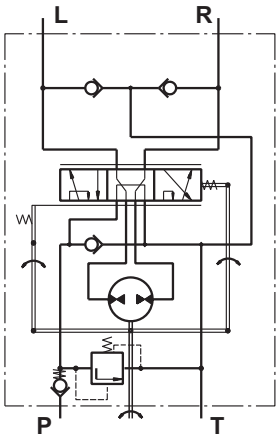
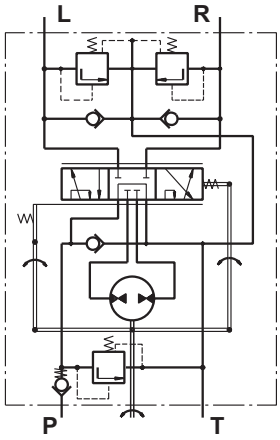
HYDROSTATIC STEERING UNITS TYPE HKUS.../3, 4, 8



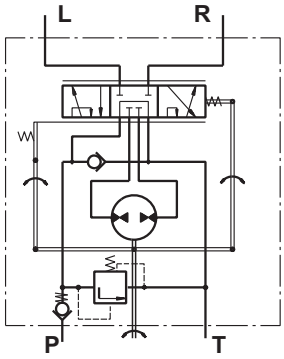
The HKUS Hydrostatic Steering unit is based on the HKU unit but has built-in relief and check valves. Thus M+S Hydraulic achieves one very compact steering unit which reduces the need for additional hydraulic components in the system.



"Open Center - Load Reaction"
HKUS.../3



"Open Center - Non Load Reaction"
HKUS.../4



"Open Center - Non Load Reaction"
HKUS.../8

SPECIFICATION DATA

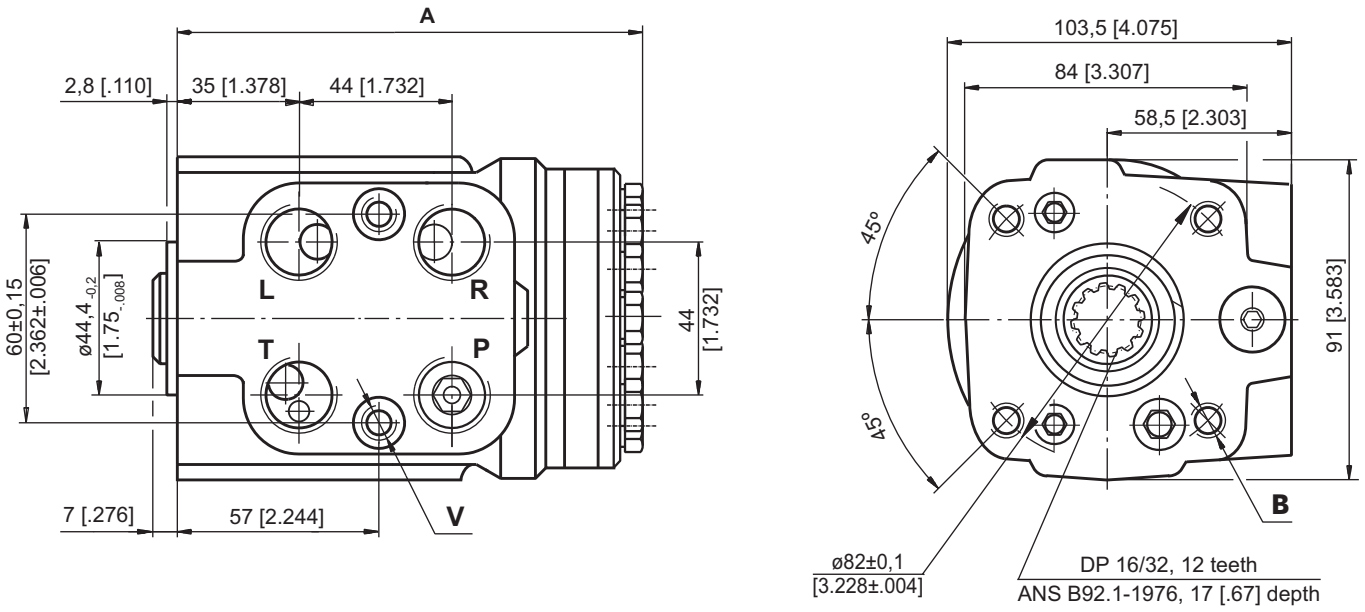
Parameters		Type											
		HKUS 40/3,4,8	HKUS 50/3,4,8	HKUS 63/3,4,8	HKUS 80/3,4,8	HKUS 100/3,4,8	HKUS 125/3,4,8	HKUS 160/3,4,8	HKUS 200/3,4,8	HKUS 250/3,4,8	HKUS 320/3,4,8	HKUS 400/3,4,8	HKUS 500/3,4,8
Displacement	cm^3/rev	39,6	49,5	65,6	79,2	99,0	123,8	158,4	198	247,5	316,8	396	495
	[in^3/rev]	[2.42]	[3.0]	[4.0]	[4.83]	[6.04]	[7.56]	[9.67]	[12.1]	[15.1]	[19.3]	[24.2]	[30.2]
Rated Flow*	lpm	4	5	6	8	10	13	16	20	25	32	40	50
	[GPM]	[1.1]	[1.3]	[1.6]	[2.1]	[2.6]	[3.4]	[4.2]	[5.3]	[6.6]	[8.4]	[10.6]	[13.2]
Rated Pressure	bar	140		170									
	[PSI]	[2030]		[2465]									
Relief Valve Pressure Settings**	bar [PSI]			80 [1160]		100 [1450]	125 [1810]		150 [2175]	170 [2465]			
Shock Valves Pressure Settings***	bar [PSI]			140 [2030]		160 [2320]	180 [2610]		200 [2900]	220 [3190]			
Max. Cont. Pressure in Line T	bar [PSI]												
- standard						25 [363] (50 [725] by HKUS.../8)							
- high pressure (H option)						40 [580]							
Max. Torque at Servoamplifying	Nm [lb-in]												
- with standard springs				3,0 [26]					3,0 [26]				
- with soft springs (LT option)				1,8 [16]					-				
Max. Torque w/o Servoamplifying	Nm [lb-in]	120 [1065]											
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
	[lb]	[11.7]	[11.9]	[12.2]	[12.4]	[12.6]	[12.8]	[13.2]	[13.9]	[14.3]	[15.4]	[16.3]	[17.6]
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
	[in]	[5.15]	[5.20]	[5.27]	[5.36]	[5.47]	[5.60]	[5.78]	[5.99]	[6.25]	[6.62]	[7.04]	[7.56]

* Rated Flow at 100 RPM.

** Pressure Settings are at Rated Flow (as in the table) and viscosity 21 mm^2/s [105 SUS] at 50°C [122°F].

*** Pressure Settings are at flow rate of 2 lpm [.53 GPM] and viscosity 21 mm^2/s [105 SUS] at 50°C [122°F].

DIMENSIONS AND MOUNTING DATA - HKUS.../3, 4, 8



mm [in]

code	Ports - P*, T, R, L Thread	Column Mounting Thread - B	Valve Mounting Thread - V
-	G1/2 17 [.67] depth	4 x M10 18 [.71] depth	2 x M10x1 16[.63] depth
M	M22x1,5 17 [.67] depth	4 x M10 18 [.71] depth	2 x M10x1 16 [.63] 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

*Threaded Ports P min 15 [.59] depth for pipe mounting.

ORDER CODE

1	2	3	4	5	6	7	8
HKU		/		-					

Pos.1 - Displacement code (see Specification Data)

40	- 39,6 cm³/rev [2.42 in³/rev]
50	- 49,5 cm³/rev [3.00 in³/rev]
63	- 65,6 cm³/rev [4.00 in³/rev]
80	- 79,2 cm³/rev [4.83 in³/rev]
100	- 99,0 cm³/rev [6.04 in³/rev]
125	- 123,8 cm³/rev [7.56 in³/rev]
160	- 158,4 cm³/rev [9.67 in³/rev]
200	- 198,0 cm³/rev [12.10 in³/rev]
250	- 247,5 cm³/rev [15.10 in³/rev]
320	- 316,8 cm³/rev [19.30 in³/rev]
400	- 396,0 cm³/rev [24.20 in³/rev]
500	- 495,0 cm³/rev [30.20 in³/rev]
630	- 623,6 cm³/rev [38.05 in³/rev]
800	- 793,0 cm³/rev [48.40 in³/rev]
1000	- 990,0 cm³/rev [60.40 in³/rev]

Pos.2 - Versions

3	- Version 3 *"Open Center - Load Reaction"*
4	- Version 4 *"Open Center - Non Load Reaction"*
7	- Version 7 *"Closed Center - Non Load Reaction"*

Pos.3 - Ports

omit	- BSPP (ISO 228)
M	- Metric (ISO 262)
A	- SAE (ANSI B 1.1 - 1982)
BA*	- SAE (ANSI B 1.1 - 1982)

Pos.4 - Max. Cont. Pressure in line T

omit	- Standard
H	- High pressure

Pos.5 - Input torque

omit	- Standard
LT*	- Low

Pos.6 - Noise level

omit	- Standard
LN*	- Low

Pos.7 - Option (Paint)***

omit	- No Paint
P	- Painted
PC	- Corrosion Protected Paint
PS	- Special Paint****
PCS	- Special Corrosion Protected Paint****

Pos.8 - Design Series

omit - Factory specified

Notes: * Available only for displacement from 40 to 200.
** Available only for versions 3 and 4 with displacement from 40 to 200.
*** Colour at customer's request.
**** Non painted feeding surfaces, colour at customer's request.

The steering units are mangano-phosphatized as standard.

ORDER CODE

1	2	3	4	5	6	7	8	9
HKUS		/		-		-					

Pos.1 - Displacement code (see Specification Data)

40	- 39,6 cm³/rev [2.42 in³/rev]
50	- 49,5 cm³/rev [3.00 in³/rev]
63	- 65,6 cm³/rev [4.00 in³/rev]
80	- 79,2 cm³/rev [4.83 in³/rev]
100	- 99,0 cm³/rev [6.04 in³/rev]
125	- 123,8 cm³/rev [7.56 in³/rev]
160	- 158,4 cm³/rev [9.67 in³/rev]
200	- 198,0 cm³/rev [12.10 in³/rev]
250	- 247,5 cm³/rev [15.10 in³/rev]
320	- 316,8 cm³/rev [19.30 in³/rev]
400	- 396,0 cm³/rev [24.20 in³/rev]
500	- 495,0 cm³/rev [30.20 in³/rev]

Pos.2 - Versions

3	- Version 3 *"Open Center - Load Reaction"*
4	- Version 4 *"Open Center - Non Load Reaction"*
8	- Version 8 *"Open Center - Non Load Reaction"*

Pos.3 - Relief Valve Pressure Settings, bar

80, 100,125,150,170

Pos.4 - Ports

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

Pos.5 - Max. Cont. Pressure in line T

omit	- Standard
H	- High pressure

Pos.6 - Input torque

omit	- Standard
LT*	- Low

Pos.7 - Noise level

omit	- Standard
LN*	- Low

Pos.8 - Option (Paint)***

omit	- No Paint
P	- Painted
PC	- Corrosion Protected Paint
PS	- Special Paint****
PCS	- Special Corrosion Protected Paint****

Pos.9 - Design Series

omit - Factory specified

Version	Manual Steering Check Valve	Relief Valve	Inlet Check Valve	Cylinder Relief Valve	Anti-Cavitation Valve
3	•	•	•		•
4	•	•	•	•	•
8	•	•	•		

Notes: * Available only for displacement from 40 to 200.
** Colour at customer's request.
*** Non painted feeding surfaces, colour at customer's request.

The steering units are mangano-phosphatized as standard.