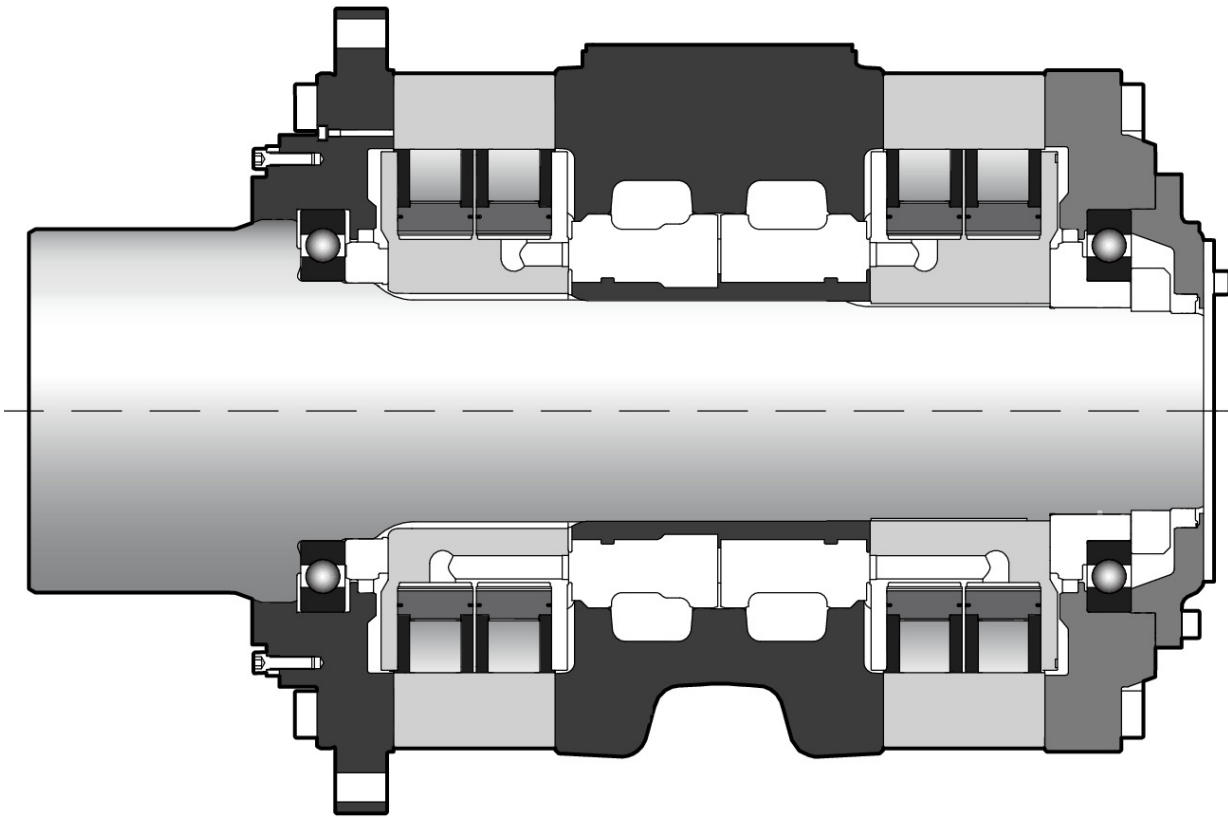




# MI MOTORS



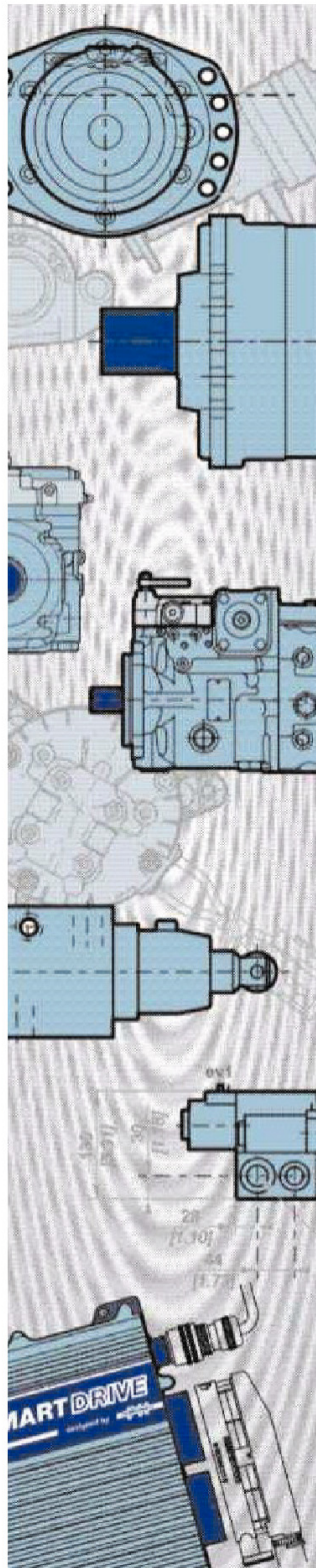
## MI – 250. HYDRAULIC MOTORS. CHARACTERISTICS



C	Theoretical torque			Max.power kW [HP]	Max.speed [RPM]	Pressure max. bar [PSI]
	cm <sup>3</sup> /tr [cu.in/rev.]	at ΔP 100 bar Nm	at ΔP 1000 PSI [lb.ft]			
7	17500 [1 067,3]	27825	[14 150]	500 [671]	100	450 [6 527]
8	20000 [1 219,8]	31800	[16 171]		90	450 [6 527]
9	22500 [1 372,3]	35775	[18 193]		80	450 [6 527]
0	25000 [1 524,8]	39750	[20 214]		72	415 [6 019]
1	27500 [1 677,2]	43725	[22 235]		65	380 [5 511]
2	30000 [1 829,7]	47700	[24 257]		60	350 [5 076]

Motor inertia = 0.01 kg.m<sup>2</sup>  
Noise emissions = 60 dBA

# CONTENT



**MODEL CODE**

4

Model code

**MOTORS**

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Motors

- Motor with splined shaft 7
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**VALVING SYSTEM**

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Valving systems

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**INSTALLATION**

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Installation

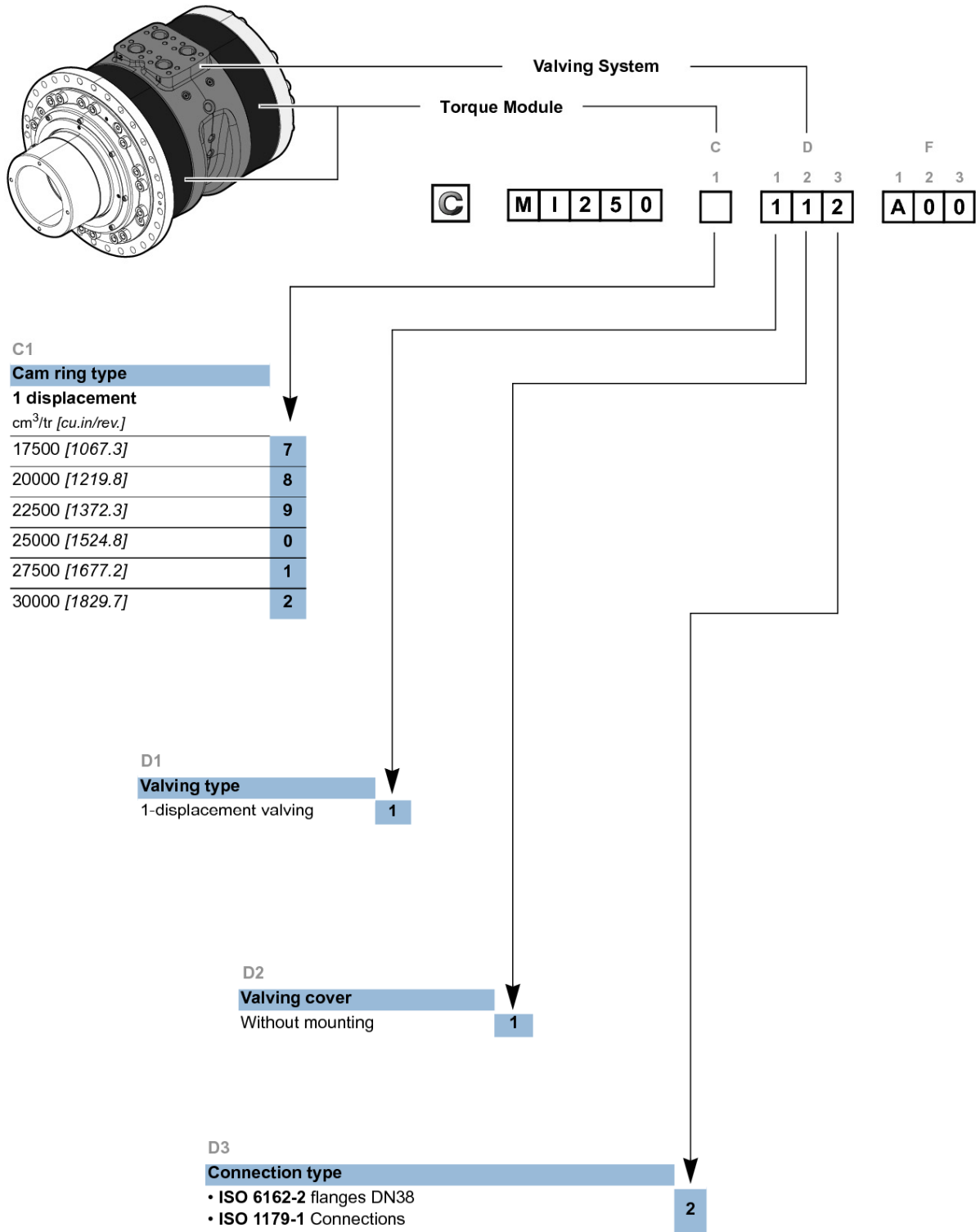
- Lifting method 13
- Shrink disc coupling (for hollow shaft) 13
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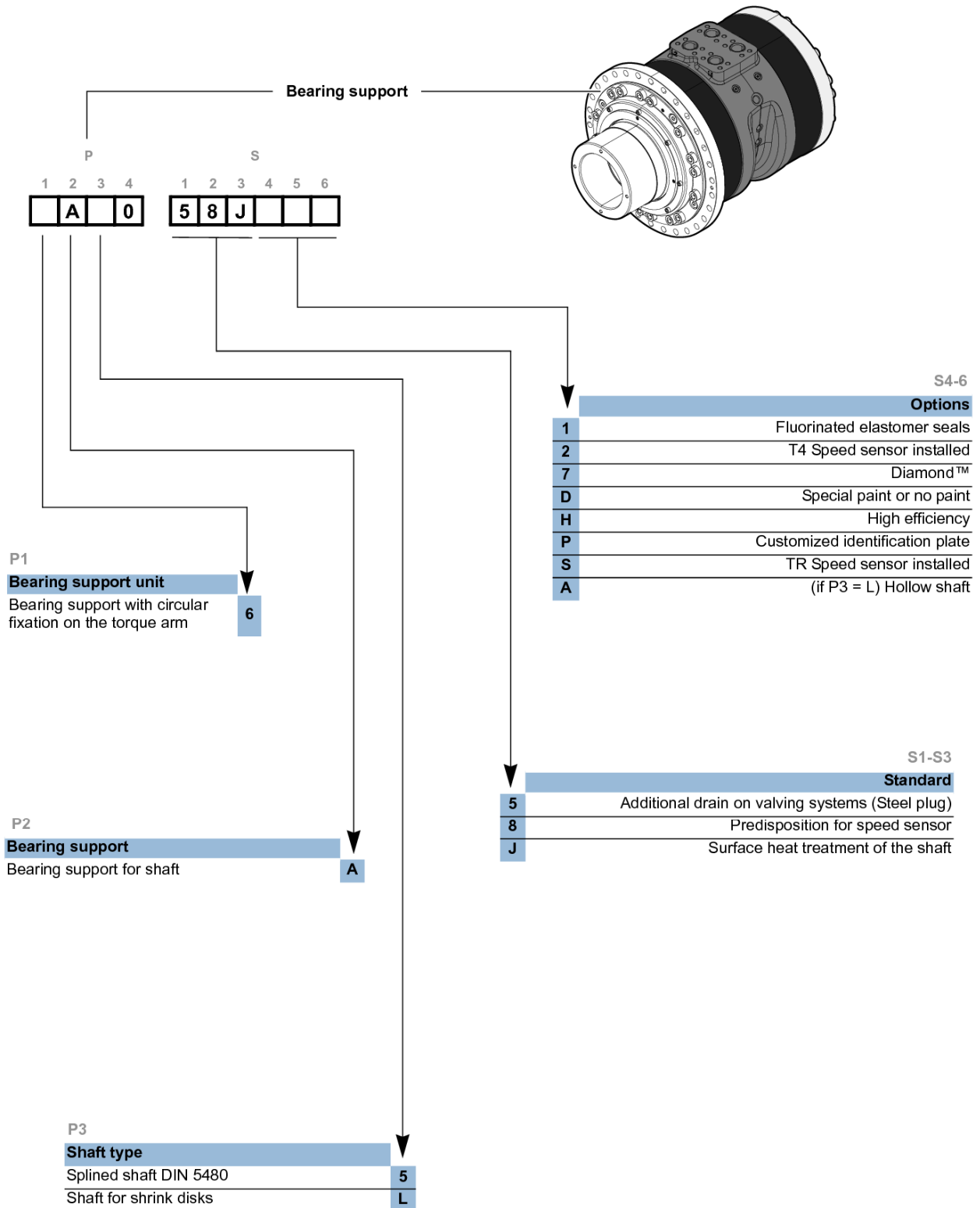
**OPTIONS**

15

Options

## MODEL CODE





**Methodology :**

This document is intended for manufacturers of machines that incorporate Poclairn Hydraulics products. It describes the technical characteristics of Poclairn Hydraulics products and specifies installation conditions that will ensure optimum operation.

This document includes important comments concerning safety. They are indicated in the following way:



**Safety comment.**

This document also includes essential operating instructions for the product and general information. These are indicated in the following way:



**Essential instructions.**



**General information .**



**Information on the model number. Information on the model code.**



**Weight of component without oil.**



**Volume of oil.**



**Units.**



**Tightening torque.**



**Screws.**



**Information intended for Poclairn-Hydraulics personnel.**

The views in this document are created using metric standards.

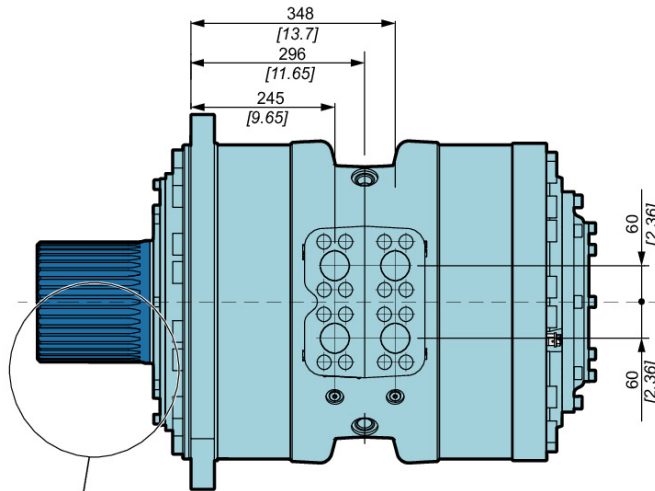
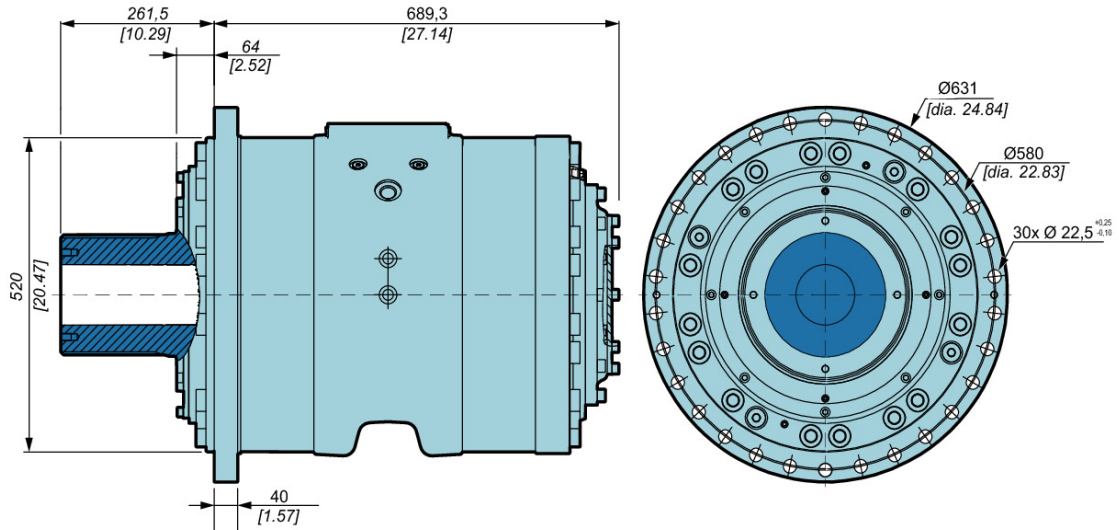
The dimensional data is given in mm and in inches (inches are between brackets and italic)



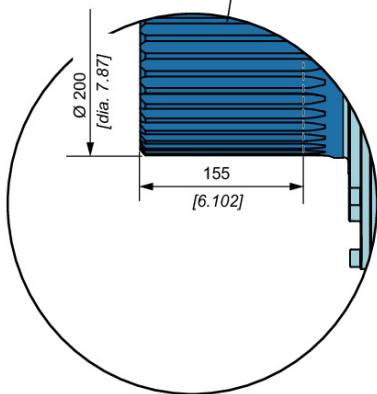
# MOTORS

## Motor with splined shaft

					C	D			F			P				S					
1	2	3	4	5	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
M	I	2	5	0		1	1	2	A	0	0	6	A	5	0	5	8	J			



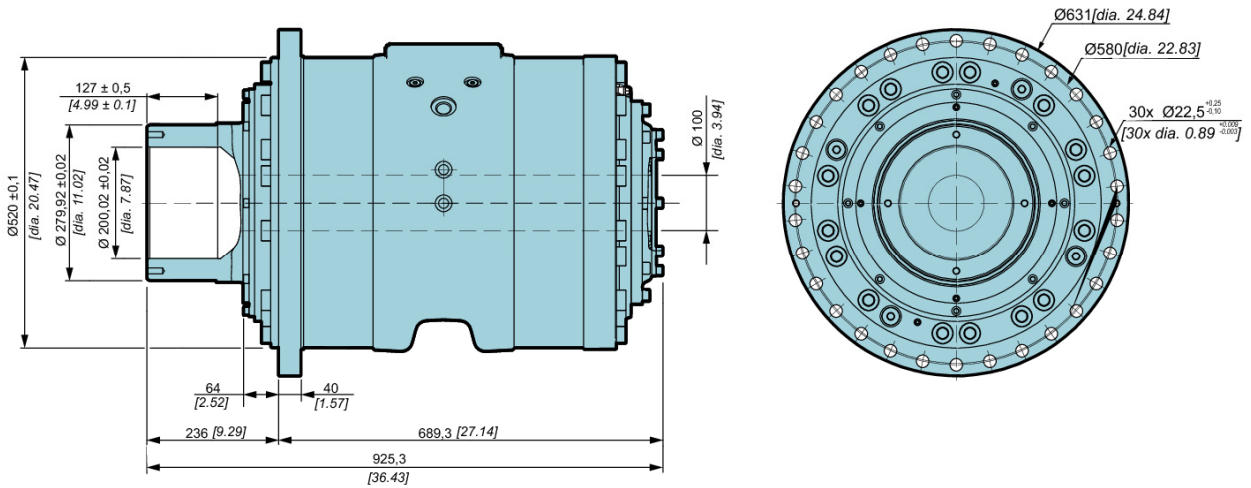
	920 kg [2028 lb]
	20 l [1220 cu.in]





Pinion characteristics	
Norme	DIN 5480
Module	5
Number of teeth	38
Pitch diameter (mm [in])	190 [7.48]
Pressure angle	30°

**Motor with shrink disc**

					C	D			F			P				S					
1	2	3	4	5	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
M	I	2	5	0		1	1	2	A	0	0	6	A	L	0	5	8	J			



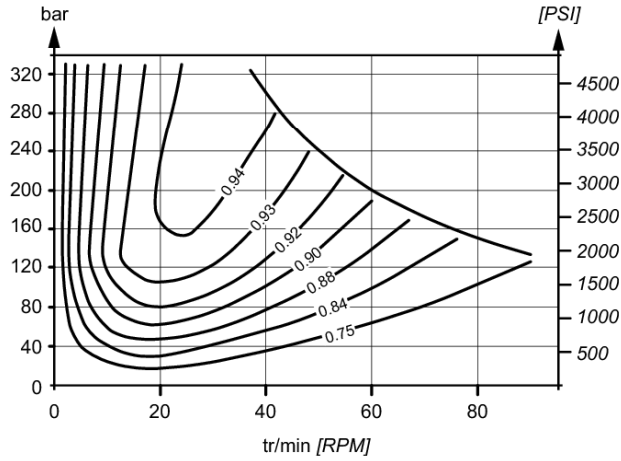
	940 kg [2070 lb]
	20 l [1220 cu.in]



**Efficiency torque**

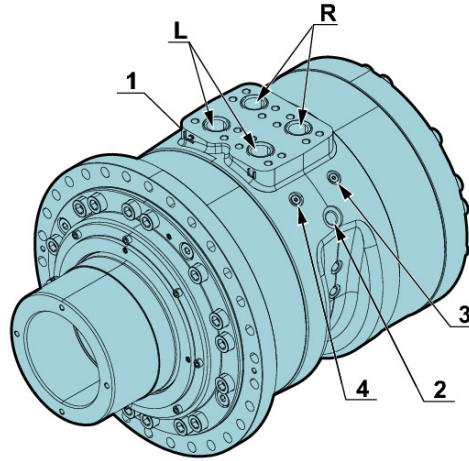
**Overall efficiency**

Average values given for guidance for code 0 displacement after 100 hours of operation with HV46 hydraulic fluid at 50°C [122°F].



# VALVING SYSTEM

## Hydraulic connections



		Power supply	Case drain	Pressure gauge
		R-L	1 - 2	3 - 4
			GAZ (BSPP)	GAZ (BSPP)
		ISO 6162-2	ISO 1179-1	ISO 1179-1
	2	DN 38	G1	G1/4
Max. pressure	bar [PSI]	450 [6 527]	2,5 [36]	450 [6 527]
Peak pressure	bar [PSI]		15 [218]	



You are strongly advised to use the fluids specified in brochure "Installation guide" N° 801478197L.



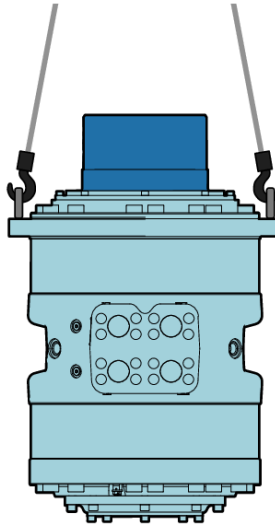
To find the connections' tightening torques, see the brochure "Installation guide" N° 801478197L.

## INSTALLATION

### Lifting method



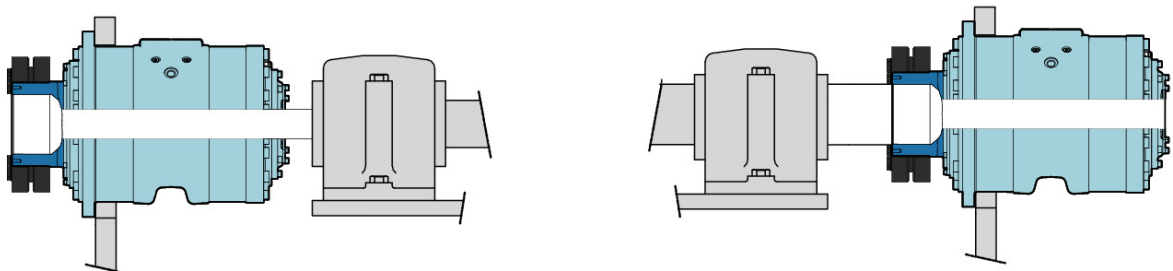
Before any lifting we recommend you to check the center of gravity position.



MI250 motor can't accept any axial or radial load.

### Shrink disc coupling (for hollow shaft)

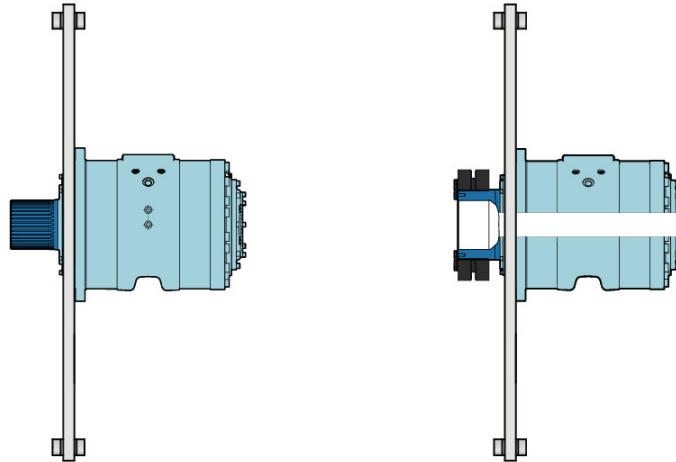
The hollow shaft enables the MI250 motor to be fitted on a transverse shaft. This facilitates access to the coupling system. This system, on the external side of the machine, requires 1 shrink disc coupling which is not furnished with the motor.



## Torque arms mounting

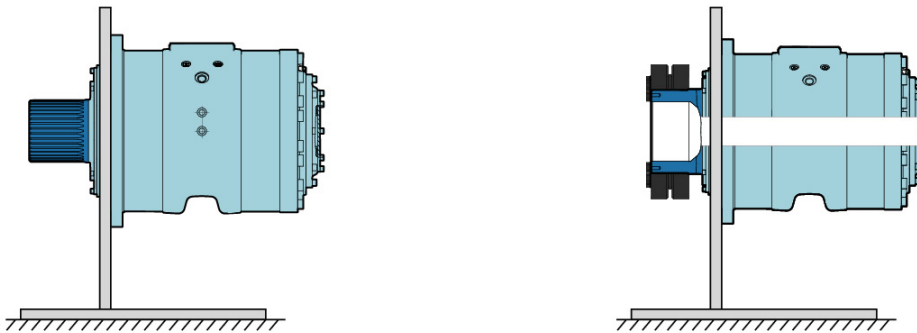
We recommend a length of the torque arm of 1250 mm [49.21 in].

In order to avoid residual forces due to misalignment and twisting, the end of the arms must retain freedom of movement in 2 axis.



## Bracket mounting

To avoid axial or radial loads, we recommend you to check particularly the alignment of the axis.



For more information see technical catalogue " Installation guide N° 801478197L.



You are strongly advised to use the fluids specified in brochure "Installation guide" N° 801478197L.



To find the connections' tightening torques, see the brochure "Installation guide" N° 801478197L.

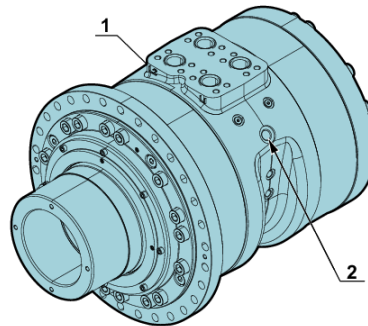
## OPTIONS

					C	D			F			P				S					
1	2	3	4	5	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
M	I	2	5	0		1	1	2	A	0	0	6	A	0		5	8	J			



You can accumulate more than one optional part. Consult your Poclain Hydraulics sales engineer.

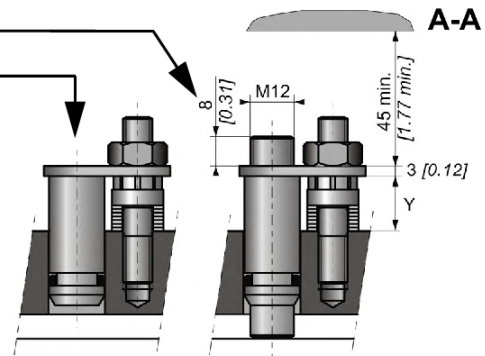
### 5 Drain on the valving system



### 2 S 8 Installed speed sensor or predisposition

**Designation**

T4 Speed sensor installed	2
TR Speed sensor installed (direction of rotation)	S
Predisposition for speed sensor	8



Max. length Y = 18,65 [0.73]

Standard number of pulses per revolution = 120



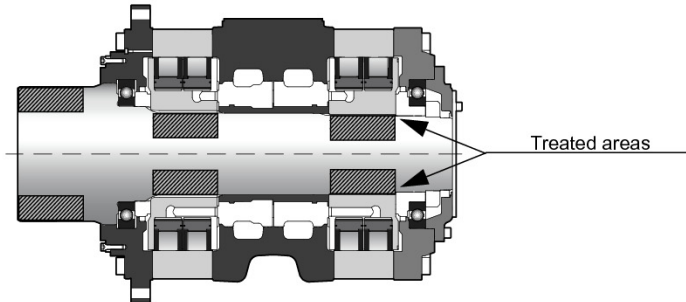
Look at the "Mobile Electronic" N° A01889D technical catalogue for the sensor specifications and its connection.



To install the sensor, see the "Installation guide" brochure No. 801478197L.

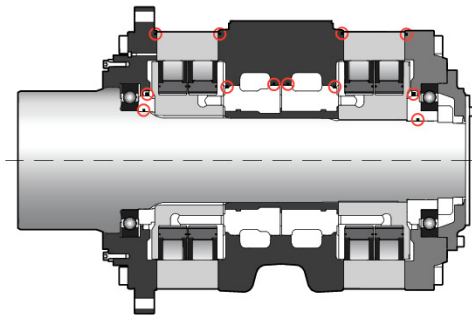
## J Treated shaft

Heat treatment on the indicated bearing radius and splines.



## 1 Fluorinated elastomer seals

Nitrile seals marked in the figure below replaced by fluorinated elastomer seals.

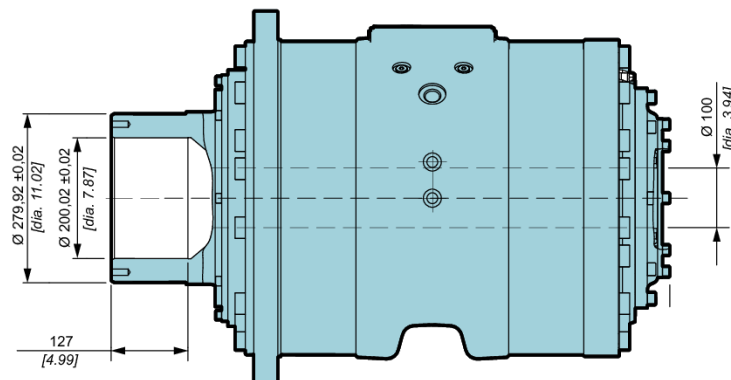


Consult your Poclain Hydraulics sales engineer.

## 7 Diamond™

Special treatment of the motor core which considerably increases its strength, making the motor much more tolerant to temporary instances of the operating conditions being exceeded.

## A Hollow shaft



**D Special paint or no paint**

The motors are delivered with Poclain Hydraulics yellow ochre primer as standard.



Consult your Poclain Hydraulics application engineer for other colors of primer or topcoat.

**H High efficiency**

Reinforced piston sealing to improve volumetric efficiency.



For a precise calculation, consult your Poclain Hydraulics application engineer.

**P Customized identification plate**

Your part number can be engraved on the plate.



Consult your Poclain Hydraulics application engineer for other possibilities.