

# MS11 - MSE11

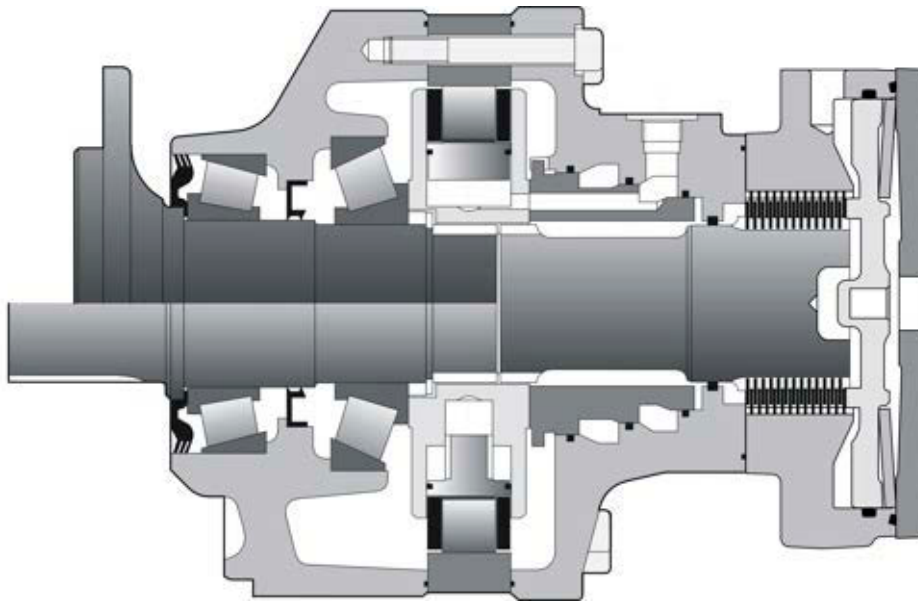
## HYDRAULIC MOTORS



T E C H N I C A L   C A T A L O G



# CHARACTERISTICS



Motor inertia 0.05 kg.m<sup>2</sup>

	C	1	2	Theoretical torque		1	Max. power		Max. speed		Max. pressure	
				at 100 bar			1	2 preferred	2 non-preferred	1 2		
				cm <sup>3</sup> /tr [cu.in/rev.]	cm <sup>3</sup> /tr [cu.in/rev.]					Nm		[lb.ft]
Cams with equal lobes MS11		7	730 [44.5]	365 [22.3]	1,161	[590]	50 [67]	33 [44]	25 [34]	200		450 [6,527]
		8	837 [51.0]	418.5 [25.5]	1,331	[677]				195		
		9	943 [57.5]	471.5 [28.8]	1,499	[762]				190		
		0	1,048 [63.9]	524 [32.0]	1,666	[847]				185		
		1	1,147 [70.0]	573.5 [35.0]	1,824	[927]				180		
		2	1,259 [76.8]	629.5 [38.4]	2,002	[1,018]				170	175	
Cams with unequal lobes MSE11		9	1,263 [77.0]	631.5 [38.5]	2,008	[1,021]	50 [67]	33 [44]	25 [34]	170	190	400 [5,802]
		0	1,404 [85.6]	702 [42.8]	2,232	[1,135]				155	185	
		1	1,536 [93.7]	768 [46.8]	2,442	[1,242]				140	180	
		2	1,687 [102.9]	843.5 [51.4]	2,682	[1,364]				130	165	
Cams with unequal lobes	MS11 A	1,048 [63.9]	629 [38.4]		1,666	[847]	50 [67]	33 [44]	25 [34]			450 [6,527]
			419 [25.6]									
Cams with unequal lobes	MSE11 A	1,404 [85.6]	843 [51.4]		2,232	[1,135]	50 [67]	33 [44]	25 [34]	120		400 [5,802]
			561 [34.2]									




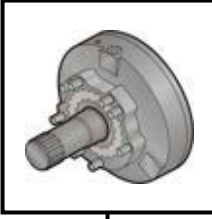
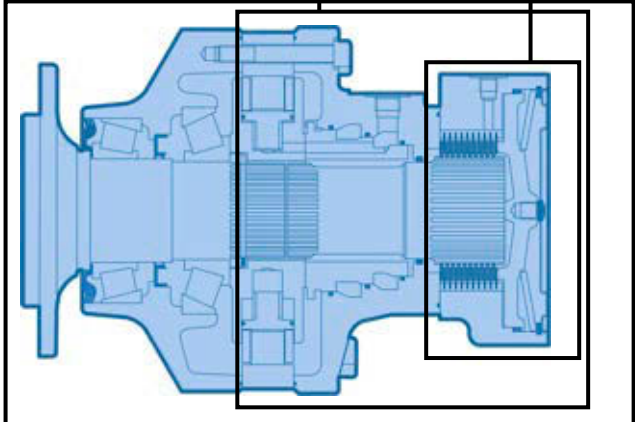
1 First displacement

2 Second displacement

\* See option "M" for higher speed.

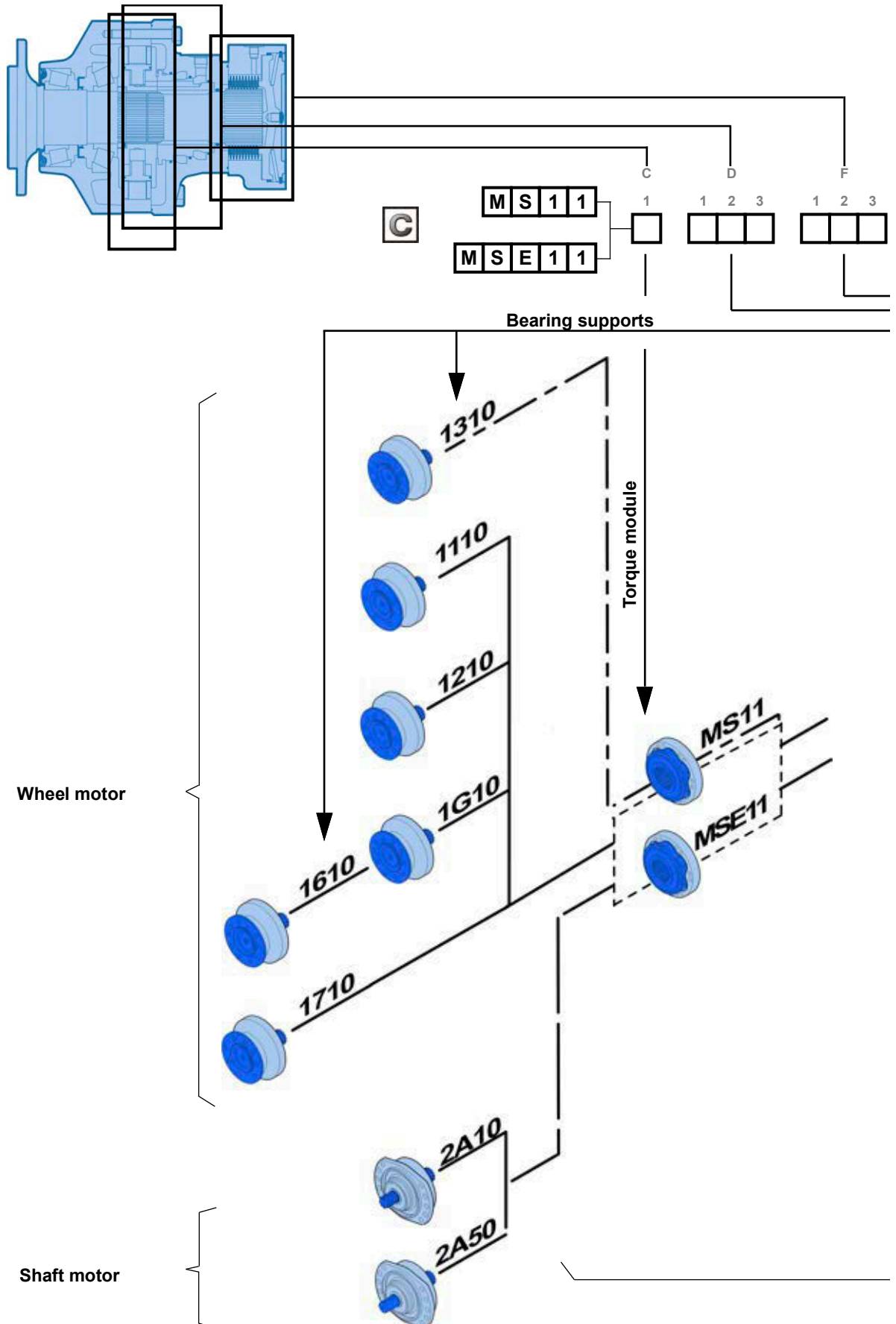


# CONTENT

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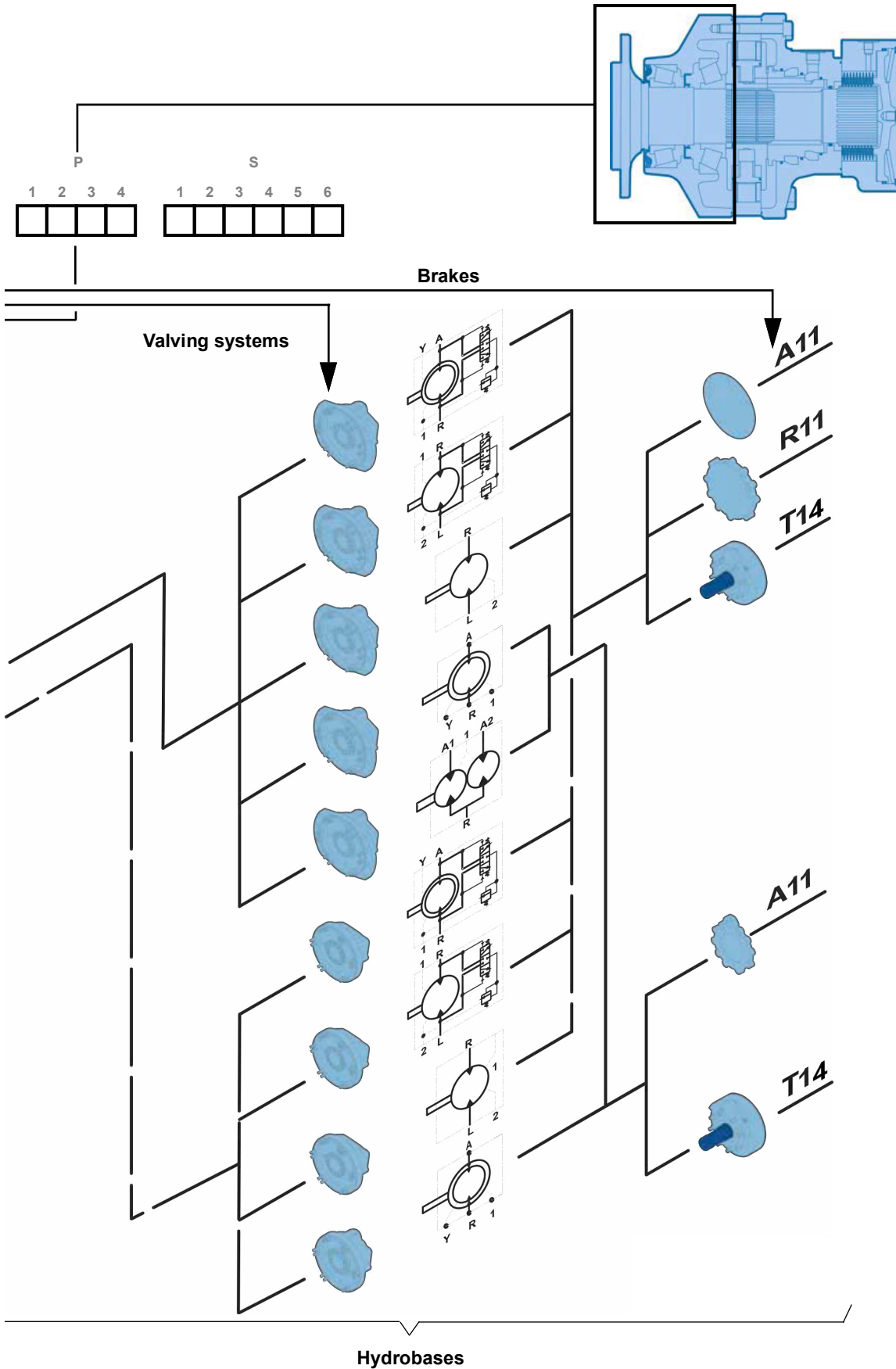


# MODUL





# ARITY



Modularity and Model code

Wheel motor

Shaft motor

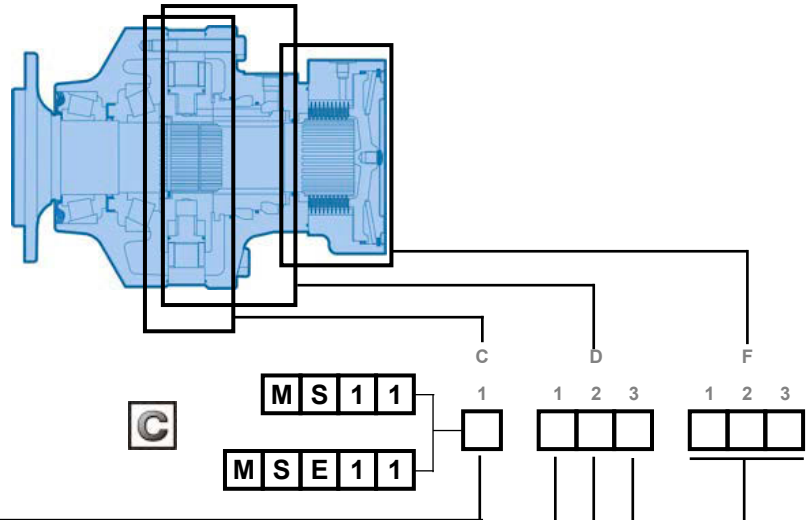
Valving systems and hydrobases

Brake

Options



# MODEL



		cm³/tr [cu.in./rev.]	
		1	2
Cams with equal lobes	MS11	7	730 [44.5] 365 [22.3]
		8	837 [51.0] 418.5 [25.5]
		9	943 [57.5] 471.5 [28.8]
		0	1,048 [63.9] 524 [32.0]
		1	1,147 [70.0] 573.5 [35.0]
		2	1,259 [76.8] 629.5 [38.4]
Cams with unequal lobes	MSE11	9	1,263 [77.0] 631.5 [38.5]
		0	1,404 [85.6] 702 [42.8]
		1	1,536 [93.7] 768 [46.8]
		2	1,687 [102.9] 843.5 [51.4]

Cams with unequal lobes	MS11	A	1,048 [63.9]	629 [38.4]
				419 [25.6]
Cams with unequal lobes	MSE11	A	1,404 [85.6]	843 [51.4]
				561 [34.2]

1 First displacement  
 2 Second displacement

1-displacement valving	1
2-displacement & Twin-Lock™ valving (Clockwise)	D Ratio 2 E Ratio <2 F Ratio >2
2-displacement & Twin-Lock™ valving (Counterclockwise)	G Ratio 2 H Ratio <2 J Ratio >2

Without mounting	1	4	D
With mounting	2	5	E
	1 Displacement	2 Displacement	Exchange Twin-Lock™

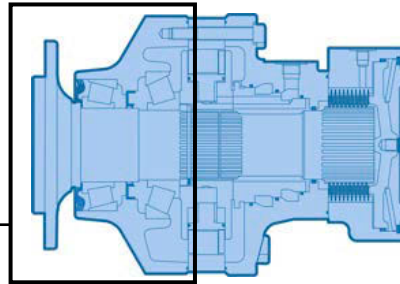
No transmission cover	0
ISO 6162 flanges	1 DN 19 1
ISO 9974-1 connections	2 DN 13 1
ISO 6162 flanges	1 DN 19 2
ISO 1179-1 connections	2 DN 13 2
ISO 1179-1 connections	G3/4 3
ISO 9974-1 connections	M27 x 2 4
ISO 6162 flanges	1 DN 13 7
ISO 11926-1 connections	2 DN 19 7
ISO 11926-1 connections	1" 1/16-12 UNF A

1 First displacement  
 2 Second displacement

Without brake	Simple plate	A 1 1
	Reinforced plate	R 1 1
Brake	Screwed environmental cover	T 1 4



# CODE



- 0 Without bearing support
- 1 Without mounting
- 2 Lug mounting

- Without shaft 0
- 5 x Ø24 on Ø225 1
- 10 x Ø22 on Ø225 2
- 8 x Ø22 on Ø275 7
- 12 x Ø20 on Ø205 3
- 10 x Ø22 on Ø225 6
- 10 x Ø24 on Ø225 G
- For male shaft bearing support A

- Without studs 1
- With studs + nuts 2
- With studs 3
- M threaded holes 4

- Male shafts**
- NF E22-141 splines 1
  - DIN 5480 splines 5

- Without Options or Adaptations 0
- Fluorinated elastomer seals 1
- T4 speed sensor (without rotation direction) 2
- Brake environmental cover without plug 3
- Drainage 5
- Industrial bearing support 6
- Diamond™ 7
- Predisposition for speed sensor 8
- Double-centering valving cover 9
- Hollow shaft A
- Drain on the bearing support B
- Abrasive environment C
- Special paint or without paint D
- Reinforced sealing E
- Special wheel rim mounting G
- High performance H
- Surface heat treatment of the shaft J
- High speed M
- TD speed sensor (two phase shifted frequencies) Q
- TR speed sensor (digital rotation direction) S
- Soft Shift™ T

Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

Brake

Options





**Methodology :**

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

This document includes important comments concerning safety as well as the installation guide that must be read before any installation (<https://poclain.com/resources>). Important comments 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.**



**Weight of component without oil.**



**Volume of oil.**



**Units.**



**Tightening torque.**



**Screws.**



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

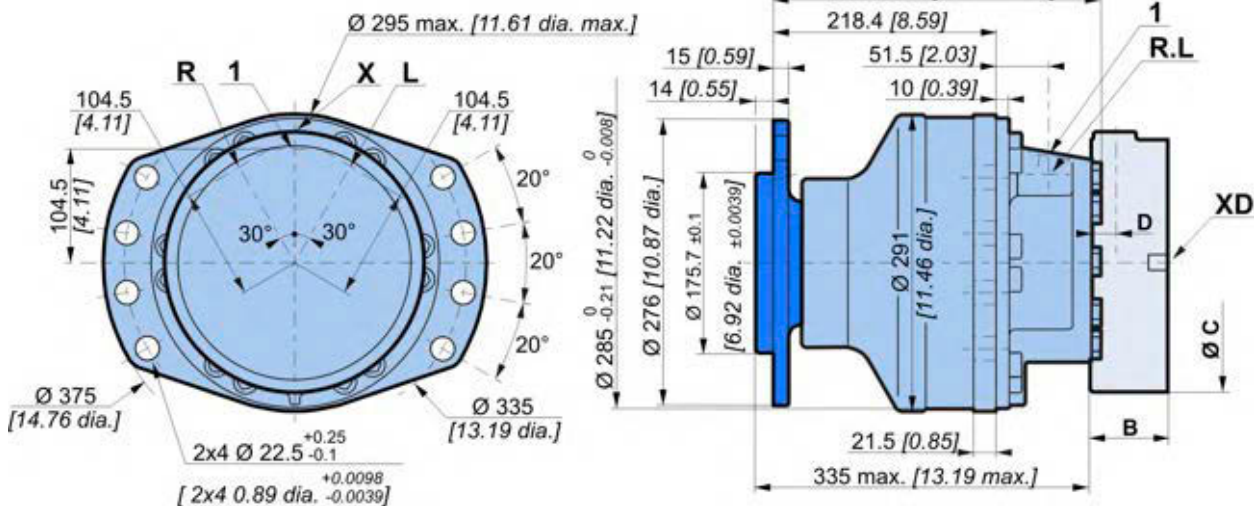
The views in this document are created using metric standards.

The dimensional data is given in mm and in inches (inches are given in brackets in italics).



**Dimensions for standard (1110) 1-displacement motor**

	86 kg [189 lb]	112 kg [246 lb]
	2 L [120 cu.in]	1.5 L [90 cu.in]

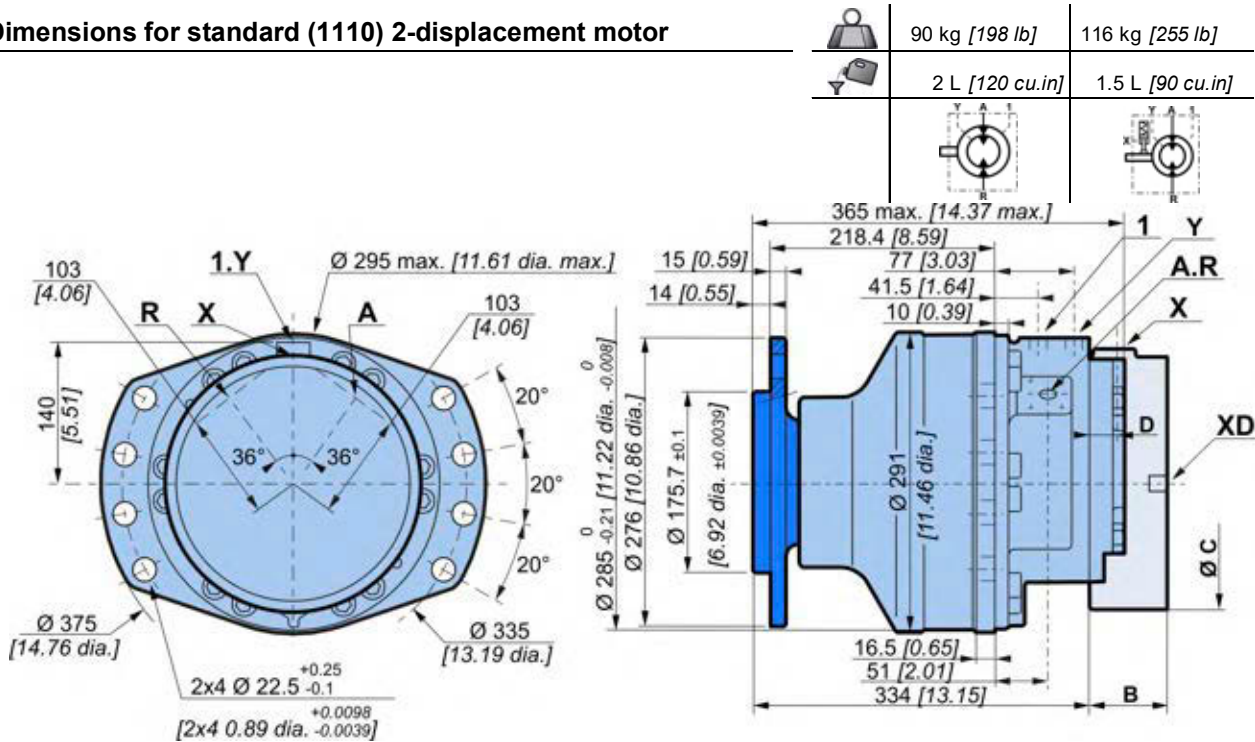






# WHEEL MOTOR

## Dimensions for standard (1110) 2-displacement motor

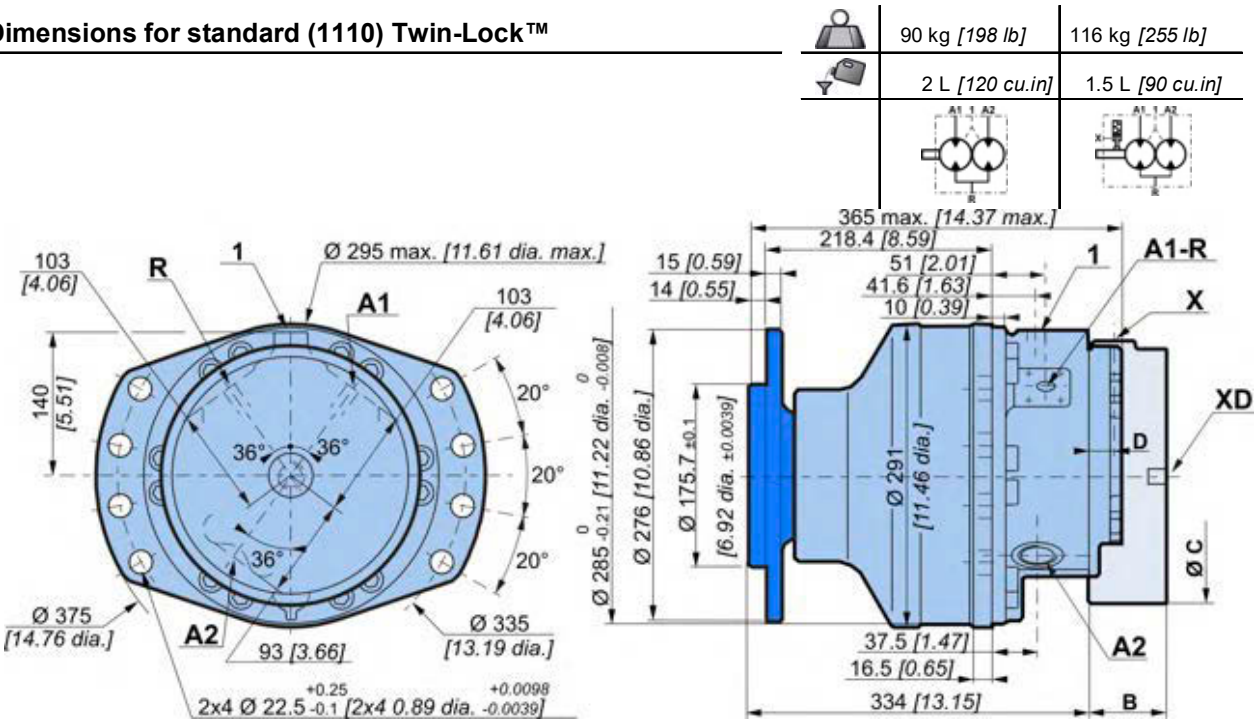


Modularity and Model code

Wheel motor

Shaft motor

## Dimensions for standard (1110) Twin-Lock™



Valving systems and hydrobases

Brake

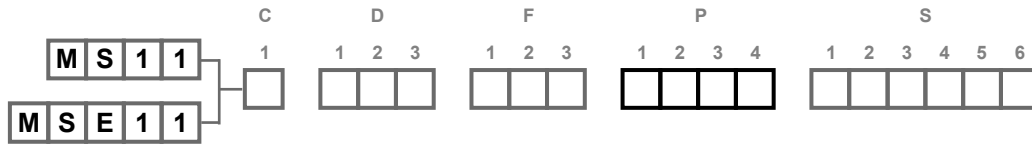
Options

<b>C</b>	<b>T14</b>
<b>B</b>	87.5 [3.44]
<b>C</b>	Ø280.0 [11.02]
<b>D</b>	25.0 [0.96]

Also see 'Valving systems and hydrobases' section (thumbnail opposite).



Support types



	A m m [in]	B m m [in]	C m m [in]	D m m [in]	E m m [in]	N m m [in]	Wheel rim mountings	L m m [in]	
	Ø 175.7 [6.92 dia.]	Ø 225 [8.86 dia.]	Ø 276 [10.87 dia.]	218.6 [8.61]	Ø 291 [11.46 dia.]	Ø 24 [0.94 dia.]	5 x M22x1.5	14 [0.55]	
	Ø 175.7 [6.92 dia.]	Ø 225 [8.86 dia.]	Ø 276 [10.87 dia.]	218.6 [8.61]	Ø 291 [11.46 dia.]	Ø 22 [0.87 dia.]	10 x M20x1.5	14 [0.55]	
	Ø 160.7 [6.33 dia.]	Ø 205.0 [8.07 dia.]	Ø 250 [9.84 dia.]	174.4 [6.87]	Ø 289.5 [11.40 dia.]	Ø 20 [0.79 dia.]	12 x M18x1.5	15 [0.59]	
	Ø 175.7 [6.92 dia.]	Ø 225 [8.86 dia.]	Ø 276 [10.87 dia.]	219.6 [8.65]	Ø 291 [11.46 dia.]	Ø 22 [0.87 dia.]	10 x M20x1.5	21 [0.83]	
	Ø 220.7 [8.69 dia.]	Ø 275 [10.83 dia.]	Ø 314 [12.36 dia.]	218.6 [8.61]	Ø 291 [11.46 dia.]	Ø 22 [0.87 dia.]	8 x M20x1.5	14 [0.55]	
	Ø 175.7 [6.92 dia.]	Ø 225 [8.86 dia.]	Ø 270 [10.63 dia.]	284.6 [11.20]	Ø 291 [11.46 dia.]	Ø 24 [0.94 dia.]	10 x M22x1.5	16 [0.63]	



The supports in gray must not be assembled with an MSE hydrobase.

Studs

		P mm [in]	C min. mm [in]	C max. mm [in]	D mm [in]	Class
Various studs	M18 x 1.5	55 [2,17]	5 [0,20]	17 [0,67]	23 [0,91]	
	M20 x 1.5	60 [2,36]		14 [0,55]	25 [0,98]	
	M22 x 1.5	65 [2,56]		24 [0,94]	26 [1,02]	
Screws	M12					



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



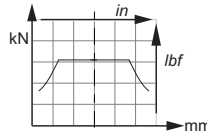
**Load curves**

**Permissible radial loads**

Test conditions :

**Static** : 0 tr/min [0 RPM] 0 bar [0 PSI]

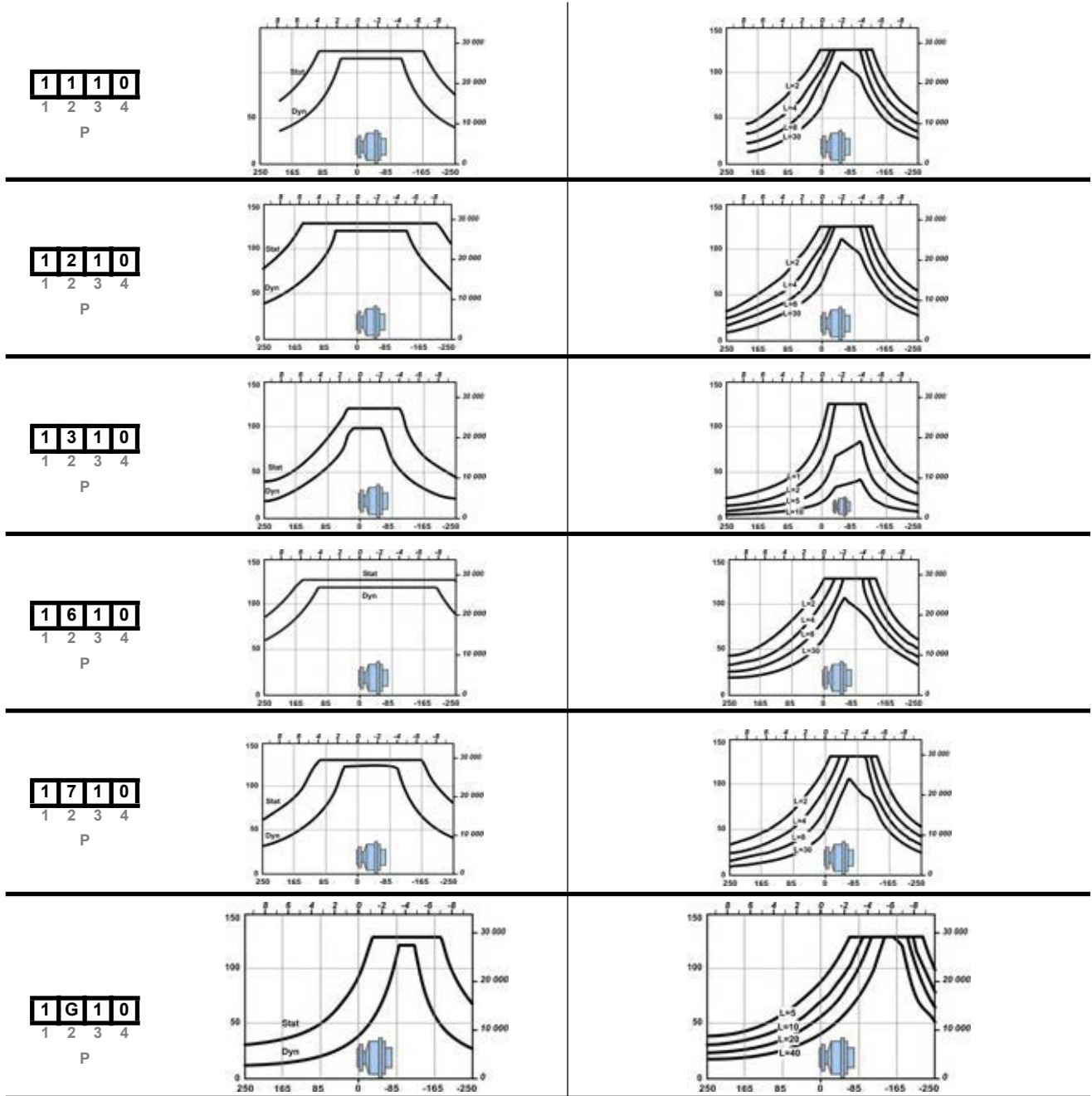
**Dynamic** : 0 tr/min [0 RPM], code 0 displacement, without axial load at max. torque



**Service life of bearings**

Test conditions :

**L** : Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid, code 0 displacement, without axial load.



Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

Brake

Options



The service life of the components is influenced by the pressure. You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications. For an accurate calculation, consult your Poclain Hydraulics application engineer.

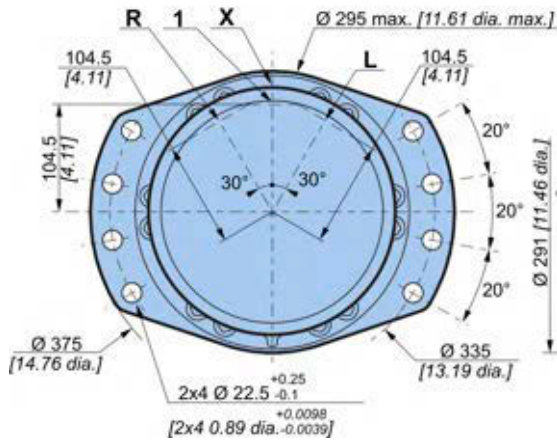




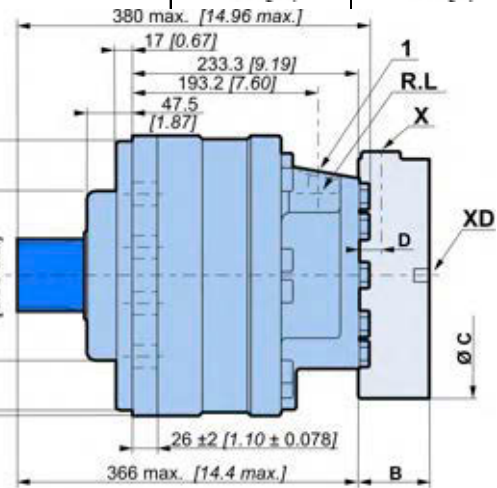


# SHAFT MOTOR

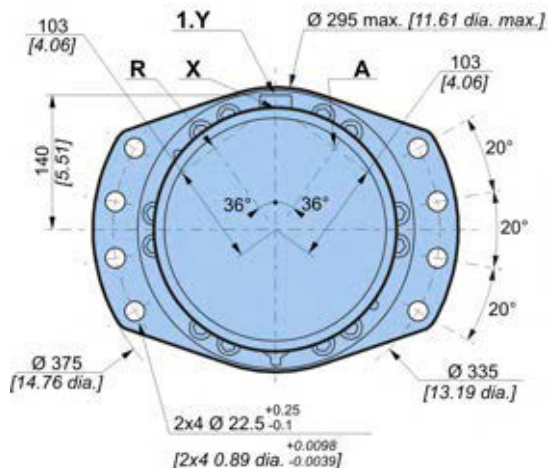
## Dimensions for standard (2A50) 1-displacement motor



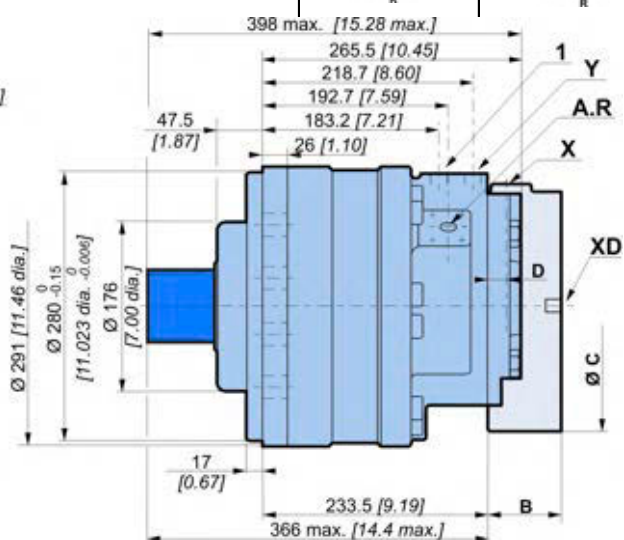
	88 kg [194 lb]	114 kg [251 lb]
	2 L [120 cu.in]	1.5 L [90 cu.in]



## Dimensions for standard (2A50) 2-displacement motor



	88 kg [194 lb]	114 kg [251 lb]
	2 L [120 cu.in]	1.5 L [90 cu.in]



<b>C</b>	<b>T14</b>
<b>B</b>	87.5 [3.44]
<b>C</b>	Ø280.0 [11.02]
<b>D</b>	25.0 [0.96]



Also see 'Valving systems and hydrobases' section (thumbnail opposite).

Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

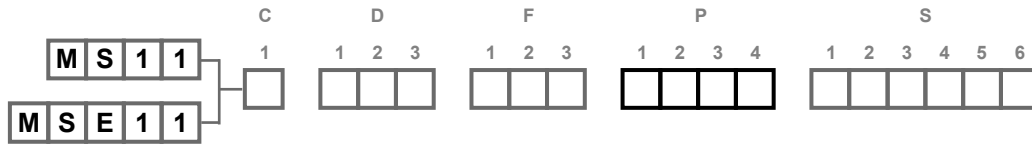
Brake

Options





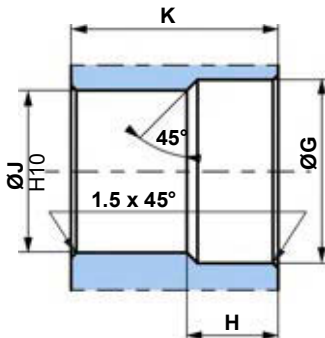
**Support types**



		A	B	C	D	E	F													
<b>C</b> <table border="1"> <tr><td>2</td><td>A</td><td>5</td><td>0</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td colspan="4" style="text-align:center">P</td></tr> </table>	2	A	5	0	1	2	3	4	P				<b>DIN 5480 splines</b>	15 [0.59]	R 2.75 [R 0.11]	35 [1.38]	2 x M10	23 [0.91]	80 [3.15]	
	2	A	5	0																
	1	2	3	4																
P																				
Nominal Ø	80 [3.15]																			
Module	3																			
	Z	25																		
<b>C</b> <table border="1"> <tr><td>2</td><td>A</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td colspan="4" style="text-align:center">P</td></tr> </table>	2	A	1	0	1	2	3	4	P				<b>NF E22-141 splines</b>	15 [0.59]	R 2.75 [R 0.11]	35 [1.38]	2 x M10	24 [0.94]	70 [2.76]	
	2	A	1	0																
	1	2	3	4																
P																				
Nominal Ø	75 [2.95]																			
Module	2.5																			
	Z	28																		

Also see 'Valving systems and hydrobases' section (thumbnail opposite).

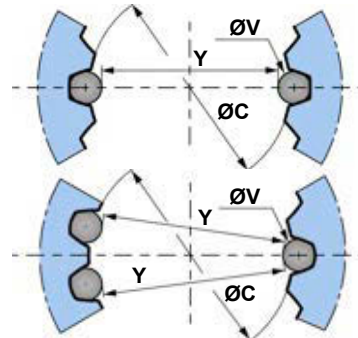
**Splined coupling**



**N** : Nominal Ø.  
**Mo** : Module.  
**Z** : Number of teeth.

**Standard DIN 5480**  
 Pressure angle 30°.  
 Centering on flanks.  
 Slide fit (7H quality).

**Standard NF E22-141**  
 Pressure angle 20°.  
 Centering on flanks.  
 Slide fit (7H quality).



<b>C</b>	Ø G	H	Ø J	K	N	Mo	Z	Offset	Ø C (H10)	Ø V	Y	Tolerance µm [µin]												
<table border="1"> <tr><td>2</td><td>A</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td colspan="4" style="text-align:center">P</td></tr> </table>	2	A	1	0	1	2	3	4	P				76 [2.99]	25 [0.98]	70 [2.76]	69 [2.72]	75 [2.95]	2.5	28	2 [0.08]	70 [2.76]	5 [0.20]	65.169 [2.57]	+ 103 / 0 [+4.055 / 0]
2	A	1	0																					
1	2	3	4																					
P																								
<table border="1"> <tr><td>2</td><td>A</td><td>5</td><td>0</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr><td colspan="4" style="text-align:center">P</td></tr> </table>	2	A	5	0	1	2	3	4	P				81.5 [3.21]	25 [0.98]	74 [2.91]	79 [3.11]	80 [3.15]	3	25	0.85 [0.0335]	74 [2.91]	5.25 [0.21]	68.957 [2.71]	+ 71 / 0 [+2.795 / 0]
2	A	5	0																					
1	2	3	4																					
P																								

General tolerances : ± 0.25 [±0.0098].

Material: Ex: 42CrMo4.

Hardening treatment to obtain R = 800 to 900 N/mm<sup>2</sup> [R = 116 030 to 130 533 PSI].

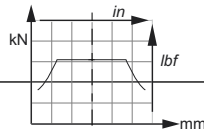


Load curves

Permissible radial loads

Max. permissible loads: 0 tr/min [0 RPM]; 0 bar [0 PSI]

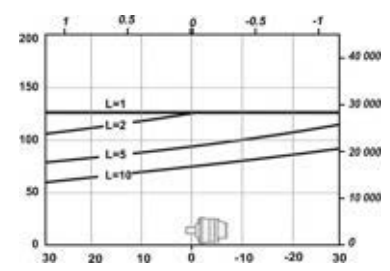
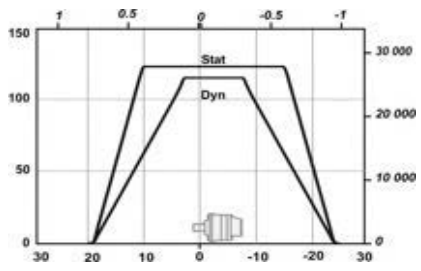
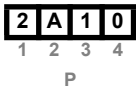
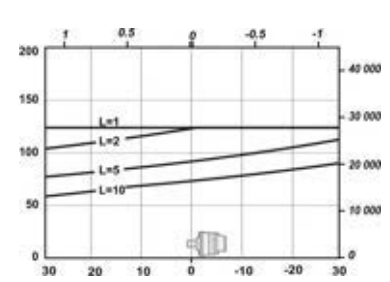
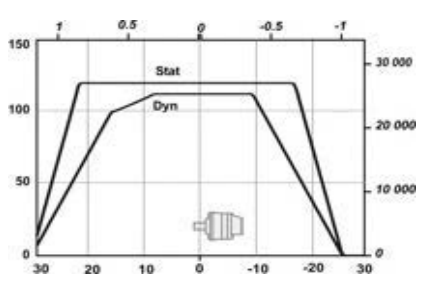
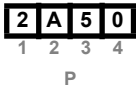
Continuous permissible loads:  
 > 0 tr/min [> 0 RPM]; 275 bar [3 988 PSI].



Service life of bearings

Test conditions :

L : Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid, code 0 displacement, without axial load.



Modularity and Model code

Wheel motor

Shaft motor

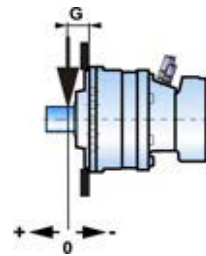
Valving systems and hydrobases

Brake

Options



The service life of the components is influenced by the pressure. You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications. For an accurate calculation, consult your Poclain Hydraulics application engineer.



C	G
2 A 1 0	96.75 [3.81]
2 A 5 0	101.25 [3.99]





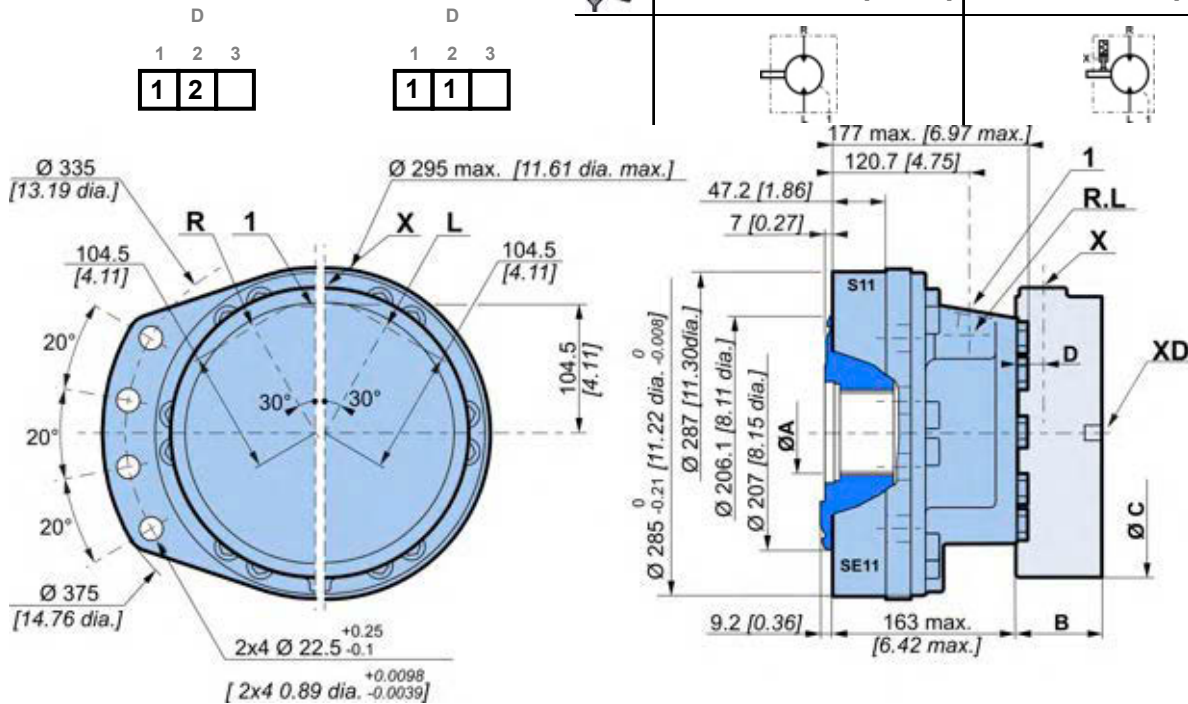


# VALVING SYSTEMS AND HYDROBASES



## Dimensions for 1-displacement valving

<b>1 1</b>	44 kg [97 lb]	<b>T 1 4</b>	76.0 kg [167.2 lb]
<b>1 2</b>	48.9 kg [107.6 lb]		80.9 kg [178.0 lb]
0.75 L [45 cu.in]		0.92 L [55 cu.in]	

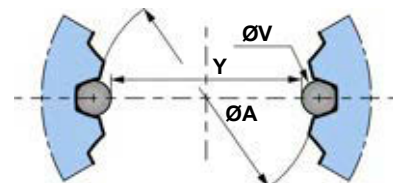


<b>C</b>	<b>T14</b>
<b>B</b>	87.5 [3.44]
<b>C</b>	Ø280.0 [11.02]
<b>D</b>	25.0 [0.96]

## Cylinder block splines

(as per standard NF E22-141)

ØA	Module	z	Dimension on 2 pins	
			Y	ØV
75 [2.953]	2.5	28	65.169 [2.739]	5 [0.197]



You are advised to have the installation validated by your Poclair Hydraulics application engineer before using the hydraulic unit in an application.



We must provide you with a detailed plan of the interface for any hydraulic unit use, consult your Poclair Hydraulics sales engineer.

Modularity and Model code

Wheel motor

Shaft motor

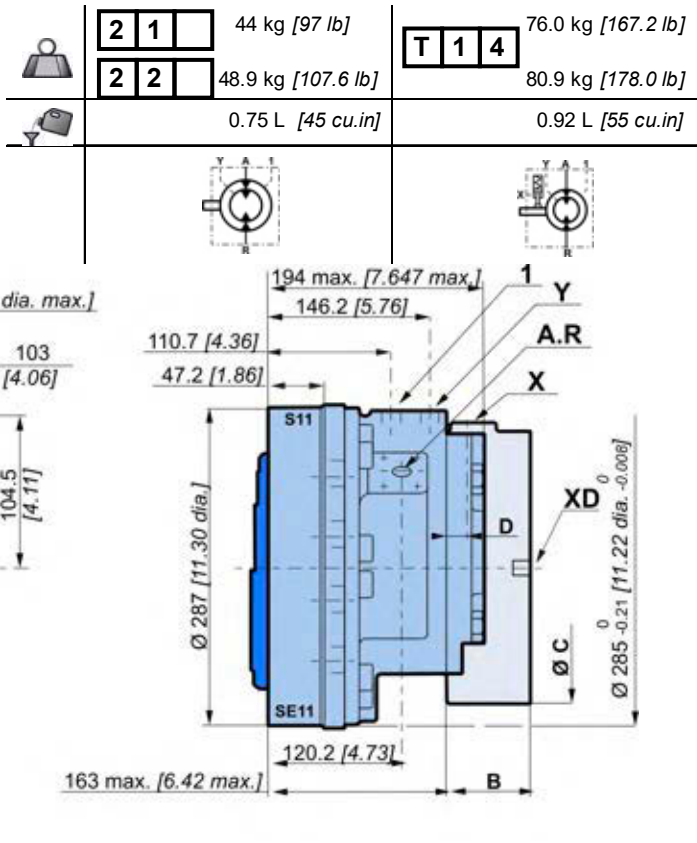
Valving systems and hydrobases

Brake

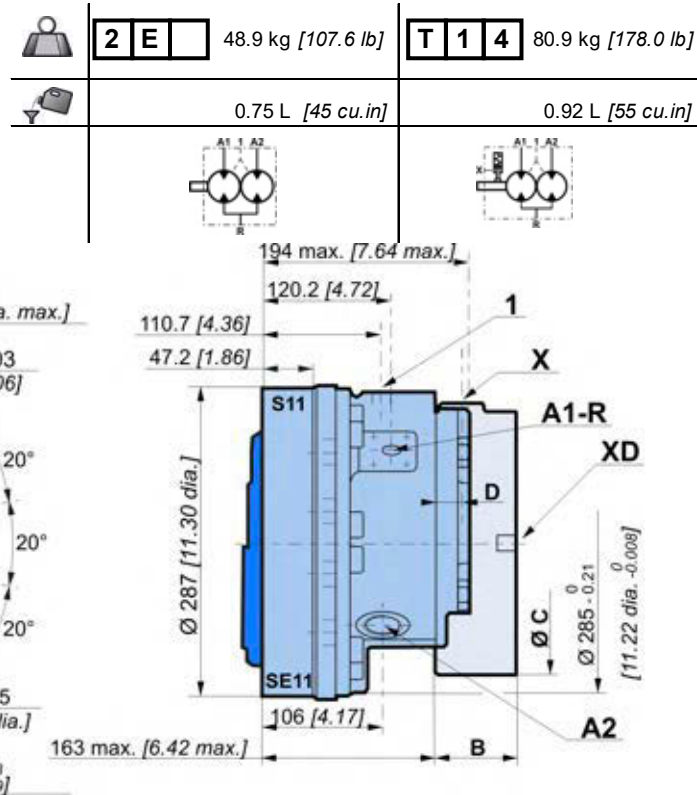
Options



**Dimensions for 2-displacement valving**



**Dimensions for Twin-Lock™ valving**

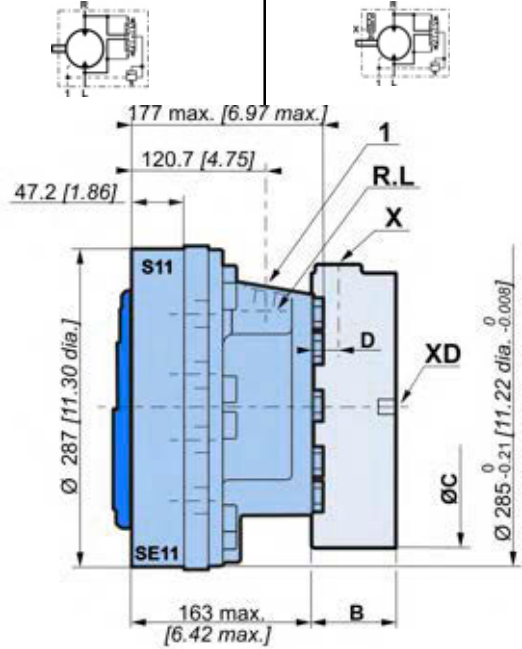
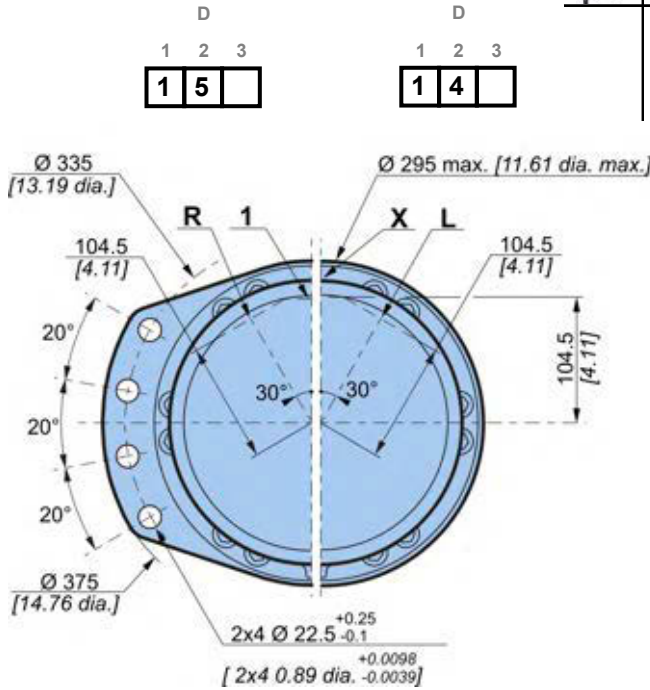


<b>C</b>	<b>T14</b>
B	87.5 [3.44]
C	Ø280.0 [11.02]
D	25.0 [0.96]



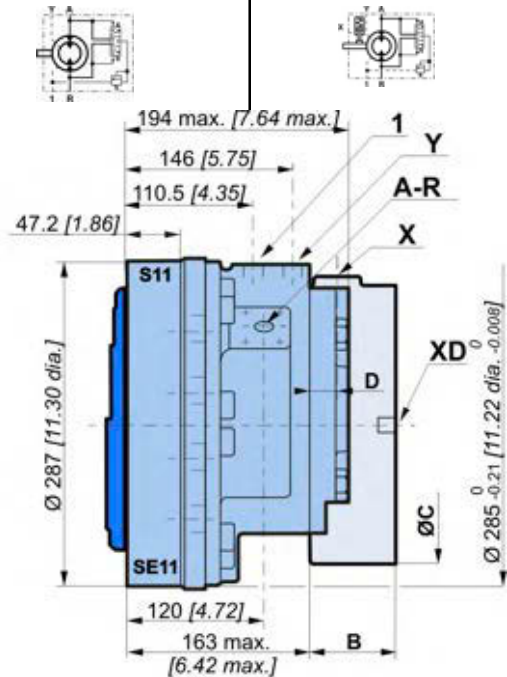
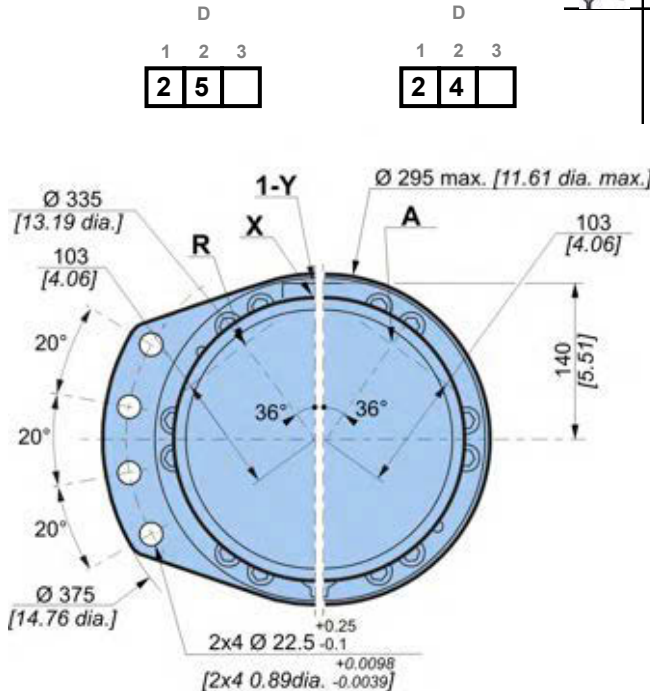
**Dimensions for 1-displacement valving with built-in exchange**

	<b>1 5</b>	44 kg [97 lb]	<b>T 1 4</b>	76.0 kg [167.2 lb]
	<b>1 4</b>	48.9 kg [107.6 lb]		80.9 kg [178.0 lb]
		0.75 L [45 cu.in]		0.92 L [55 cu.in]



**Dimensions for 2-displacement valving with built-in exchange**

	<b>1 5</b>	44 kg [97 lb]	<b>T 1 4</b>	76.0 kg [167.2 lb]
	<b>1 4</b>	48.9 kg [107.6 lb]		80.9 kg [178.0 lb]
		0.75 L [45 cu.in]		0.92 L [55 cu.in]



<b>C</b>	<b>T14</b>
<b>B</b>	87.5 [3.44]
<b>C</b>	Ø280.0 [11.02]
<b>D</b>	25.0 [0.96]

Modularity and Model code

Wheel motor

Shaft motor



Valving systems and hydrobases

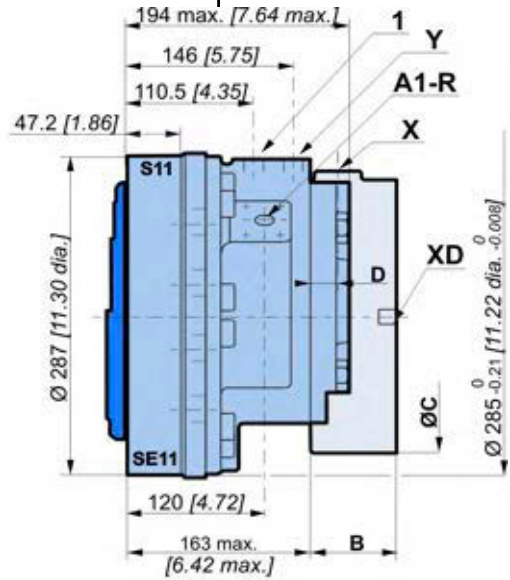
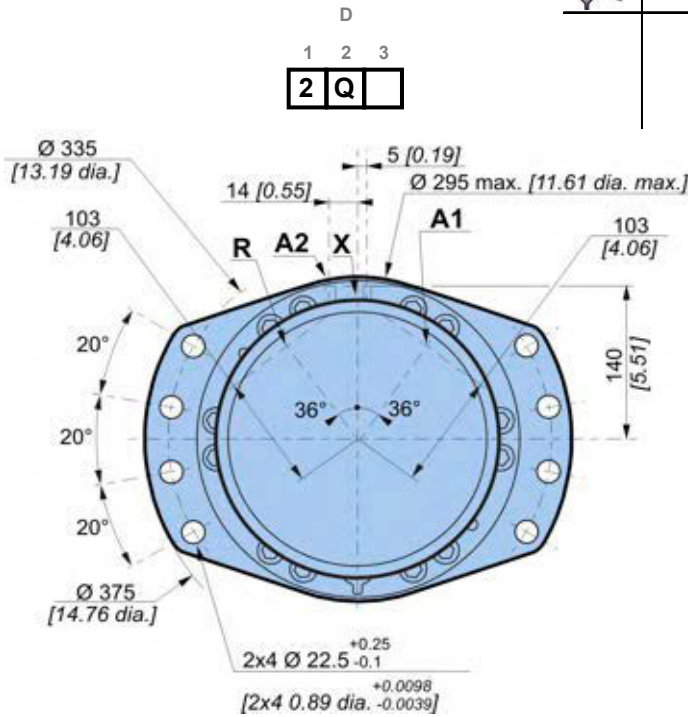
Brake

Options



**Dimensions for 2-displacement valving or Twin-Lock™ valving**

	48.9 kg [107.6 lb]	<b>T 1 4</b>	80.9 kg [178.0 lb]
	0.75 L [45 cu.in]		0.92 L [55 cu.in]



**Exchange**

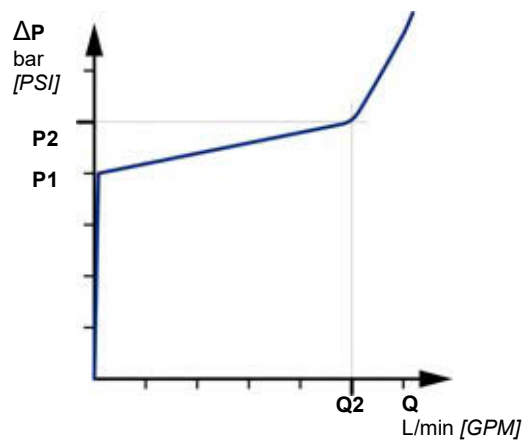
When a coding request is made, you must specify information on the threshold of the selector and the valve.

**Selector spool**

Selector threshold bar [PSI]	Opening pressure of selector bar [PSI]
8 [116]	9.9 ±1.2 [144 ±17]

**Fitted valve**

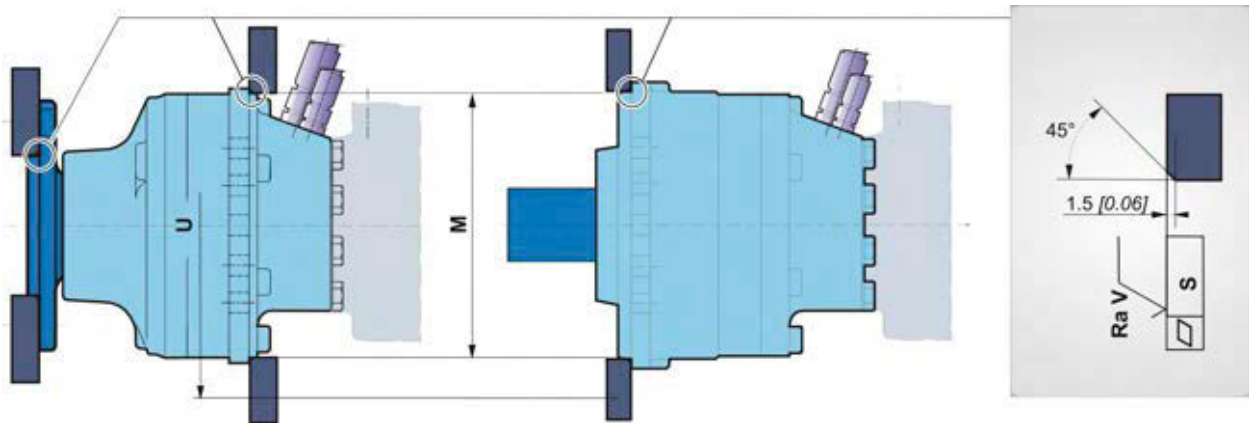
P1 bar [PSI]	Q2 L/min [GPM]	P2 bar [PSI]
13.5 [195]	14 [3.7]	16 [232]
18 [261]	15 [3.9]	21 [305]
22 [319]	16 [4.2]	25 [363]








Chassis mountings



Take care over the immediate environment of the connections.

	$\varnothing M$ <sup>(1)</sup>	$\varnothing U$	S	Ra V		Class
Wheel motor	285 [11,22]	335 [13,19]	0,2	12,5µm [0,49µin]	2 x 4	8,8
Shaft motor	280 [11,02]	335 [13,19]	[0,008]		4 x M20	

(1) +0,3 [+0,012]  
+0,2 [+0,008]

Modularity and Model code

Wheel motor

Shaft motor

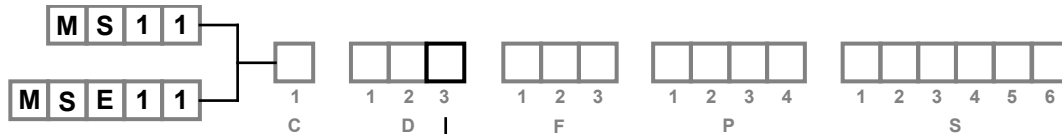
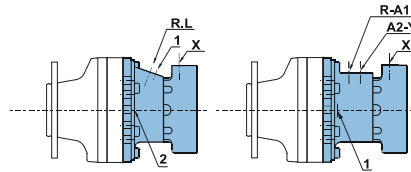
Valving systems and hydrobases

Brake

Options



Hydraulic connections



	Old standards	Standards	Power supply		Case drain	2 <sup>nd</sup> displacement control	Control of parking brake	
1 displacement	A	SAE J514 ISO 6 162 DIN 3 852	ISO 11926-1 ISO 6 162 ISO 9 974-1	R-L 1 1/16"-12 UNF		1, 2 3/4"-16 UNF	X 9/16"-18 UNF	
	1			DN19 PN400	M 18x15		M 16x15	
	2			DN19 PN400	Ø21 [1/2" dia.]		Ø17 [3/8" dia.]	
	3			Ø27 [3/4" dia.]	Ø21 [1/2" dia.]		Ø17 [3/8" dia.]	
	4	NF E48 050	ISO 9 974-1	M27x2	M 18x15		M 16x15	
	5	DIN 3 852	ISO 9 974-1	M33x2	M 18x15		M 16x15	
	7	ISO 6 162 SAE J514	ISO 6 162 ISO 11926-1	DN19 PN400		3/4"-16 UNF		9/16"-18 UNF
	2 Displacement	A	SAE J514 ISO 6 162 DIN 3 852	ISO 11926-1 ISO 6 162 ISO 9 974-1	R-A 1 1/16"-12 UNF		1, 2 3/4"-16 UNF	Y 9/16"-18 UNF
1				DN13 PN400	M 18x15	M 16x15	M 16x15	
2				DN13 PN400	Ø21 [1/2" dia.]	Ø17 [3/8" dia.]	Ø17 [3/8" dia.]	
3				Ø27 [3/4" dia.]	Ø21 [1/2" dia.]	Ø17 [3/8" dia.]	Ø17 [3/8" dia.]	
4		NF E48 050	ISO 9 974-1	M27x2	M 18x15	M 16x15	M 16x15	
Twin-Lock™	A	SAE J514 ISO 6 162 DIN 3 852	ISO 11926-1 ISO 6 162 ISO 9 974-1	R-A1 1 1/16"-12 UNF	A2 9/16"-18 UNF	1, 2 3/4"-16 UNF	Y 9/16"-18 UNF	X 9/16"-18 UNF
	1			DN13 PN400	M27x2	M 18x15	M 16x15	M 16x15
	4	NF E48 050	ISO 9 974-1	M27x2	M27x2 M22x15	M 18x15	M 16x15	M 16x15

ISO 9 974-1

Max. pressures	MS MSE	bar [PSI]	450 [6,527] 400 [5,802]	450 [6,527] 400 [5,802]	1 [15]	30 [435]	30 [435]
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To find the connections' tightening torques, see the brochure "Installation guide" N° B61352L.



You are strongly advised to use the fluids specified in brochure "Installation guide" N° B61352L.



Do not put either a check valve or a poppet valve on the pilot lines (parking brake and displacement change) between the charge pump and the pilot valve. Do not use a piloting valve with integrated check valve.

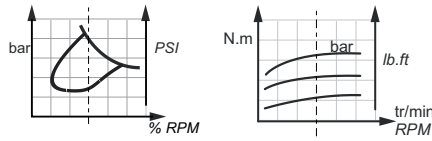




Efficiency

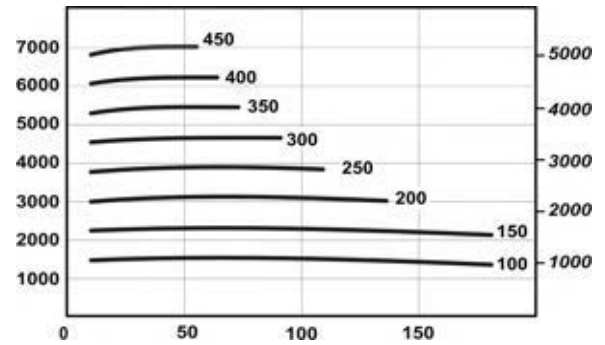
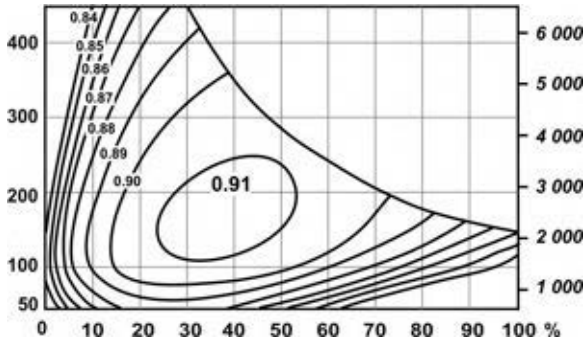
**Overall efficiency**

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

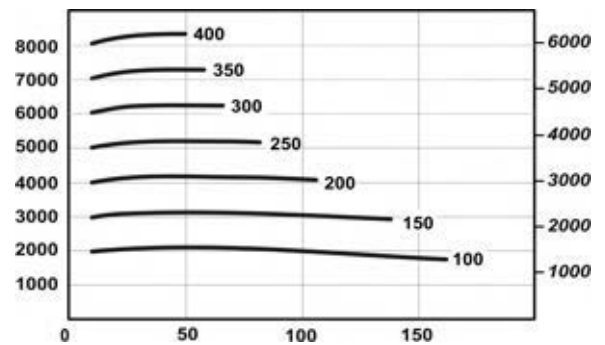
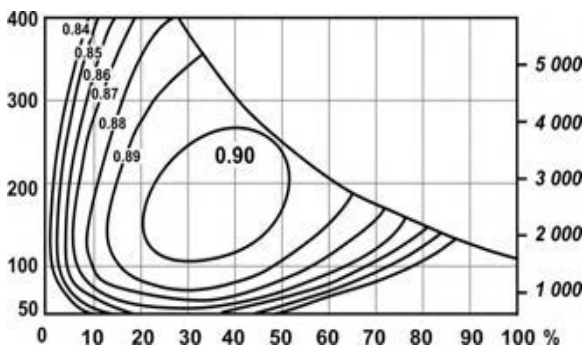


MS11

**Actual output torque**



MSE11



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

Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

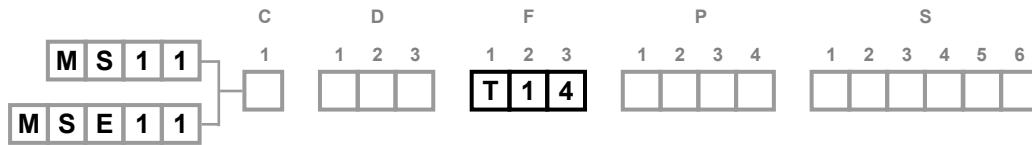
Brake

Options

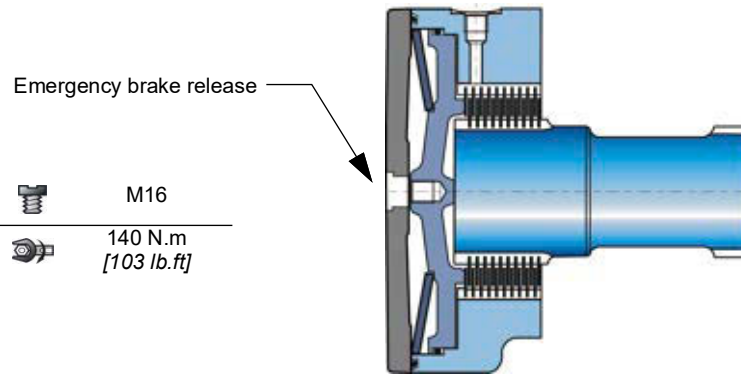




# BRAKES



## Rear brake



## Brake principle

This is a multidisc brake which is activated by a lack of pressure. The spring exerts a force on the piston, which presses on the fixed and mobile discs, and immobilizes the shaft. The braking torque decreases in linear proportion to the brake release pressure.



Parking brake torque at 0 bars on housing (new brake)	11,840 Nm [8,730 lb.ft]
Dynamic emergency braking torque at 0 bars on housing (max. 10 uses of emergency brakes)	7,695 Nm [5,680 lb.ft]
Residual parking braking at 0 bars on housing *	8,880 Nm [6,550 lb.ft]
Min. brake release pressure	12 bar [174 PSI]
Max. brake release pressure	30 bar [435 PSI]
Oil capacity	170 cm <sup>3</sup> [10.4 cu.in]
Volume for brake release	40 cm <sup>3</sup> [2.4 cu.in]
Max. energy dissipation	123 699 J

\* After emergency brake has been used.



Do not run-in the multidisc brakes.

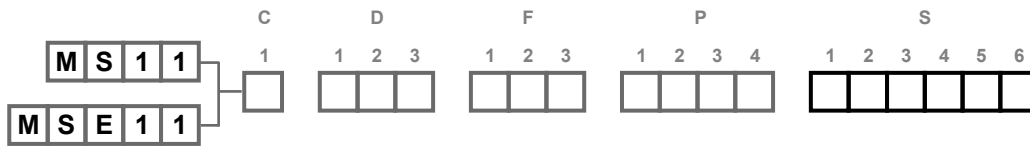


A functional check of the parking brake must be carried out each time it is used as an auxiliary brake (or emergency brake). For all vehicles capable of speeds over 25 km/h, please contact your Poclair Hydraulics application engineer.





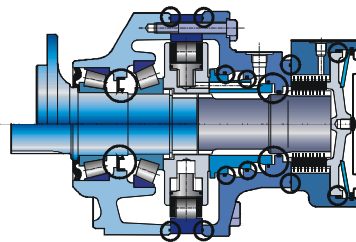
# OPTIONS



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

## 1 - Fluorinated elastomer seals

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

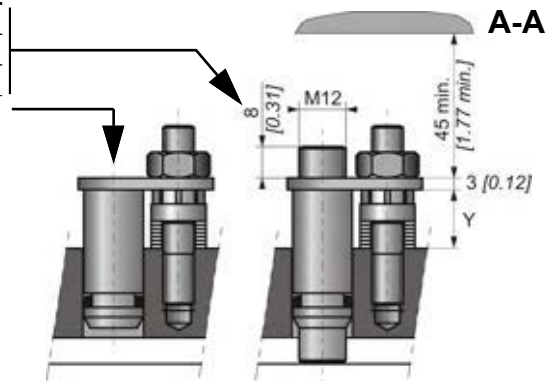
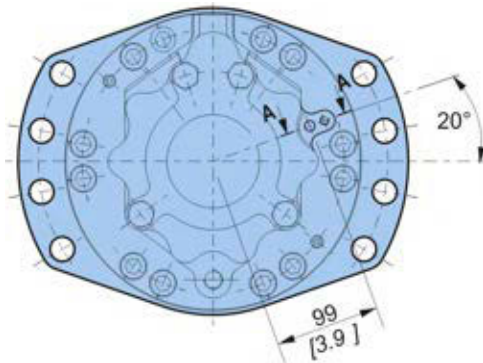


Consult your Poclain Hydraulics sales engineer.

## 2 - S - Q - 8 - Installed speed sensor or predisposition

### Designation

T4 speed sensor (without rotation direction)	2
TR speed sensor (digital rotation direction)	S
TD speed sensor (two phase shifted frequencies)	Q
Predisposition for speed sensor	8



Max. length Y= 20.9  
Standard number of pulses per revolution= 56



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. B61352L.

Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

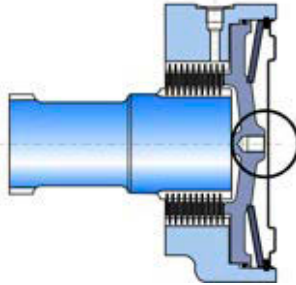
Brake

Options



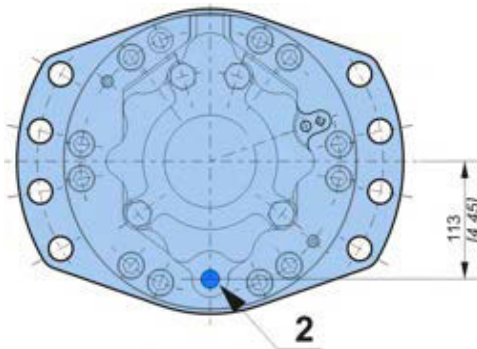
### 3 - Brake environmental cover without plug

No plug or hole in the cover.



### 5 - Drainage

Additional drain in the cover.

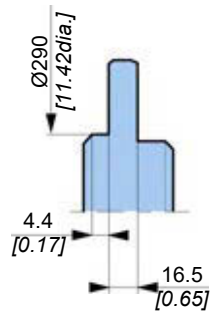


### 7 - Diamond™

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.

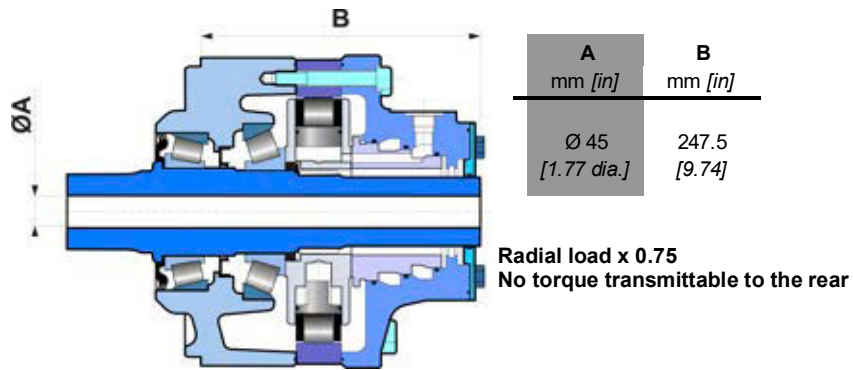
### 9 - Double-centering valving cover

This option allows a motor to be installed from the front or the back.

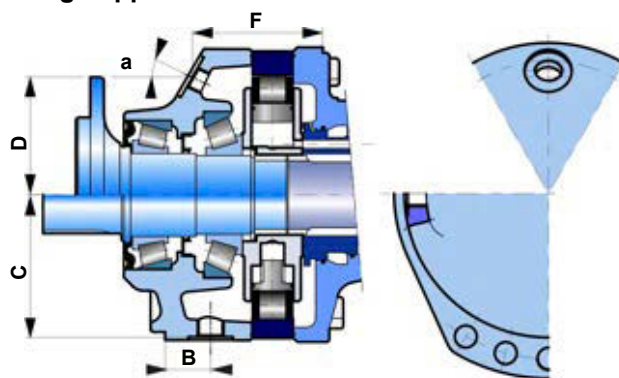




**A - Hollow shaft**



**B - Drain on the bearing support**



	ISO	B	C	D	F	a
		mm [in]	mm [in]	mm [in]	mm [in]	
Shaft motor	M18 x 1.5	32.5 [1.28]	143 [5.63]			
Wheel motor	M18 x 1.5			112 [4.41]	112.5 [4.43]	30°

**C - Abrasive environments (mechanical seal)**

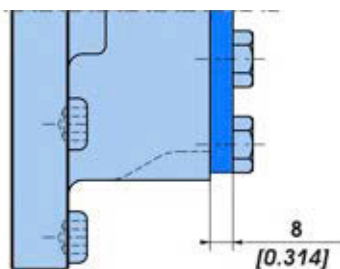
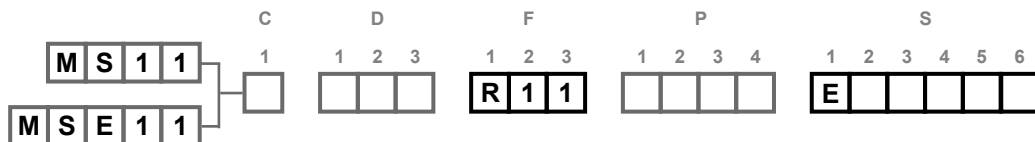
Certain environments can be very harmful. The mirror seal gives reinforced motor sealing.



Consult your Poclair Hydraulics sales engineer.

**E - Reinforced sealing**

Requires reinforced seals and, for an unbraked motor, a rear reinforced plate (R08 - 8 [0.314] thick, instead of 4 [0.157]).



Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

Brake

Options





### G - Special wheel rim mounting

Enables certain combinations different from the standard mountings defined on pages 11 and 13.



Consult your Poclain Hydraulics sales engineer.

### H - High efficiency

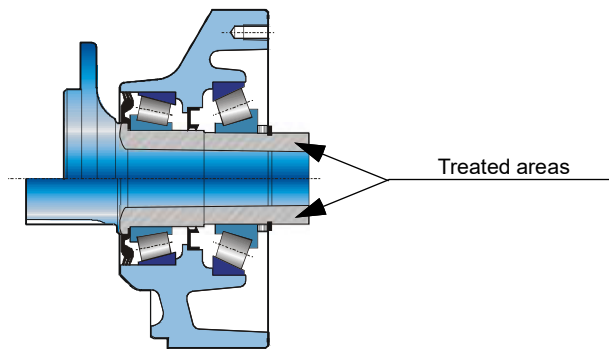
Reinforced piston sealing to improve volumetric efficiency.



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

### J - Treated shaft

Heat treatment on the indicated bearing radius and splines.



### M - High speed

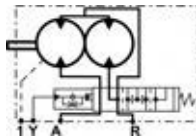
Under certain conditions, an increase in the maximum speed of 30% above the values indicated in the table on page 2 is possible.



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

### T - Soft Shift™

Progressive displacement change (cushioned slide-valve).



Consult your Poclain Hydraulics sales engineer.



Modularity and Model code

Wheel motor

Shaft motor

Valving systems and hydrobases

Brake

Options



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-  30/01/2025
-  801 478 120C
-  801 478 190D
-  801 578 103E
-  801 578 115S
-  801 578 127F
-  A07443Q
-  Non available
-  A14242F

