YEOSHE

P-MS83

Hydraulic Motors



www.yeoshehydraulic.com

Efficient Performance

Innovative Technology

Reliable Quality and Service

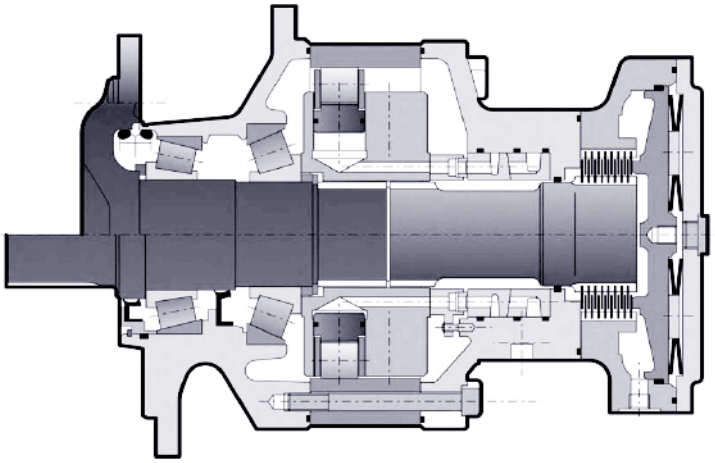
YEOSHE HYDRAULICS CO.,LTD.

Characteristics



- **P-MS83 Max. pressure**

Cams with equal lobes	450 bar *[6,527 PSI]*
Cams with unequal lobes	450 bar *[6,527 PSI]*



C			Cams with equal lobes			Cams with unequal lobes			
			8	0	2	Q		A	
1	cm³/tr *[cu.in/rev.]*		6,679 *[407.4]*	8,328 *[507.9]*	10,019 *[611.1]*	6,658 *[406.1]*		8,349 *[509.2]*	
2	cm³/tr *[cu.in/rev.]*		3,340 *[203.7]*	4,164 *[254.0]*	5,010 *[305.5]*	4,164 *[254.0]*	2,494 *[152.1]*	5,009 *[305.5]*	3,340 *[203.7]*
Theoretical torque 1	at 100 bar	Nm	10,620	13,242	15,930	10,586		13,275	
	at 1000 PSI	*[lb.ft]*	*[5,400]*	*[6,734]*	*[8,101]*	*[5,383]*		*[6,751]*	
Max. power * 1	kW	*[HP]*	200 *[268]*			200 *[268]*			
Max. power * 2	kW	*[HP]*	135 *[181]*			135 *[181]*			
Max. speed *[RPM]* 1			200	160	130	180		150	
Max. speed *[RPM]* 2	speed	1C	125	100	85	90		100	
	speed	2C	145	125	100	105		110	

1 First displacement
2 Second displacement

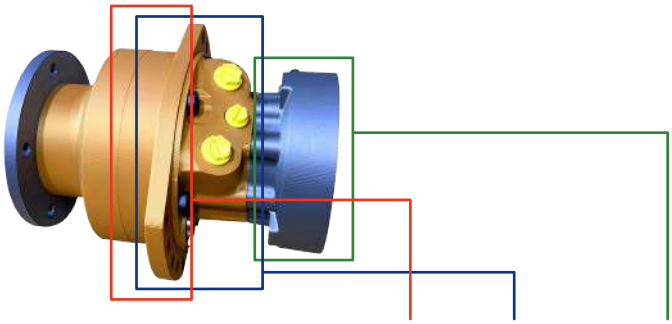
Motor inertia = 2 kg.m²

* For higher power value, please consult YEOSHE.

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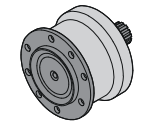
YEOSHE

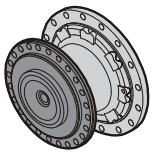
Modularity

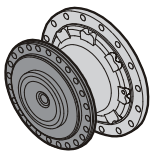


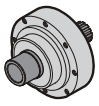
	C	D			F			P				S					
C	1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
C	P-M	S	8	3							0						

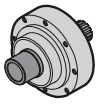
Bearing supports

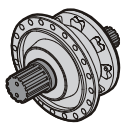


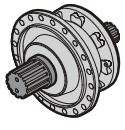




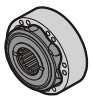




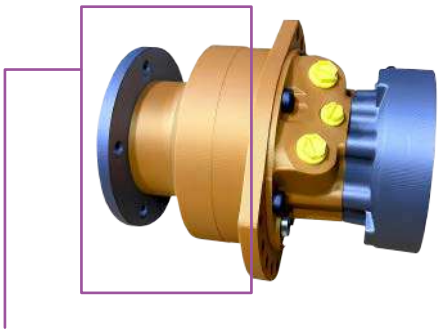




Torque module



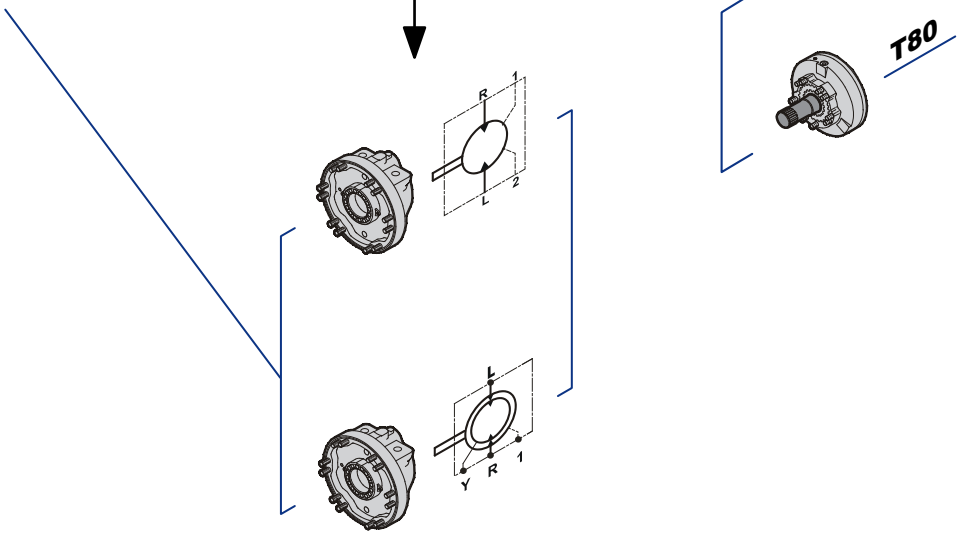
Modularity



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

Valving systems

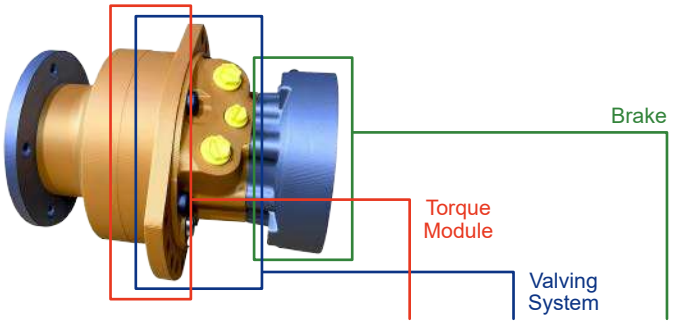
Brakes



Hydrobases

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Modelcode



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

Cam ring type

		① cm³/tr [cu.in/rev.]	②	
C1	Cams with equal lobes	6,679 *[407.4]*	3,340 *[203.7]*	8
		8,328 *[507.9]*	4,164 *[254.0]*	0
		10,019 *[611.1]*	5,010 *[305.5]*	2
	Cams with unequal lobes	6,658 *[406.1]*	4,164 *[254.0]*	Q
			2,494 *[152.1]*	
		8,349 *[509.2]*	5,009 *[305.5]*	A
			3,340 *[203.7]*	

① 1 displacement
② 2 displacements

Valving cover

D2	HighFlow distribution	Without mounting	B
		Lug fixing	C

Connection type

D3	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

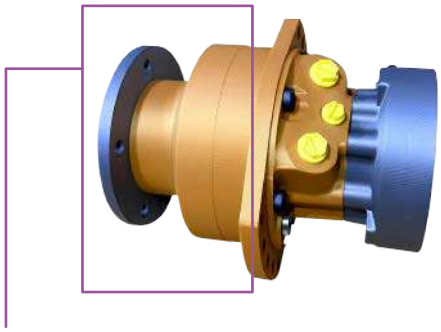
Valving type

D1	1-displacement valving		1
	2-displacement symmetrical valving	Ratio 2	A
		Ratio < 2	B
		Ratio > 2	C

Rear brake

F1 ~ F3	Brake (screwed environmental cover)	T80
	Without brake (reinforced plate)	R83

Modelcode



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

Front unit

P1	Without bearing support	0
	Without mounting	1
	Flange on shaft side	3
	Flange on cam side	4
	Torque motor	6

Bearing support

P2	Without shaft	0
	Long bearing support ; 24 x Ø26 on Ø425	1
	Short bearing support ; 24 x Ø26 on Ø425	3
	Bearing support for male shaft	4

Shaft Specifications

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 disks (if P2 = A)	
	Female shafts for shrink disks	L

Standard

S1	Without Options or Adaptations	0
	Fluorinated elastomer seals	1
	T4 Speed sensor installed	2

Options

S2 ~ S6	Without options or adaptations	0
	T4 speed sensor installed	2
	TR speed sensor installed	S
	TD speed sensor installed	Q
	Industrial bearing support	6
	Diamond	7
	Hollow shaft	A
	Drain on the bearing support	B
	Special paint or no paint	D
	Reinforced sealing	E
	Special wheel rim mounting	G
	Surface heat treatment of the shaft	J
	Grip washer (when using T80)	W
	Brake flushing	R

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Methodology

This document is intended for manufacturers of machines that incorporate Hydraulics products. It describes the technical characteristics of products and specifies installation conditions that will ensure optimum operation.
This document includes important comments concerning safety. They are indicated in the following way :

Important notes and warnings are indicated

Safety comment.

This document also includes essential operating instructions for the product and general information.

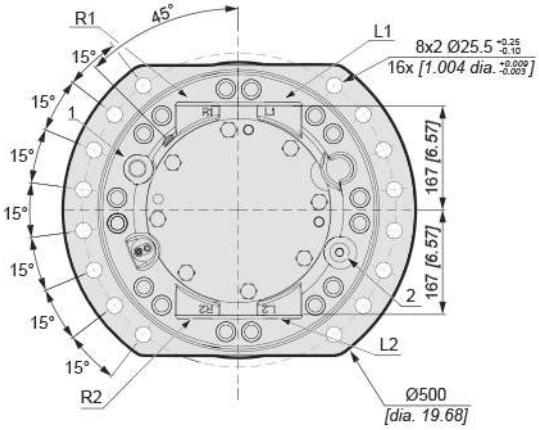
Expressed as follows

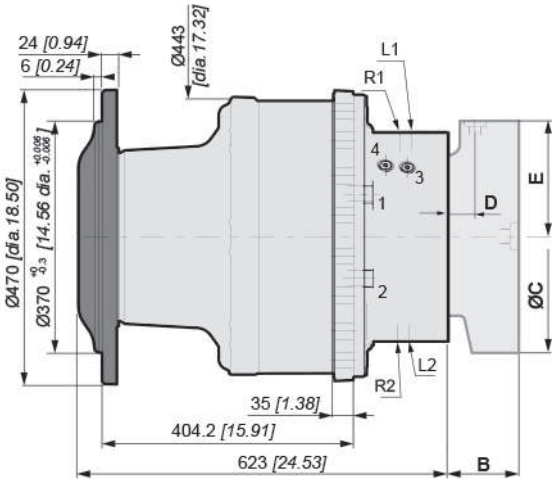
- Essential instructions.
- General information.
- Information on the model number.
- Weight of component without oil.
- Volume of oil.
- Units.
- Tightening torque.
- Screws.
- Information intended for personnel.

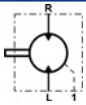
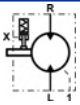
The views in this document are created using metric standards.
The dimensional data is given in mm and in inches (inches are given in brackets in italics).

Wheel Motor

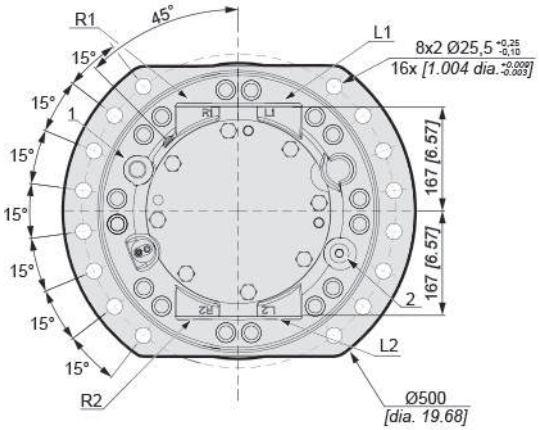
Dimensions for standard (1310) 1-displacement motor

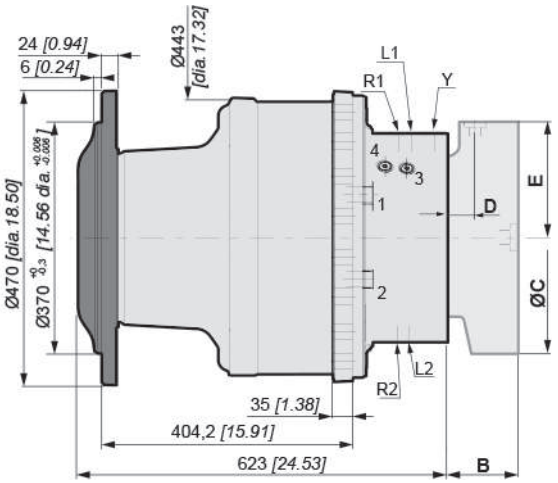


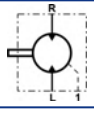
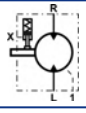


KG	450 kg *[990 lb]*	610 kg *[1,342 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

Dimensions for standard (1310) 2-displacement motor

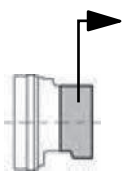




KG	450 kg *[990 lb]*	610 kg *[1,342 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

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

Also see "Brake" section (thumbnail opposite).



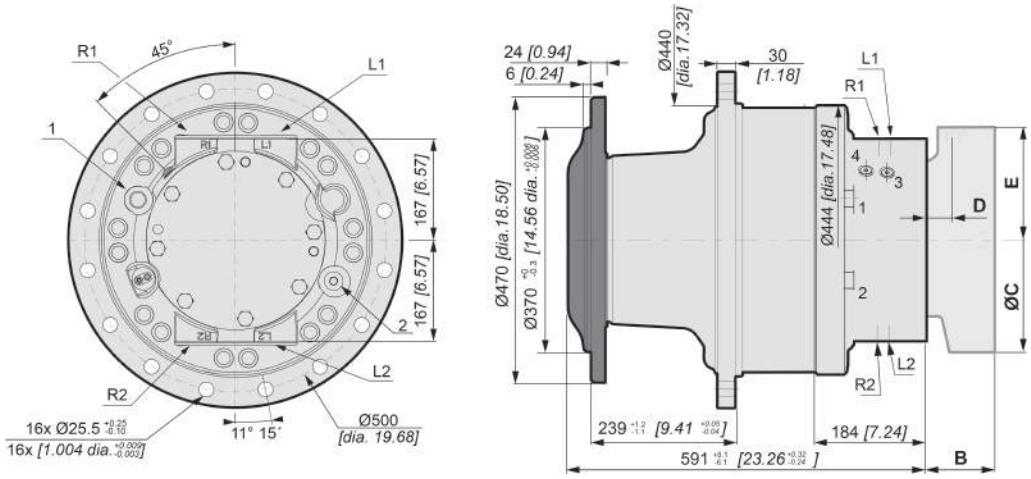
C	T 8 0
B	189.0 *[7.44]*
C	Ø376 *[14.80 dia.]*
D	44.0 *[1.73]*
E	181.0 *[7.13]*

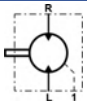
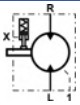
For speed ≥ 90 rpm, the bearing support must be flushed : motor must be ordered with drain on the bearing support (option B).

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Wheel Motor

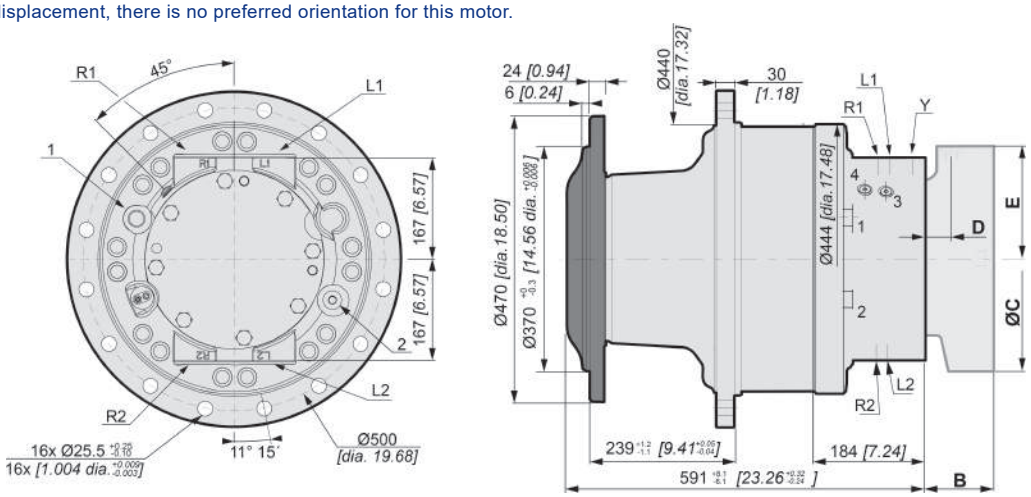
Dimensions for standard (4310) 1-displacement motor



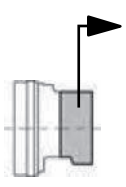
KG	450 kg *[990 lb]*	600 kg *[1,320 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

Dimensions for standard (4310) 2-displacement motor

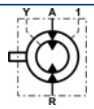
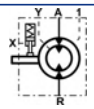
For a small displacement, there is no preferred orientation for this motor.



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



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

KG	450 kg *[990 lb]*	600 kg *[1,320 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

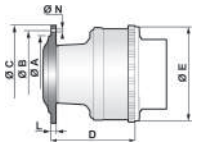
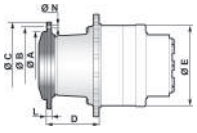
Also see "Brake" section (thumbnail opposite).

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

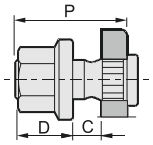
Wheel Motor

Support types

				C	D			F			P				S					
				1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
P-M	S	8	3											0	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]*	
P 1 2 3 4 = 1 3 1 0	Ø 370 *[14.57 dia.]*	Ø 425 *[16.73 dia.]*	Ø 470 *[18.50 dia.]*	404.2 *[15.91]*	Ø 444 *[17.48 dia.]*	Ø 26 *[1.02 dia.]*	24 x M24x 2	24 *[0.94]*	
P 1 2 3 4 = 4 2 1 0	Ø 370 *[14.57 dia.]*	Ø 425 *[16.73 dia.]*	Ø 470 *[18.50 dia.]*	284 *[11.18]*	Ø 444 *[17.48 dia.]*	Ø 26 *[1.02 dia.]*	12 x M24x 2	24 *[0.94]*	
P 1 2 3 4 = 4 3 1 0	Ø 370 *[14.57 dia.]*	Ø 425 *[16.73 dia.]*	Ø 470 *[18.50 dia.]*	239 *[9.41]*	Ø 444 *[17.48 dia.]*	Ø 26 *[1.02 dia.]*	12 x M24x 2	24 *[0.94]*	

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	-	-	-	-	12.9

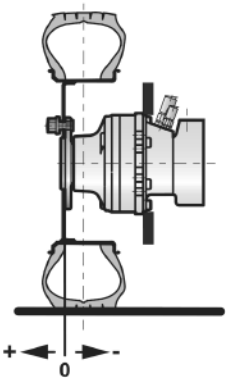
See generic installation motors N°B51352L.

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Wheel Motor

Radial load and service life of bearings curves

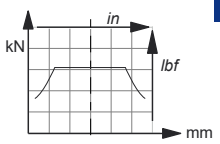
The service life of the components is influenced by the pressure.You must check that the combination of forces applied (Axial load / Radial load) is compatible with the permissible loads for the components, and that the resulting service lives of these components complies with the application's specifications.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



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]*.

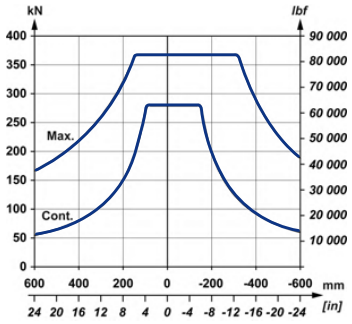


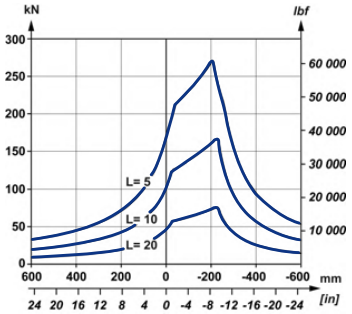
Service life of bearings

L : Millions B10 revolutions at 150 bars (average pressure), with 25 cSt fluid.

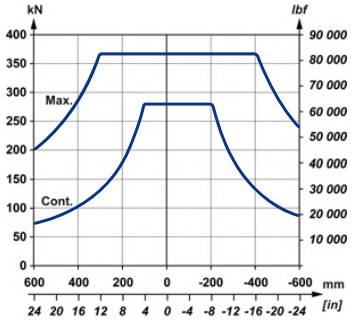
Test conditions : code 0 displacement, without axial load, shaft treated (option J), class 10.9 and 12.9 chassis mountings class 12.9 wheel rim mountings.

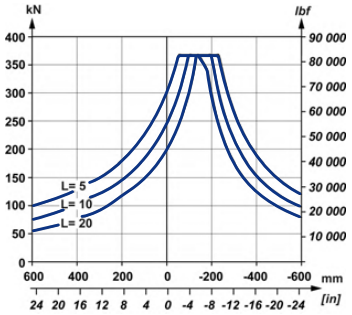
P			
1	2	3	4
1	**3**	**1**	**0**
4	**3**	**1**	**0**





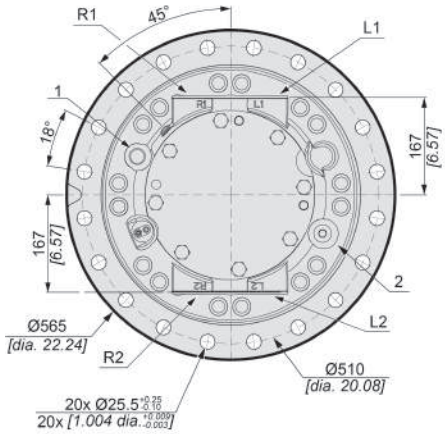
P			
1	2	3	4
4	**2**	**1**	**0**

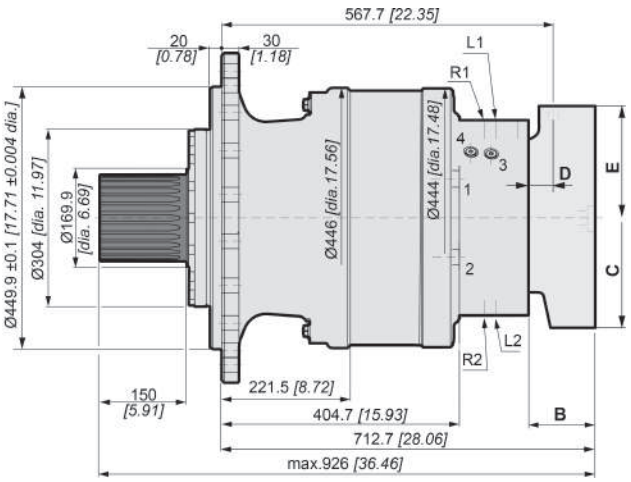


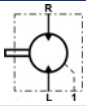
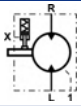


Shaft Motor

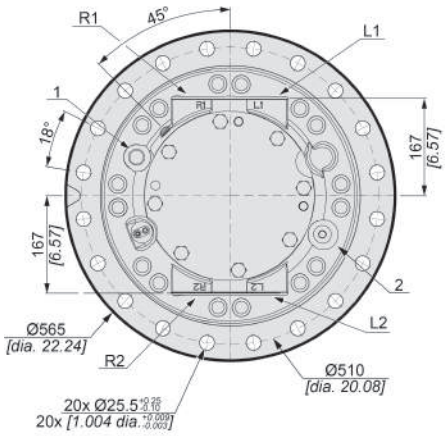
Dimensions for standard (3A50) 1-displacement motor

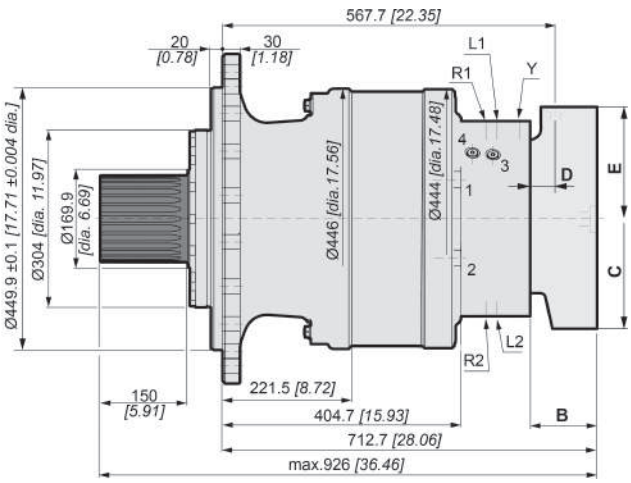




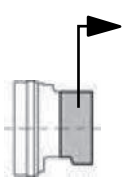
KG	435 kg *[957 lb]*	585 kg *[1,287 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

Dimensions for standard (3A50) 2-displacement motor

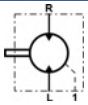
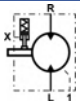




Also see 'Valving systems and hydrobases' section (thumbnail opposite).



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

KG	435 kg *[957 lb]*	585 kg *[1,287 lb]*
	11 L *[660 cu.in]*	9 L *[540 cu.in]*
		

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).

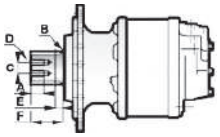
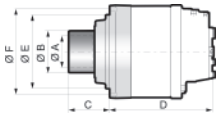
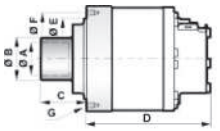
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Shaft Motor

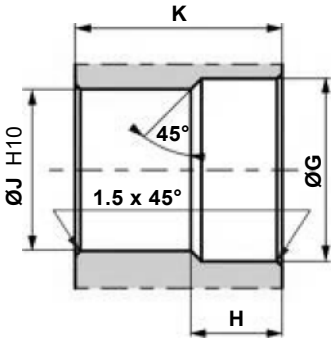
YEOSHE

Support types

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

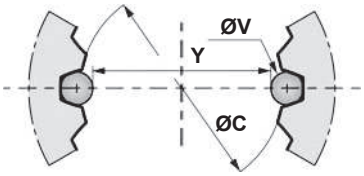
C		A mm [in]	B mm [in]	C mm [in]	D mm [in]	E mm [in]	F mm [in]	G mm [in]	
P 1 2 3 4 = 3 A 1 0	**NF E22-141** splines Nominal Ø 150 [5.91] Module 3.75 Z 38	40 [1.57]	R 4 [R 0.16]	60 [2.36]	2 x M16	31 [1.22]	150 [5.91]	-	
P 1 2 3 4 = 3 A 5 0	**DIN 5480** splines Nominal Ø 150 [5.91] Module 5 Z 28	40 [1.57]	R 4 [R 0.16]	60 [2.36]	2 x M16	32 [1.26]	150 [5.91]	-	
P 1 2 3 4 = 6 A L 0		Ø 140 [5.51 dia.]	Ø 185 [7.28 dia.]	230 [9.06]	426 [16.77]	Ø 340 [13.39 dia.]	Ø 380 [14.96 dia.]	2 x M16	
P 1 2 3 4 = 6 A B 0	**DIN 5480** splines Nominal Ø 150 [5.91] Module 5 Z 26	Ø 142 [5.59 dia.]	Ø 199 [7.83 dia.]	190 [7.48]	432 [17.01]	Ø 340 [13.39 dia.]	Ø 380 [14.96 dia.]	2 x M16	
P 1 2 3 4 = 6 A D 0	**NF E22-141** splines Nominal Ø 150 [5.91] Module 5 Z 26	Ø 142 [5.59 dia.]	Ø 199 [7.83 dia.]	190 [7.48]	438 [17.24]	Ø 340 [13.39 dia.]	Ø 380 [14.96 dia.]	2 x M16	

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	H	Ø J	K	N	Mo	Z	Offset	Ø C (H10)	Ø V	Y	Tolerance µm [µin]
P 1 2 3 4 = 3 A 1 0	151 [5.94]	32 [1.26]	142.5 [5.61]	149 [5.87]	150 [5.91]	3.75	38	3 [0.12]	142.5 [5.61]	7.5 [0.30]	135.254 [5.32]	+104 / 0 [+4.094 / 0]
P 1 2 3 4 = 3 A 5 0	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]

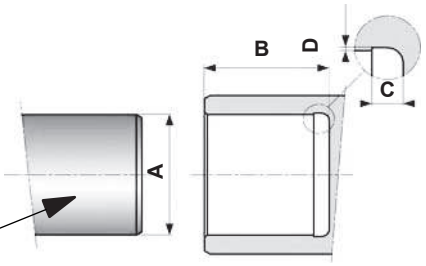
General tolerances : ± 0.25 *[±0.0098]*.
Material : Ex : 42CrMo4.
Hardening treatment to obtain R = 800 to 900 N/mm² *[R = 116 030 to 130 533 PSI]*.

Shaft Motor

Coupling for shrink discs

C	A mm *[in]*	B mm *[in]*	C mm *[in]*	D mm *[in]*
6 A L 0	Ø 140 *[5.51 dia.]*	140 *[5.51]*	10 *[0.394]*	0.5 *[0.0197]*

R min. :
640 N/mm² [132,800 PSI]

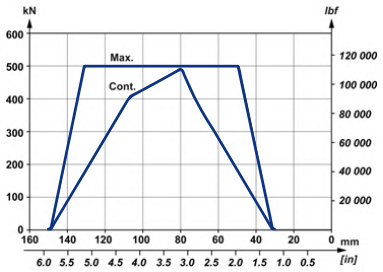


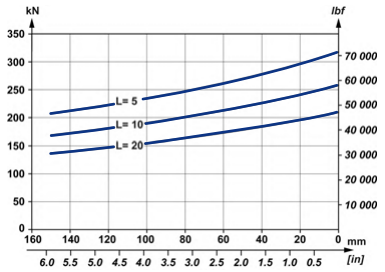
Radial load and service life of bearings curves

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]*.	

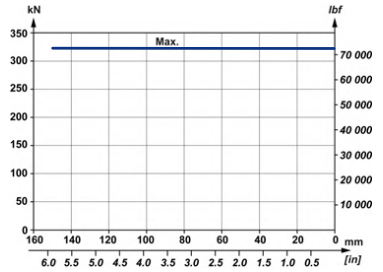
Test conditions : code 0 displacement, without axial load, shaft treated (option J), class 10.9 and 12.9 chassis mountings.

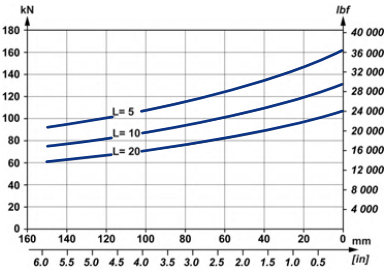
P			
1	2	3	4
3	A	1	0
3	A	5	0





P			
1	2	3	4
6	A	L	0
6	A	B	0
6	A	D	0







C	G mm *[in]*
3 A 1 0	151 *[5.94]*
3 A 5 0	151 *[5.94]*
6 D L 0	65.75 *[2.589]*
6 A B 0	65.75 *[2.589]*
6 A D 0	65.75 *[2.589]*

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 YEOSHE.

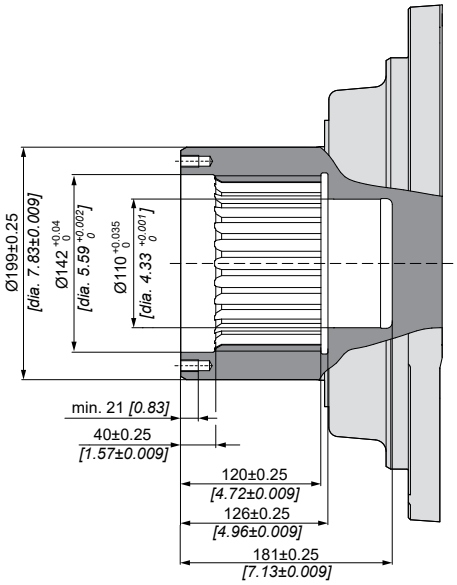
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Shaft Motor

Coupling for female splines

				C	D			F			P				S					
				1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
P-M	S	8	3								6	A	B	0	Y					
											6	A	D	0						

Splined DIN 5480
Pressure angle : 30°
Nominal diameter : 140
Number of Teeth : 26
Modulus : 5
Tolerance class : 8

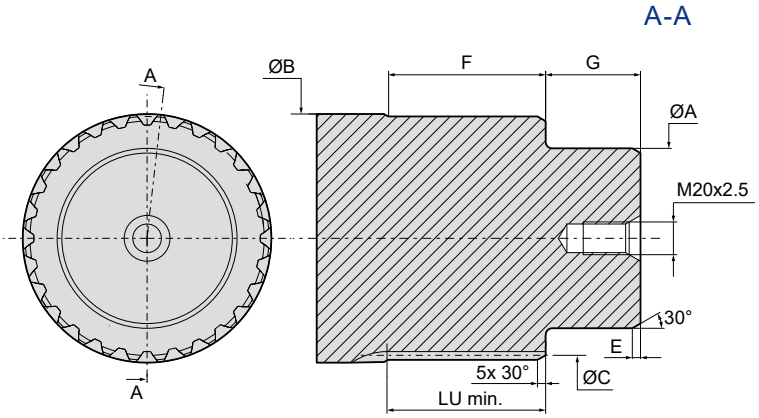


Dimensions for standard (2A50) 2-displacement motor

	Torque arm motor	Flange mountedmotor
A (1)	Ø110 *[4.33 dia.]*	Ø110 *[4.33 dia.]*
B (2)	Ø142 *[5.59 dia.]*	Ø142 *[5.59 dia.]*
C	DIN 5480 W140 x 5 x 30 x 26 x 8f	
E	10.0 *[0.39]*	5.0 *[0.20]*
F	88.0 *[3.46]*	88.0 *[3.46]*
G	58.0 *[2.28]*	55.0 *[2.17]*
LU	89.0 *[3.50]*	89.0 *[3.50]*

(1) -0.01 *[-0.0004]*
-0.03 *[- 0.001]*

(2) -0.11 *[+0.004]*
-0.13 *[- 0.005]*



For torque arm mounting, use bearing support 6AD0. Both motor and customer shaft must be in axial contact (no axial play) and must have sealing between motor and customer shaft.

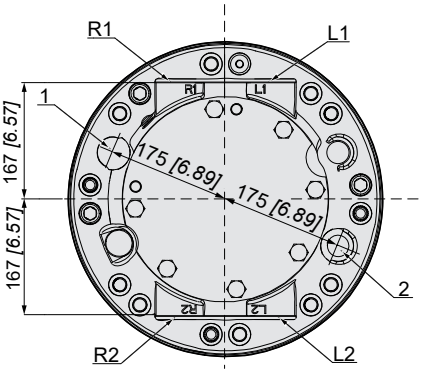
For chassis mounting, use bearing support 6AB0. An axial play must be ensured between motor and customer shaft.

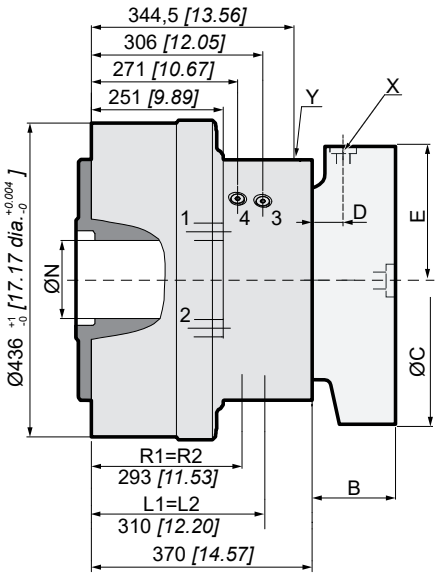
Consult YEOSHE application engineer.

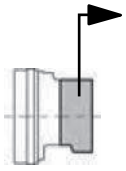
Valving Systems and Hydrobases

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

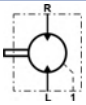
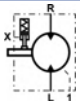
Dimensions for 1-displacement valving







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

KG	301 kg *[662 lb]*	399 kg *[878 lb]*
	4.5 L *[270 cu.in]*	4 L *[240 cu.in]*
		

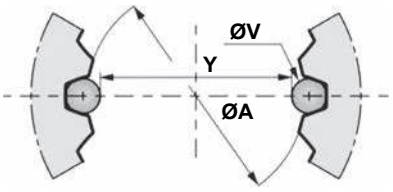
Also see “Brake” section.
(thumbnail opposite)

Cylinder block splines

(as per standard NF E22-141)

Dimension on 2 pins

ØN	Module	Z	Y	ØV	ØF	
120 *[4.724]*	3.75	30	105.253 *[4.144]*	7.5 *[0.295]*	112.525 *[4.430]*	0



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

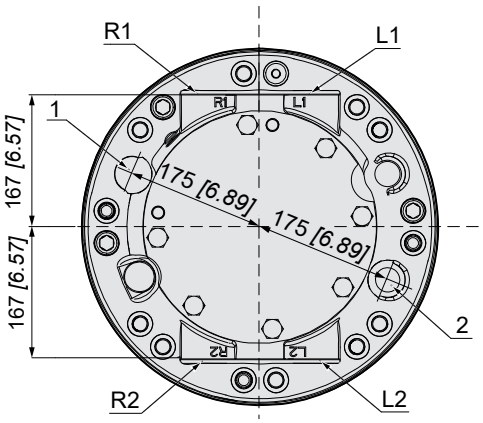
We must provide you with a detailed plan of the interface for any hydraulic unit use, consult YEOSHE .

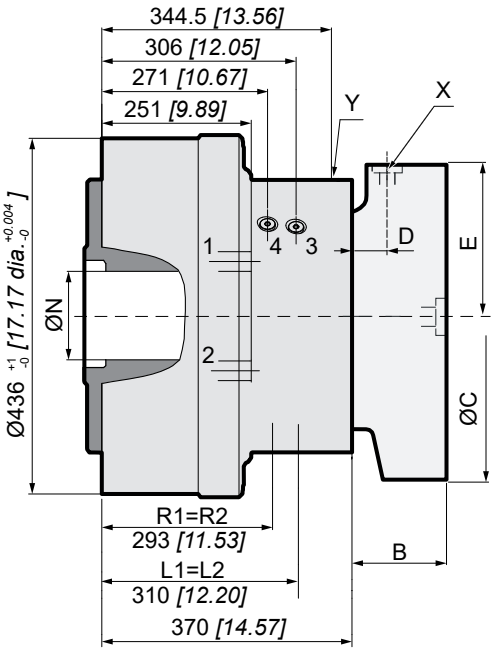
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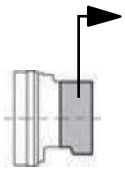
Valving Systems and Hydrobases

Dimensions for 2-displacement symetrical valving

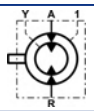
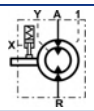
For a small displacement, there is no preferred orientation for this motor.







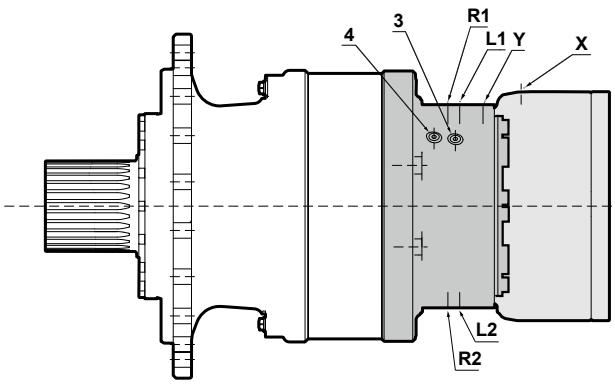
C	T 8 0
B	189.0 [7.44]
C	Ø376 [14.80 dia.]
D	44.0 [1.73]
E	181.0 [7.13]

KG	301 kg [662 lb]	399 kg [878 lb]
	4.50 L [270 cu.in]	4.00 L [240 cu.in]
		

Also see “Brake” section.
(thumbnail opposite)

Valving Systems and Hydrobases

Hydraulic connections



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

			Standards	Power supply	Case drain	2nd displacement control	Pressure measurement points	Control of parking brake
				R - L	1 、2		3 、4	X
	J K	Metric Gaz (BSPP)	ISO 9974-1 ISO 1179-1	DN32 PN400	M27 x 2 Ø27		M14 x 1.5 Ø13	M18 x 1.5 Ø17
				R - A	1 、2	Y	3 、4	X
	J K	Metric Gaz (BSPP)	ISO 9974-1 ISO 1179-1	DN32 PN400	M27 x 2 Ø27	M18 x 1.5 Ø17	M14 x 1.5 Ø13	M18 x 1.5 Ø17
Max. pressures			**P-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°B61352L.

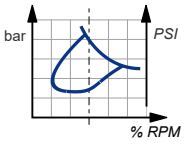
To find the connections’ tightening torques, see the brochure “Installation guide” N° B61352L.

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Efficiency

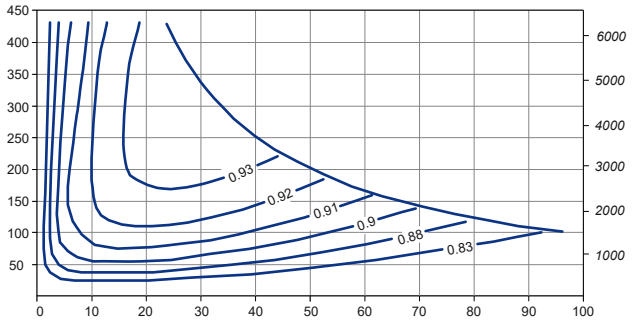
Overall efficiency

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

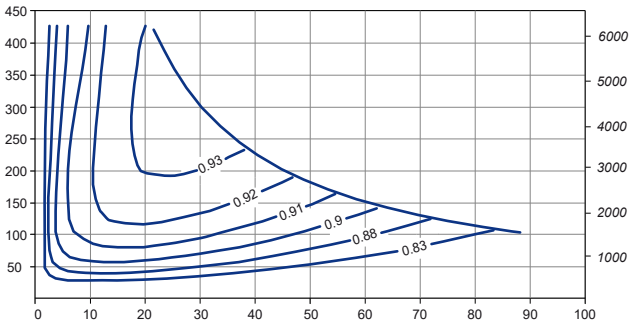


		C	D			F			P				S					
		1	1	2	3	1	2	3	1	2	3	4	1	2	3	4	5	6
P-M	S	8	3									0	Y					

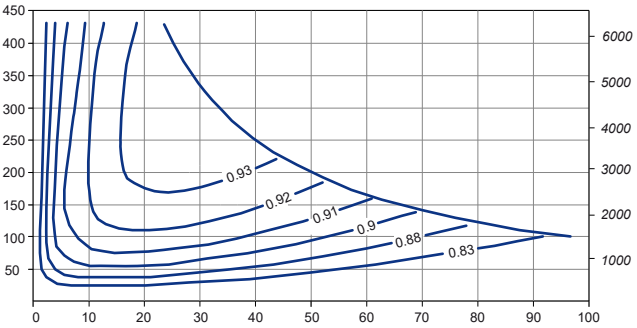
8



0



2



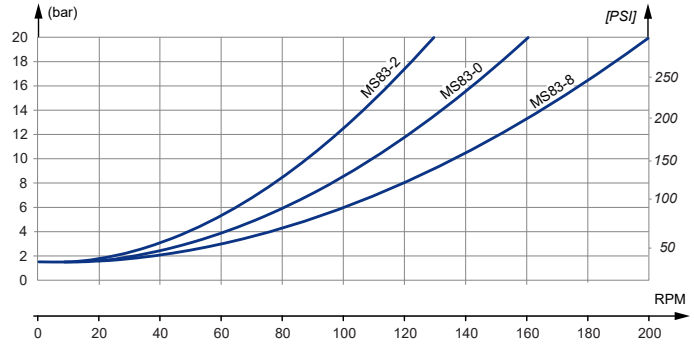
For a precise calculation, consult YEOSHE.

Valving Systems and Hydrobases

Pressure drop and charge pressure

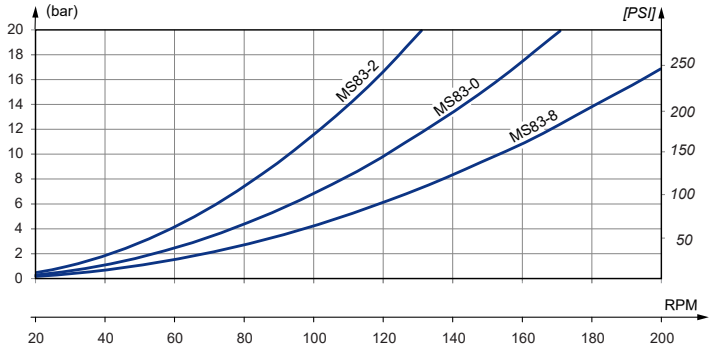
Pressure drop

(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)



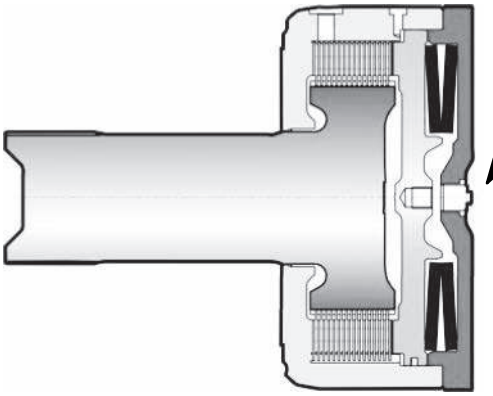
Pressure drop and charge pressure curves are correspon ding to 1st displacement motor.

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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
P-M	S	8	3				T	8	0				0	Y				



Emergency brake release

M20

670 N.m *[494 lb.ft]*

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 Parking brake information	T 8 0
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.

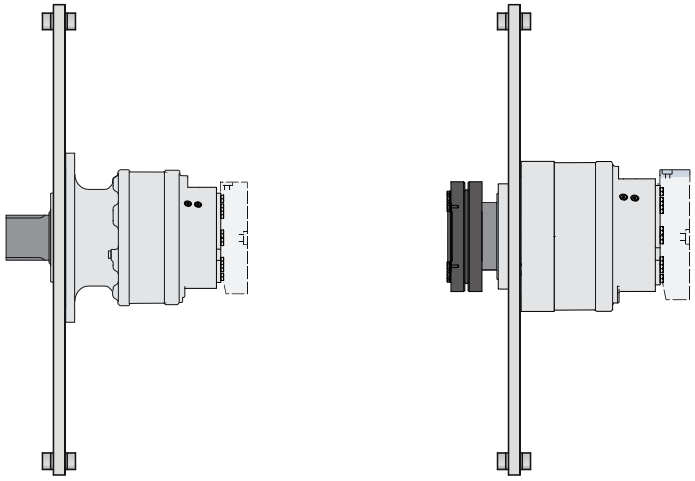
Do not run-in the multidisc brakes.

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 YEOSHE.

Installation

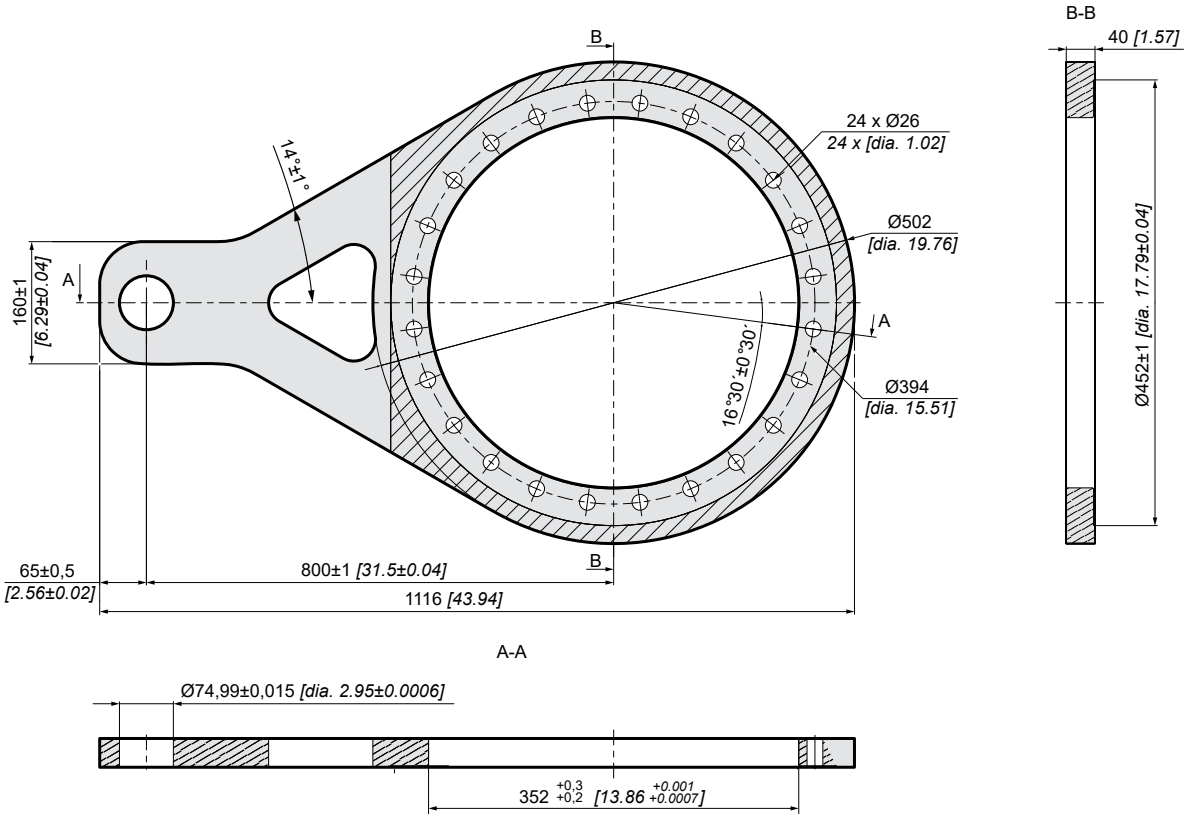
Torque arm mounting

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.

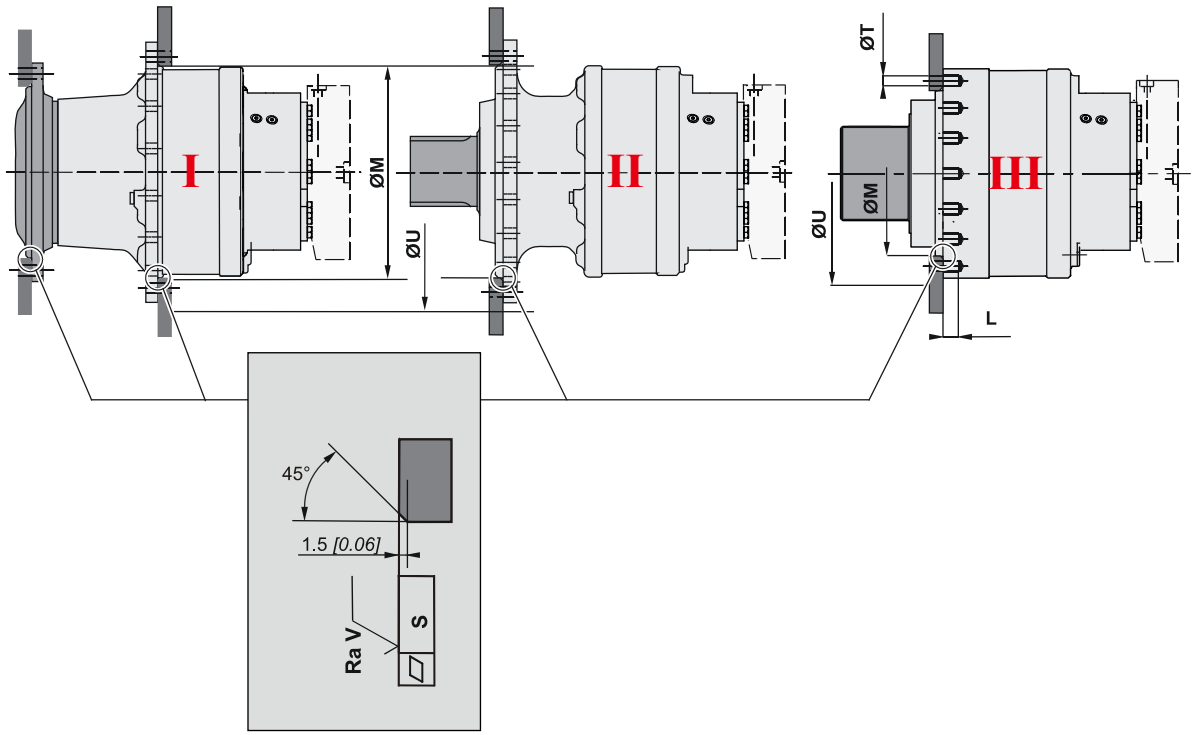


For a precise calculation, consult YEOSHE.

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Installation

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	N.m *[lb.ft]*
I	450 *[17.72]*	565 *[22.24]*	-	-	0.2 *[0.008]*	12.5 *[0.49]*	16 x M24	**12.9**	1,200 *[885.1]*
II							20 x M24		
III	352 *[13.86]*	446 *[17.56]*	25.5 *[1.004]*	35 *[1.378]*			16 x M20		1200 *[885.1]*

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

✦ : Min. values for torque and load to be transmitted.

Options

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

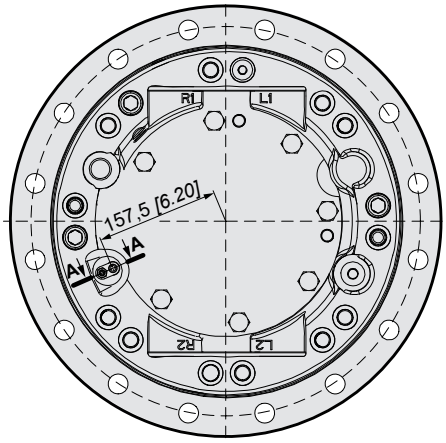
You can accumulate more than one optional part.
Consult YEOSHE.

Y Standard option

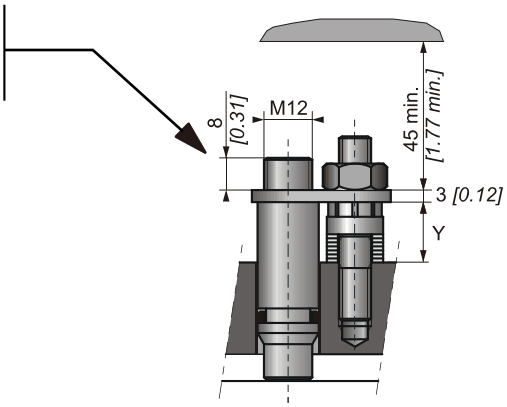
Designation	C
Predisposition for speed sensor	
Adittional drain on valving system	Y
High speed/Low pressure drop (Butterfly valving)	

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



A-A



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.

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Options

6 Industrial support

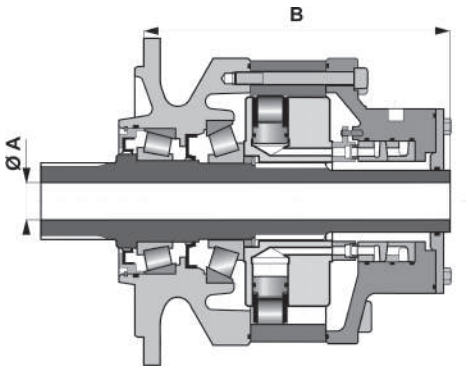
Reduction of around 50% from the rated value in the bearings' preload value.

For a precise calculation, consult YEOSHE.

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.

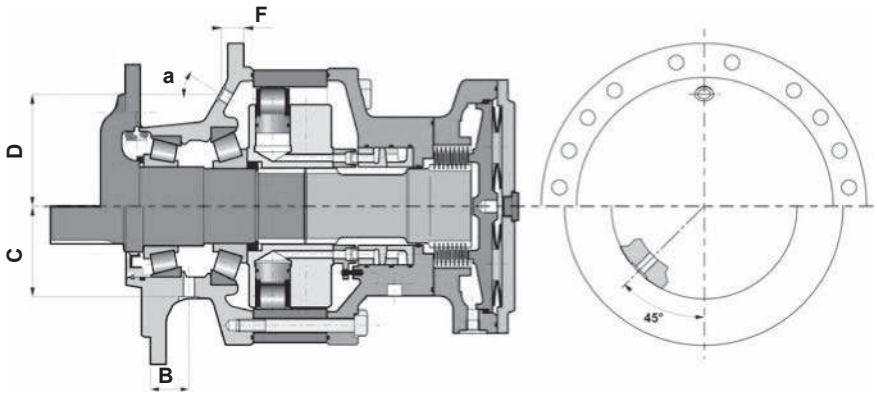
A Hollow shaft



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



	ISO	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.

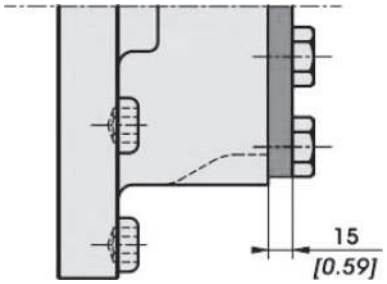
Consult YEOSHE for other colors of primer or topcoat.

Options

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
P-MS83					R	8	3				0	Y	E				



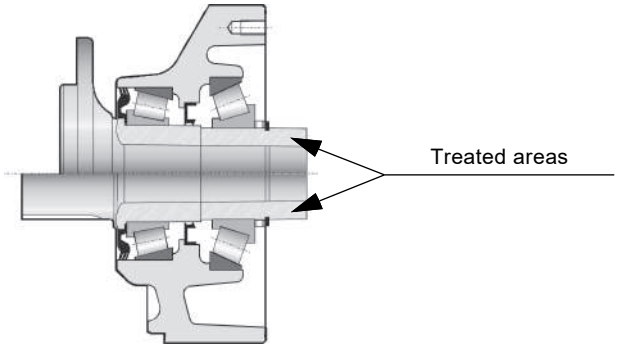
G Special wheel rim mounting

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

Consult YEOSHE sales engineer.

J Treated shaft

Heat treatment on the indicated bearing radius and splines.

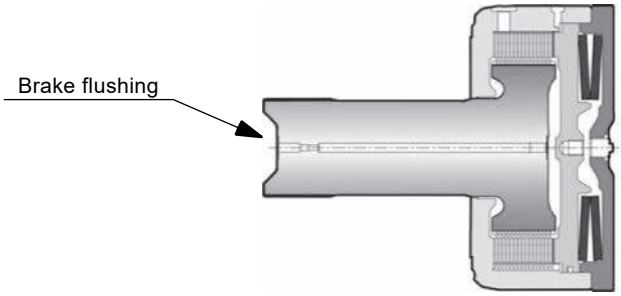


W Grip washer

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]*

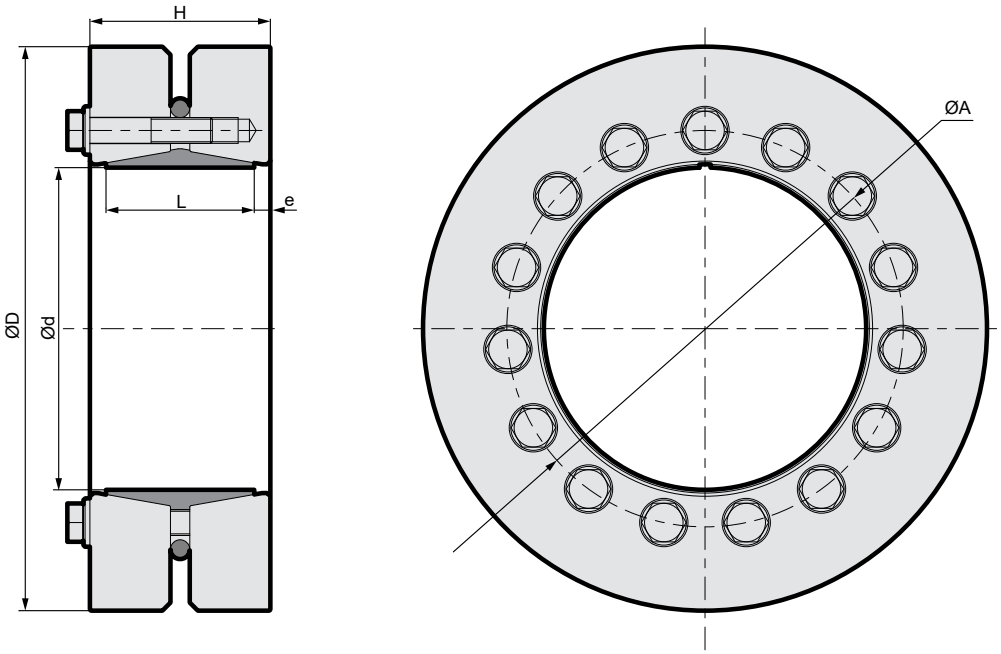
Consult YEOSHE application engineer.

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Accessories

Shrink disc

Shrink disc can be suplied for motor MS83 using bearing support 6AL0.

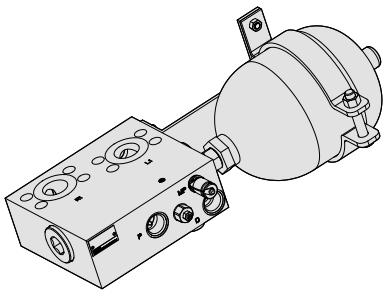


d mm *[in]*	D mm *[in]*	H mm *[in]*	L mm *[in]*	e mm *[in]*	A mm *[in]*		Mt-max Nm *[lbf]*	kg *[lbs]*
185 *[7.28]*	330 *[12.99]*	112 *[4.41]*	92 *[3.62]*	10 *[0.39]*	236 *[9.29]*	14 x M16 x 80	81,700 *[60,300]*	46 *[101]*

Accessories

Anticavitation valve (VAC)

- Flanged on MS83 flat ports
- Protect motor against cavitation risk
- Available with two positions of accumulator

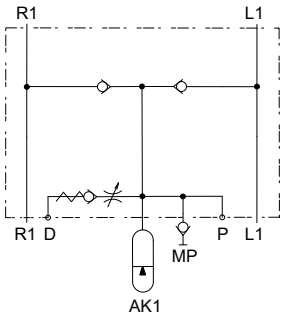


Hydraulic symbol

This valve, which is directly flanged on the MS83, 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]*

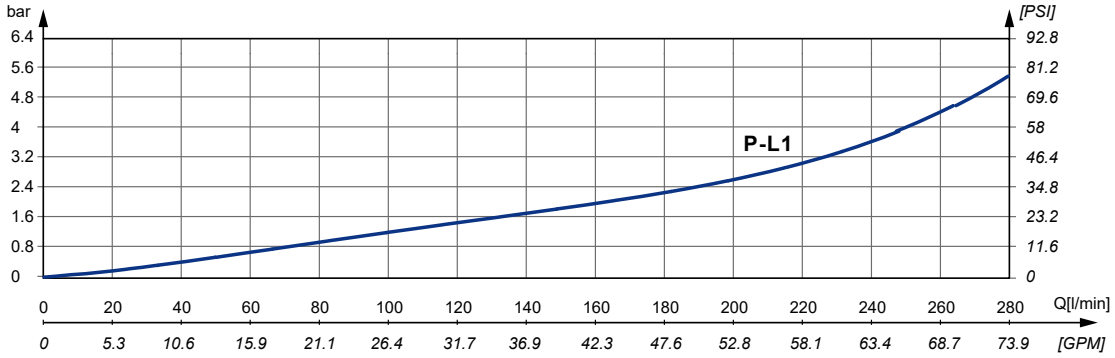
Hydraulic connections

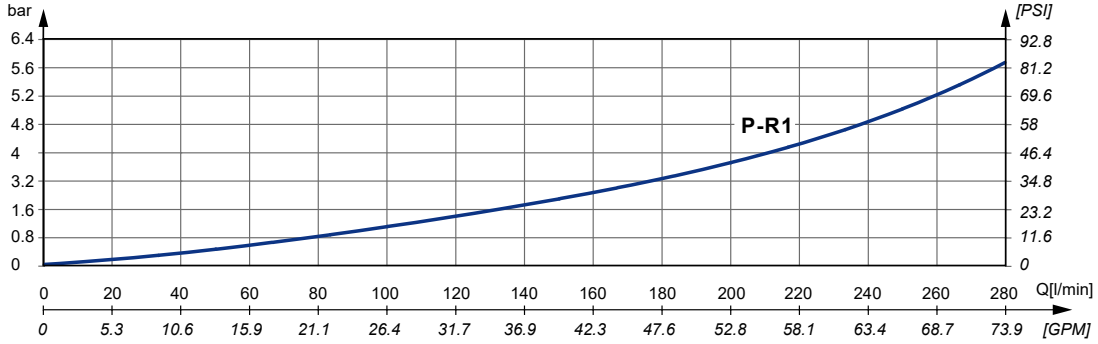
Port	Function	Connections		Max. pressure bar *[PSI]*
		GAZ ISO 1179-1	ISO 6162-2	
P	Pressure line	G3/4	-	30 *[435]*
D	Drain			30 *[435]*
L1	Motor line - L1	-	PN400 DN32	450 *[6,526]*
R1	Motor line - R1			450 *[6,526]*

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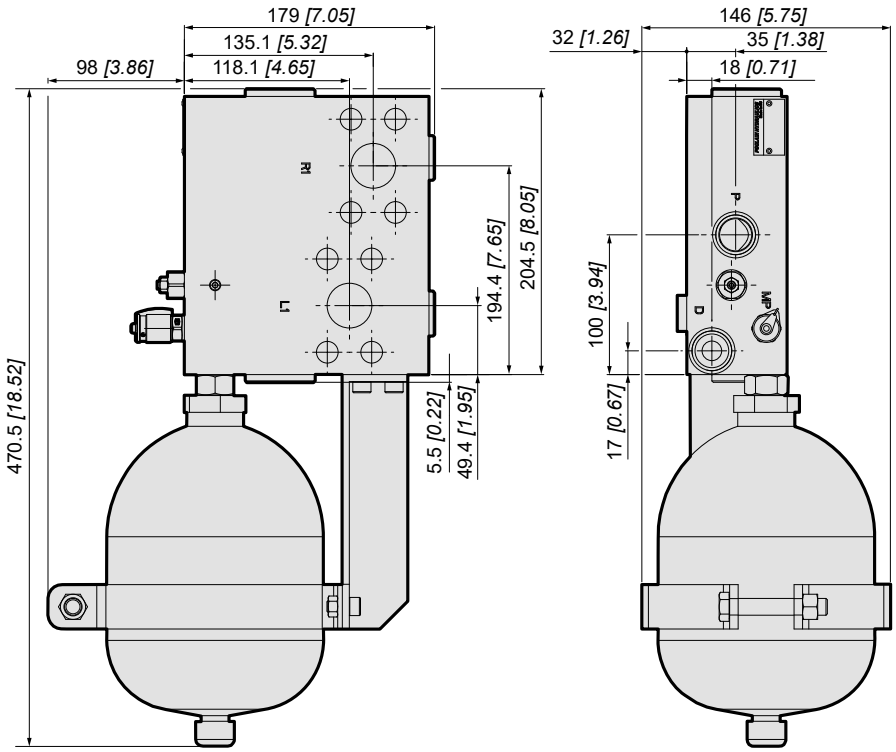
Accessories

Pressure drop





Dimensions



YEOSHE BEST CHOICE Efficient Performance
Innovative Technology Reliable Quality and Service



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