

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

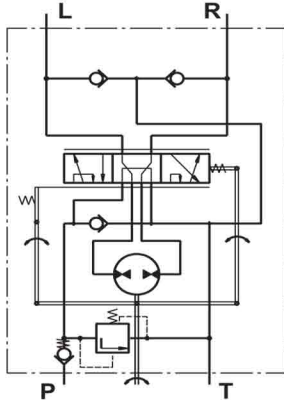
**HYDROMA**

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

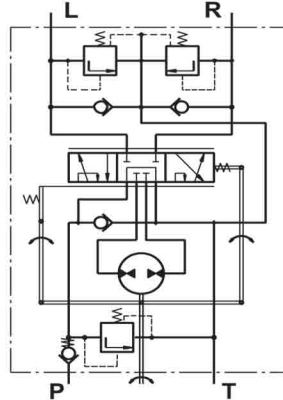
## HYDROSTATIC STEERING UNITS TYPE HKUS.../3, 4, 8



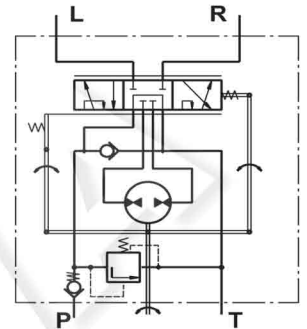
The HKUS Hydrostatic Steering unit is based on the HKU unit but has built-in relief and check valves. Thus M+S Hydraulic achieves one very compact steering unit which reduces the need for additional hydraulic components in the system.



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



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



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

### SPECIFICATION DATA

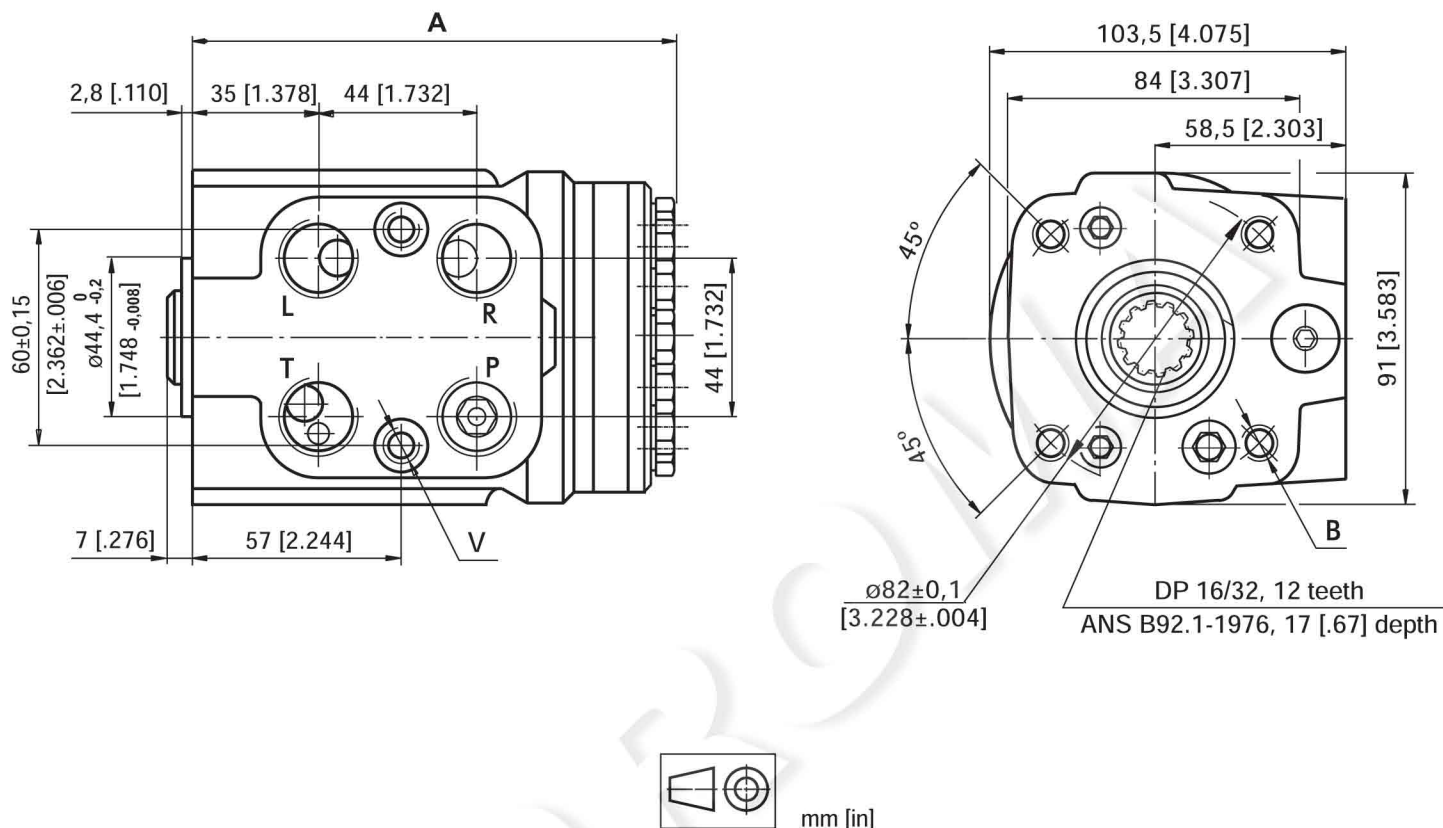
Parameters	Type												
	HKUS 40/3,4,8	HKUS 50/3,4,8	HKUS 63/3,4,8	HKUS 80/3,4,8	HKUS 100/3,4,8	HKUS 125/3,4,8	HKUS 160/3,4,8	HKUS 200/3,4,8	HKUS 250/3,4,8	HKUS 320/3,4,8	HKUS 400/3,4,8	HKUS 500/3,4,8	
Displacement cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	39,6 [2.42]	49,5 [3.0]	65,6 [4.0]	79,2 [4.83]	99,0 [6.04]	123,8 [7.56]	158,4 [9.67]	198 [12.1]	247,5 [15.1]	316,8 [19.3]	396 [24.2]	495 [30.2]	
Rated Flow* lpm [GPM]	4 [1.1]	5 [1.3]	6 [1.6]	8 [2.1]	10 [2.6]	13 [3.4]	16 [4.2]	20 [5.3]	25 [6.6]	32 [8.4]	40 [10.6]	50 [13.2]	
Rated Pressure bar [PSI]	140 [2030]			170 [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 - high pressure (H option)				25 [363]		(50 [725] by HKUS.../8)							
Max. Torque at Servoamplifying Nm [lb-in] - with standard springs - with soft springs (LT option)				3,0 [26]			3,0 [26]						
Max. Torque w/o Servoamplifying Nm [lb-in]	120 [1065]												
Weight kg [lb]	5,3 [11.7]	5,4 [11.9]	5,5 [12.2]	5,6 [12.4]	5,7 [12.6]	5,8 [12.8]	6,0 [13.2]	6,3 [13.9]	6,5 [14.3]	7,0 [15.4]	7,4 [16.3]	8,0 [17.6]	
Dimension A mm [in]	130,8 [5.15]	132,2 [5.20]	133,9 [5.27]	136,2 [5.36]	138,8 [5.47]	142,2 [5.60]	146,8 [5.78]	152,2 [5.99]	158,8 [6.25]	168,2 [6.62]	178,8 [7.04]	192 [7.56]	

\* Rated Flow at 100 RPM.

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

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

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



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.

1 2 3 4 5 6 7 8

<b>HKU</b>		/		-					
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**Pos.1 - Displacement code** (see Specification Data)

<b>40</b>	-	39,6	[2.42]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>50</b>	-	49,5	[3.00]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>63</b>	-	65,6	[4.00]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>80</b>	-	79,2	[4.83]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>100</b>	-	99,0	[6.04]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>125</b>	-	123,8	[7.56]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>160</b>	-	158,4	[9.67]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>200</b>	-	198,0	[12.10]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>250</b>	-	247,5	[15.10]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>320</b>	-	316,8	[19.30]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>400</b>	-	396,0	[24.20]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>500</b>	-	495,0	[30.20]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>630</b>	-	623,6	[38.05]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>800</b>	-	793,0	[48.40]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>1000</b>	-	990,0	[60.40]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]

**Pos.2 - Versions**

<b>3</b>	-	Version 3 "Open Center - Load Reaction"
<b>4</b>	-	Version 4 "Open Center - Non Load Reaction"
<b>7</b>	-	Version 7 "Closed Center - Non Load Reaction"

**Pos.3 - Ports**

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

1 2 3 4 5 6 7 8 9

<b>HKUS</b>		/		-		-				
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**Pos.1 - Displacement code** (see Specification Data)

<b>40</b>	-	39,6	[2.42]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>50</b>	-	49,5	[3.00]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>63</b>	-	65,6	[4.00]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>80</b>	-	79,2	[4.83]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>100</b>	-	99,0	[6.04]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>125</b>	-	123,8	[7.56]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>160</b>	-	158,4	[9.67]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>200</b>	-	198,0	[12.10]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>250</b>	-	247,5	[15.10]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>320</b>	-	316,8	[19.30]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>400</b>	-	396,0	[24.20]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]
<b>500</b>	-	495,0	[30.20]	cm <sup>3</sup> /rev	[in <sup>3</sup> /rev]

**Pos.2 - Versions**

<b>3</b>	-	Version 3 "Open Center - Load Reaction"
<b>4</b>	-	Version 4 "Open Center - Non Load Reaction"
<b>8</b>	-	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)
<b>A</b>	-	SAE (ANSI B 1.1 - 1982)
<b>M</b>	-	Metric (ISO 262)

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

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

**Pos.5 - Input torque**

omit	-	Standard
<b>LT*</b>	-	Low

**Pos.6 - Noise level**

omit	-	Standard
<b>LN**</b>	-	Low

**Pos.7 - 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.8 - Design Series**

omit	-	Factory specified
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**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.

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

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

**Pos.6 - Input torque**

omit	-	Standard
<b>LT*</b>	-	Low

**Pos.7 - Noise level**

omit	-	Standard
<b>LN*</b>	-	Low

**Pos.8 - 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.9 - Design Series**

omit	-	Factory specified
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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.