

# MSW250SH/4

## PRODUCT FEATURE SUMMARY

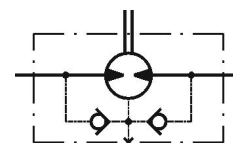
DATE: 24.10.2025

Username: Torkil Hesthammer

MODEL TYPE: MSW250SH/4

<b>CNSORDERNO</b> (Order number).	MSW250SH/4
<b>MF</b> (Mounting Flange).	W: Wheel mount
<b>PT</b> (Port type).	omit: Side ports
<b>DC</b> (Displacement code).	250: 250,0 cm <sup>3</sup> /rev [15.30 in <sup>3</sup> /rev]
<b>SE</b> (Shaft Extensions).	SH: ø1¼" splined 14T ANS B92.1-1970
<b>SSV</b> (Shaft Seal Version).	omit: Low pressure seal
<b>P</b> (Ports).	omit: BSPP (ISO 228)
<b>AD</b> (Actuating Direction).	omit: only for drum brake
<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)).	omit: no paint
<b>DESIGNS</b> (Design Series).	4
<b>INFO</b> (Info).	PDF catalog
<b>L1</b> (mm).	43.5
<b>L2</b> (mm).	116.5
<b>L</b> (max. Lmm).	157.9

## DATA SHEET



Type	MS250	Type	MS250
<b>Displacement, cm<sup>3</sup>/rev [in<sup>3</sup>/rev]</b>	250 [15.3]		
<b>Max. Speed, [RPM]</b>	cont. 300	<b>Max. Inlet Pressure, bar [PSI]</b>	cont. 230 [3340]
	Int.* 360		Int.* 295 [4280]
<b>Max. Torque, daNm [lb-in]</b>	cont. 72 [6370]		peak** 300 [4350]
	Int.* 87 [7700]	<b>Max. Return Pressure with Drain Line bar [PSI]</b>	cont. 140 [2030]
<b>Max. Output, kW [HP]</b>	cont. 14,5 [19.4]		Int.* 175 [2540]
	Int.* 18 [24.1]		peak** 210 [3050]
<b>Max. Pressure Drop, bar [PSI]</b>	cont. 200 [2900]	<b>Pressure with Unloaded Shaft, bar [PSI]</b>	8 [115]
	Int.* 250 [3630]	<b>Min Starting Torque, daNm [lb-in]</b>	at max. press. drop cont. 56 [4960]
<b>Max. Oil Flow, lpm[GPM]</b>	cont. 75 [20]		at max. press. drop Int.* 70 [6200]
	Int.* 90 [24]	<b>Min. Speed***, [RPM]</b>	6
		<b>Weight, kg [lb]</b>	12.2 [26.9]

\* 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.

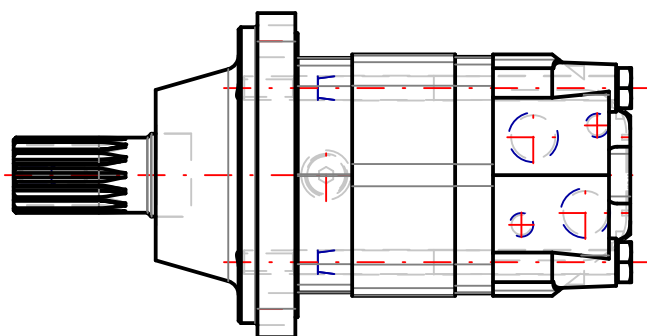
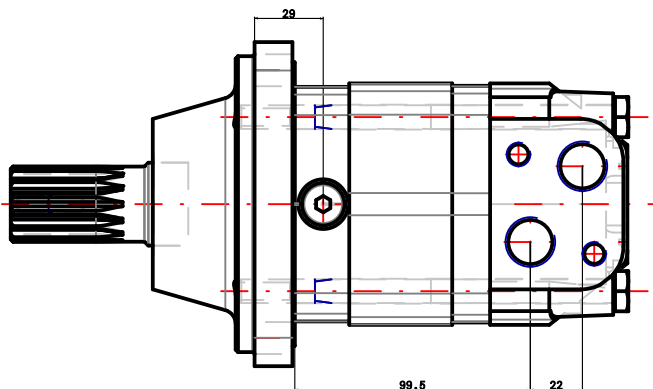
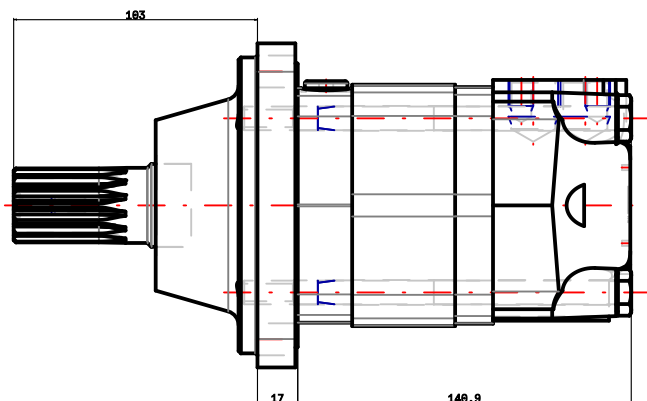
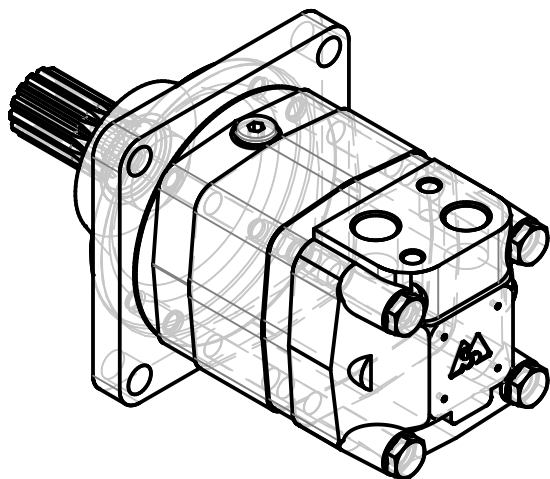
\*\*\* For speeds lower than given, consult factory or your regional manager.

- 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.

# **MSW250SH/4**

**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
157.9	116.5

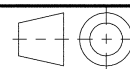
Confidential property of M+S Hydraulic, Bulgaria.  
Please note that this drawing is automatically generated based on the selection. In case of possible changes or revisions in the drawing specifications, the selection process should be repeat. M+S is not responsible for any possible errors on the drawings.



**MSW250SH/4**

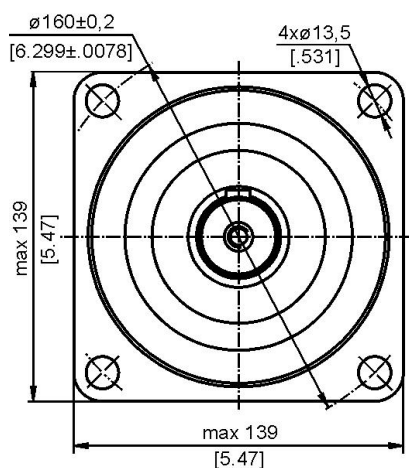
Design: M+S      Check:

Scale	Sheet	Rev.	Weight
Date 24.10.2025		4	12,2 [26.9]

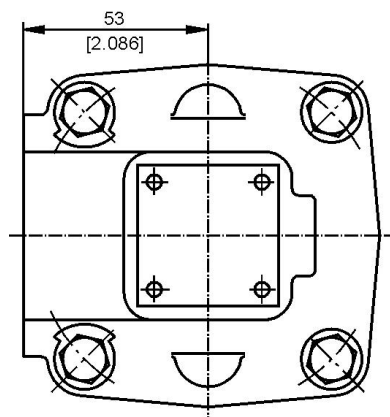
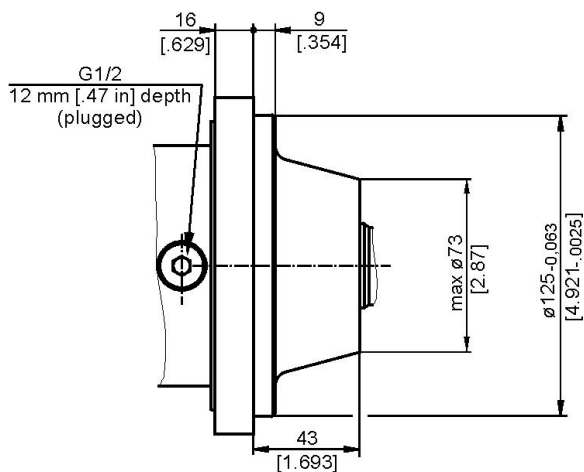


**Standard Rotation**  
Viewed from Shaft End

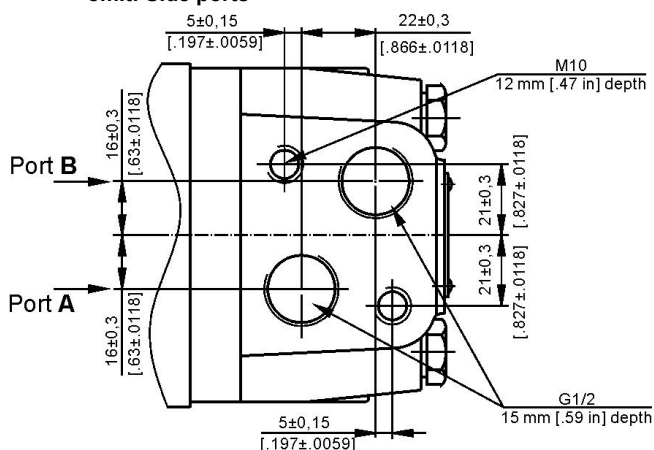
Port A Pressurized - CW  
Port B Pressurized - CCW



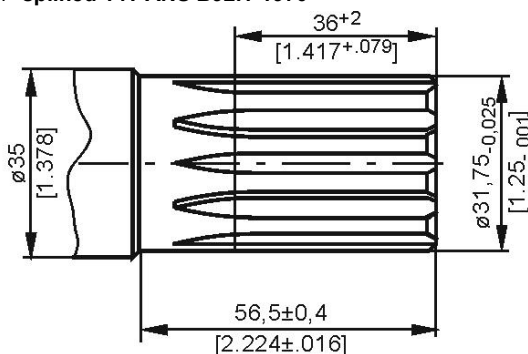
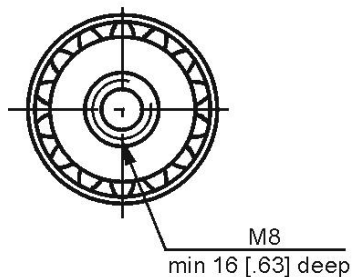
**W: Wheel mount**



**omit: Side ports**



**SH:  $\phi 1\frac{1}{4}$ " splined 14T ANS B92.1-1970**



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Design: M+S

Check:



**MSW250SH/4**

Scale

Date 24.10.2025

Sheet

Rev.

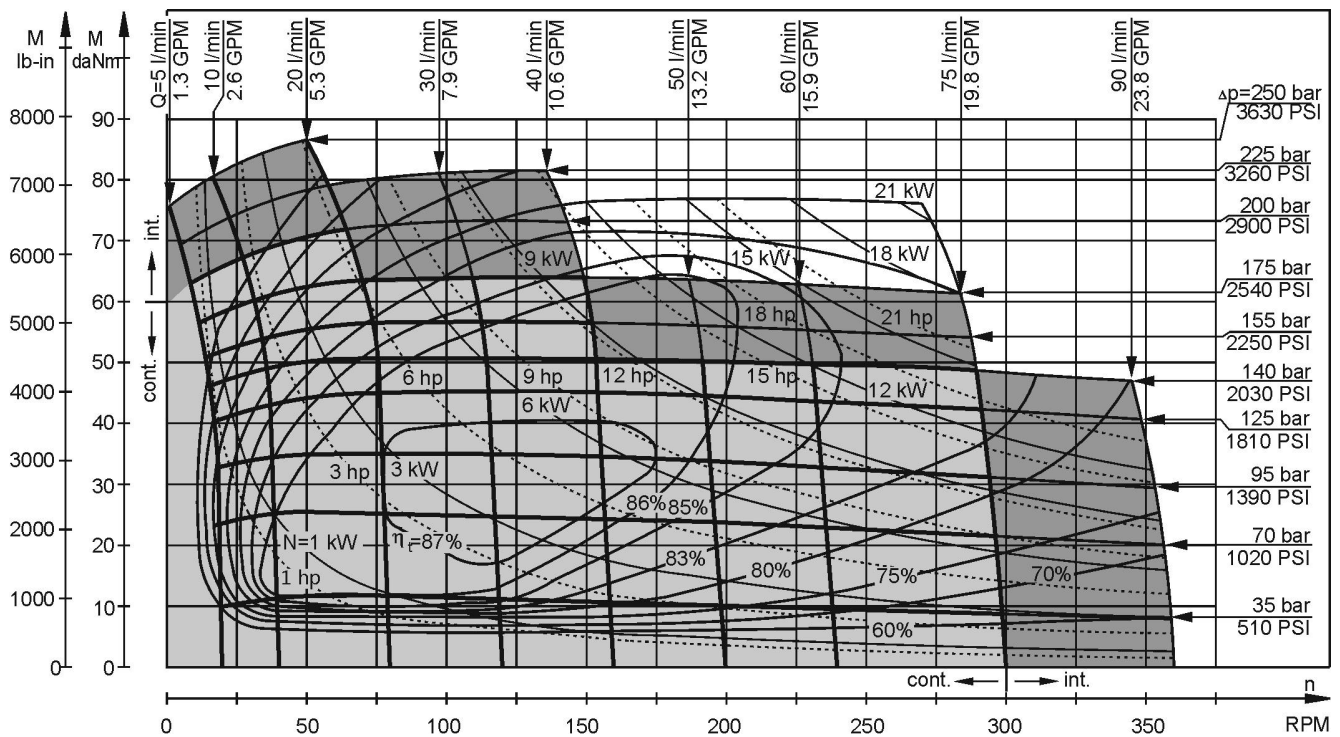
Weight

4 12.2 [26.9]



# MSW250SH/4

## FUNCTION DIAGRAMS

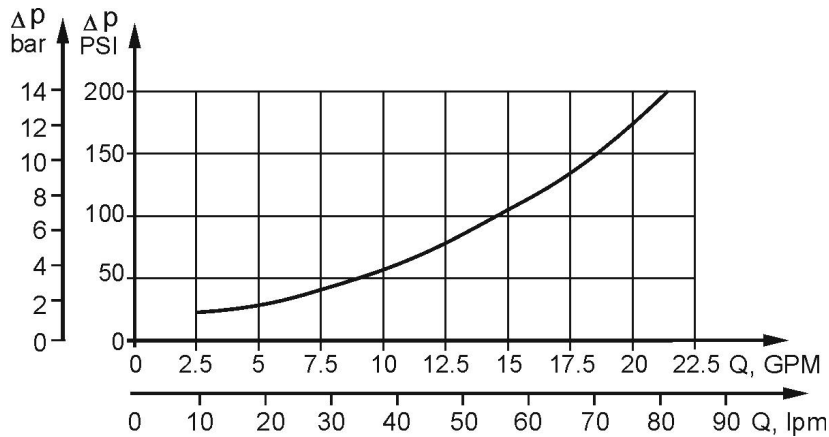


The function diagrams data is for average performance of randomly selected motors at back pressure 5÷10 bar [72.5÷145 PSI] and oil with viscosity of 32 mm<sup>2</sup>/s [150 SUS] at 50°C [122°F].

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## DATA SHEET

Pressure Losses

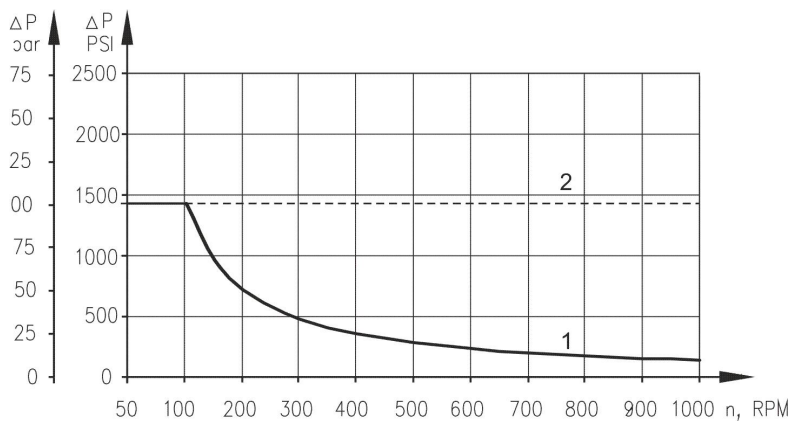


Oil flow in drain line

Pressure drop bar [PSI]	Viscosity mm <sup>2</sup> /s [SUS]	Oil flow in drain line lpm [GPM]
140 [2030]	20 [98]	1,5 [.396]
	35 [164]	1 [.264]
210 [3045]	20 [98]	3 [.793]
	35 [164]	2 [.528]

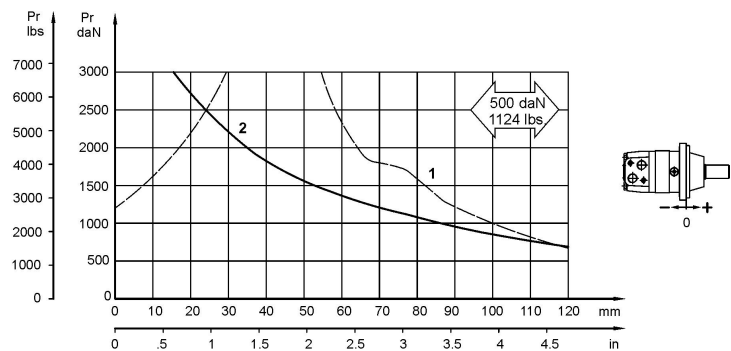
### MAX: PERMISSIBLE SHAFT SEAL PRESSURE

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



Curve "1" shows critical radial shaft load. The output shaft runs in tapered bearings that permit high axial and radial forces. The permissible radial load on the shaft is shown (curve 2) for an axial load of 0 N as function of the distance from the mounting flange to the point of load application. The curve 2 apply to a B10 bearing life of 2000 hours at 100 RPM.