

Part number:

**HYDROMA**

HYDRAULICKÉ SYSTÉMY

**HIDROMA  
SYSTEMS**

UKŁADY HYDRAULICZNE

**HYDROMA**

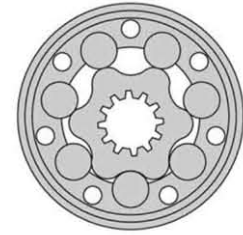
ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

## HYDRAULIC MOTORS MR



### APPLICATION

- » Conveyors
- » Feeding mechanism of robots and manipulators
- » Metal working machines
- » Textile machines
- » Machines for agriculture
- » Food industries
- » Grass cutting machinery etc.



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### OPTIONS

- » Model- Spool valve, roll-gerotor
- » Flange mount
- » Motor with needle bearing
- » Side and rear ports
- » Shafts- straight, splined and tapered
- » Shaft seal for high and low pressure
- » Metric and BSPP ports
- » Speed sensing
- » Other special features

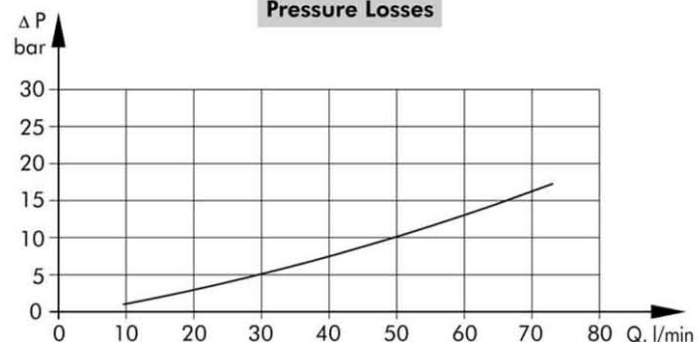
### GENERAL

Displacement, [cm <sup>3</sup> /rev.]	51,5 ÷ 397
Max. Speed, [RPM]	150 ÷ 775
Max. Torque, [daNm]	10,1 ÷ 61
Max. Output, [kW]	5 ÷ 13
Max. Pressure Drop, [bar]	70 ÷ 175
Max. Oil Flow, [l/min]	40 ÷ 60
Min. Speed, [RPM]	10
Pressure fluid	Mineral based- HLP(DIN 51524) or HM(ISO 6743/4)
Temperature range, [°C]	-30 ÷ 90
Optimal Viscosity range, [mm <sup>2</sup> /s]	20 ÷ 75
Filtration	ISO code 20/16 (Min. recommended fluid filtration of 25 micron)

#### Oil flow in drain line

Pressure drop (bar)	Viscosity (mm <sup>2</sup> /s)	Oil flow in drain line (l/min)
100	20	2,5
	35	1,8
140	20	3,5
	35	2,8

#### Pressure Losses









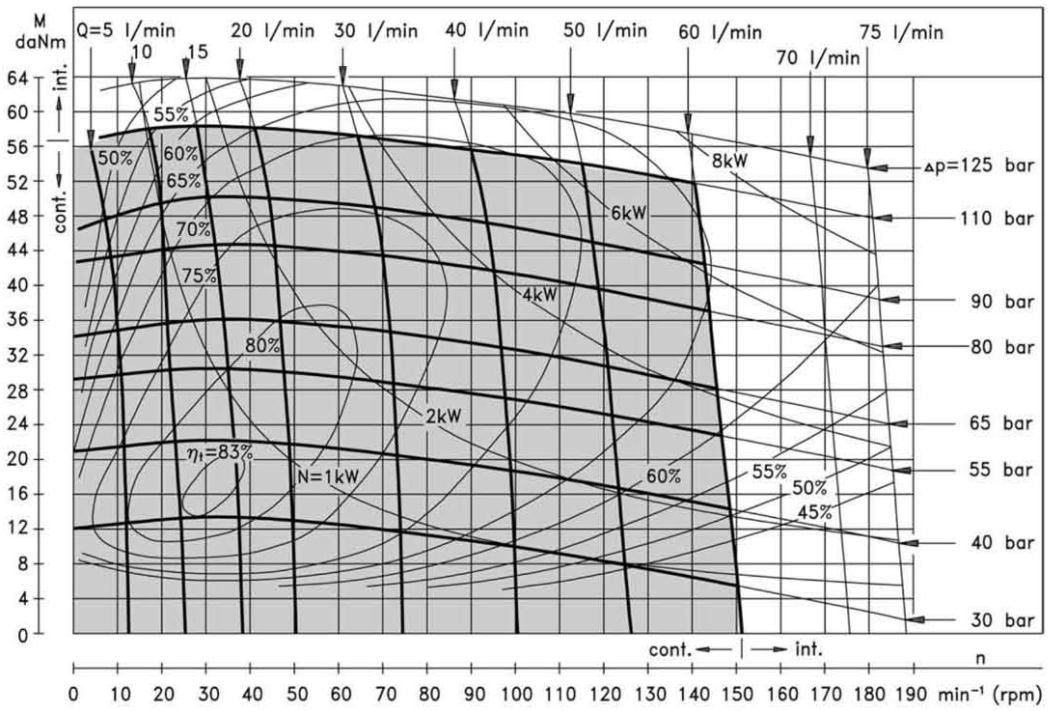






## FUNCTION DIAGRAM

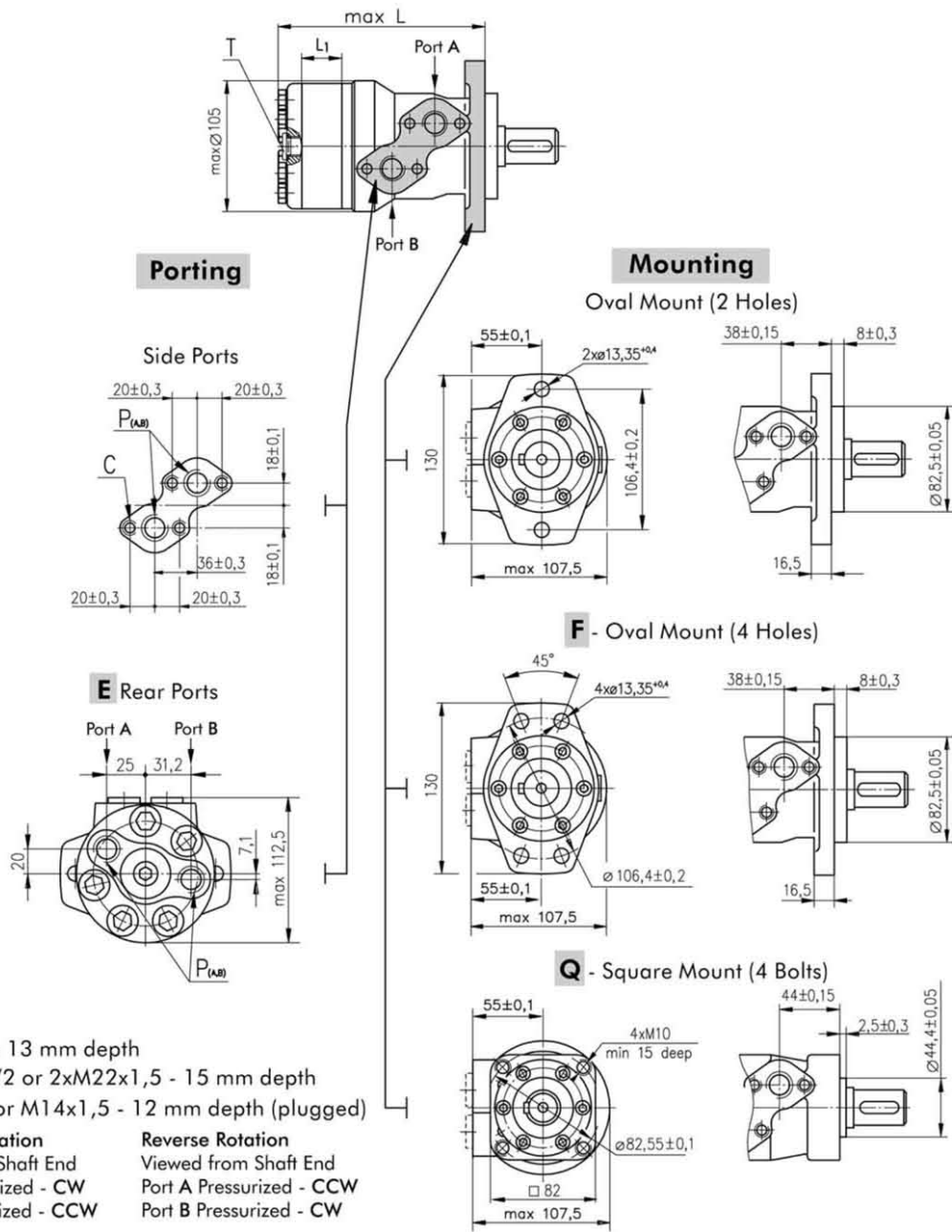
### MR 400



The function diagram data was collected at back pressure  $5 \div 10$  bar and oil with viscosity of  $32 \text{ mm}^2/\text{s}$  at  $50^\circ \text{C}$ .



## DIMENSIONS AND MOUNTING DATA



Type	L, mm	Type	L, mm	Type	L, mm	Type	L, mm	L <sub>1</sub> , mm
MR(F) 50	138,0	MRQ 50	143,5	MR(F)E 50	157,5	MRQE 50	163,5	9,0
MR(F) 80	143,0	MRQ 80	148,5	MR(F)E 80	162,5	MRQE 80	168,5	14,0
MR(F) 100	146,0	MRQ 100	152,0	MR(F)E 100	165,5	MRQE 100	171,5	17,4
MR(F) 125	150,5	MRQ 125	156,5	MR(F)E 125	170,0	MRQE 125	176,0	21,8
MR(F) 160	156,5	MRQ 160	162,5	MR(F)E 160	176,0	MRQE 160	182,0	27,8
MR(F) 200	163,5	MRQ 200	169,5	MR(F)E 200	183,0	MRQE 200	189,0	34,8
MR(F) 250	172,0	MRQ 250	179,0	MR(F)E 250	192,0	MRQE 250	198,0	43,5
MR(F) 315	183,0	MRQ 315	189,0	MR(F)E 315	204,0	MRQE 315	210,0	54,8
MR(F) 400	198,0	MRQ 400	204,0	MR(F)E 400	218,0	MRQE 400	224,0	69,4

## ORDER CODE

	1	2	3	4	5	6	7	8	9	10
<b>M R</b>										

### Pos.1 - Mounting Flange

omit - Oval mount, two holes

**F** - Oval mount, four holes

**Q** - Square mount, four bolts

### Pos.2 - Option (needle bearings)

omit - none

**N** - with needle bearings

### Pos.3 - Port type

omit - Side ports

**E** - Rear ports

### Pos.4 - Displacement code

**50** - 51,5 [cm<sup>3</sup>/rev]

**80** - 80,3 [cm<sup>3</sup>/rev]

**100** - 99,8 [cm<sup>3</sup>/rev]

**125** - 125,7 [cm<sup>3</sup>/rev]

**160** - 159,6 [cm<sup>3</sup>/rev]

**200** - 199,8 [cm<sup>3</sup>/rev]

**250** - 250,1 [cm<sup>3</sup>/rev]

**315** - 315,7 [cm<sup>3</sup>/rev]

**400** - 397,0 [cm<sup>3</sup>/rev]

### Pos.5 - Shaft Extensions\*(see page 24)

**C** - ø25 straight, Parallel key A8x7x32 DIN6885

**VC** - ø25 straight, Parallel key A8x7x32 DIN6885 with corrosion resistant bushing

**CO** - ø1" straight, Parallel key ¼"x¼"x1¼" BS46

**VCO** - ø1" straight, Parallel key ¼"x¼"x1¼" BS46 with corrosion resistant bushing

**SH** - ø25,32 splined BS 2059 (SAE 6B)

**VSH** - ø25,32 splined BS 2059 (SAE 6B) with corrosion resistant bushing

**K** - ø28,56 tapered 1:10, Parallel key B5x5x14 DIN6885

**SA** - ø24,5 splined B 25x22 DIN 5482

**VSA** - ø24,5 splined B 25x22 DIN 5482 with corrosion resistant bushing

**CB** - ø32 straight, Parallel key A10x8x45 DIN6885

**KB** - ø35 tapered 1:10, Parallel key B6x6x20 DIN6885

**SB** - splined A 25x22 DIN 5482

**OB** - ø1¼" tapered 1:8, Parallel key ⅜"x⅜"x1¼" BS46

**HB** - ø1¼" splined 14T ANSI B92.1 - 1976

### Pos. 6 - Shaft Seal Version (see page 26)

omit - Low pressure shaft seal or Standard shaft seal for "...B" shaft

**D** - Standard shaft seal

**U** - High pressure shaft seal (without check valves)

### Pos. 7 - Drain Port

omit - with drain port

**1** - without drain port

### Pos. 8 - Ports

omit - BSPP (ISO 228)

**M** - Metric (ISO 262)

### Pos. 9 - Special Features (see page 46)

### Pos.10 - Design Series

omit - Factory specified

\* The permissible output torque for shafts must not be exceeded!

**NOTES:** 1. The following combinations are not allowed:- **Q** flange with "...B" shafts;

- **N** option with "...B" shafts, Low Pressure Seal or **U** option;

- "...B" shafts with **D** and **U** shaft seals.

The hydraulic motors are mangano-phosphatized as standard.