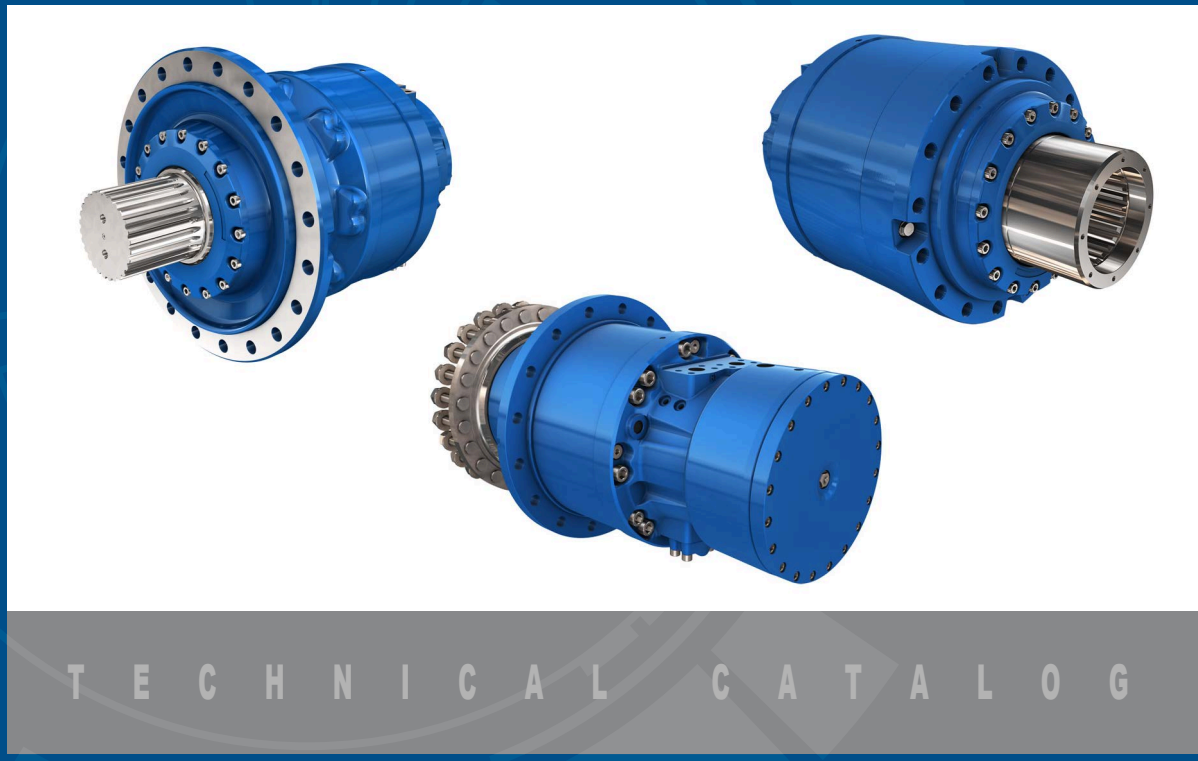
MS125

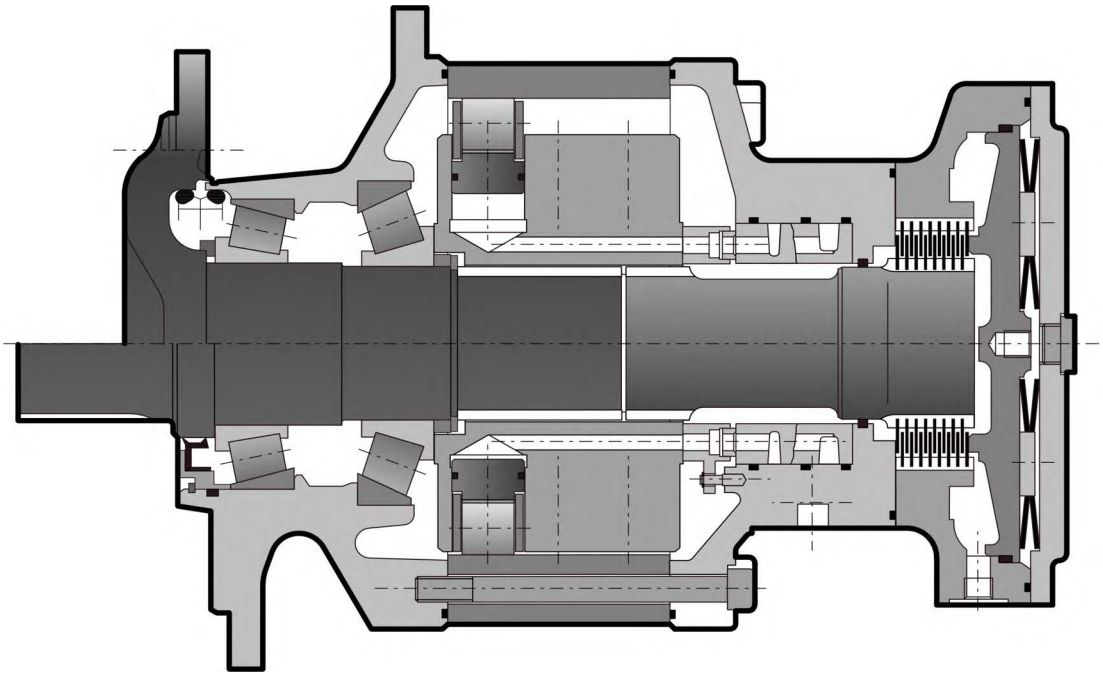
HYDRAULIC MOTORS



TECHNICAL CATALOG

POCLAIN Hydraulics

CHARACTERISTICS



Motor inertia **3 kg.m²**

	C	❶ cm³/tr *[cu.in/rev.]*	❷ cm³/tr *[cu.in/rev.]*	Theoretical torque ❶ at 100 bar Nm	Theoretical torque ❶ *at 1000 PSI [lb.ft]*	Max.power * ❶ kW *[HP]*	Max.power * ❷ kW *[HP]*	Max. speed ❶ tr/min *[RPM]*	Max. speed ❷ speed 1C	Max. speed ❷ speed 2C	Max. pressure bar *[PSI]*
Cams with equal lobes	**8**	10 000 *[609,9]*	5 000 *[305,0]*	15 900	*[8 086]*	240 *[322]*	160 *[215]*	130	90	105	450 *[6 527]*
	0	12 500 *[762,4]*	6 250 *[381,2]*	19 875	*[10 107]*			105	70	85	380 *[5 511]*
	2	15 000 *[914,9]*	7 500 *[457,4]*	23 850	*[12 128]*			85	60	70	320 *[4 641]*
Cams with unequal lobes	**A**	12 500 *[762,4]*	7 500 *[457,4]* / 5 000 *[305,0]*	19 875	*[10 107]*	240 *[322]*	160 *[215]*	100	65	80	380 *[5 511]*

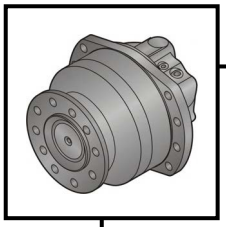
❶ **First displacement**

❷ **Second displacement**

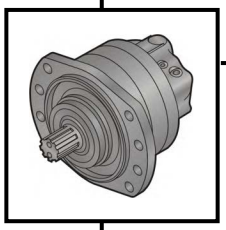
*** For higher power value, please consult your Poclain Hydraulics application engineer.**

CONTENT

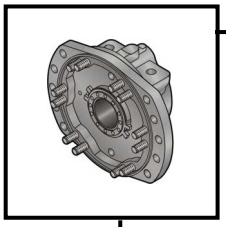
MODULARITY 4
MODEL CODE 6



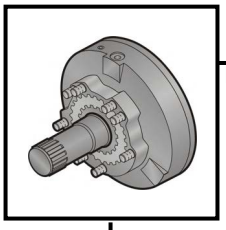
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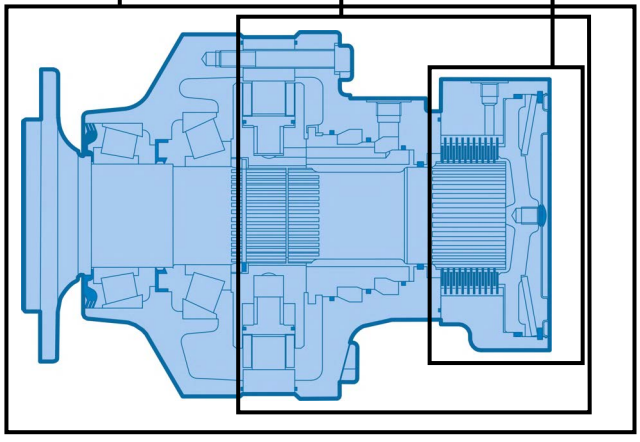


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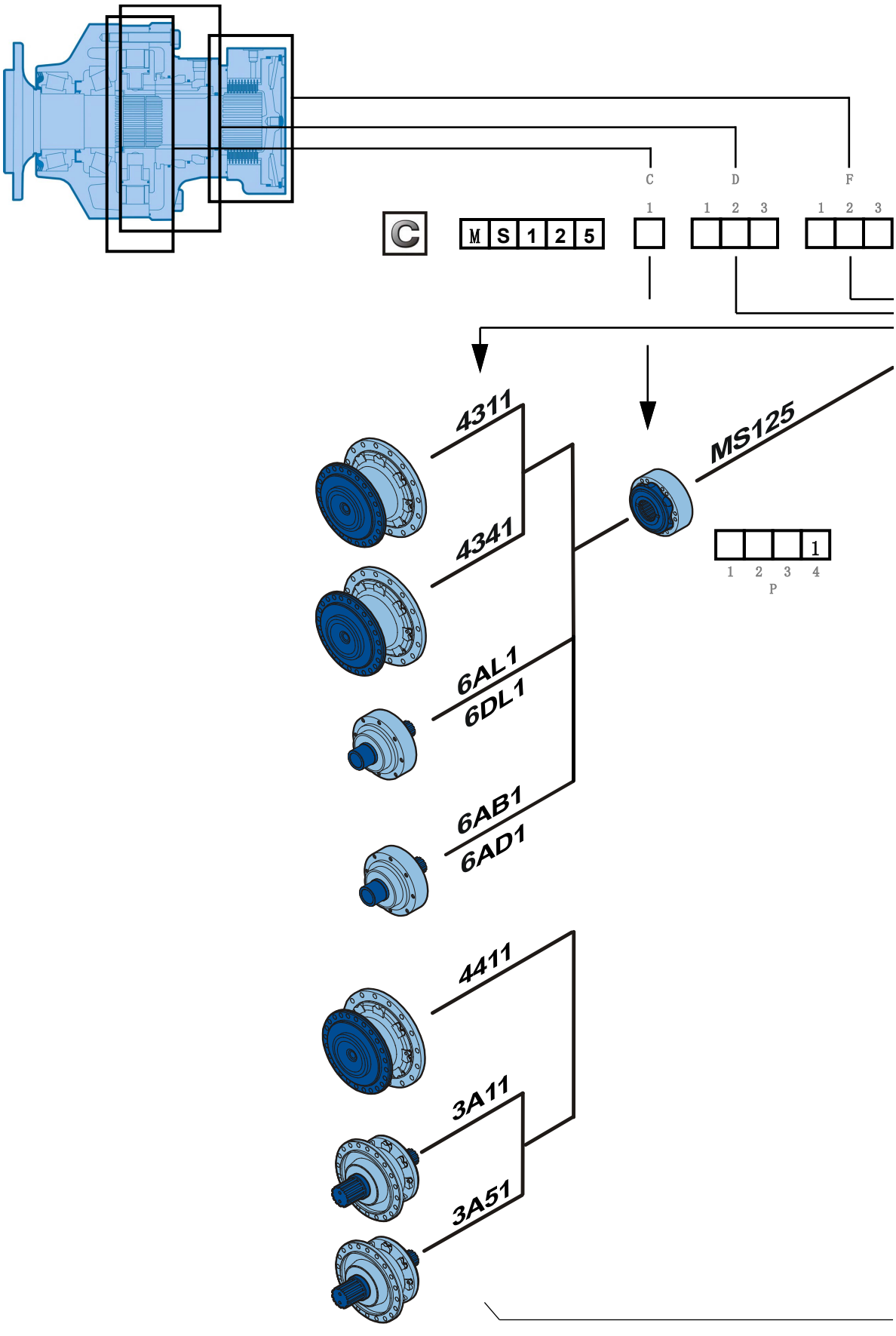
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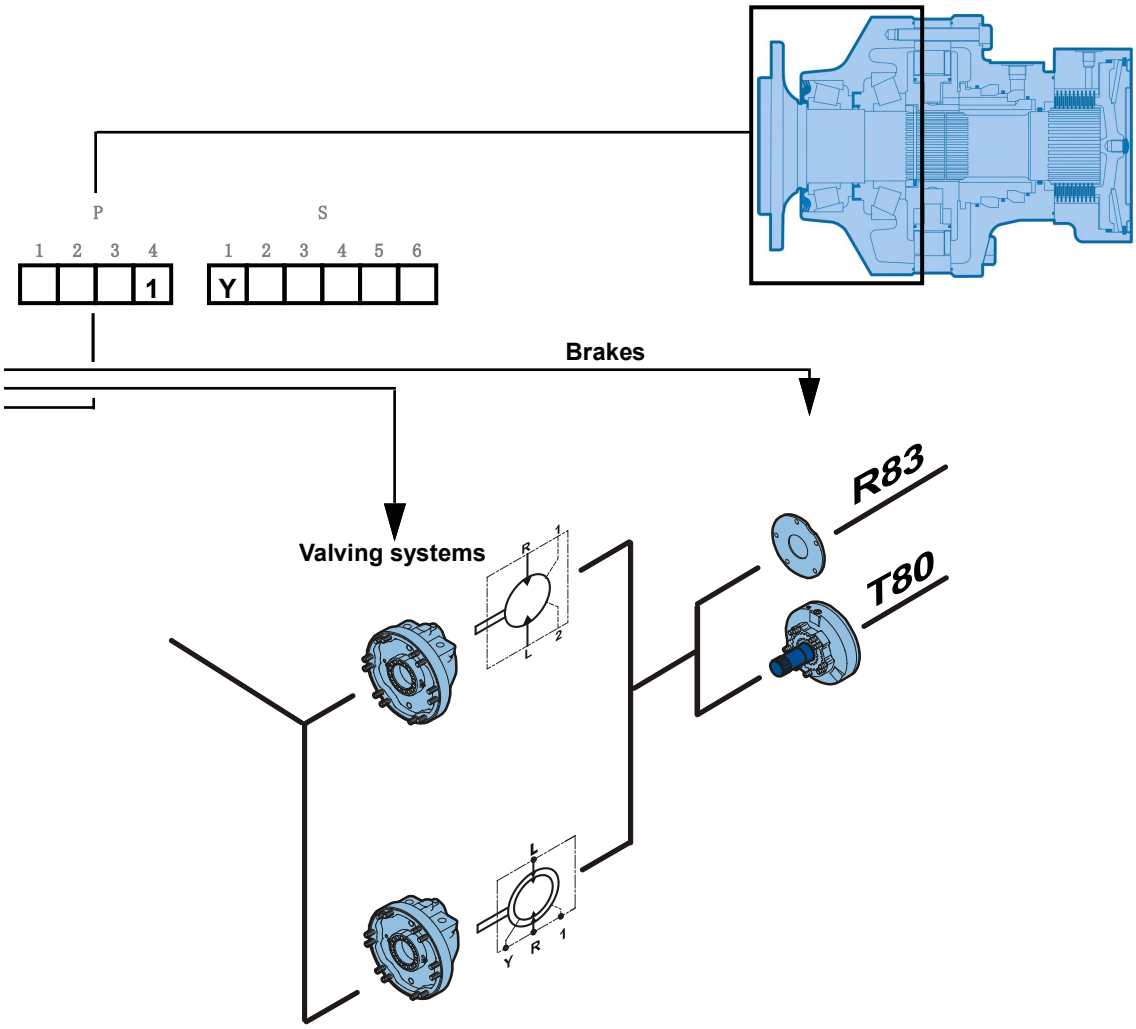
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MODUL

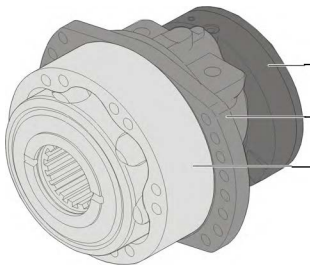

C
D
F
1
1 2 3
1 2 3
C
M S 1 2 5
1 2 3 4
P
MS125
4311
4341
6AL1
6DL1
6AB1
6AD1
4411
3A11
3A51

ARITY



Hydrobases

MODEL



Brake

Valving System

Torque Module

		C	D	F						
		1	1	2	3	1	2	3		
C	MS125									

C1

Cam ring type

	1 displacement	2 displacements	
	cm³/tr *[cu.in/rev.]*		
Cams with equal lobes	10 000 *[609.9]*	5 000 *[305.0]*	8
	12 500 *[762.4]*	6 250 *[381.2]*	0
	15 000 *[914.9]*	7 500 *[457.4]*	2
Cams with unequal lobes	12 500 *[762.4]*	7 500 *[457.4]*	A
		5 000 *[305.0]*	

D3

Connection type

Without cover	0
HP: ISO 6162 (SAE flanges) DN 32 BP: ISO 9974-1 (Metric ports)	J
HP: ISO 6162 (SAE flanges) DN 32 BP: ISO 1179-1 (GAZ ports)	K

D1

Valving type

1-displacement valving		1
2-displacement symmetrical valving	Ratio 2	A
	Ratio <2	B
	Ratio >2	C

F1-F3

Rear brake

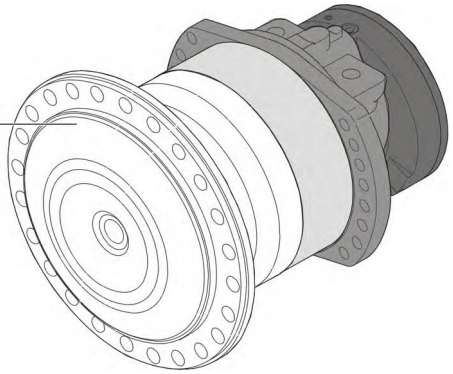
Brake (screwed environmental cover)	T 8 0
Without brake (reinforced plate)	R 8 3

D2

Valving cover

HighFlow™ distribution	Without mounting	B
	Lug fixing	C

CODE



Bearing support

P				S					
1	2	3	4	1	2	3	4	5	6
			1	Y					

P1

Front unit	
Without bearing support	0
Flange on shaft side	3
Flange on cam side	4
Torque motor	6

P2

Bearing support	
Without shaft	0
Long bearing support; 24 x Ø26 on Ø425	3
Short bearing support; 24 x Ø26 on Ø425	4
Bearing support for male shaft	A
Bearing support for shrink discs shaft Ø160	D

P3

Shaft type	
Without shaft	0

Flange	
Without studs	1
With studs + nuts	2
With studs	3

Spline (if P2 = A)	
NF E22-141 splines	1
DIN 5480 splines	5
Female splines DIN 5480 (“regular shaft” for chassis)	B
Female splines DIN 5480 (“go through shaft” for torque arm)	D

Shrink discs (if P2 = A / D)	
Female shafts for shrink discs	L

S2-S6

	Options
0	Without options or adaptations
2	T4 speed sensor installed
S	TR speed sensor installed
Q	TD speed sensor installed
6	Industrial bearing support
7	Diamond™
A	Hollow shaft
B	Drain on the bearing support
D	Special paint or no paint
E	Reinforced sealing
G	Special wheel rim mounting
J	Surface heat treatment of the shaft
W	Grip washer (when using T80)
R	Brake flushing

S1

	Standard
Y	Predisposition for speed sensor
	Adittional drain on valving system
	High speed/Low pressure drop (butterfly valving)

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.

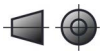
This document includes important comments concerning safety as well as the installation guide that must be read before any installation (https://poclain.com/resources). Important comments are indicated in the following way:

	**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.**

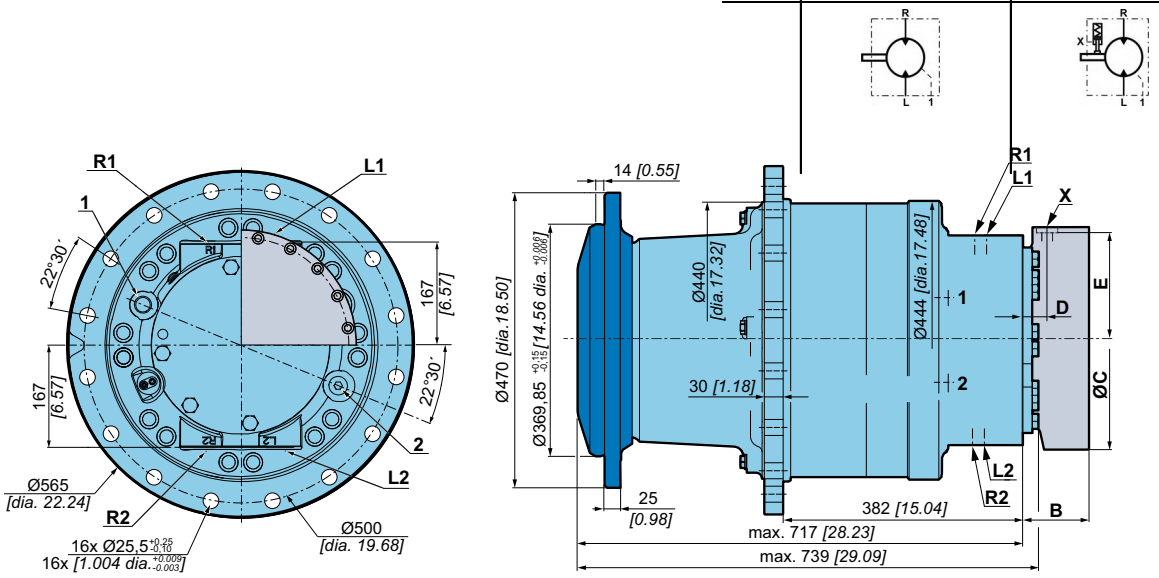
The views in this document are created using metric standards.
The dimensional data is given in mm and in inches (inches are given in brackets in italics).



WHEEL MOTOR

Dimensions for standard (4311) 1-displacement motor

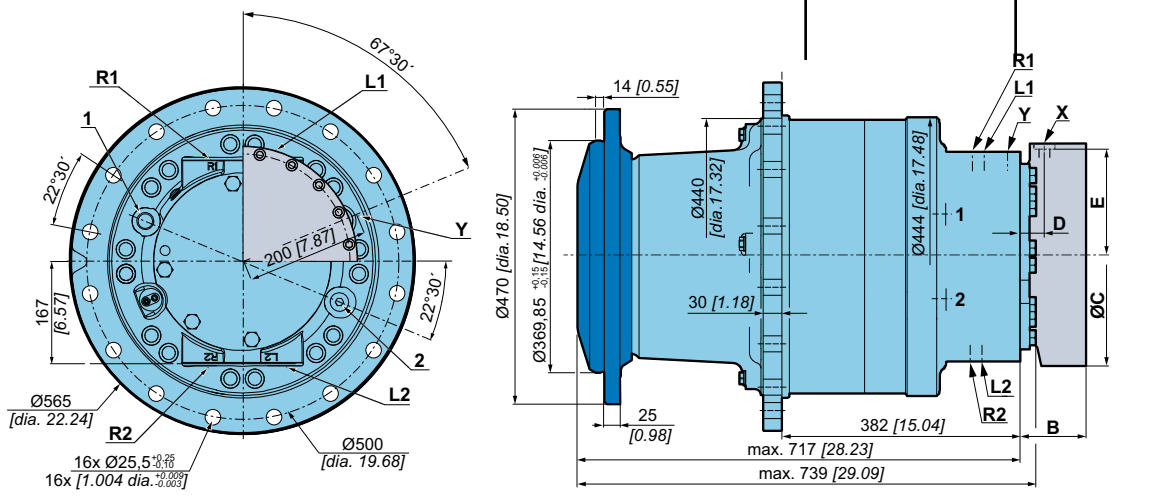
	460 kg *[1 012 lb]*	563 kg *[1 239 lb]*
	11,00 L *[660 cu.in]*	9,00 L *[540 cu.in]*



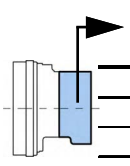
Dimensions for standard (4311) 2-displacement motor

	460 kg *[1 012 lb]*	563 kg *[1 239 lb]*
	11,00 L *[660 cu.in]*	9,00 L *[540 cu.in]*

For a small displacement, there is no preferred orientation for this motor.



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



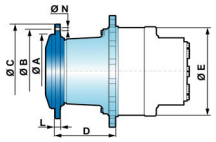
C	T80
B	189.0 *[7.44]*
C	Ø376 *[14.80 dia.]*
D	44.0 *[1.73]*
E	181.0 *[7.13]*

Also see "Brake" section (thumbnail opposite).

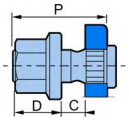
For speed ≥ 90 rpm, the bearing support must be flushed: motor must be ordered with drain on the bearing support (option B).

Support types

		C	D	F	P	S
		1	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5 6
M S 1 2 5					1	Y

C	A mm *[in]*	B mm *[in]*	C mm *[in]*	D mm *[in]*	E mm *[in]*	N mm *[in]*	Wheel rim mountings	L mm *[in]*	
4 3 1 1 (1 2 3 4 P)	Ø 370 *[14,57 dia.]*	Ø 425 *[16,73 dia.]*	Ø 470 *[18,50 dia.]*	284 *[11,18]*	Ø 445 *[17,52 dia.]*	Ø 26 *[1,02 dia.]*	24 x M24x2	25 *[0,98]*	
4 4 1 1 (1 2 3 4 P)	Ø 370 *[14,57 dia.]*	Ø 425 *[16,73 dia.]*	Ø 470 *[18,50 dia.]*	239 *[9,41]*	Ø 445 *[17,52 dia.]*	Ø 26 *[1,02 dia.]*	24 x M24x2	25 *[0,98]*	

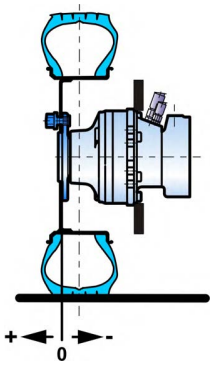
Studs

		P mm *[in]*	C min. mm *[in]*	C max. mm *[in]*	D mm *[in]*		Class
Studs	M24 x 2	95 *[3.74]*	5 *[0.20]*	39 *[1.54]*	30 *[1.18]*		**12.9**
		115 *[4.53]*		59 *[2.32]*			
Screws	M24 x 2	-	-	-	-	-	

See generic installation motors N°B59689D.

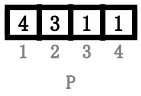
Radial load and service life of bearings curves

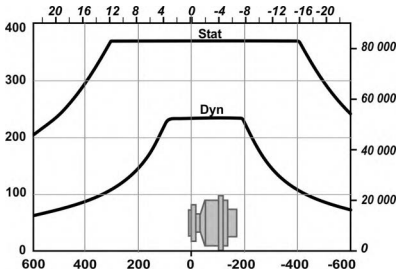
The service life of the components is influenced by the pressure.You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications.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

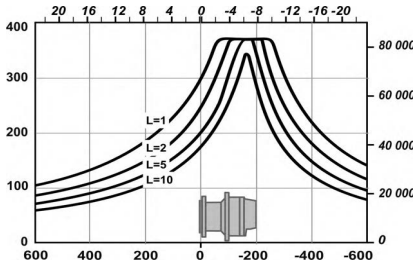


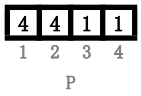
Permissible radial loads	Service life of bearings
Max. permissible loads: 0 tr/min *[0 RPM]*; 0 bar *[0 PSI]*.	**L :** Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid.
Continuous permissible loads: > 0 tr/min *[> 0 RPM]*; 275 bar *[3 988 PSI]*.	

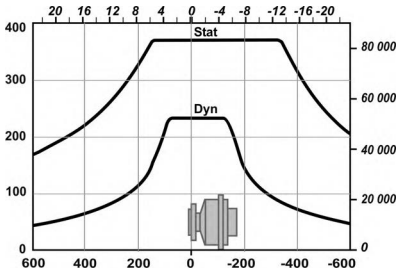
Test conditions: code 0 displacement, without axial load, shaft treated (option J), class 10.9 and 12.9 chassis mountings class 12.9 wheel rim mountings.

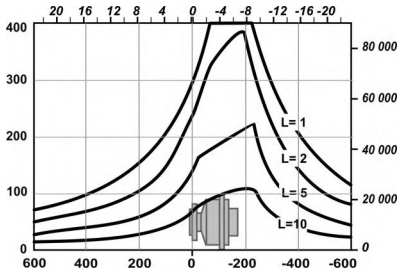








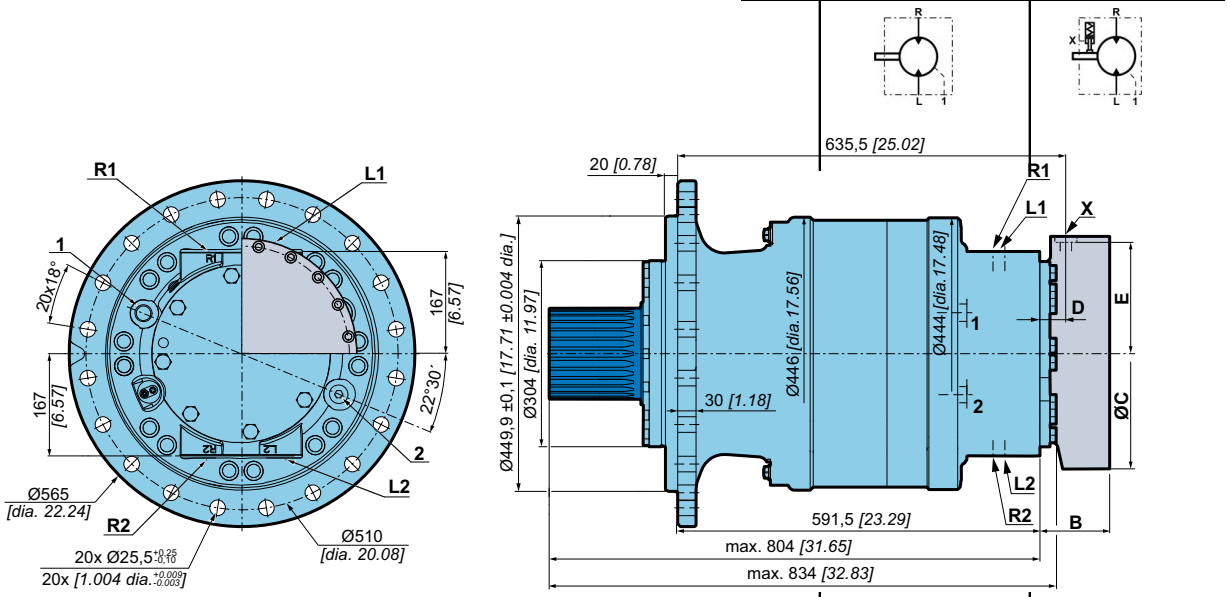




SHAFT MOTOR

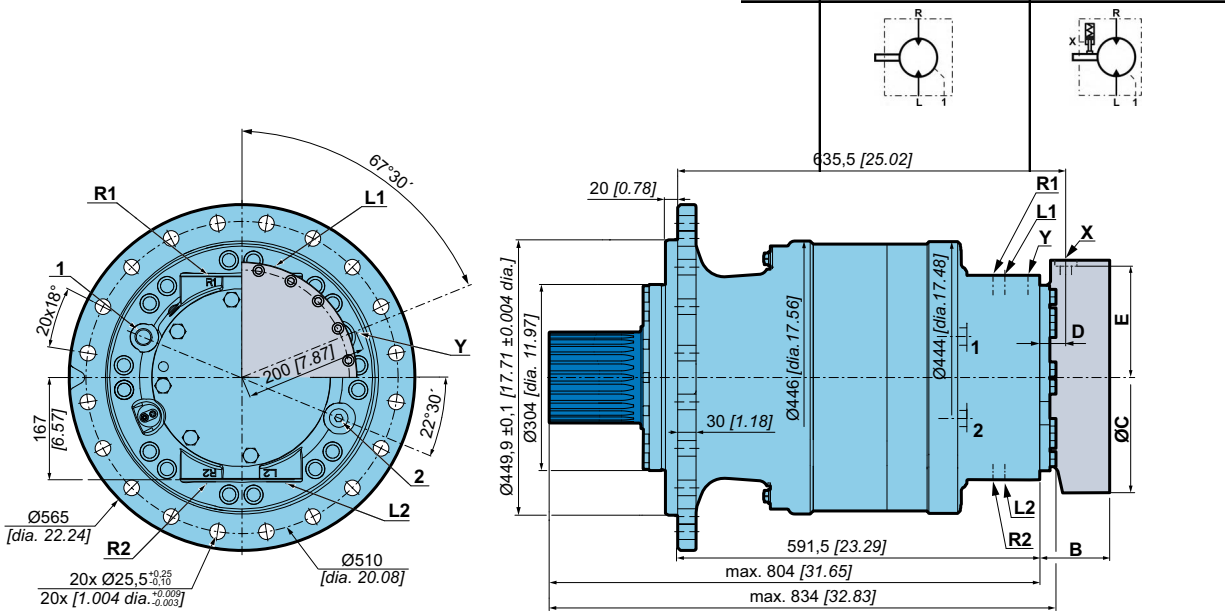
Dimensions for standard (3A51) 1-displacement motor

	435 kg *[957 lb]*	585 kg *[1,287 lb]*
	11.00 L *[660 cu.in]*	9.00 L *[540 cu.in]*

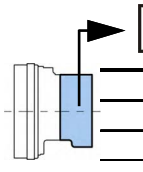


Dimensions for standard (3A51) 2-displacement motor

	435 kg *[957 lb]*	585 kg *[1,287 lb]*
	11.00 L *[660 cu.in]*	9.00 L *[540 cu.in]*



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



C	T80
B	189.0 *[7.44]*
C	Ø376 *[14.80 dia.]*
D	44.0 *[1.73]*
E	181.0 *[7.13]*

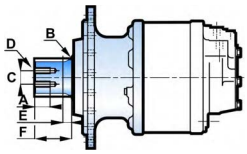
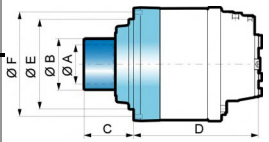
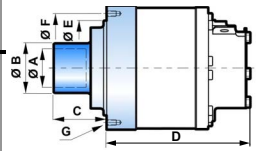
Also see "Brake" section (thumbnail opposite).

For speed ≥ 90 rpm, the bearing support must be flushed: motor must be ordered with drain on the bearing support (option B).

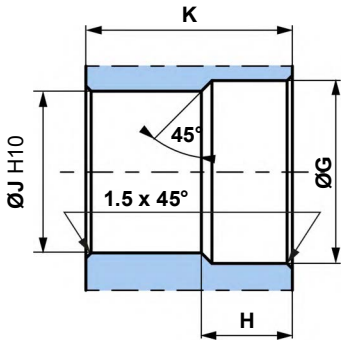
Support types

C	D	F	P	S
1	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5 6
			1	Y

M S 1 2 5

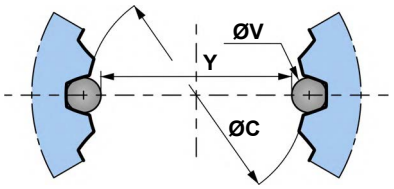
C		A mm *[in]*	B mm *[in]*	C mm *[in]*	D mm *[in]*	E mm *[in]*	F mm *[in]*	G mm *[in]*	
3 A 1 1	**NF E22-141** splines Nominal Ø 150 *[5.91]* Module 3.75 Z 38	40 *[1.57]*	R 4 *[R 0.16]*	60 *[2.36]*	2 x M16	31 *[1.22]*	150 *[5.91]*	-	
3 A 5 1	**DIN 5480** splines Nominal Ø 150 *[5.91]* Module 5 Z 28	40 *[1.57]*	R 4 *[R 0.16]*	60 *[2.36]*	2 x M16	32 *[1.26]*	150 *[5.91]*	-	
6 A L 1		Ø 155 *[6.10 dia.]*	Ø 200 *[7.87 dia.]*	230 *[9.06]*	495 *[19.49]*	Ø 352 *[13.86 dia.]*	Ø 394 *[15.51 dia.]*	16 x M24	
6 D L 1		Ø 160 *[6.30 dia.]*	Ø 200 *[7.87 dia.]*	230 *[9.06]*	495 *[19.49]*	Ø 352 *[13.86 dia.]*	Ø 394 *[15.51 dia.]*	16 x M24	
6 A B 1	**DIN 5480** splines Nominal Ø 150 *[5.91]* Module 5 Z 28	Ø 150 *[5.91 dia.]*	Ø 199 *[7.83 dia.]*	194 *[7.64]*	495 *[19.49]*	Ø 352 *[13.86 dia.]*	Ø 394 *[15.51 dia.]*	16 x M24	
6 A D 1	**DIN 5480** splines Nominal Ø 150 *[5.91]* Module 5 Z 28	Ø 150 *[5.91 dia.]*	Ø 199 *[7.83 dia.]*	194 *[7.64]*	495 *[19.49]*	Ø 352 *[13.86 dia.]*	Ø 394 *[15.51 dia.]*	16 x M24	

Coupling for male splines



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

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

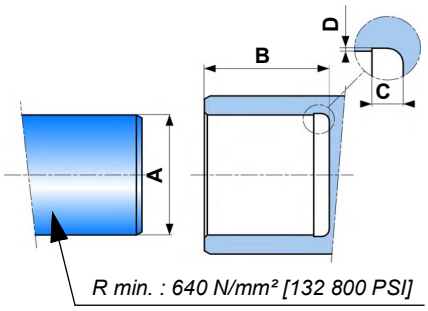


C	Ø G mm *[in]*	H mm *[in]*	Ø J mm *[in]*	K mm *[in]*	N mm *[in]*	Mo	Z	Offset mm *[in]*	ØC (H10) mm *[in]*	Ø V mm *[in]*	Y mm *[in]*	Tolerance (Y) µm *[µin]*
3 A 5 1	152 *[5,98]*	33 *[1,30]*	140 *[5,51]*	149 *[5,87]*	150 *[5,91]*	5	28	2,25 *[0,0886]*	140 *[5,51]*	9 *[0,35]*	131,104 *[5,16]*	+ 87 / 0 *[+3.425 / 0]*

General tolerances : ± 0.25 *[±0.0098]*.
Material: Ex: 42CrMo4.
Hardening treatment to obtain R = 800 to 900 N/mm² *[R = 116 030 to 130 533 PSI]*.

Coupling for shrink discs

C	A mm [in]	B mm [in]	C mm [in]	D mm [in]
6 A L 1 (1 2 3 4, P)	Ø 155 [6.10 dia.]	140 [5.51]	10 [0.394]	0.5 [0.0197]
6 D L 1 (1 2 3 4, P)	Ø 160 [6.30 dia.]	140 [5.51]	10 [0.394]	0.5 [0.0197]

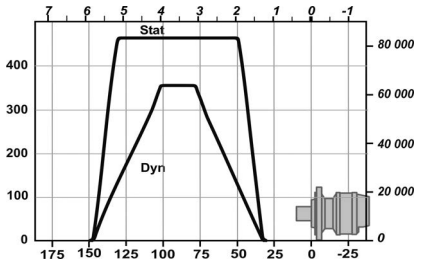


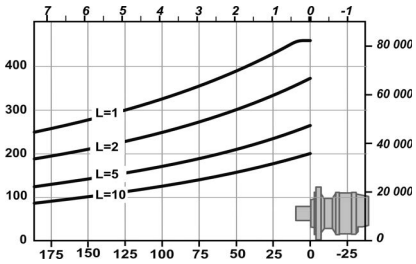
Radial load and service life of bearings curves

Permissible radial loads	Service life of bearings
Max. permissible loads: 0 tr/min *[0 RPM]*; 0 bar *[0 PSI]*.	**L :** Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid.
Continuous permissible loads: > 0 tr/min *[> 0 RPM]*; 275 bar *[3 988 PSI]*.	

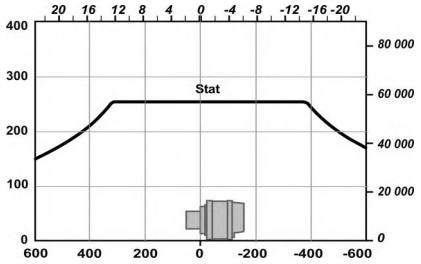
Test conditions: code 0 displacement, without axial load, shaft treated (option J), class 10.9 and 12.9 chassis mountings.

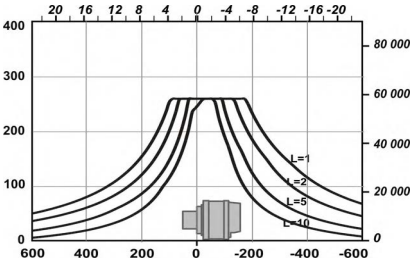
3 A 1 1
3 A 5 1
(1 2 3 4, P)



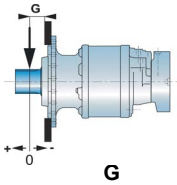


6 A L 1
6 D L 1
6 A B 1
6 A D 1
(1 2 3 4, P)



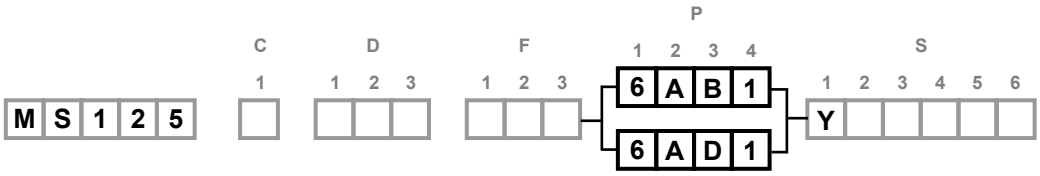


The service life of the components is influenced by the pressure.You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications.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

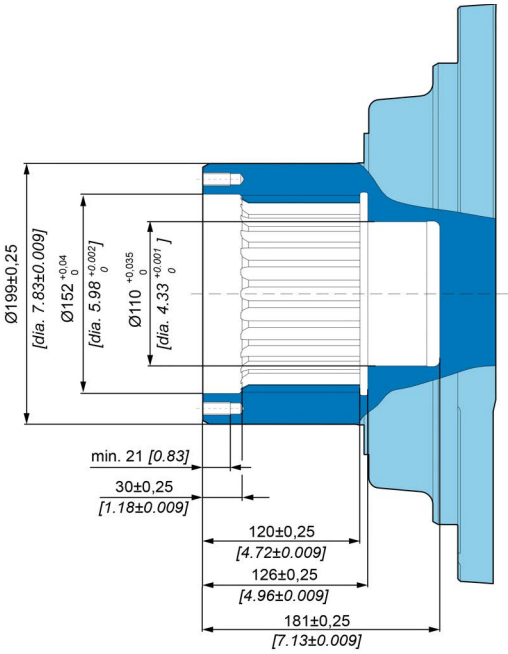


C	G mm [in]
3 A 1 1	151 [5.94]
3 A 5 1	151 [5.94]
6 A L 1 / 6 D L 1	65.75 [2.589]
6 A B 1	65.75 [2.589]
6 A D 1	65.75 [2.589]

Coupling for female splines



Splined DIN 5480
Pressure angle: 30°
Nominal diameter: 150
Number of Teeth: 28
Modulus: 5
Tolerance class:8

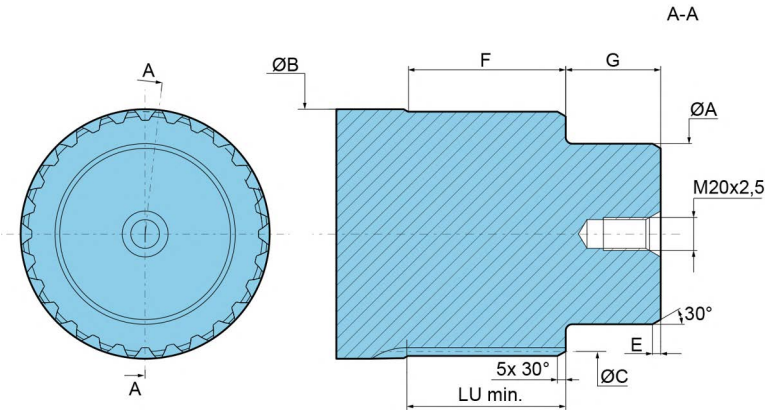


Recommended customer shaft design to be used with bearing support 6AB1 or 6AD1.

	Torque arm motor	Flange mounted motor
A (1)	Ø110 *[4.33 dia.]*	Ø110 *[4.33 dia.]*
B (2)	Ø152 *[5.98 dia.]*	Ø152 *[5.98 dia.]*
C	DIN 5480 W150 x 5 30 x 28 x 8f	
E	10.0 *[0.39]*	5.0 *[0.20]*
F	98.0 *[3.86]*	98.0 *[3.86]*
G	58.0 *[2.28]*	55.0 *[2.17]*
LU	99.0 *[3.90]*	99.0 *[3.90]*

(1) - 0.012 *[-0.0004]*
- 0.034 *[- 0.001]*

(2) - 0.114 *[+0.004]*
- 0.139 *[- 0.005]*



For torque arm mounting, use bearing support 6AD1. Both motor and customer shaft must be in axial contact (no axial play) and must have sealing between motor and customer shaft.

For chassis mounting, use bearing support 6AB1. An axial play must be ensured between motor and customer shaft.

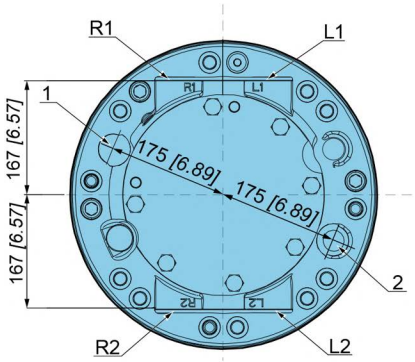
Consult your Poclain Hydraulics application engineer.

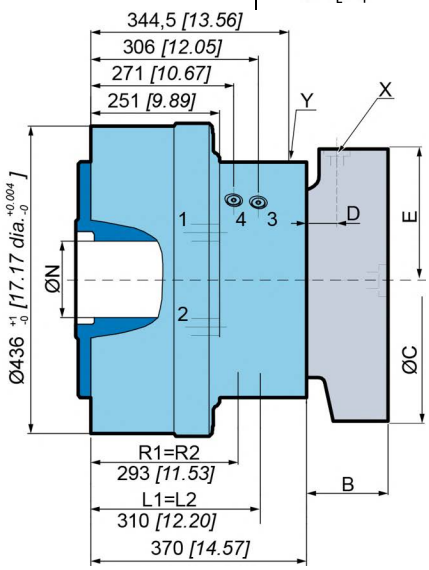
VALVING SYSTEMS AND HYDROBASES

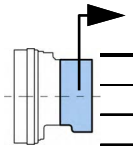
	C	D	F	P	S
	1	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5 6
	M S 1 2 5			1	Y

Dimensions for 1-displacement valving

	301 kg *[662 lb]*	399 kg *[878 lb]*
	4,50 L *[270 cu.in]*	4,00 L *[240 cu.in]*







C	T 8 0
B	189.0 *[7.44]*
C	Ø376 *[14.80 dia.]*
D	44.0 *[1.73]*
E	181.0 *[7.13]*

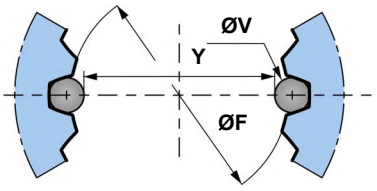
Also see “Brake” section (thumbnail opposite).

Cylinder block splines

(as per standard DIN 5480)

ØN	Module	Z	Dimension on 2 pins Y	ØV	ØF (1)	C
130 *[5,118]*	3	42	119,078 *[4,688]*	5,25 *[0,207]*	124,025 *[4,883]*	1

(1) +0,025 *[+0,001]*
+0,025 *[+0,001]*

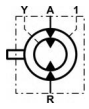
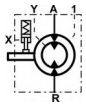


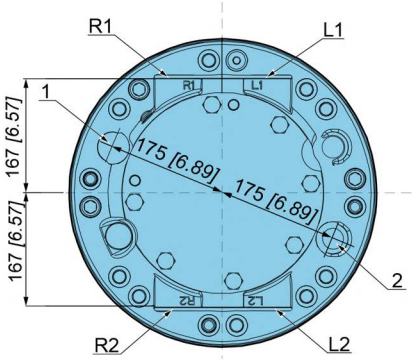
You are advised to have the installation validated by your Poclain Hydraulics application engineer before using the hydraulic unit in an application.

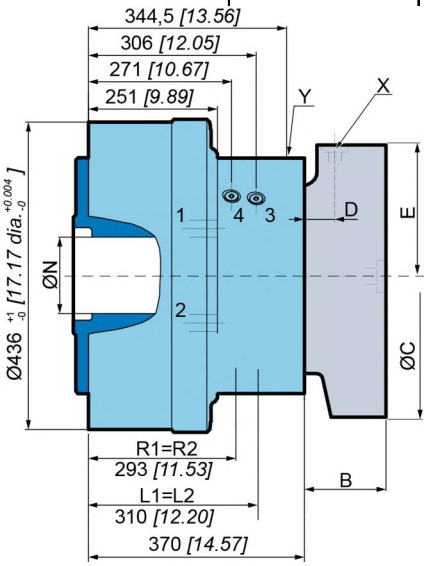
We must provide you with a detailed plan of the interface for any hydraulic unit use, consult your Poclain Hydraulics sales engineer.

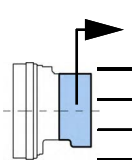
Dimensions for 2-displacement symetrical valving

For a small displacement, there is no preferred orientation for this motor.

	301 kg *[662 lb]*	399 kg *[878 lb]*
	4,50 L *[270 cu.in]*	4,00 L *[240 cu.in]*
		



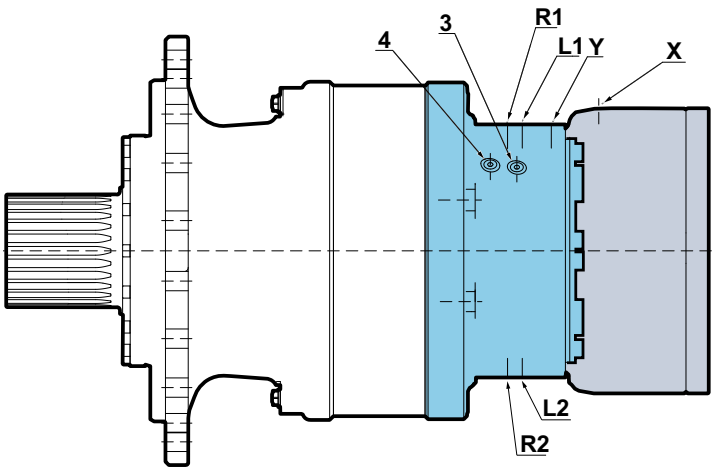




	T 8 0
B	189.0 *[7.44]*
C	Ø376 *[14.80 dia.]*
D	44.0 *[1.73]*
E	181.0 *[7.13]*

Also see “Brake” section (thumbnail opposite).

Hydraulic connections



M	S	1	2	5																			
					1		1	2	3		1	2	3		1	2	3	1		1	2	3	4	5	6
					C		D				F				P					S				

			Standards	Power supply	Case drain	2nd displacement control	Pressure measurement points	Control of parking brake
				R-L	1, 2		3,4	X
	J	Metric	ISO 9974-1	DN32 PN400	M27x2		M14x1.5	M18x1.5
	K	Gaz (BSPP)	ISO 1179-1		BSP 3/4		BSP 1/4	BSP 3/8
				R-A	1, 2	Y	3,4	X
	J	Metric	ISO 9974-1	DN32 PN400	M27x2	M18x1.5	M14x1.5	M18x1.5
	K	Gaz (BSPP)	ISO 1179-1		BSP 3/4	BSP 3/8	BSP 1/4	BSP 3/8
Max. pressure			MS bar *[PSI]*	450 *[6 527]*	1 *[15]*	30 *[435]*	450 *[6 527]*	30 *[435]*

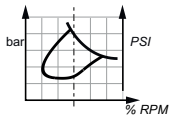
You are strongly advised to use the fluids specified in brochure "Installation guide" N° B59689D.

To find the connections' tightening torques, see the brochure "Installation guide" N° B59689D.

Efficiency

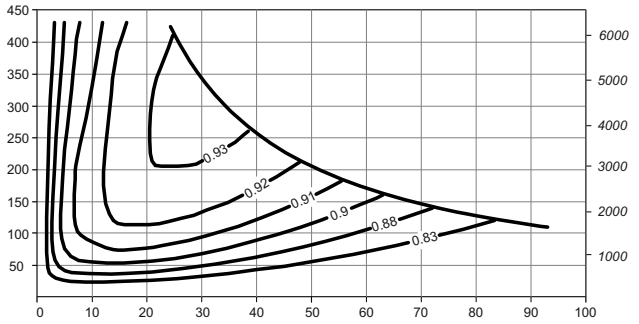
Overall efficiency

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

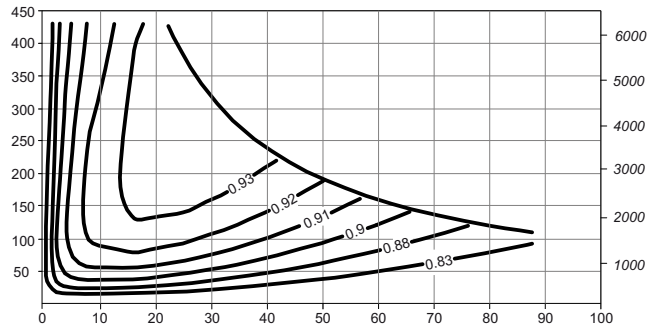


	C	D		F			P				S					
	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
MS125	□	□	□	□	□	□	□	□	□	□	1	Y	□	□	□	□	□

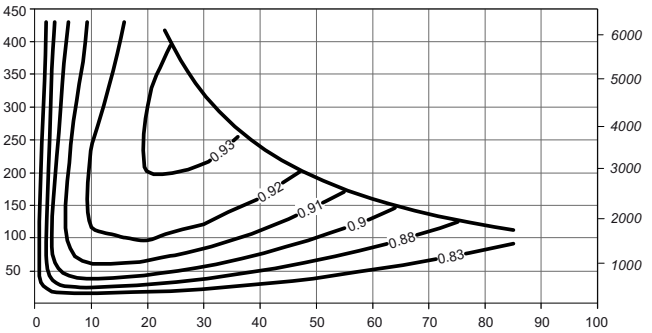
8



0



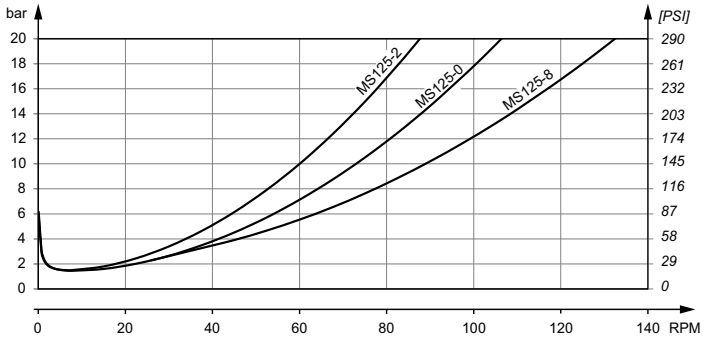
2



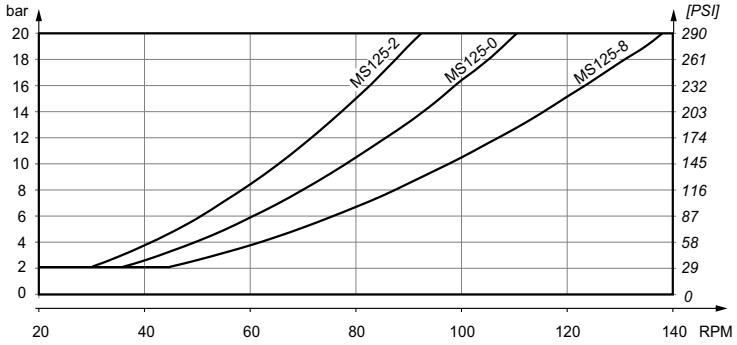
For a precise calculation, consult your Poclain Hydraulics application engineer.

Pressure drop and charge pressure

Pressure drop (With HV46 hydraulic fluid at 50 °C *[122 °F],*oil viscosity 30 cSt)



Charge pressure (With HV46 hydraulic fluid at 50 °C *[122 °F],*oil viscosity 30 cSt)

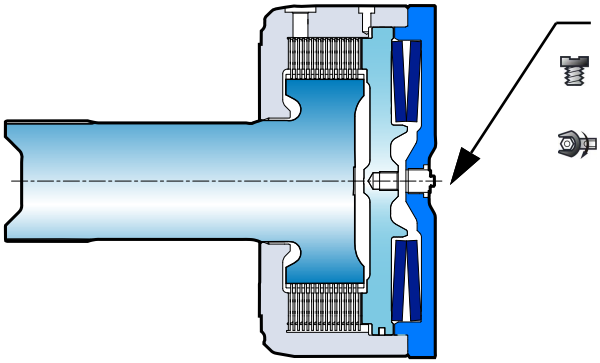


Pressure drop and charge pressure curves are corresponding to 1st displacement motor.

BRAKES

Rear brake

	C	D	F	P	S
	1	1 2 3	1 2 3	1 2 3 4	1 2 3 4 5 6
M S 1 2 5			T 8 0	1	Y



Brake principle
This is a multidisc brake which functions through the absence of pressure. The spring exerts a force on the piston, which acts on the fixed and mobile discs, and thus immobilizes the shaft. The braking torque decreases in linear proportion to the brake release pressure.

C T 8 0

Parking brake information	
Parking brake torque at 0 bars on housing (new brake)	72 000 Nm *[53 100 lb.ft]*
Dynamic emergency braking torque at 0 bars on housing (max. 10 uses of emergency brakes)	62 400 Nm *[46 020 lb.ft]*
Residual parking braking at 0 bars on housing (After emergency brake has been used)	54 000 Nm *[39 830 lb.ft]*
Min. brake release pressure	20 bar *[290 PSI]*
Max. brake release pressure	30 bar *[435 PSI]*
Oil capacity	450 cm³ *[27,5 cu.in]*
Volume for brake release	135 cm³ *[8,2 cu.in]*

Dynamic brake information
T80 negative brake, along with option R, can be also used as dynamic brake under specific conditions. See page 29 for more information.

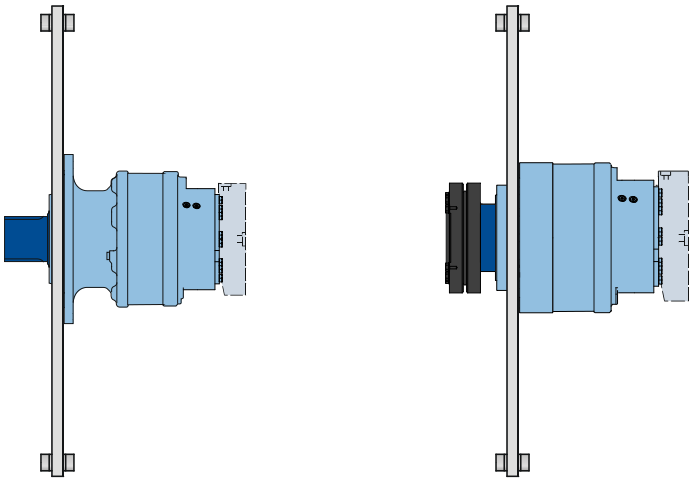
Do not run-in the multidisc brakes.

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 Poclain Hydraulics application engineer.

INSTALLATION

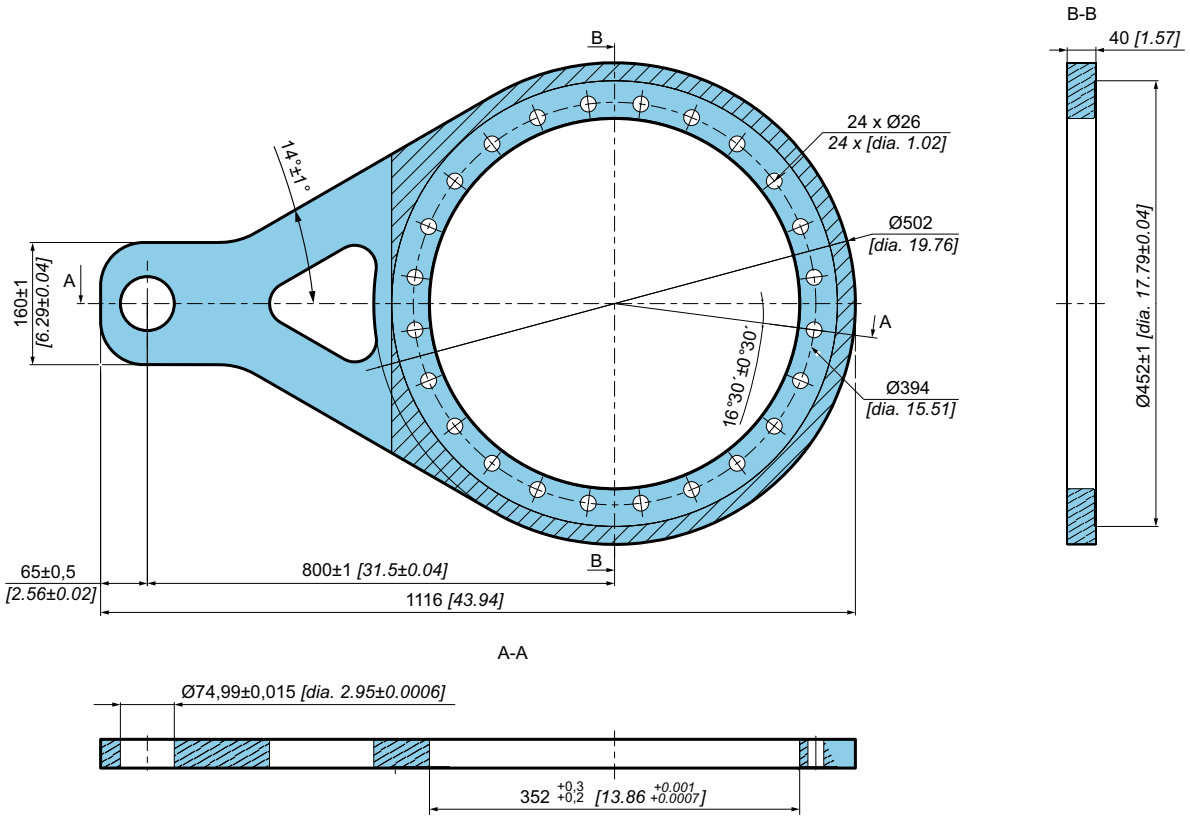
Torque arm mounting

We recommend a length of the torque arm of 800 mm *[31.5 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.



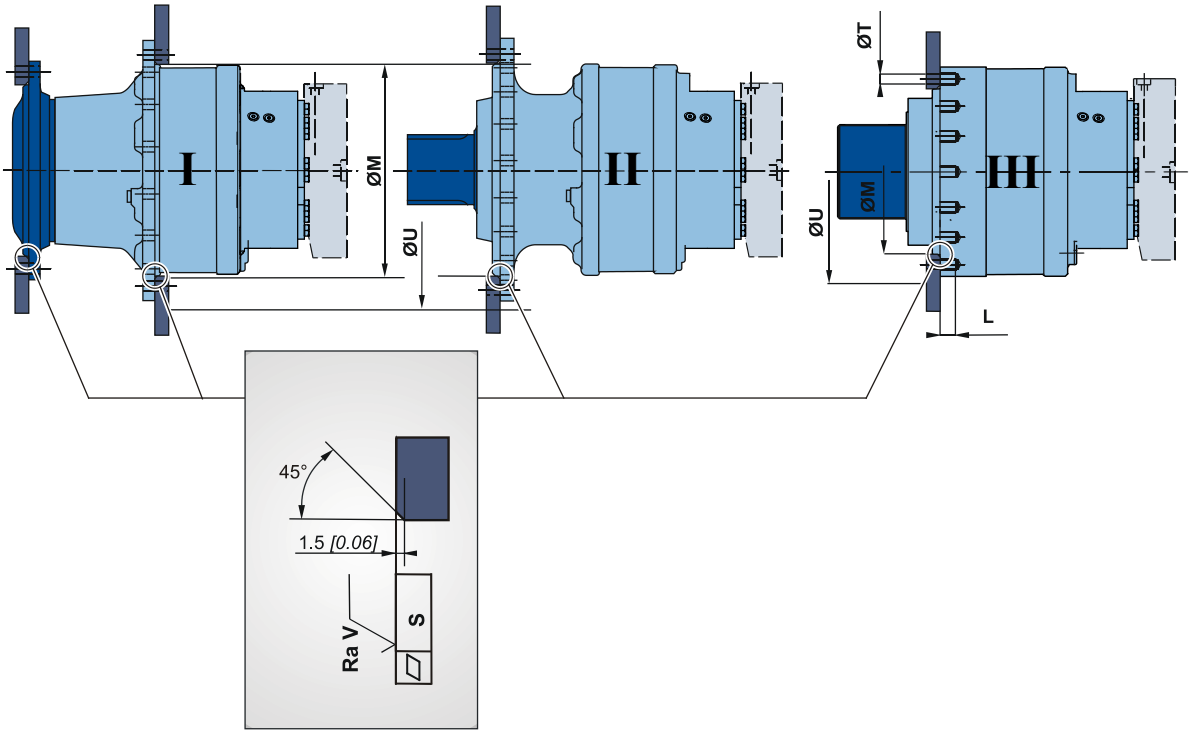
Recommended torque arm design

Torque arm can be supplied by Poclain Hydraulics. It must be ordered separately.



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

Chassis mountings



Take care over the immediate environment of the connections.

	ØM (1) mm [in]	ØU mm [in]	ØT mm [in]	L mm [in]	S mm [in]	Ra V µm [µin]		Class
I	450 [17.72]	565 [22.24]	-	-	0.2 [0.008]	12.5 [0.49]	16 x M24	12.9
II							20 x M24	
III	352 [13.86]	446 [17.56]	25.5 [1.004]	35 [1.378]			16 x M20	

(1) +0.3 [+0.012]
+0.2 [+0.008]

OPTIONS

	C	D		F		P			S					
	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
M S 1 2 5											1	Y					

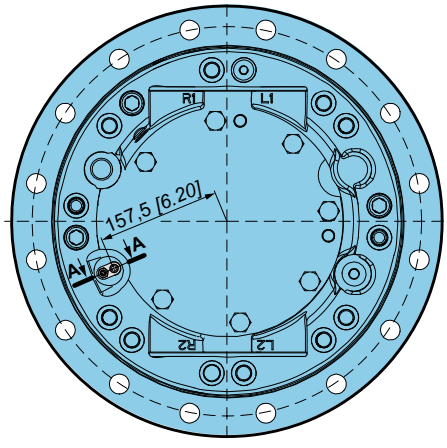
You can accumulate more than one optional part. Consult your Poclain Hydraulics sales engineer.

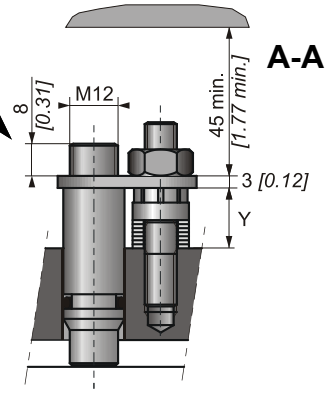
Y - Standard option

Designation	C
Predisposition for speed sensor	
Adittional drain on valving system	Y
High speed/Low pressure drop (Butterfly valving)	

2 - S - Q Installed speed sensor

Designation	C
T4 Speed sensor (without rotation direction)	2
TR Speed sensor (digital rotation direction)	S
TD speed sensor (two phase shifted frequencies)	Q





Max. length Y= 14.8

Standard number of pulses per revolution= 60

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.

6 - Industrial support

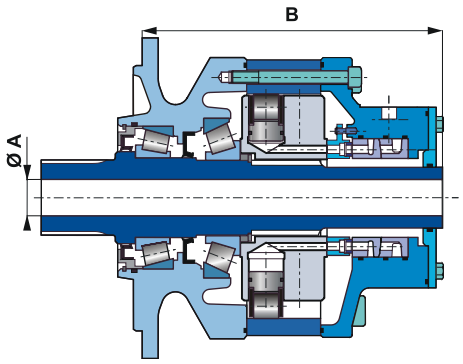
Reduction of around 50% from the rated value in the bearings' preload value.

For a precise calculation, consult your Poclain Hydraulics application 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.

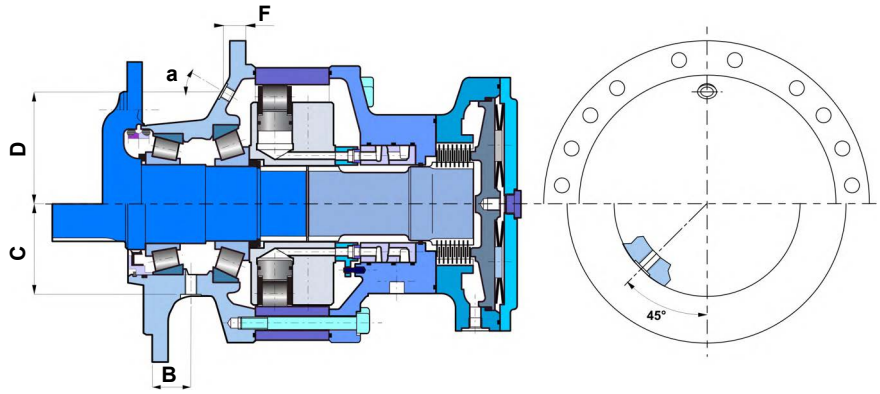
A - Hollow shaft



A mm *[in]*	B mm *[in]*
Ø 75 *[2.95 dia.]*	634 *[24.97]*

Radial load x 0.75
No torque transmittable to the rear

B - Drain on the bearing support



		B mm *[in]*	C mm *[in]*	D mm *[in]*	F mm *[in]*	a
Shaft motor	M27 x 2	-	-	173 *[6.81]*	40 *[1.57]*	36°
Wheel motor		70 *[2.76]*	185 *[7.28]*	-	-	

D - Special paint or no paint

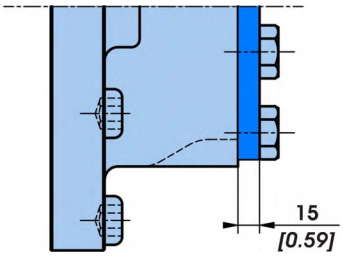
The motors are delivered with Poclain Hydraulics yellow ochre primer as standard.

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

E - Reinforced sealing

Requires reinforced seals and, for an unbraked motor, a rear reinforced plate (**R83** - 15 *[0.594]* thick, instead of 6 *[0.237]*).

	C	D		F			P				S					
	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
MS125					R	8	3				1	Y	E				



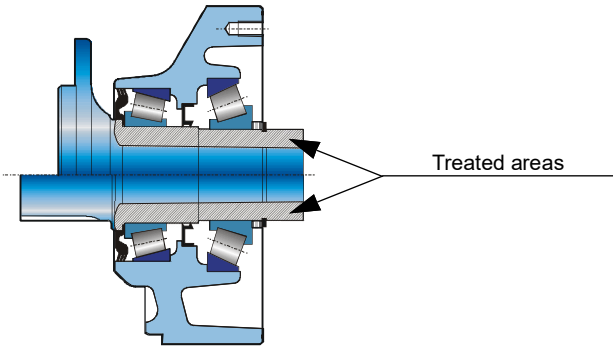
G - Special wheel rim mounting

Enables certain combinations different from the standard mountings defined on page 10.

Consult your Poclain Hydraulics sales engineer.

J - Treated shaft

Heat treatment on the indicated bearing radius and splines.

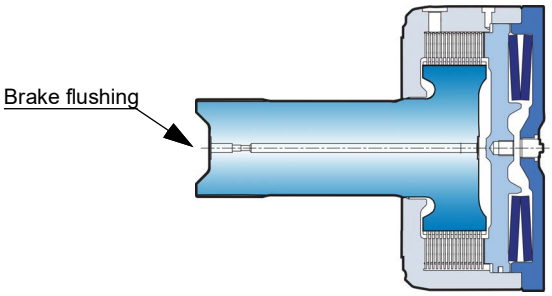


W - Grip washer

Mandatory for T80 brake (page 23).

R - Brake flushing

T80 negative brake, along with option R for brake flushing, can be used as dynamic brake under specific conditions.



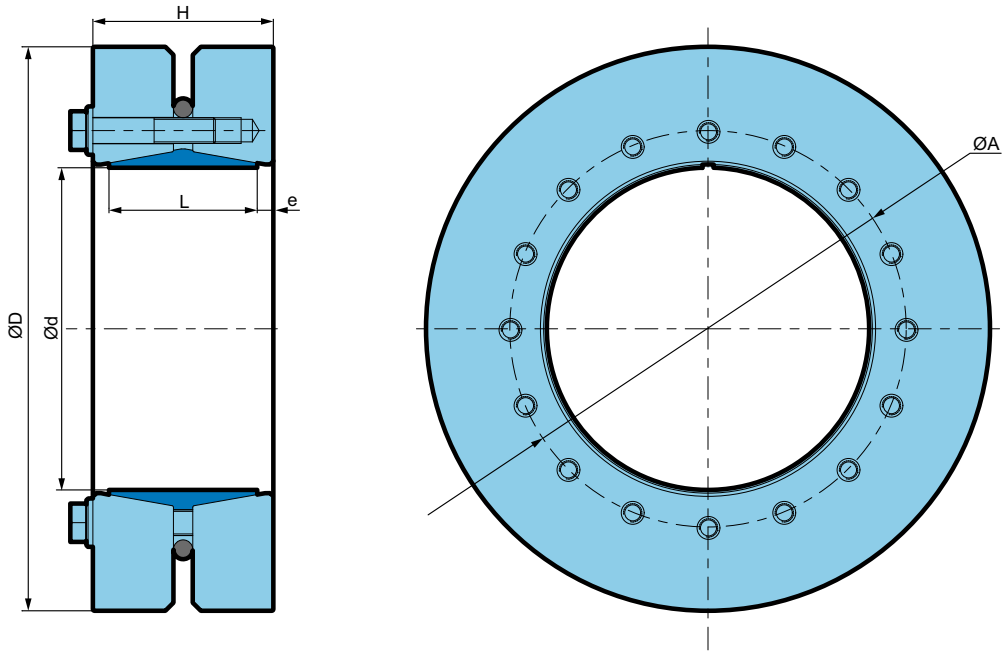
Min. internal irrigation flow rate (at 20 bar brake release pressure)	1,7 L/min *[0,45 gal/min]*
Max. internal irrigation flow rate (at 30 bar brake release pressure)	3,1 L/min *[0,82 gal/min]*

Consult your Poclain Hydraulics application engineer.

ACCESSORIES

Shrink disc

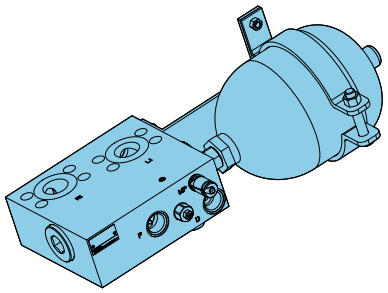
Shrink disc can be suplied for motor MS125 using bearing support 6AL1 / 6DL1.



d mm *[in]*	D mm *[in]*	H mm *[in]*	L mm *[in]*	e mm *[in]*	A mm *[in]*		Mt-max Nm *[lbf]*	kg *[lbs]*
200 *[7,87]*	350 *[13,78]*	112 *[4,41]*	92 *[3,62]*	10 *[0,39]*	246 *[9,69]*	15x M16x80	110 000 *[81 100]*	51 *[112]*

Anticavitation valve (VAC)

- **Flanged on MS125 flat ports**
- **Protect motor against cavitation risk**
- **Available with two positions of accumulator**

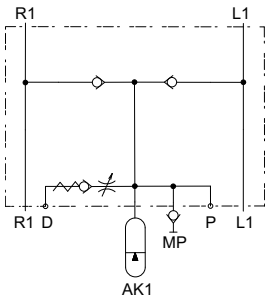


Description

This valve, which is directly flanged on the MS125, will offer enhanced protection of the motor against possible cavitation during operation, by ensuring sufficient back pressure on the motor (additional flow provided by the accumulator).

Accumulator only available in 0° position.

Hydraulic symbol



Features

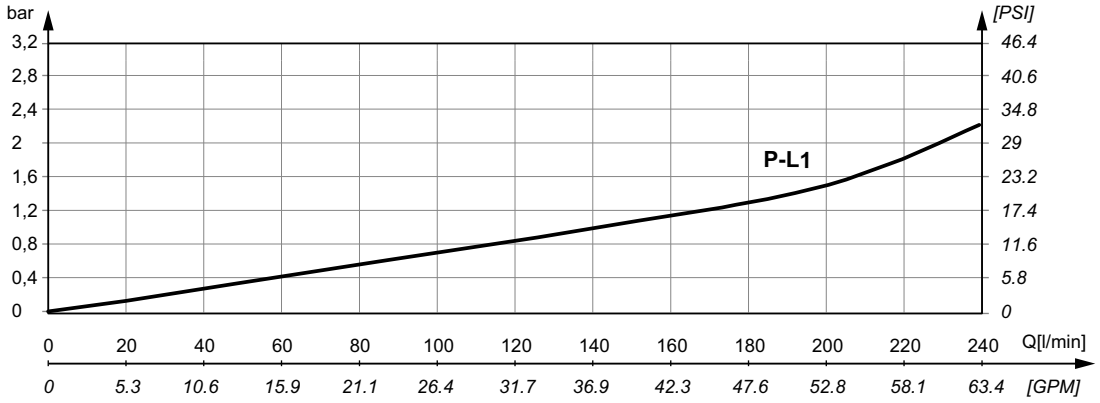
Max. pressure	bar *[PSI]*	450 *[6 526]*
Fluid viscosity	mm²/s *[ssu]*	15 to 380 *[69.5 to 1 760]*
Required fluid filtration	ISO 4406	18/16/13
Surface protection	DIN 50979	Fe/ZN8/Cn/T2

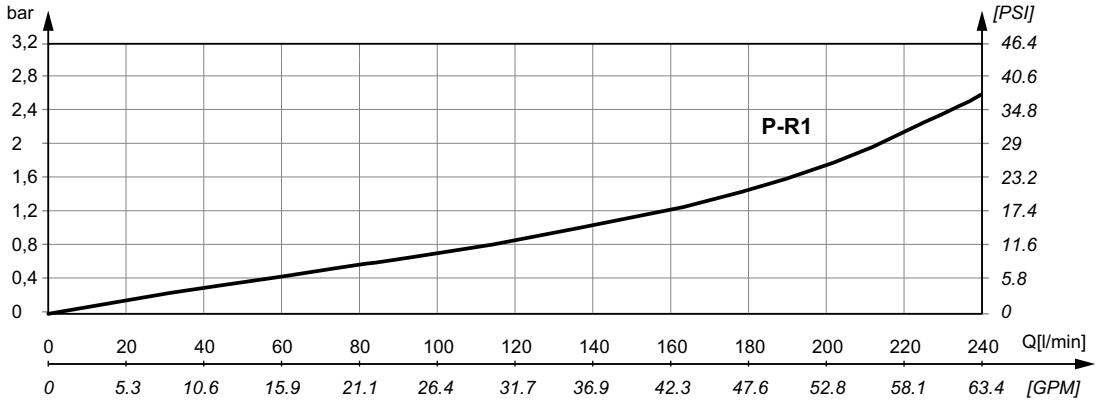
Accumulator		
Precharge pressure	bar *[PSI]*	12 *[174]*
Volume	l *[GPM]*	2 *[0.53]*

Hydraulic connections

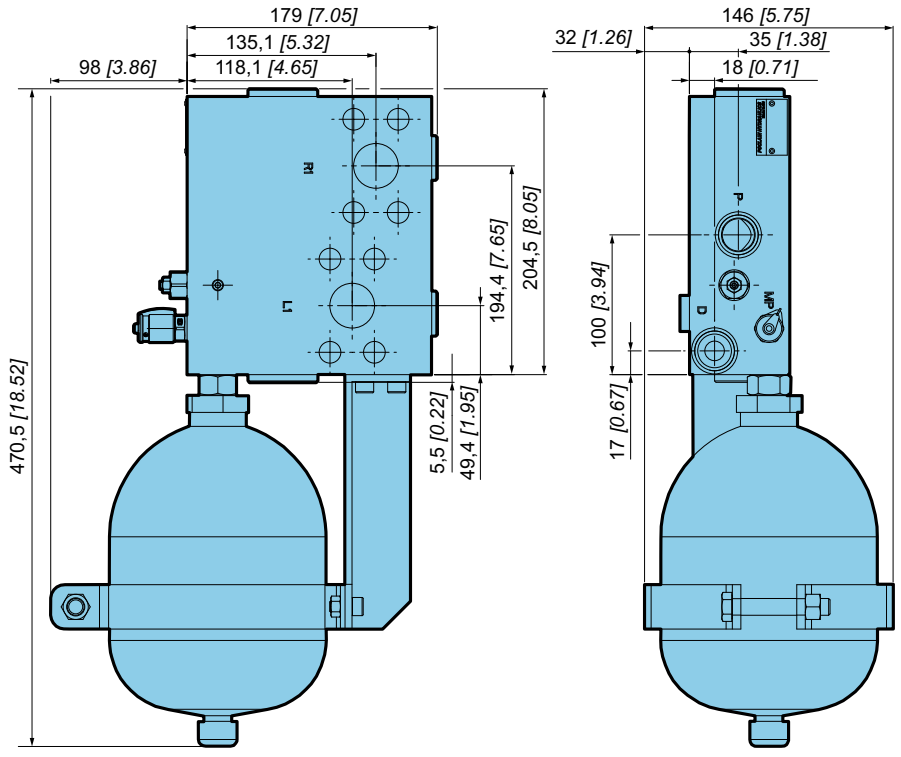
Port	**Function**	**Connections**		**Max. pressure** bar *[PSI]*
		GAZ ISO 1179-1	ISO 6162-2	
P	Pressure line	G3/4	-	30 *[435]*
D	Drain			30 *[435]*
L1	Motor line - L1	-	PN400 DN32	450 *[6 526]*
R1	Motor line - R1			450 *[6 526]*

Pressure drop





Dimensions



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Hydraulics

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08/09/2026
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