

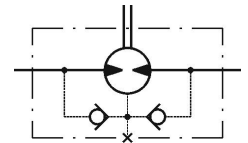
# MR50C

## PRODUCT FEATURE SUMMARY

DATE: 09.12.2025  
MODEL TYPE: MR50C

Username: Petar Petrov

<b>CNSORDERNO</b> (Order number)	MR50C
<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)	50: 51,5 cm <sup>3</sup> /rev [3.14 in <sup>3</sup> /rev]
<b>SE</b> (Shaft Extensions)	C: Ø25 straight, Parallel key A8x7x32 DIN6885
<b>SSV</b> (Shaft Seal Version)	omit: Low pressure shaft seal or Standard shaft seal for "B" shaft
<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))	omit: no paint
<b>INFO</b> (Info)	PDF Catalog
<b>L</b> (Total lengthmm)	136.8
<b>L1</b> (Length of gear wheel setmm)	9.000
<b>DIM</b> (Dimension unit)	mm



## DATA SHEET

Type	
<b>Displacement, cm<sup>3</sup>/rev [in<sup>3</sup>/rev]</b>	51,5 [3.14]
<b>Max. Speed, [RPM]</b>	cont. 775
	Int.* 970
<b>Max. Torque, daNm [lb-in]</b>	cont. 10 [900]
	Int.* 13 [1150]
<b>Max. Output, kW [HP]</b>	cont. 7 [9.5]
	Int.* 8,5 [11.9]
<b>Max. Pressure Drop, bar [PSI]</b>	cont. 140 [2030]
	Int.* 175 [2540]
<b>Max. Oil Flow, [RPM]</b>	cont. 40 [10.5]
	Int.* 50 [13.2]

Type	
<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>	
<b>Min Starting Torque, daNm [lb-in]</b>	at max. press. drop cont. 8 [710]
	at max. press. drop Int.* 10 [85]
<b>Min. Speed***, [RPM]</b>	10
<b>Weight, kg [lb]</b>	6,8 [15]

\* 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.

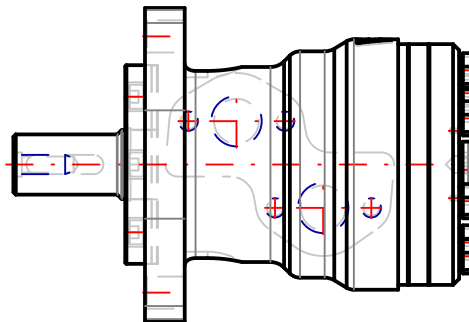
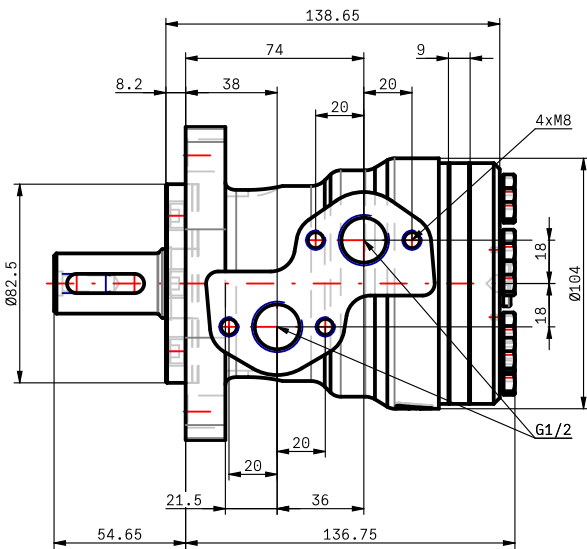
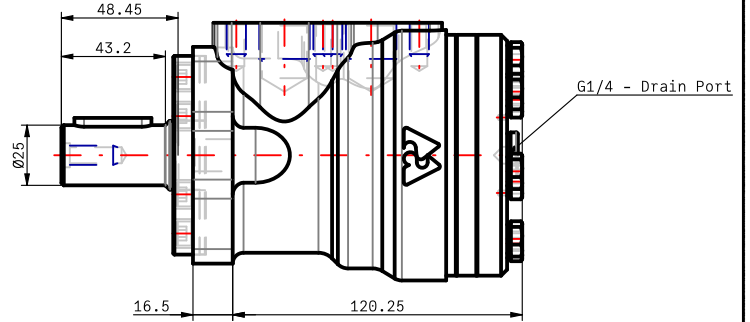
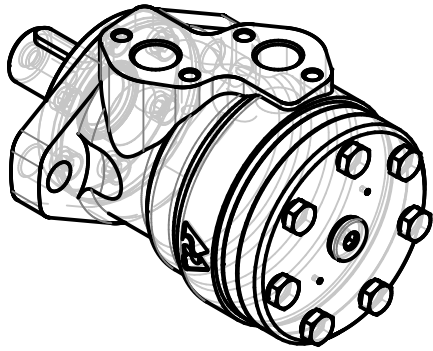
\*\*\* For speeds lower than given, consult factory or your regional manager.

- 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.

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## 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
136.8	

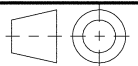
Confidential property of M+S Hydraulic, Bulgaria.  
 Please note that this drawing is automatically generated based on the selection. In case of possible changes or revisions in the drawing specifications, the selection process should be repeat M+S is not responsible for any possible errors on the drawings.



MR50C

Design: M+S      Check:

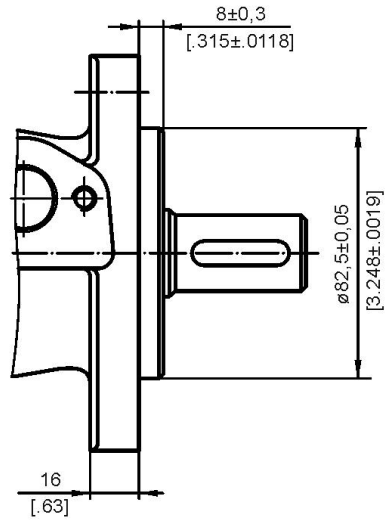
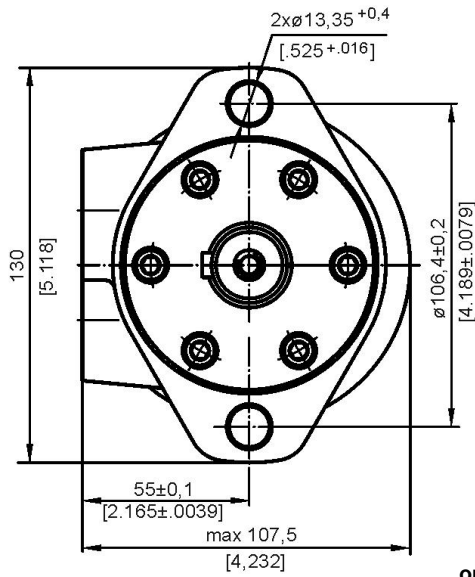
Scale	Sheet	Rev.	Weight
Date 09.12.2025			6.8 [15]



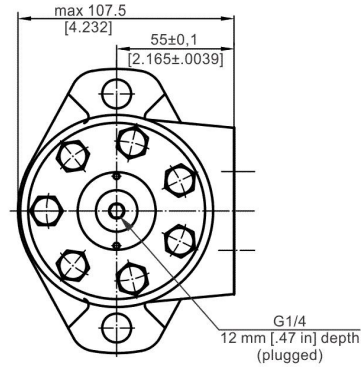
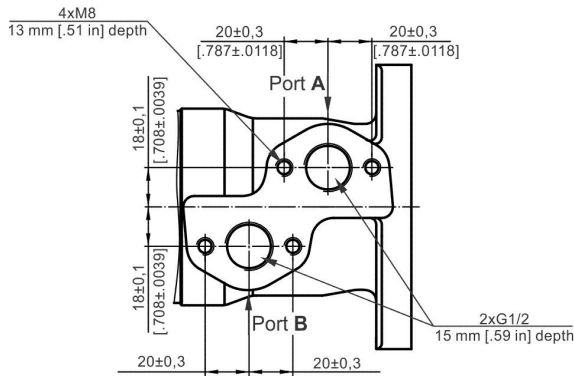
**Standard Rotation**  
Viewed from Shaft End

Port A Pressurized - CW  
Port B Pressurized - CCW

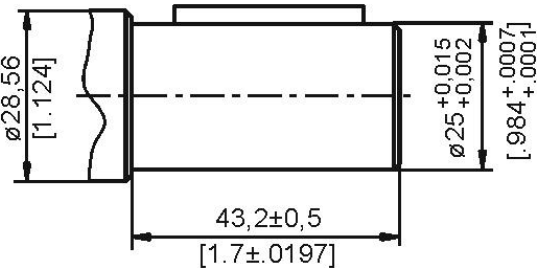
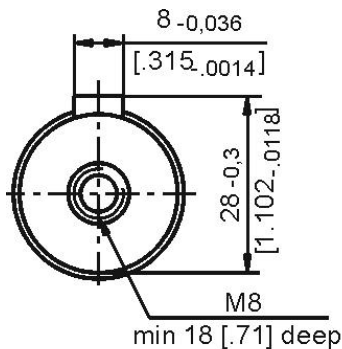
omit: Oval mount, two holes



omit: Side ports



C: Ø25 straight, Parallel key A8x7x32 DIN6885

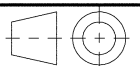


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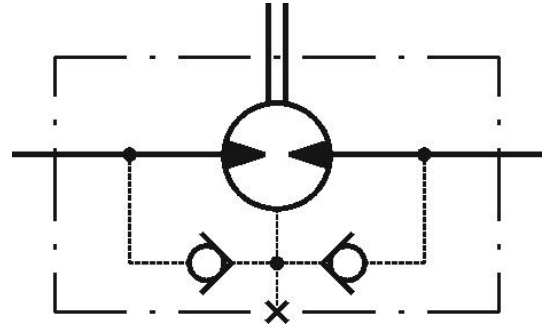


**MR50C**

Scale	Sheet	Rev.	Weight
Date 09.12.2025			6,8 [15]

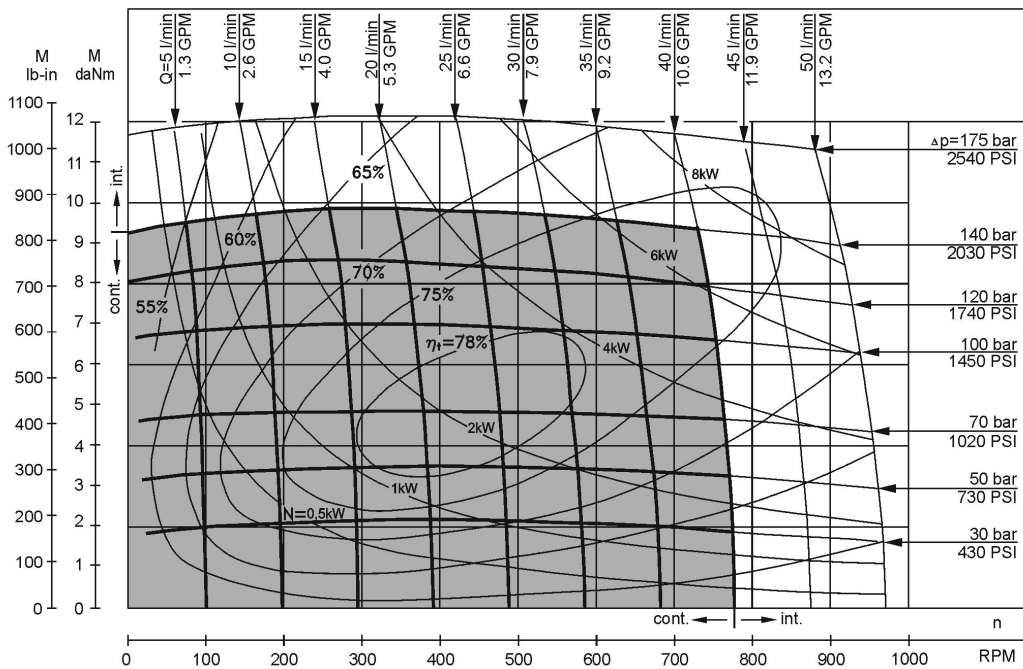


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The shaft seal pressure equals the pressure in the drain line.

## 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].

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## DATA SHEET

### Pressure Losses

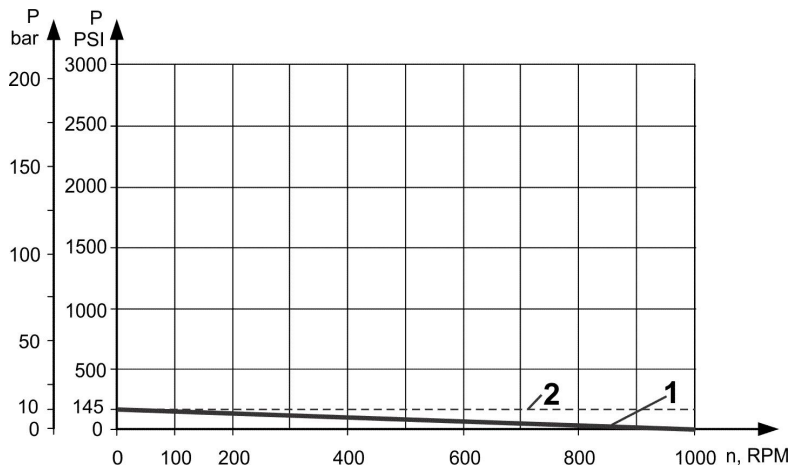


### Oil flow in drain line

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

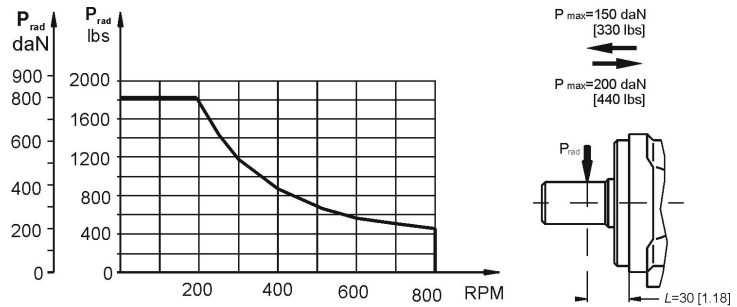
### MAX: PERMISSIBLE SHAFT SEAL PRESSURE

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



Black Curve shows continuous operations.  
Dashed Curve shows intermittent operations.

### PERMISSIBLE SHAFT LOADS



Radial Shaft Load Prad for C,CO Shaft Extensions by L=30mm[1.81in]

Standard Motor - The standard motor mounting flange is located as close to the output shaft as possible. This type of mounting support the motor close to the shaft load. This mounting flange is also compatible with many standard gear boxes.