

# MP400SHDP

## PRODUCT FEATURE SUMMARY

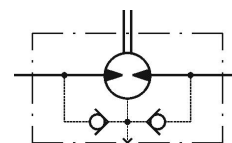
DATE: 16.05.2025

Username: Evelin Badic

MODEL TYPE: MP400SHDP

<b>CNSORDERNO</b> (Order number)	MP400SHDP
<b>MF</b> (Mounting Flange)	omit: Oval mount,two holes
<b>ONB</b> (Option (needle bearings))	omit: none
<b>PT</b> (Port type)	omit: Side ports
<b>DC</b> (Displacement code)	400: 396,0 cm <sup>3</sup> /rev [24.16 in <sup>3</sup> /rev]
<b>SE</b> (Shaft Extensions)	SH: Ø25,32 splined BS 2059 (SAE 6B)
<b>SSV</b> (Shaft Seal Version)	D: Standard shaft seal
<b>DP</b> (Drain Port)	omit: with drain port
<b>P</b> (Ports)	omit: BSPP (ISO 228)
<b>SFMS</b> (Special Features Measure speed)	omit: no special features
<b>SFGWS</b> (Special Features of gear wheel set)	omit: no special features
<b>SFDR</b> (Special Features - Direction of rotation)	omit: Standard
<b>OP</b> (Option (Paint))	P: Paint
<b>INFO</b> (Info)	PDF catalog
<b>L</b> (Total lengthmm)	181.78
<b>L1</b> (Length of gear wheel setmm)	53.33
<b>DIM</b> (Dimension unit)	mm

## DATA SHEET



Type		
<b>Displacement, cm<sup>3</sup>/rev [in<sup>3</sup>/rev]</b>		396 [24.16]
<b>Max. Speed, [RPM]</b>	cont.	150
	Int.*	189
<b>Max. Torque, daNm [lb-in]</b>	cont.	36 [3190]
	Int.*	59 [5240]
<b>Max. Output, kW [HP]</b>	cont.	4,6 [6.2]
	Int.*	7,8 [10.5]
<b>Max. Pressure Drop, bar [PSI]</b>	cont.	70 [1015]
	Int.*	115 [1665]
<b>Max. Oil Flow, lpm [GPM]</b>	cont.	60 [15.9]
	Int.*	75 [19.8]
<b>Max. Inlet Pressure, bar [PSI]</b>	cont.	175 [2540]
	Int.*	200 [2900]
	peak**	225 [3260]
<b>Max. Return Pressure with Drain Line bar [PSI]</b>	cont.	175 [2540]
	Int.*	200 [2900]
	peak**	225 [3260]
<b>Pressure with Unloaded Shaft, bar [PSI]</b>		5 [73]
<b>Min Starting Torque, daNm [lb-in]</b>	at max. press. drop cont.	34,5 [3050]
	at max. press. drop Int.*	60,8 [5390]
<b>Min. Speed***, [RPM]</b>		10
<b>Weight, kg [lb]</b>		7,6 [16.8]

\* Intermittent operation: the permissible values may occur for max. 10% of every minute.

\*\* Peak load: the permissible values may occur for max. 1% of every minute.

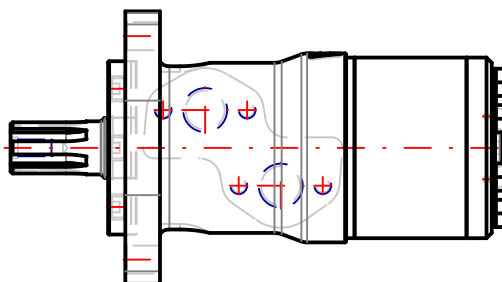
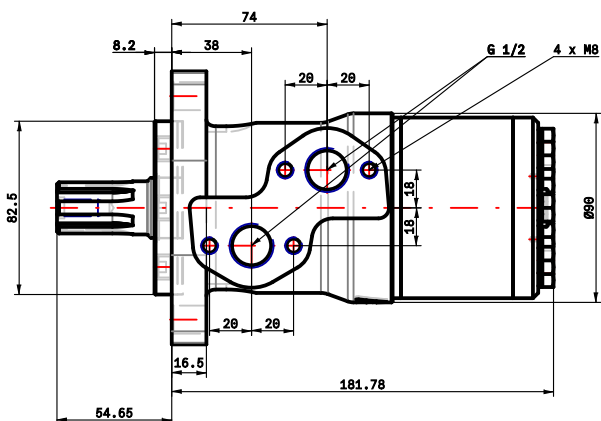
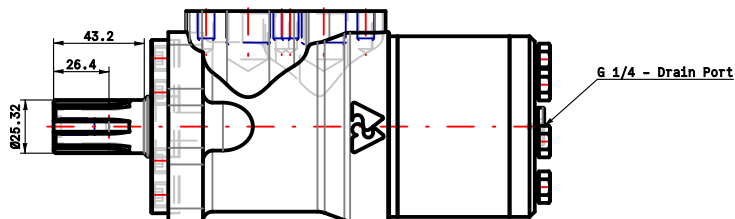
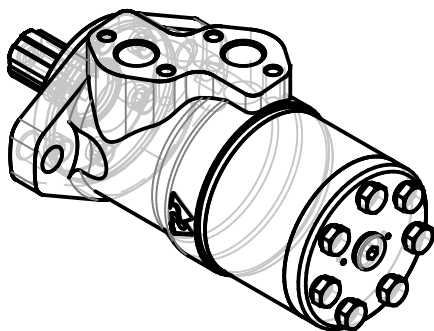
\*\*\* For speeds lower than given, consult factory or your regional manager.

- Intermittent speed and intermittent pressure drop must not occur simultaneously.
- Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
- Recommend using a premium quality, anti-wear type mineral based hydraulic oil HLP(DIN51524) or HM ( ISO 6743/4). If using synthetic fluids consult the factory for alternative seal materials.
- Recommended minimum oil viscosity 13 mm<sup>2</sup>/s [70 SUS] at 50°C [122°F].
- Recommended maximum system operating temperature is 82°C [180°F].
- To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

# **MP400SHDP**

**3d generated view**

**To see model in 3D you should use Acrobat Reader with enable 3D view**



NOTE: Showed dimensions are in nominal, for maximal values see table.

NOTE: For additional dimensions and information about flange , shaft , endcover , etc. see next page.

L max	LS max
181.78	

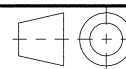
Confidential property of M+S Hydraulic, Bulgaria.  
Please note that this drawing is automatically generated based on the selection. In case of possible changes or revisions in the drawing specifications, the selection process should be repeat. M+S is not responsible for any possible errors on the drawings.



**MP400SHDP**

Design: M+S      Check:

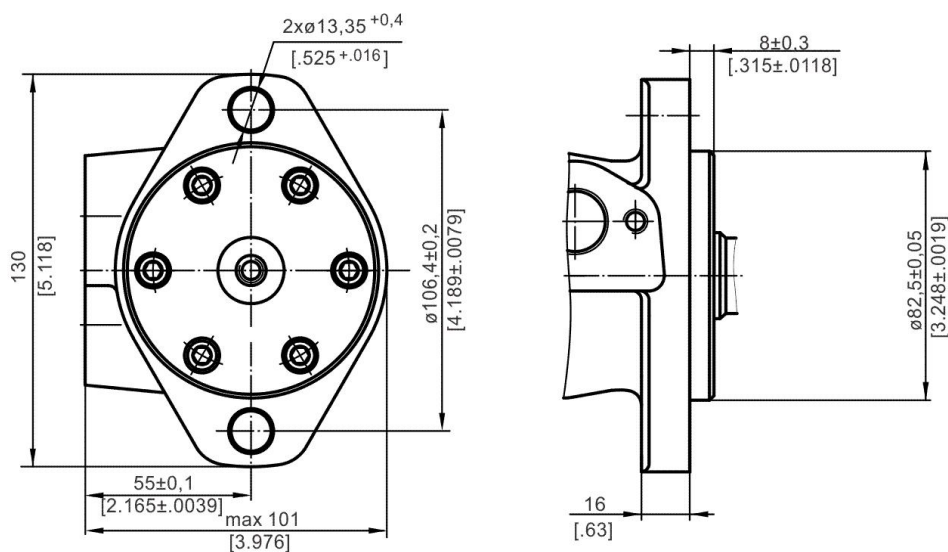
Scale	Sheet	Rev.	Weight
Date 16.05.2025			7,6 [16.8]



**Standard Rotation**  
Viewed from Shaft End

Port **A** Pressurized - **CW**  
Port **B** Pressurized - **CCW**

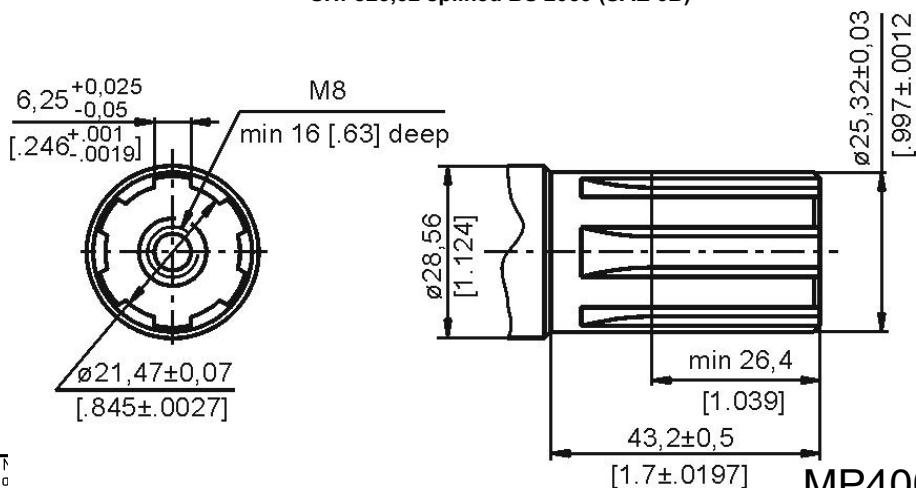
omit: Oval mount, two holes



omit: Side ports



**SH:  $\phi 25,32$  splined BS 2059 (SAE 6B)**



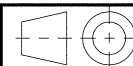
Confidential property of M+S  
Please note that this drawing is generated based on the selection. In case of possible changes or revisions in the drawing specifications, the selection process should be repeated. M+S is not responsible for any possible errors on the drawings.

Design: M+S Check:

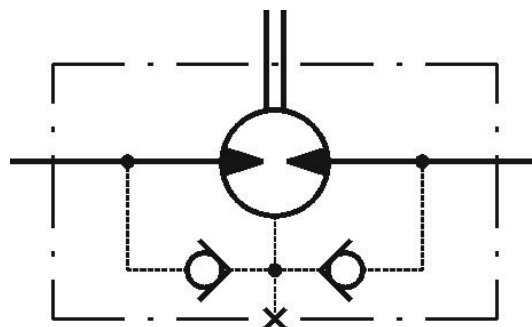
**M+S HYDRAULIC**

**MP400SHDP**

Scale	Sheet	Rev.	Weight
Date 16.05.2025			7,6 [16.8]

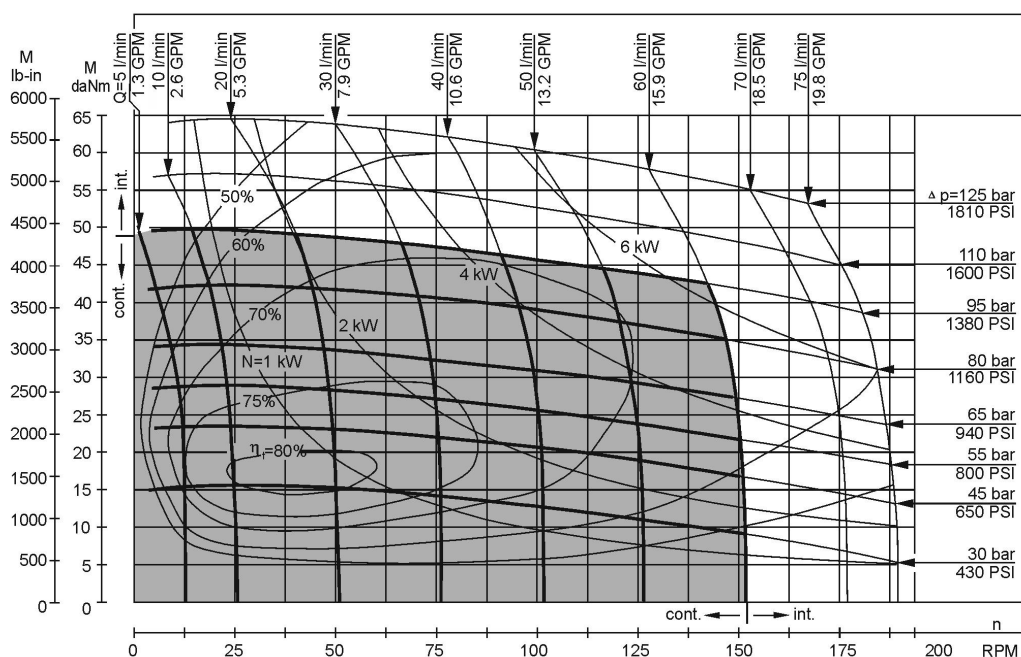


# MP400SHDP



The shaft seal pressure equals the pressure in the drain line

## FUNCTION DIAGRAMS

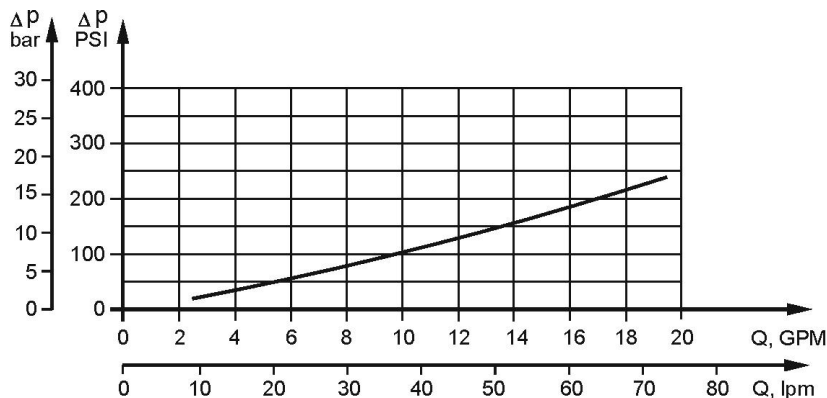


The function diagrams data is for average performance of randomly selected motors at back pressure 5÷10 bar [72.5÷145 PSI] and oil with viscosity of 32 mm<sup>2</sup>/s [150 SUS] at 50°C [122°F].

# MP400SHDP

## DATA SHEET

### Pressure Losses

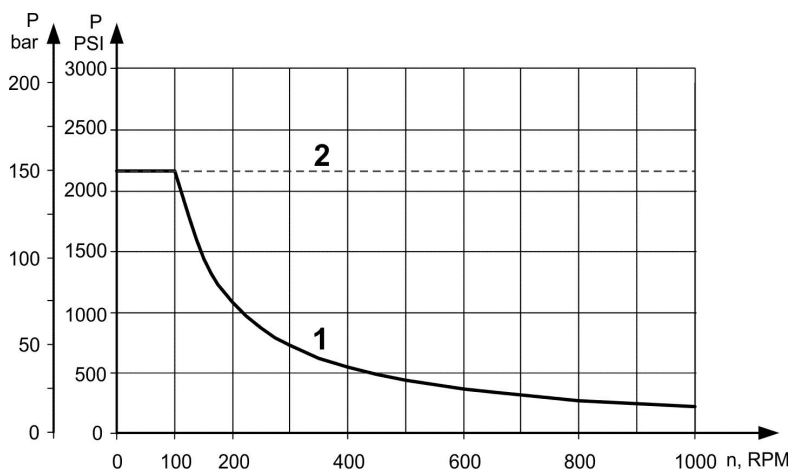


### Oil flow in drain line

Pressure drop bar [PSI]	Viscosity mm <sup>2</sup> /s [SUS]	Oil flow in drain line lpm [GPM]
100 [1450]	20 [98]	2,5 [.660]
	35 [164]	1,8 [.476]
140 [2030]	20 [98]	3,5 [.925]
	35 [164]	2,8 [.740]

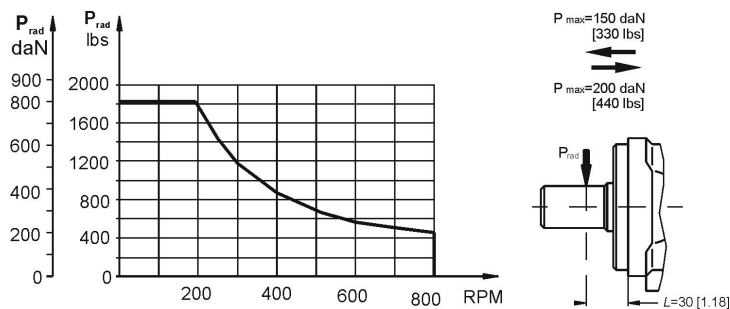
### MAX: PERMISSIBLE SHAFT SEAL PRESSURE

Max. return pressure without drain line or max. pressure in the drain line



Curve "1" shows continuous operations.  
Curve "2" shows intermittent operations.

### PERMISSIBLE SHAFT LOADS



Radial Shaft Load  $P_{rad}$  for C,CO Shaft Extensions by  
 $L=30\text{mm}[1.81\text{in}]$