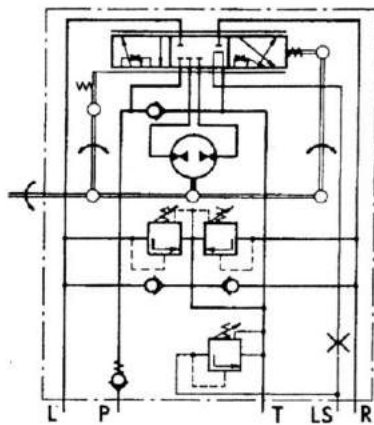


V:2xM10x1-6H,16mm depth or 2x3/8-24 UNF-2B. 14.2 mm depth  
P,T,R,L:G1/2-A (M22x1.5-6H), 17 mm depth or a/4-16 UNF-2B.17 mm depth (o-ring)  
B:4XM10-6H,18 mm depth or 4x3/8-16UNC-2B,15,7 mm depth

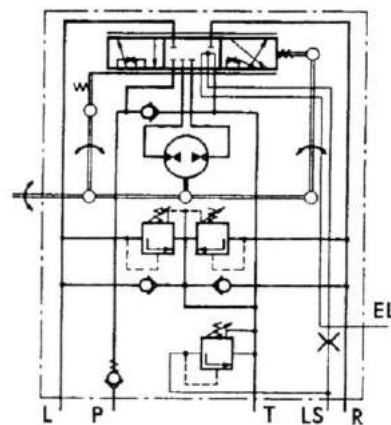


The HKU(S).../5(T)(E)(TE) range expands the steering units family M+S Hydraulic with the "Closed Center-Non Reaction and Load Sensing outlet" version. HKU(S).../5 is designed to be connected with priority valves with built-in relief valves for rated flow up to 160 l/min. The control Hydraulic Circuits Of the HKU(S).../5(T)(E)(TE) steering units were designed to ensure minimal energy consumption (energy loss) in various hydraulic systems such as those of: fork-lift trucks, agricultural and construction Machines and others.

## MODULARY MOUNTING

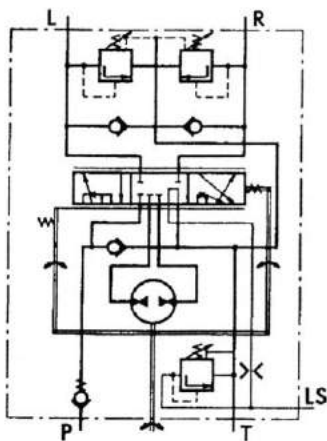


HKU.../5

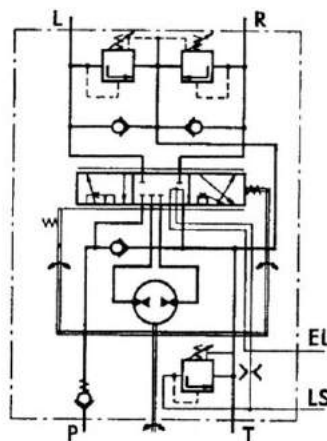


HKUS.../5E

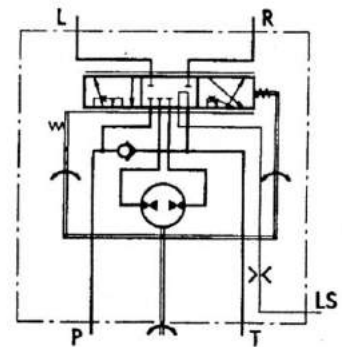
## PIPE MOUNTING



HKUS.../5T



HKUS.../5TE



HKU.../5T

## SPECIFICATION DATA

Parameters	Type																
	HKU 40/5T HKUS 40/5...	HKU 50/5T HKUS 50/5...	HKU 63/5T HKUS 63/5...	HKU 80/5T HKUS 80/5...	HKU 100/5T HKUS 100/5...	HKU 125/5T HKUS 125/5...	HKU 160/5T HKUS 160/5...	HKU 200/5T HKUS 200/5...	HKU 250/5T HKUS 250/5...	HKU 320/5T HKUS 320/5...	HKU 400/5T HKUS 400/5...	HKU 500/5T	HKU 630/5T				
Displacement $\text{cm}^3/\text{rev}$	39,6	49,5	65,6	79,2	99,0	123,8	158,4	198	247,5	316,8	396	495	623,6				
Rated Flow* lpm	4	5	6	8	10	13	16	20	25	32	40	50	63				
Rated Pressure bar	125	150	175														
LS-Valve Pressure Settings** bar				80			100			125			150		175		
Shock Valves Pressure . Settings*** bar				140			160			180			200		240		
Max. Cont.Pressure inLineT																	
- standard bar								20									
- highpressure(Hoption)								40									
Max. Torque at Servoamplifying																	
-with standardsprings Nm				3,0						3,0							
-with softsprings(LT option)				1,8						-							
Max. Torque w/o Servoamplifying Nm	120																
Weight kg	5,3	5,4	5,5	5,6	5,7	5,8	6,0	6,3	6,5	7,0	7,4	8,0	8,7				
Dimension A mm	130,8	132,2	133,9	136,2	138,8	142,2	146,8	152,2	158,8	168,2	178,8	192	209,3				

THREADED PORTS			
CODE	Ports - P,T,R,L Thread/	Column Mounting Thread - b/	Valve Mounting Thread/
-	G1 / 2 17 mm depth	4 x M10 18 mm depth	2 x M10 x1 16 mm depth
A	3 / 4 - 16 UNF O - ring 17 mm depth	4x 3 / 8 - 16 UNC 15,7 mm depth	2 x 3 / 8 - 24 UNC 14,2 mm depth
M	M22x1,5 17 mm depth	4 x M10 18 mm depth	2 x M10 x1 16 mm depth

## DIMENSIONS AND MOUNTING DATA

