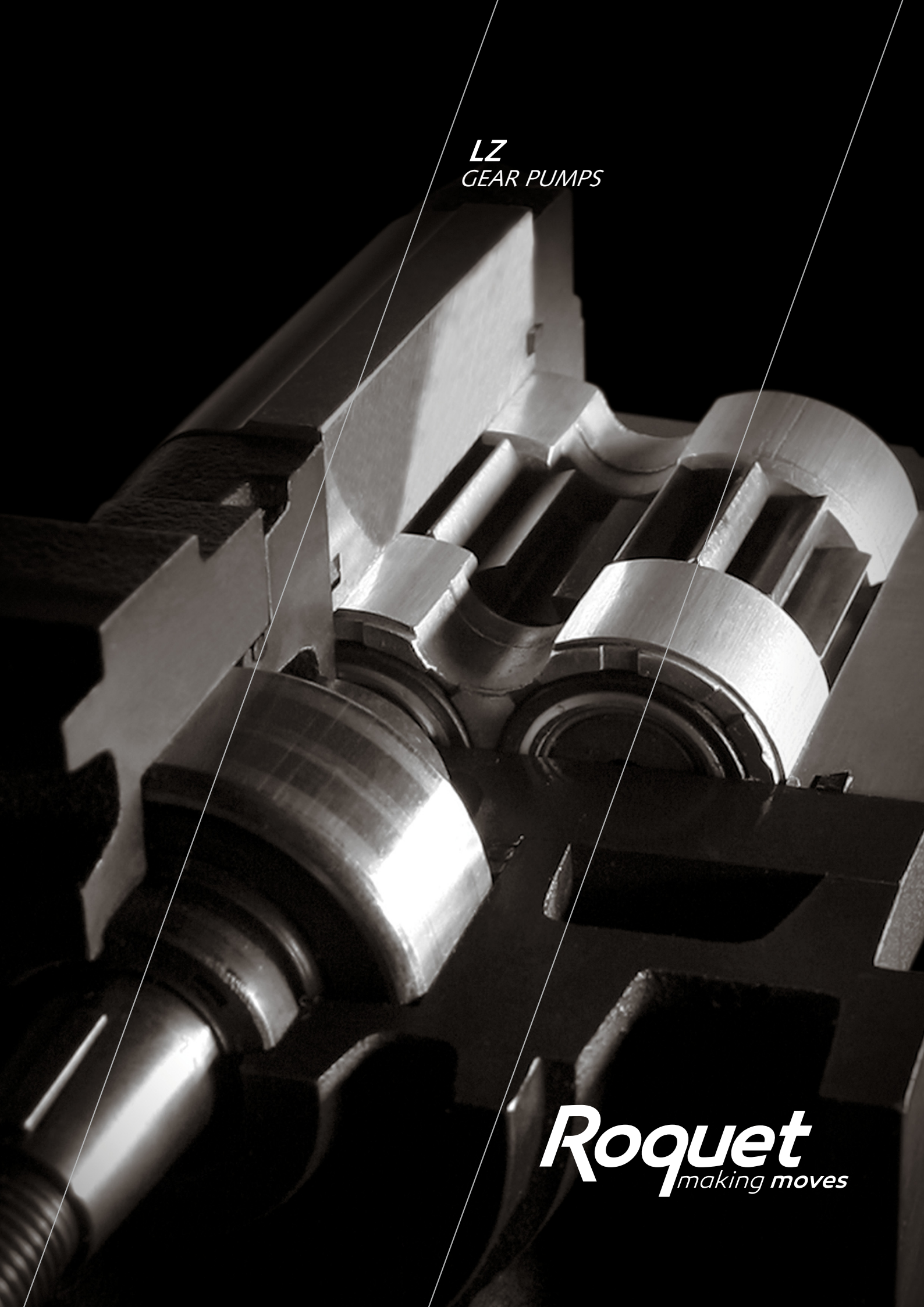




LZ
GEAR PUMPS

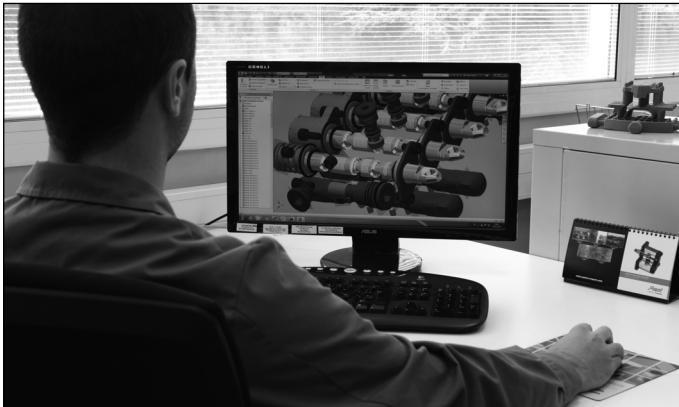
Roquet
making moves

HISTORY Over fifty years experience in fluid power. Supplier to international manufactures of agricultural, construction, mining, mechanical handling, machine-tool and food machinery. Main supplier to the Spanish market with rapidly increasing presence in European and world markets.

TECHNOLOGY Roquet has a large design and development department with substantial fatigue, noise, corrosion-resistance, cleanliness and testing facilities, backed by a well-equipped metallurgical laboratory.

RELIABILITY A broad range of robust products: designed to perform, built to last. All products ranges life-tested under realistic conditions during development to ensure their suitability for use in applications such as tractors, fork-lift trucks, loaders, excavators, cranes, dumpers, dock-levellers... Each and every product tested to a stringent test specification prior to shipment.

CAPABILITY 400 well trained employees. Five factories with a total floor area of 40.000m² Current production 180.000 pumps, 300.000 control valve bodies and 500.000 cylinders. Distribution network in over 35 countries.



Our pumps are hydrostatically balanced and have automatic lateral adjustment.

We recommend the use of the oil for oil-dynamic installations with antifoaming additives and for extreme pressure.

To obtain extended pump life it is necessary to work with oil viscosities between 20 - 80 cSt, relating to working pressure and at a temperature of 50°C.

Oil temperature range +5°C - +80°C.

Filtration is extremely important since most problems are due to oil contamination.

The most efficient drive method is by means of axial flexible coupling, with minimum 0,3 - 0,4 mm. radial and axial movement, thus reducing the effects of vibration and maintaining maximum efficiency of the pump.

The suction pipes should be large enough to ensure that cavitation does not exceed 0,3 Bar.

Connection by SAE flange or threaded G.

Rotation direction: Clockwise or anti-clockwise when facing the shaft end.

Before starting the pump, make sure the direction of rotation is correct.

Double and multiple pumps are available with all shafts and flanges shown for single pumps.

IMPORTANT NOTE: Side ports threaded G are available as standard version.

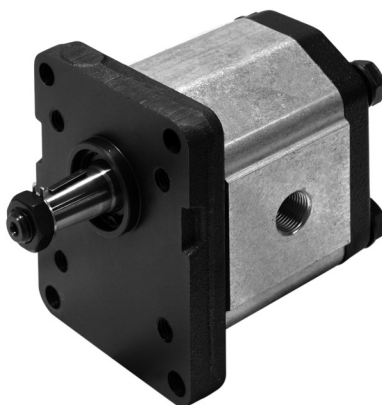
This Catalogue shows the product in the most standard configuration; customized or special designs are also available, please contact to ROQUET HYDRAULICS, S.L.

The specifications and data in this catalogue are not open to any interpretation, please contact with ROQUETHYDRAULICS, S.L. in case of doubt. ROQUETHYDRAULICS, S.L. reserves the right to modify, update or revise this catalogue without prior notice.

ROQUETHYDRAULICS, S.L. is not responsible for any damage caused by an incorrect use of the product.

Index
Gear pump LZ

Technical data	3-4
Coding system	5
General view	6
Driving shaft type	7
Front flange	8-9
Back cover	9
Bodies	10-12



Pump Flow rate	(L/min.) 1500 R.P.M.	6	9	12	16	18	22	24	27
Displacement	cm³/v cc/r	4	6	8	10,6	12	14,6	16	18
Cont. max. pressure	bar	275					250		225
Intermitent max. pressure	bar	300					275		250
R.P.M. at cont. pressure		3.500			3.000		2.500		2.300
Max. R.P.M.		4.000			3.500				3.200
Min. R.P.M. at given pressures	100 bar	500							
	175 bar	1.100		1.200	1.100		850		
	250 bar	1.400			1.300		1.200		1.100
	300 bar	1.750			1.500		—		
Fluid to be used		ISO 6743 type HM, HV or HG							
Viscosity range		ISO 3448 cat. VG32-VG46							
Recommended fluid cleanliness		19/16 s/. ISO 4406 or RP70H							
Oil temperature		-4... +176°F							
Max. suction depression		≪ 0'3 bar							

CONNECTION TYPES T AND R

ROQUETHYDRAULICS, S.L. recommends to use threaded fittings with parallel threads: with sealing face, with flat seal or with o-ring seal (Standards: DIN 3852, ISO1179, ISO 9974 y ISO6149). It is not recommended to use conic type fittings, etc. Guide for tightening torques for threaded fittings with parallel threads:

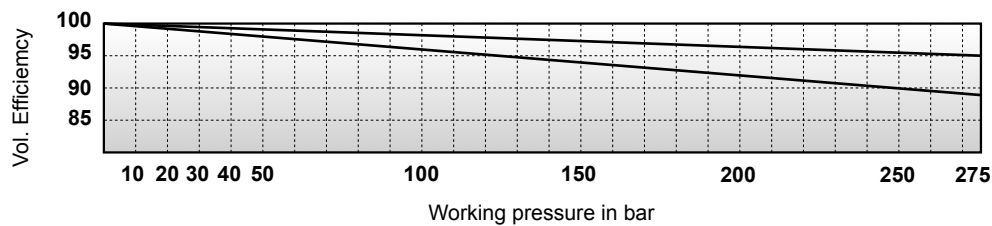
ASSEMBLY TORQUE

Thread Size (ISO 228-1)	Assembly Torque min. (Nm)	Assembly Torque max. (Nm)
1/8" G	20	25
1/4" G	50	55
3/8" G	80	90
1/2" G	100	100
3/4" G	200	220
1" G	380	420

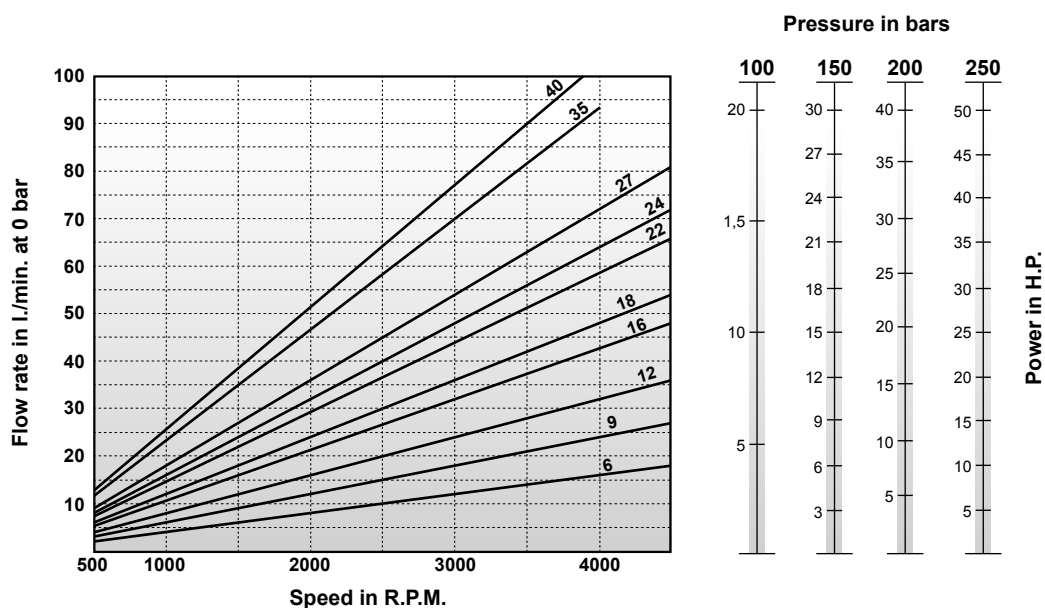
PUMP DRIVING DEVICES:

It must be used a driving device to avoid the transmission of axial and radial loads to the axis of the pump. Standard flanges and pumps are not designed to handle this loads and this causes a reduction of its working life.

Volumetric efficiencies diagram at 1500 R.P.M.



Flow rate and power diagram



NOTE: These results have been obtained with 4,5° E viscosity oil and at 50° C.

CODING SYSTEM

1	LZ	12	D	E	10	F	-	*
---	----	----	---	---	----	---	---	---

Type

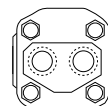
1 Without pulley

Additional data

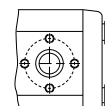
Model

LZ Gear pump

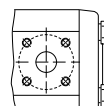
Port connection form



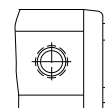
T



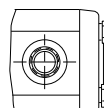
B



F



R



S

Pump flow rate at 1500 RPM and 0 bar

See technical data

Rotation direction

D Clockwise

I Counterclockwise

Fixing flange

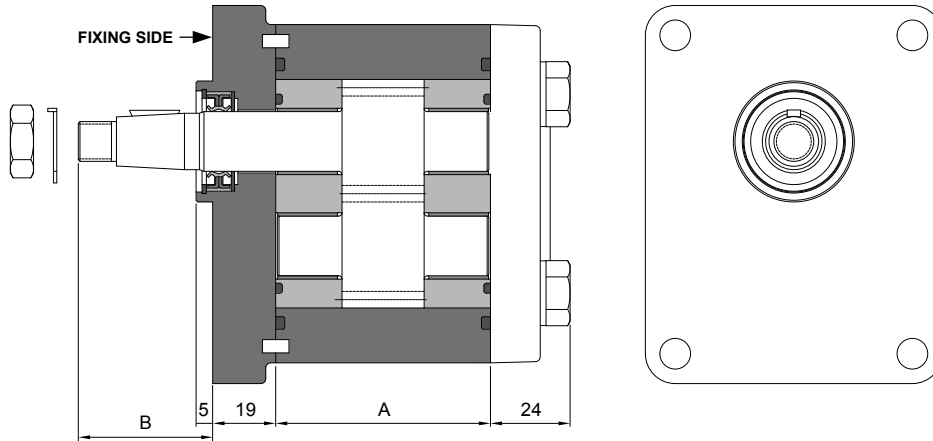
09 - 10 - 19 - 22 - 23 - 29 - 31 - 55 - 61

Driving shaft form

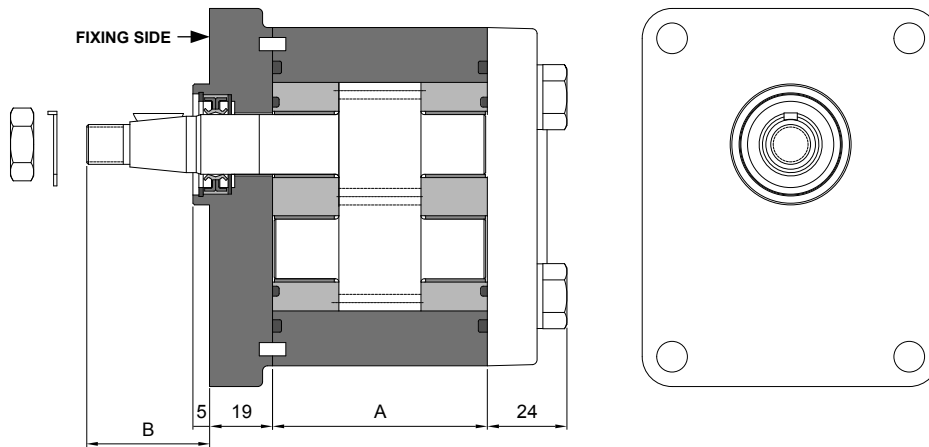
E - J - GG

Dimensions

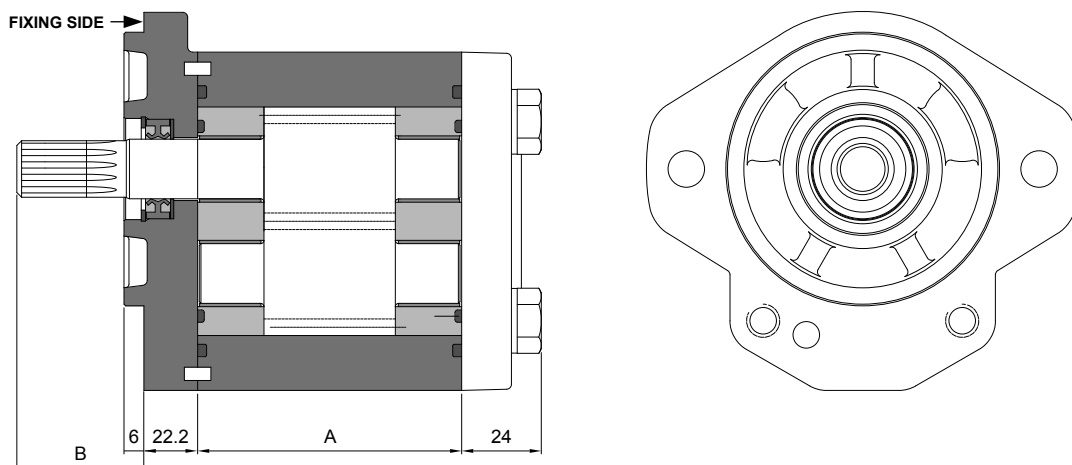
Shaft type E - Front flange type 10 - Standard back cover



Shaft type J - Front flange type 10 - Standard back cover

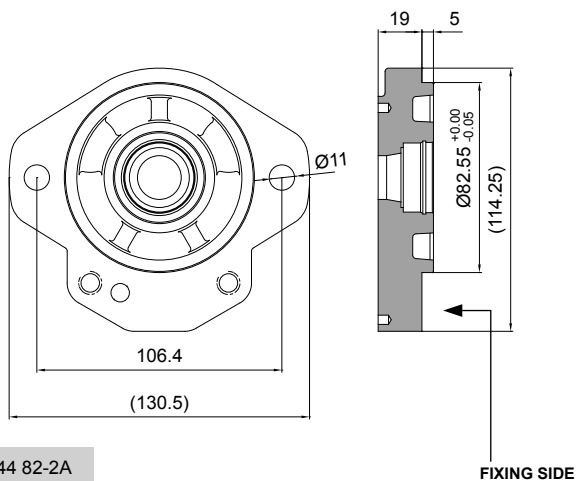


Shaft type GG - Front flange type 09 - Standard back cover

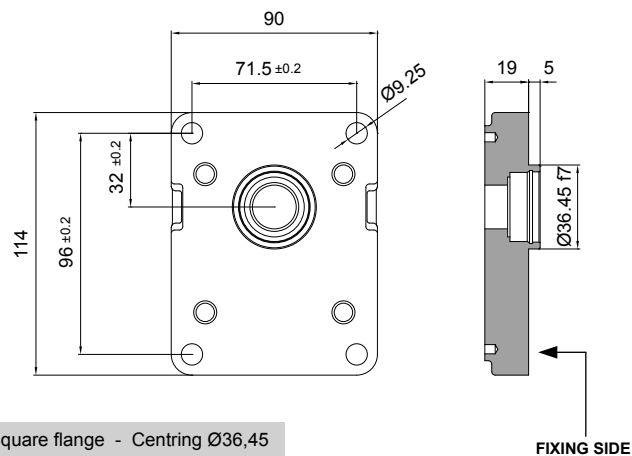


Front flange

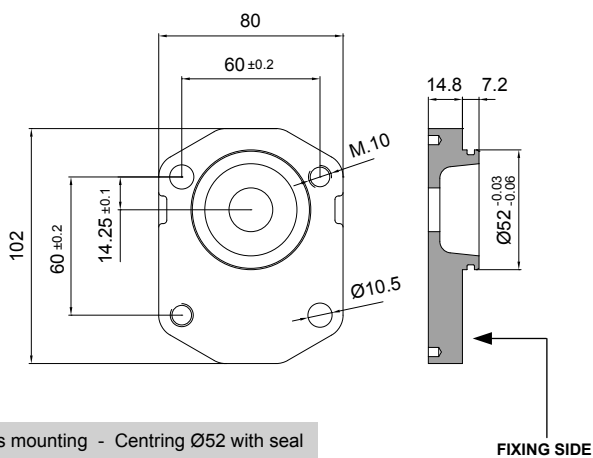
Type 09



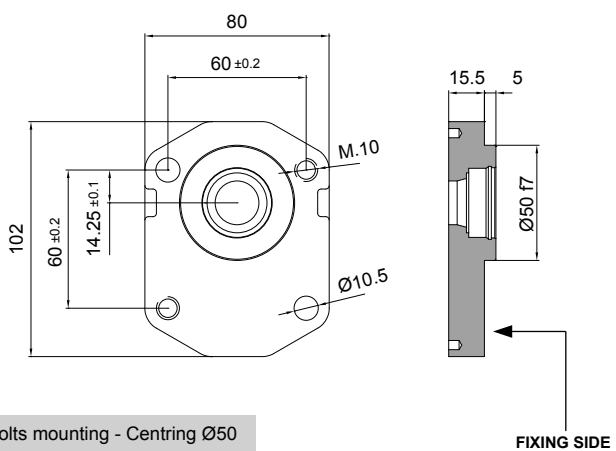
Type 10



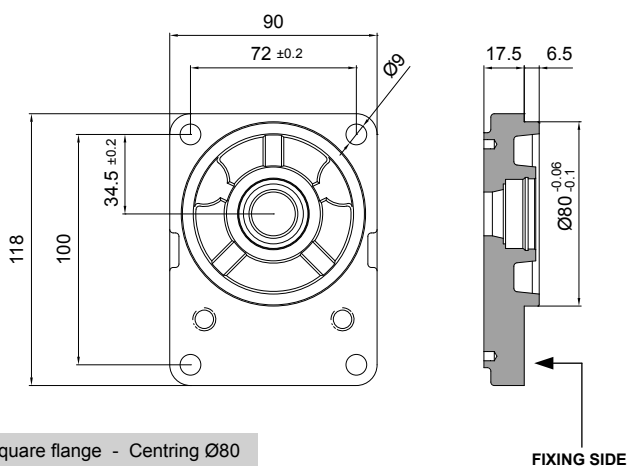
Type 19



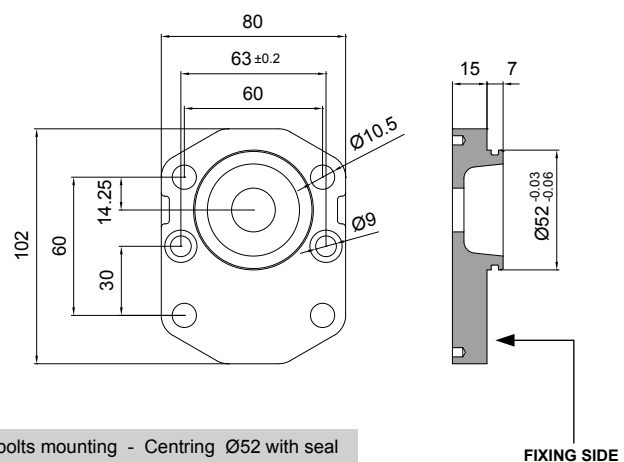
Type 22



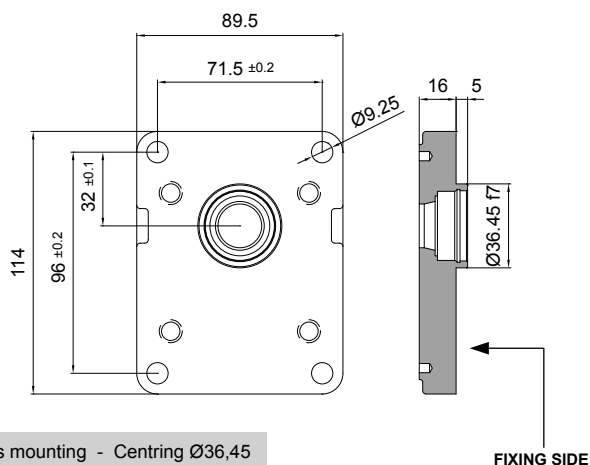
Type 23



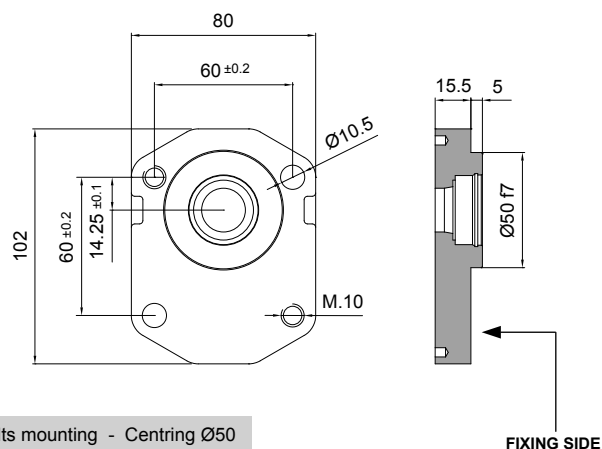
Type 29



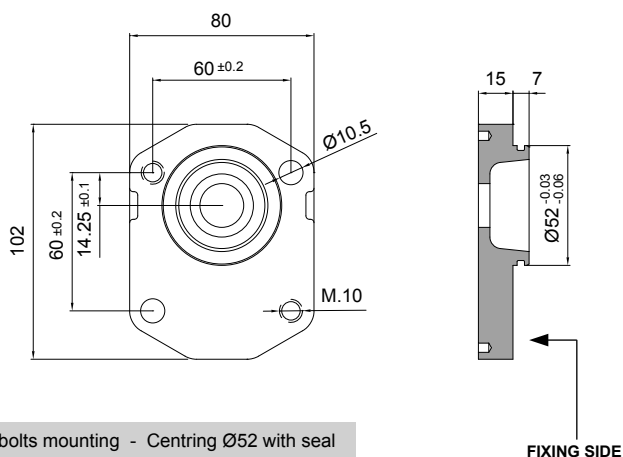
Type 31



Type 55

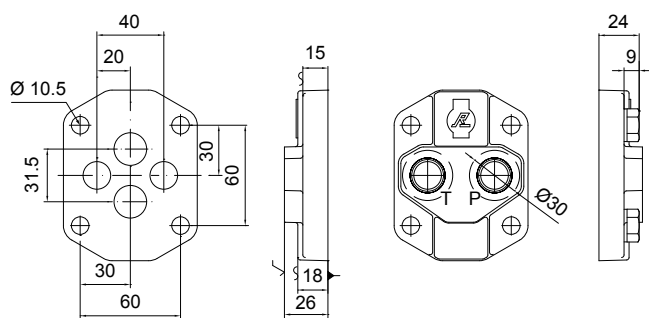


Type 61

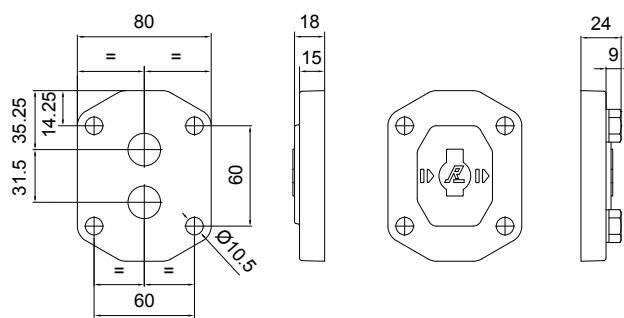


Back cover

Type T



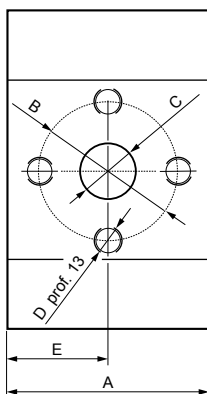
Rear cover



Bodies

Connecting type

B

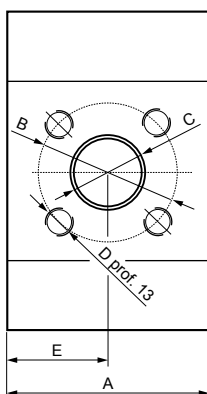


Dimensions

Flow cc/r		A	E	B	C	D
4	Inlet	46,8	23,5	30	13,5	M.6
	Pressure					
6	Inlet	50,3	25,6	40	20	M.8
	Pressure					
8	Inlet	53,6	30	40	20	M.8
	Pressure					
10,6	Inlet	58	30	40	20	M.8
	Pressure					
12	Inlet	60,5	30	40	20	M.8
	Pressure					
14,6	Inlet	64,8	30	40	20	M.8
	Pressure					
16	Inlet	67	30	40	20	M.8
	Pressure					
18	Inlet	70,6	30	40	20	M.8
	Pressure					
23,3	Inlet	79,6	37,5	40	20	M.8
	Pressure					
26,6	Inlet	83,6	42	40	20	M.8
	Pressure					

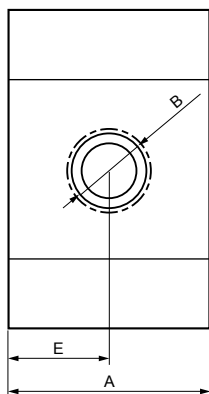
Connecting type

F

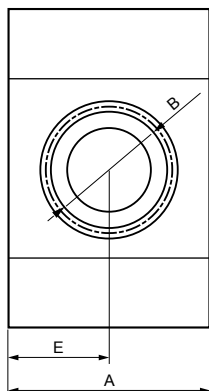


Dimensions

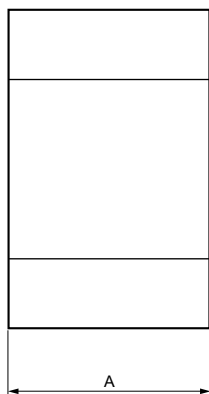
Flow cc/r		A	E	B	C	D
4	Inlet	46,8	23,5	35	15	M.6
	Pressure					
6	Inlet	50,3	25,6	40	20	M.8
	Pressure					
8	Inlet	53,6	30	40	20	M.8
	Pressure					
10,6	Inlet	58	30	40	20	M.8
	Pressure					
12	Inlet	60,5	30	40	20	M.8
	Pressure					
14,6	Inlet	64,8	30	40	20	M.8
	Pressure					
16	Inlet	67	30	40	20	M.8
	Pressure					
18	Inlet	70,6	30	40	20	M.8
	Pressure					
23,3	Inlet	79,6	37,5	40	20	M.8
	Pressure					
26,6	Inlet	83,6	42	40	20	M.8
	Pressure					

Connecting type
R

Dimensions

Flow cc/r		A	E	B
4	Inlet	46,8	23,5	1/2" G
	Pressure			3/8" G
6	Inlet	50,3		1/2" G
	Pressure			3/8" G
8	Inlet	53,6	25,6	1/2" G
	Pressure			3/8" G
10,6	Inlet	58	30	1/2" G
	Pressure			3/8" G
12	Inlet	60,5		1/2" G
	Pressure			3/8" G
14,6	Inlet	64,8		1/2" G
	Pressure			3/8" G
16	Inlet	67		3/4" G
	Pressure			1/2" G
18	Inlet	70,6		3/4" G
	Pressure			1/2" G
23,3	Inlet	79,6	37,5	3/4" G
	Pressure			1/2" G
26,6	Inlet	83,6	42	3/4" G
	Pressure			1/2" G

Connecting type
S

Dimensions

Flow cc/r		A	E	B
4	Inlet	46,8	23	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
6	Inlet	50,3	23,5	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
8	Inlet	53,6	27	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
10,6	Inlet	58	29	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
12	Inlet	60,5	30	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
14,6	Inlet	64,8	32	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
16	Inlet	67	34	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
18	Inlet	70,6	35	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
23,3	Inlet	79,6	40	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN
26,6	Inlet	83,6	42	1 1/16" - 12 UN
	Pressure			7/8" - 14 UN

Connecting type
T

Dimensions

Flow cc/r		A
4	Inlet	46,8
	Pressure	
6	Inlet	50,3
	Pressure	
8	Inlet	53,6
	Pressure	
10,6	Inlet	58
	Pressure	
12	Inlet	60,5
	Pressure	
14,6	Inlet	64,8
	Pressure	
16	Inlet	67
	Pressure	
18	Inlet	70,6
	Pressure	
23,3	Inlet	79,6
	Pressure	
26,6	Inlet	83,6
	Pressure	

A large rectangular area filled with a grid of small, evenly spaced dotted lines, intended for handwritten notes.

