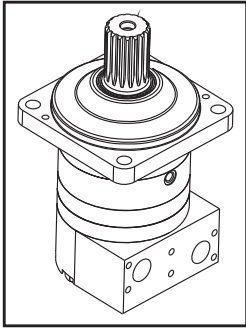
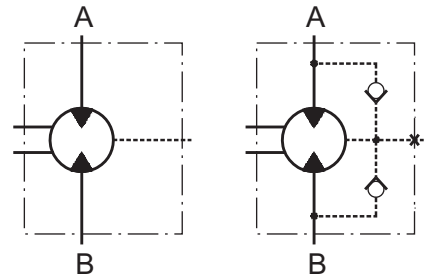


HYDRAULIC MOTORS MVMC



OPTIONS

- » Model - Disc valve, roll-gerotor
- » Flange mount with wheel mount
- » Side ports
- » Shafts - straight, splined and tapered
- » Metric, SAE and BSPP ports
- » Other special features



CONTENTS

Specification data	40
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Permissible shaft Seal Pressure	42
Permissible shaft loads	43
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EXCELLENCE

- » High torque and pressure drop
- » High inlet pressure
- » High starting torque
- » Improved efficiency at high pressure drop and frequent reversing
- » Smooth operation at low speed
- » High radial and axial bearing capacity

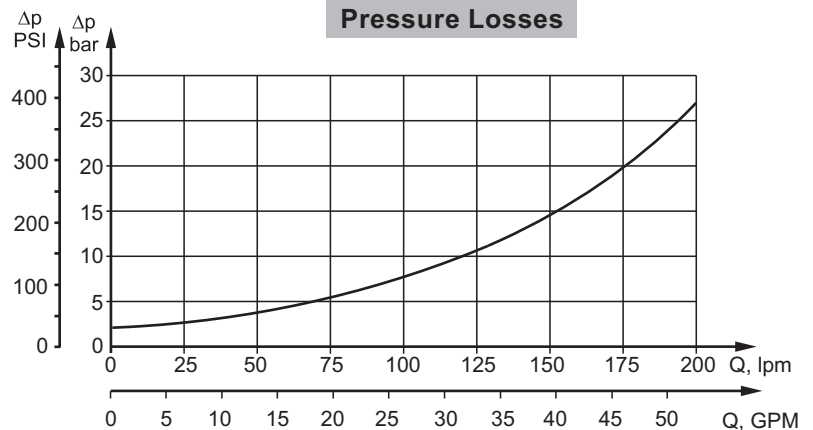
GENERAL

Max. Displacement, cm ³ /rev [in ³ /rev]	801,8 [48.91]
Max. Speed, [RPM]	763
Max. Torque, daNm [lb-in]	cont.: 259 [22920] int.: 340 [30090]
Max. Output, kW [HP]	112 [150]
Max. Pressure Drop, bar [PSI]	cont.: 250 [3630] int.: 350 [5080]
Max. Oil Flow, lpm [GPM]	240 [63.4]
Min. Speed, [RPM]	5
Permissible Shaft Loads, daN [lbs]	Pa=1500 [3370]
Pressure fluid	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
Temperature range, °C [°F]	-40÷140 [-40÷284]
Optimal Viscosity range, mm ² /s [SUS]	20÷75 [98÷347]
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 microns)

Oil flow in drain line

Pressure drop bar [PSI]	Viscosity mm ² /s [SUS]	Oil flow in drain line lpm [GPM]
140 [2030]	20 [98]	3 [.793]
	35 [164]	2 [.528]
210 [3045]	20 [98]	6 [1.585]
	35 [164]	4 [1.057]

Pressure Losses



SPECIFICATION DATA

Type	MVMC 315	MVMC 400	MVMC 500	MVMC 630	MVMC 800	
Displacement, cm³/rev [in³/rev]	314,5 [19.18]	400,9 [24.5]	499,6 [30.5]	629,1 [38.38]	801,8 [48.91]	
Max. Speed, [RPM]	cont.	636	500	400	315	250
	Int.*	736	600	480	380	300
Max. Torque daNm [lb-in]	cont.	115 [10180]	144 [12745]	180 [15930]	227 [20090]	259 [22920]
	Int.*	160 [14160]	200 [17700]	260 [23010]	310 [27440]	340 [30090]
	peak**	180 [15930]	230 [20355]	286 [25315]	360 [31860]	402 [35580]
	start	92 [8143]	115 [10180]	144 [12745]	180 [15930]	205 [18144]
Max. Output kW [HP]	cont.	67 [90]	67 [90]	67 [90]	67 [90]	67 [90]
	int.*	112 [150]	112 [150]	112 [150]	112 [150]	112 [150]
Max. Pressure Drop bar [PSI]	cont.	250 [3630]	250 [3630]	250 [3630]	250 [3630]	225 [3263]
	Int.*	350 [5080]	350 [5080]	350 [5080]	350 [5080]	300 [4350]
	peak**	400 [5800]	400 [5800]	400 [5800]	400 [5800]	350 [5080]
Max. Oil Flow lpm [GPM]	cont.	200 [52.8]	200 [52.8]	200 [52.8]	200 [52.8]	200 [52.8]
	Int.*	240 [63.4]	240 [63.4]	240 [63.4]	240 [63.4]	240 [63.4]
Max. Starting Pressure with Unloaded Shaft, bar [PSI]	5 [70]	5 [70]	5 [70]	5 [70]	5 [70]	
Drain Pressure, bar [PSI]	P _{atm.}					
Weight, kg [lb]	43,8 [96.6]	44,9 [99]	45,8 [101]	48,3 [106.5]	50,4 [111.1]	

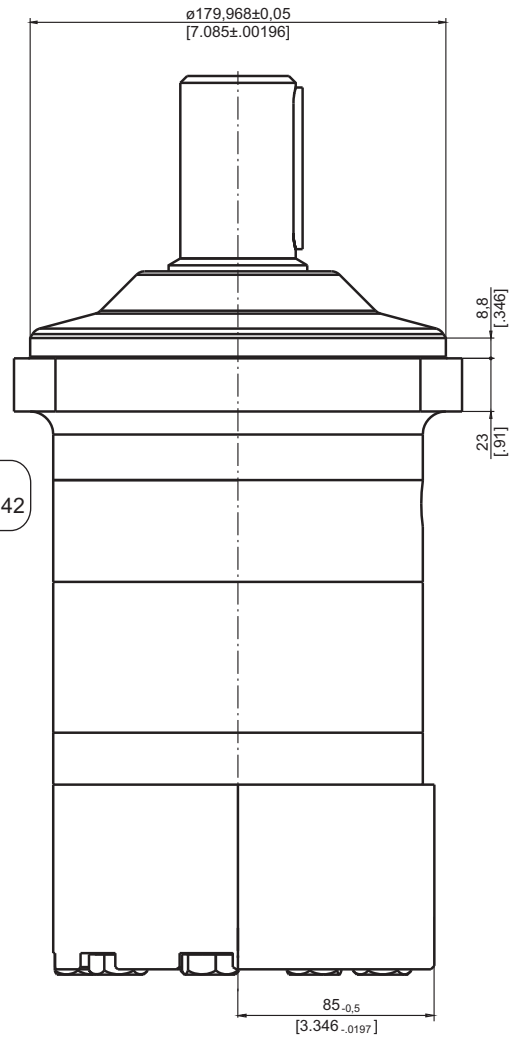
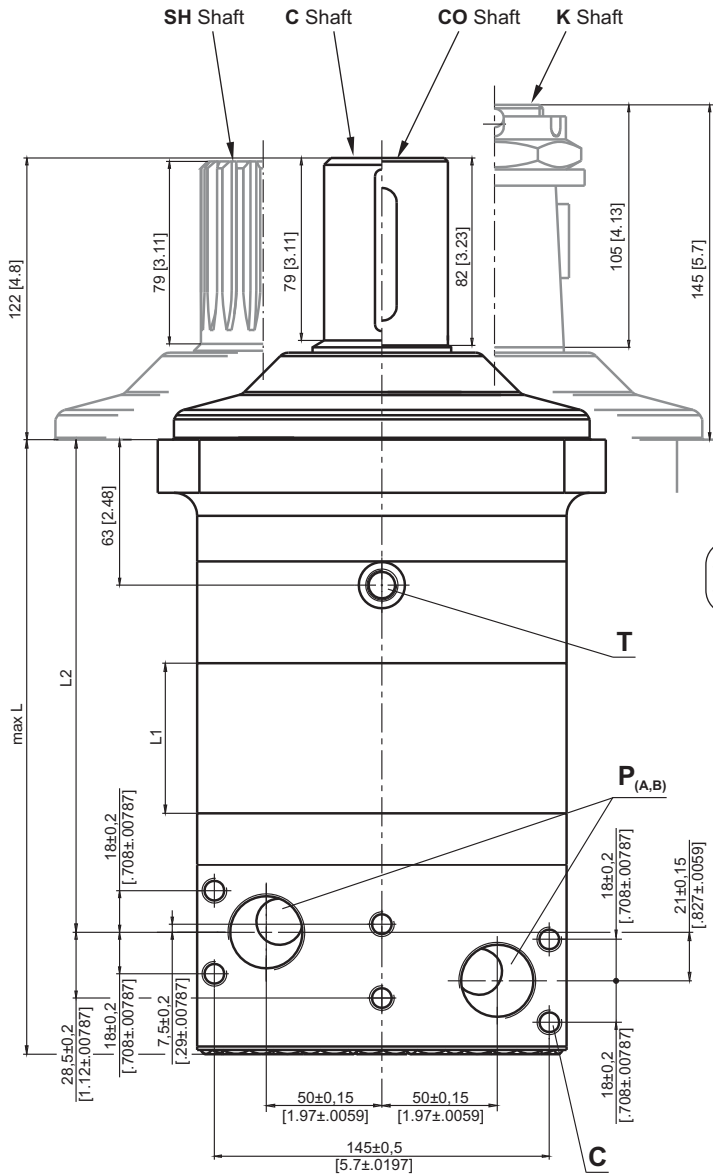
* Intermittent operation: the permissible values may occur for max. 10% of every minute.

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

*** For speeds of 5 RPM lower than given, consult factory or your regional manager.

1. Intermittent speed and intermittent pressure must not occur simultaneously.
2. Recommended filtration is per ISO cleanliness code 20/16. A nominal filtration of 25 micron or better.
3. Recommend using a premium quality, anti-wear type mineral based hydraulic oil, HLP(DIN51524) or HM(ISO6743/4). If using synthetic fluids consult the factory for alternative seal materials.
4. Recommended minimum oil viscosity 13 cm²/s [70 SUS] at 50°C [122°F].
5. Recommended maximum system operating temperature is 82°C [180°F].
6. To assure optimum motor life fill with fluid prior to loading and run at moderate load and speed for 10-15 minutes.

DIMENSIONS AND MOUNTING DATA



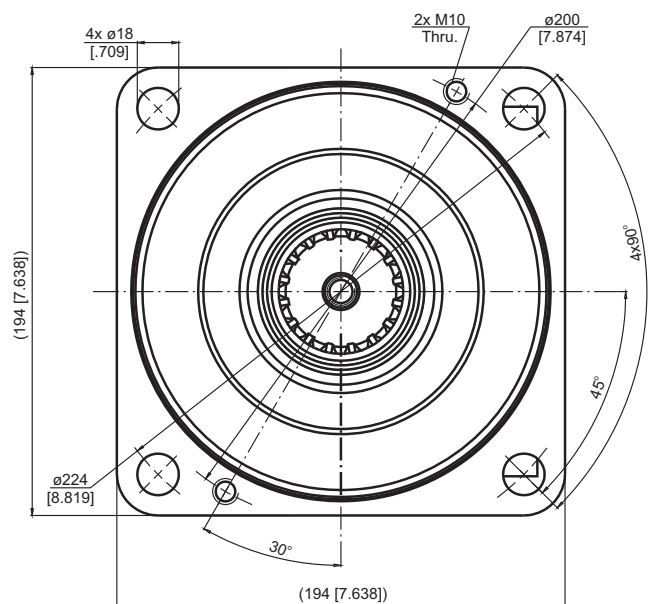
Shaft Dim.
See Page 42



Versions	
	3
P(A,B)	2xG1
T	G¼
C	6xM10

Warning: Drain line should always be used.

Type	L, mm [in]	L2, mm [in]	L1, mm [in]
MVMC 315	227,5 [8.957]	174,0 [6.850]	25,5 [1.00]
MVMC 400	234,5 [9.232]	181,0 [7.126]	32,5 [1.28]
MVMC 500	242,5 [9.547]	189,0 [7.441]	40,5 [1.59]
MVMC 630	253,0 [9.961]	199,5 [7.854]	51,0 [2.01]
MVMC 800	267,0 [10.518]	213,5 [8.405]	65,0 [2.56]



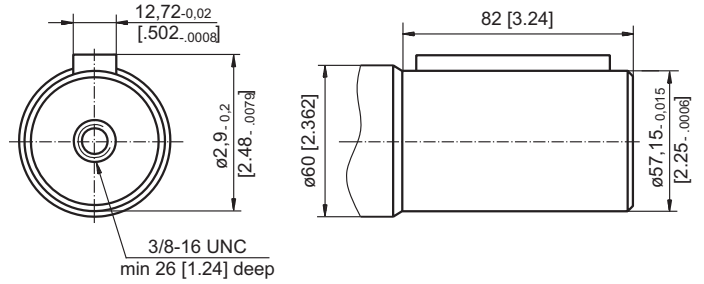
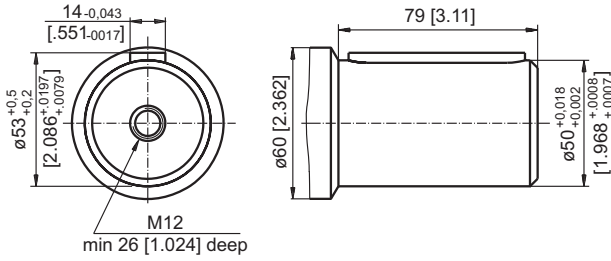
Standard Rotation
Viewed from Shaft End
Port A Pressurized - CW
Port B Pressurized - CCW

Reverse Rotation
Viewed from Shaft End
Port A Pressurized - CCW
Port B Pressurized - CW

SHAFT EXTENSIONS

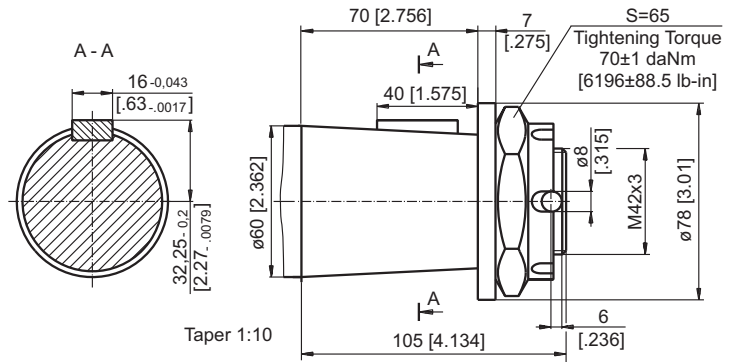
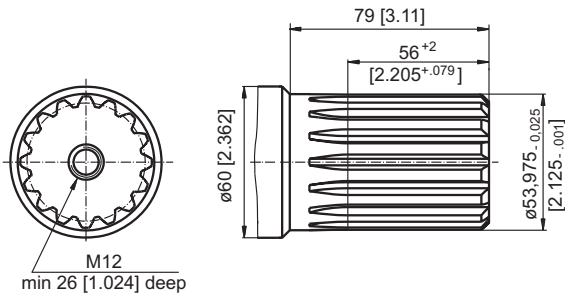
C - $\varnothing 50$ straight, Parallel key A14x9x70 DIN 6885

CO - $\varnothing 2\frac{1}{4}$ " [57, 15] straight, Parallel key $\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{1}{4}$ " BS46



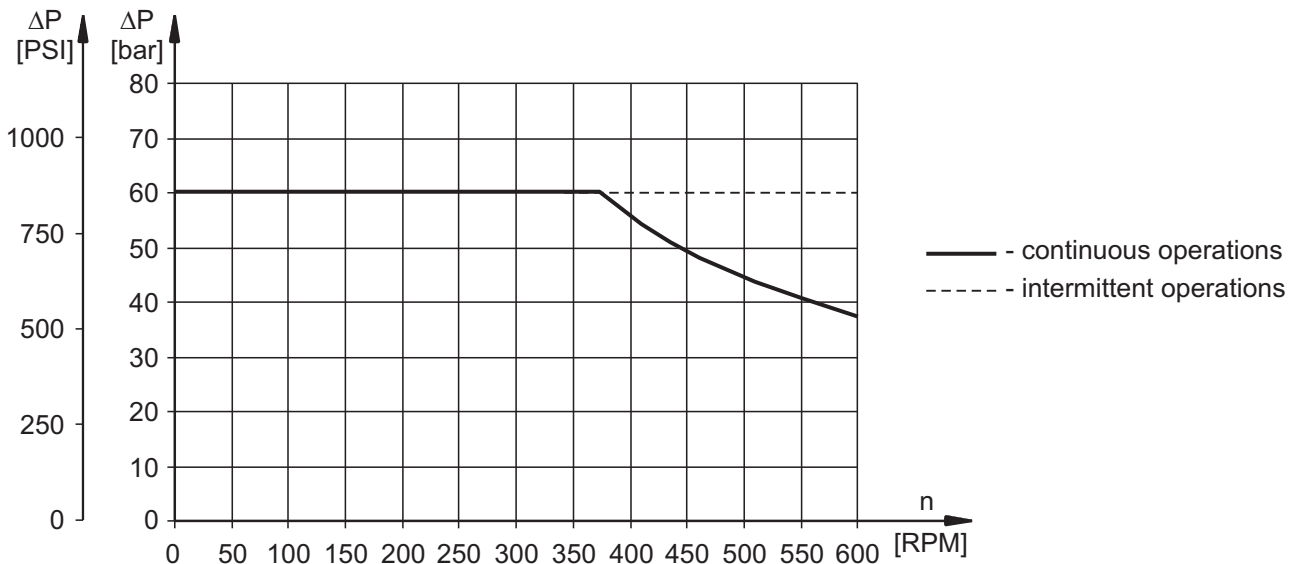
SH - $\varnothing 2\frac{1}{8}$ " splined, 16 DP 8/16 ANS B92.1-1976

K - tapered 1:10, Parallel key B16x10x32 DIN 6885



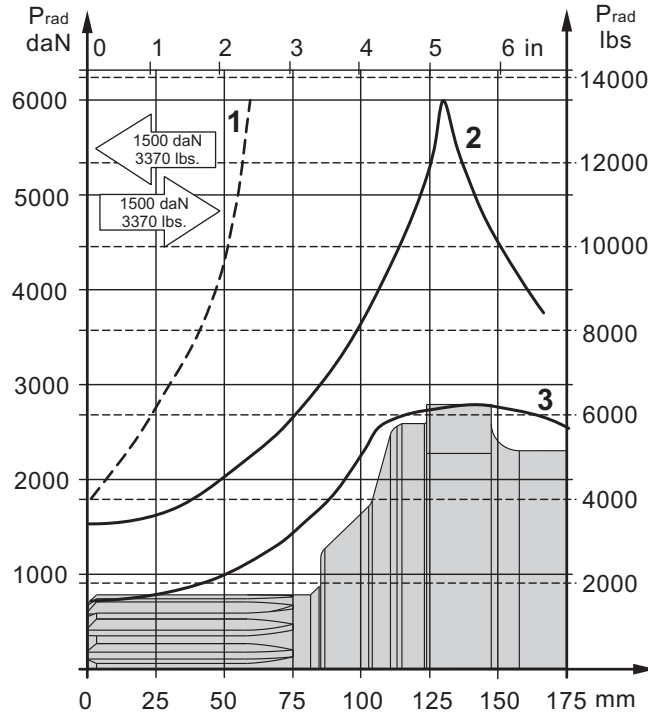
MAX. PERMISSIBLE SHAFT SEAL PRESSURE

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



PERMISSIBLE SHAFT LOADS

The output shaft runs in tapered bearings that permit high axial and radial forces. Curve "1" shows max. radial shaft load. Any shaft load exceeding the values quoted in the curve will seriously reduce motor life. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



2 - $P_a = 0$ daN [0 lbs]
 3 - $P_a = 1500$ daN [3370 lbs]

ORDER CODE

	1	2	3	4	5	6
M V M C					HD	

Pos.1 - Displacement code

315	- 314,5 cm ³ /rev [19.8 in ³ /rev]
400	- 400,9 cm ³ /rev [24.45 in ³ /rev]
500	- 499,6 cm ³ /rev [30.48 in ³ /rev]
630	- 629,1 cm ³ /rev [38.38 in ³ /rev]
800	- 801,8 cm ³ /rev [48.91 in ³ /rev]

Pos.2 - Shaft Extensions*

C	- $\varnothing 50$ straight, Parallel key A14x9x70 DIN6885
CO	- $\varnothing 2\frac{1}{4}$ " straight, Parallel key $\frac{1}{2}$ "x $\frac{1}{2}$ "x $2\frac{1}{4}$ " BS46
SH	- $\varnothing 2\frac{1}{8}$ " splined, ANSI B92.1-1976
K	- $\varnothing 60$ tapered 1:10, Parallel key B16x10x32 DIN6885

Pos.3 - Ports

3	- side ports 2xG1, G1/4, BSP thread, ISO 228, 6xM10
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Pos.4 - Check Valves

omit	- without check valves
1	- with check valves

Pos.5 - Special Features

HD	- Reinforced motor HD** For Other Special Features see page 48
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Pos.6 - Design Series

omit	- Factory specified
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NOTES:

- * The permissible output torque for shafts must not be exceeded!
- ** Drain line should always be used.

The hydraulic motors are manganophosphatized as standard.