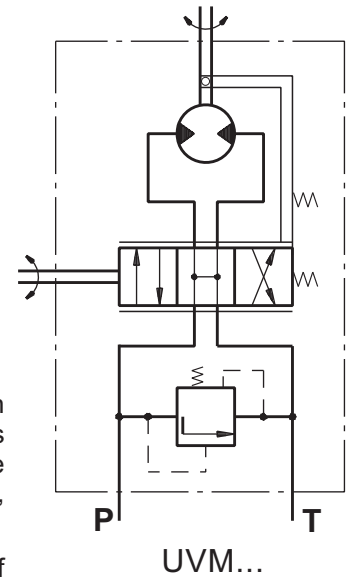


TORQUE AMPLIFIERS TYPE UVM...



The M+S Hydraulic UVM Torque Amplifiers amplify the applied torque to the control shaft and thus ease the running of various transport vehicles such as:

- agricultural and wood working machines;
- road rollers and road cleaning machines;
- fork-lift trucks and construction machinery.



The totally transferred power in terms of output torque is up to 1,1 kW [1.47 HP].

The UVM torque amplifiers with their simple design, consisted of a pump and an amplifier, ensure 40 times higher output torque than the applied one. The amplifying is achieved as follows; by rotating the input shaft to the left or right, the spool and the bushing are displaced, and the hydraulic flow enters the system turning the gerotor set, which transfers the already amplified torque to the output shaft.

One advantage of the UVM torque amplifier is that it allows manual steering in case of engine (pump) failure.

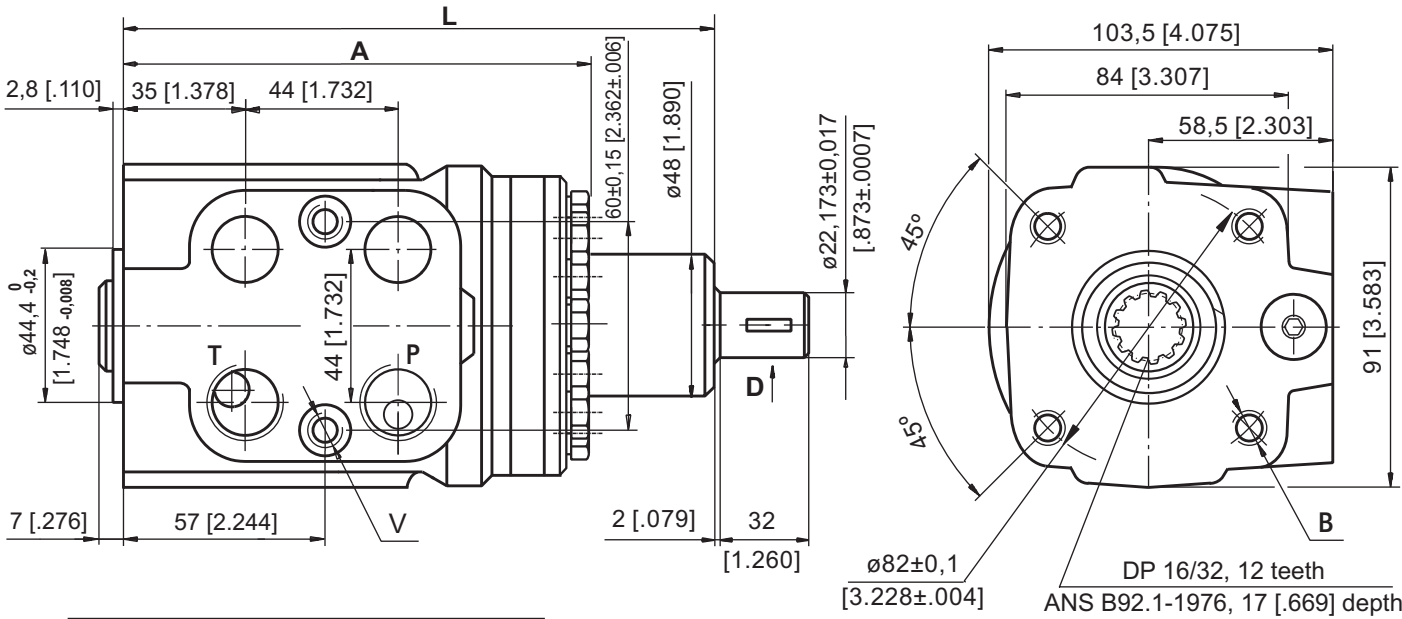
SPECIFICATION DATA

Parameters		Type	
		UVM 100	UVM 160
Displacement	cm ³ /rev	99,0	158,4
	[in ³ /rev]	[6.04]	[9.67]
Rated Flow*	lpm	10	16
	[GPM]	[2.6]	[4.2]
Rated Pressure**	bar	70	70
	[PSI]	[1015]	[1015]
Input Torque	daNm	0,35...0,5	0,35...0,5
	[lb-in]	[31...44]	[31...44]
Max. Input Torque	daNm	20	20
	[lb-in]	[178]	[178]
Torque Output at 70 bar [1015 PSI]	Nm	80	120
	[lb-in]	[708]	[1062]
Pressure Drop between P and T at Rated Flow	bar	1... 2	1,6...2,5
	[PSI]	[14.5...29]	[23.2...36.3]
Max. Speed of Rotation at Rated Flow and Pressure	RPM	100	100
Max. Continuous Pressure in Line T	bar	20	20
	[PSI]	[290]	[290]
Weight	kg	5,8	6,2
	[lb]	[12.8]	[13.7]

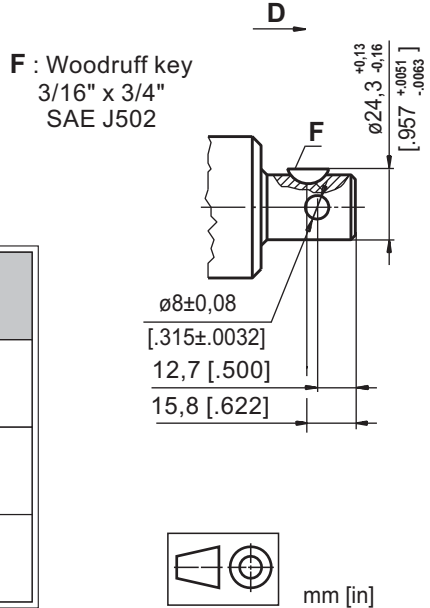
* Rated Flow at 100 RPM

** Pressure Settings are at Rated Flow (as in the table) and viscosity 21 mm²/s [105 SUS] at 50° C [122°F].

DIMENSIONS AND MOUNTING DATA

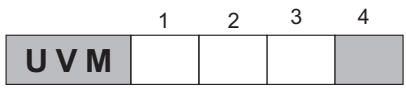


Dimensions	Type		
	UVM 100	UVM 160	
A	mm [in]	143,3 [5.64]	151,3 [5.96]
L	mm [in]	181,2 [7.13]	189,2 [7.45]



Code	Ports - P, T Thread	Column Mounting Thread - B	Port 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

ORDER CODE



- Pos.1 - Displacement code**
- 100** - 99,0 [6.04] cm³/rev [in³/rev]
 - 160** - 158,4 [9.67] cm³/rev [in³/rev]
- Pos.2 - Ports**
- omit - BSPP (ISO 228)
 - M** - Metric (ISO 262)
 - A** - SAE (ANSI B 1.1 - 1982)

- Pos.3 - Option (Paint)***
- omit - No Paint
 - P** - Painted
 - PC** - Corrosion Protected Paint
 - PS** - Special Paint**
 - PCS** - Special Corrosion Protected Paint**
- Pos.4 - Design Series**
- omit - Factory specified

Notes: * Colour at customer's request.
** Non painted feeding surfaces, colour at customer's request.

The steering units are mangano-phosphatized as standard.