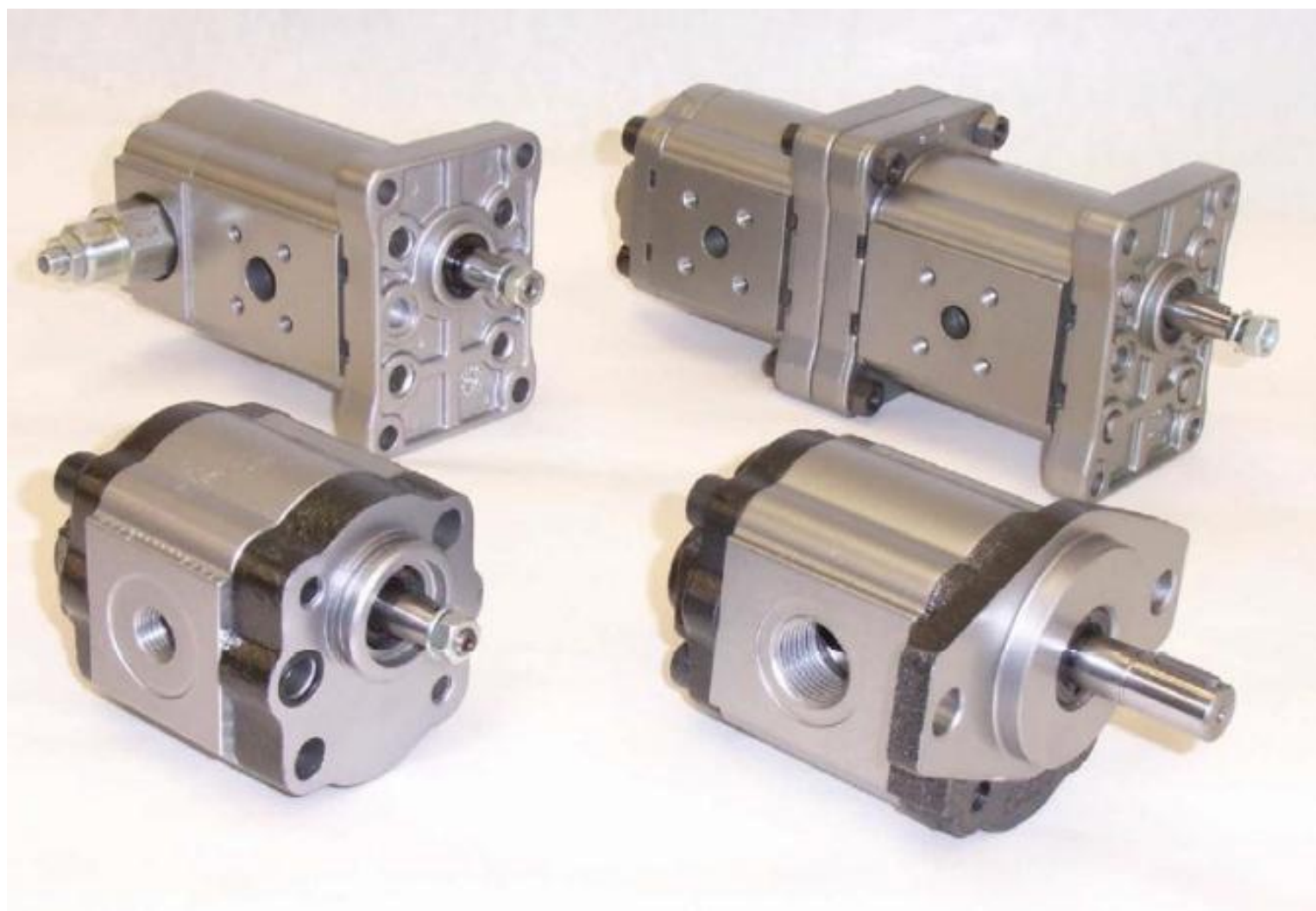




# HYDRAULIC MEGASTORE

Serving the Hydraulics Industry Worldwide

## ALUMINIUM PUMPS AND MOTORS Z1 SERIES



## Use Conditions

<b>Hydraulic Fluids</b>	Mineral oil ( DIN 51524 ) For use with fire resistant fluids like water glycol, water- oil emulsion and phosphate-esters, contact our technical or commercial office.		
Inlet Pressure	0.7 – 3 Bar (Absolute) 10 – 44 PSI (Absolute)		
Oil speed on suction line	0.5 ÷ 1.5 m/s		
Oil speed on pressure line	6 ÷ 10 m/s		
Oil temperature	-10°C ÷ 80°C		
Oil viscosity	20 ÷ 120 mm <sup>2</sup> / s ( Cst )		
Max starting viscosity	700 mm <sup>2</sup> / s ( Cst )		
<b>Oil Filtration</b>	<b>Pressure</b>	<b>&lt; 200 Bar</b>	<b>&lt; 200 Bar</b>
	Contamination class NAS 1638	10	9
	Contamination class ISO 4406	19/16	18/15
	Ratio sx ≥ 75	25µm	10µm

## DETERMINATION OF NOMINAL SIZE

PER POMPE  
FOR PUMP

$$Q = \frac{V * \eta_v * n}{1000}$$

$$M = \frac{p * V}{62.8 * \eta_m}$$

$$P = \frac{p * Q}{600 * \eta_t}$$

PER MOTORI  
FOR MOTOR

$$Q = \frac{V * n}{1000 * \eta_v}$$

$$M = \frac{p * V * \eta_m}{62.8}$$

$$P = \frac{p * Q * \eta_t}{600}$$

V [cm<sup>3</sup>]  
Q [l/min]  
p [bar]  
M [Nm]  
n [min<sup>-1</sup>]  
P [Kw]

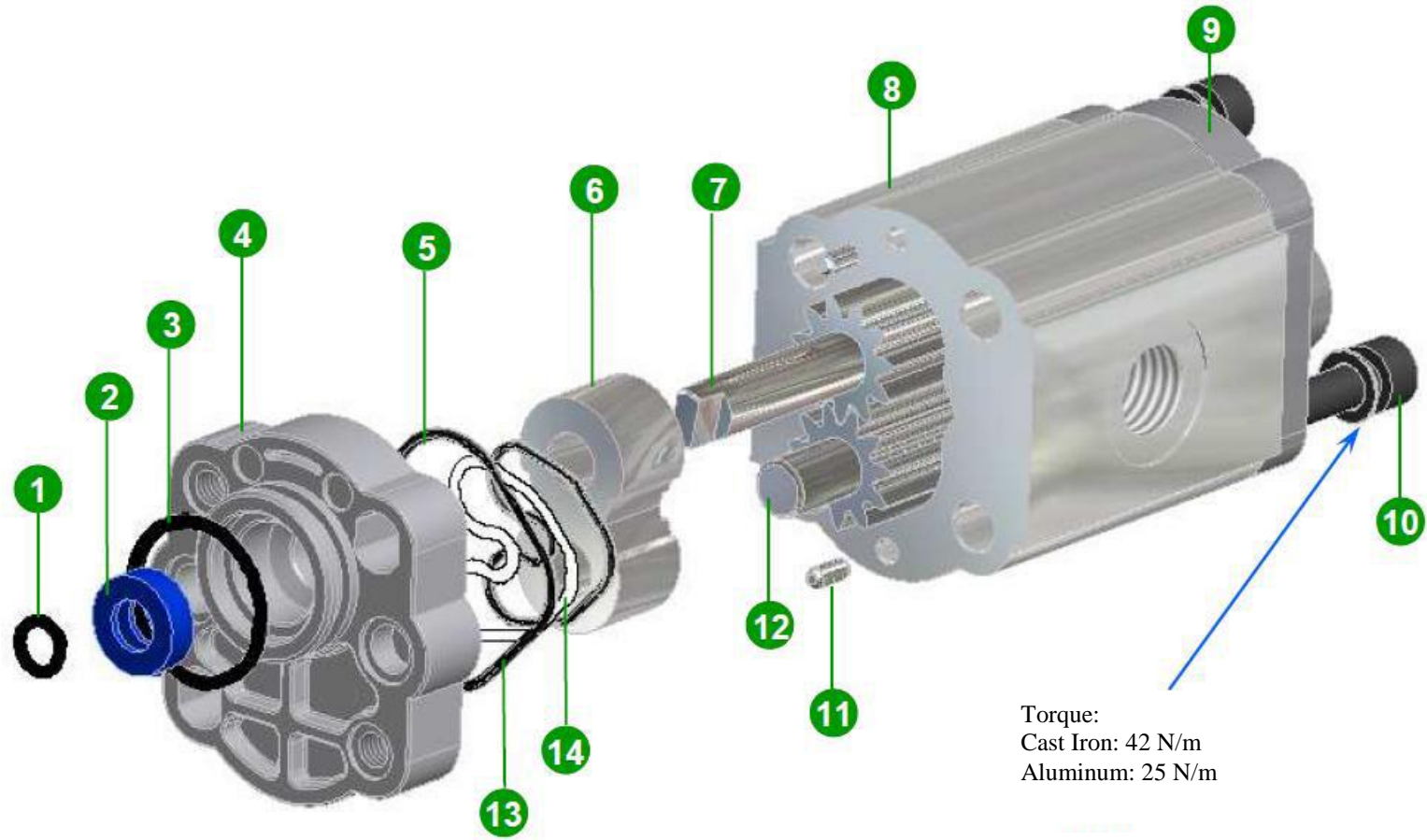
$\eta_v = \text{EFF vol.} \geq 95$   
 $\eta_m = \text{EFF mecc.} \sim 0.85$

$\eta_t = \eta_v * \eta_m. \sim 0.8$

## Main Characteristics

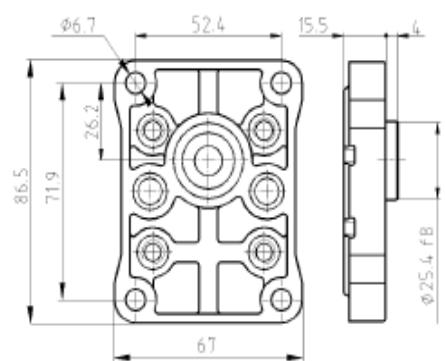
Alloy Cover and Flange															
Type		08	11	16	21	26	32	37	42	48	55	62	78	88	105
Capacity	Cm3 / giro Cm3 / rev	0.80	1.08	1.59	2.09	2.59	3.15	3.68	4.19	4.79	5.49	6.2	7.81	8.82	10.5
Max Working Pressure	Bar	240	240	240	240	230	210	210	190	180	170	150	130	120	100
Intermittent Pressure	Bar	260	260	250	250	250	240	230	210	200	180	160	140	130	120
Max Peak Pressure	Bar	280	280	280	280	280	270	260	240	230	210	190	170	160	130
Max Speed for P1 Pressure	Giri / min Rpm	6000	6000	6000	6000	5500	4500	4000	3800	3500	3500	3000	3000	3000	3000
Max Speed without load	Giri / min Rpm	8000	8000	8000	8000	8000	7000	6000	5500	5500	4500	4500	4000	4000	4000
Min Speed for P1 Pressure	Giri / min Rpm	1100	1100	950	800	700	600	500	450	400	400	400	400	400	400

Cast Iron Cover and Flange															
Type		08	11	16	21	26	32	37	42	48	55	62	78	88	105
Capacity	Cm3 / giro Cm3 / rev	0.80	1.08	1.59	2.09	2.59	3.15	3.68	4.19	4.79	5.49	6.2	7.81	8.82	10.5
Max Working Pressure	Bar	300	300	300	300	300	300	275	260	260	240	230	190	170	140
Intermittent Pressure	Bar	320	320	320	320	320	320	290	275	275	250	240	200	180	160
Max Peak Pressure	Bar	350	350	350	350	350	350	310	290	290	270	260	220	200	170
Max Speed for P1 Pressure	Giri / min Rpm	8000	8000	8000	7000	5700	4700	4400	4000	3600	3400	3200	3000	3000	3000
Max Speed without load	Giri / min Rpm	8000	8000	8000	8000	8000	7000	6000	5500	5000	4500	4500	4000	4000	4000
Min Speed for P1 Pressure	Giri / min Rpm	1500	1200	1000	800	650	550	450	400	350	300	250	200	200	150



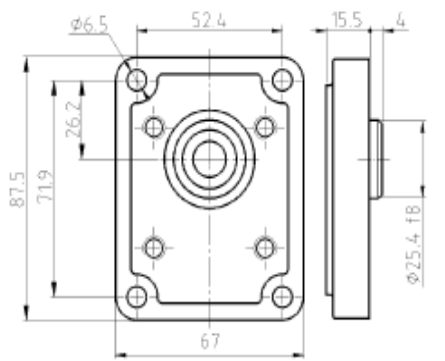
Torque:  
 Cast Iron: 42 N/m  
 Aluminum: 25 N/m

Reference	Description	Quantity
1	Outlet Seal	1
2	Rotary Shaft Seal	1
3	Flange Seal	1
4	Front Flange	1
5	Under Cover Seal	2
6	Bushing block	2
7	Drive Gear	1
8	Housing	1
9	Cover	1
10	Bolt	2
11	Pin	4
12	Idle gear	1
13	Compensation seal	2
14	Seal against extruding	2



CODE	A	0	4
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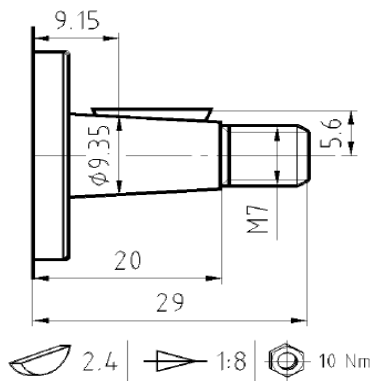
NOTE : Material Alloy



CODE	A	G	4
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NOTE : Material cast iron

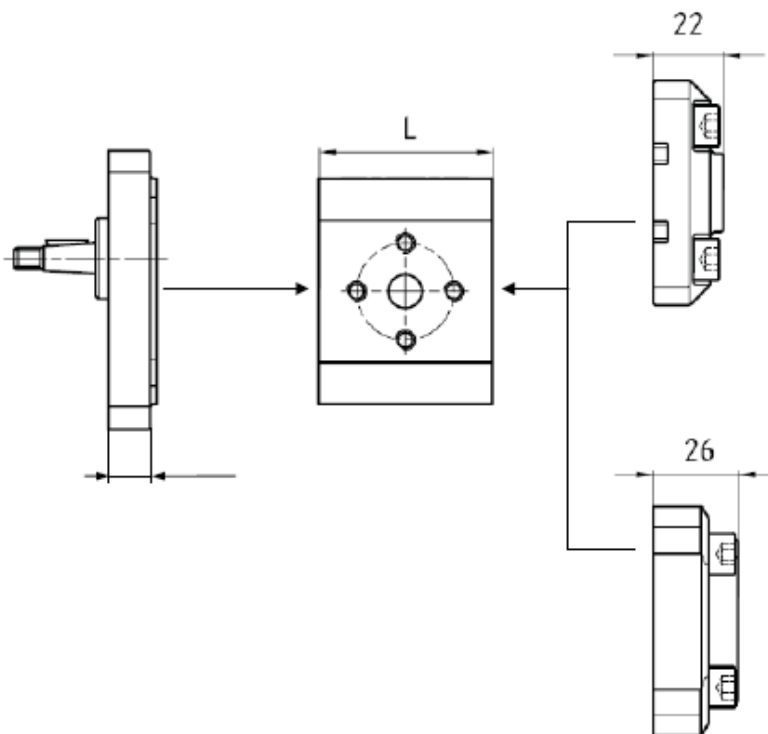
# Shaft



Max torque 36 Nm

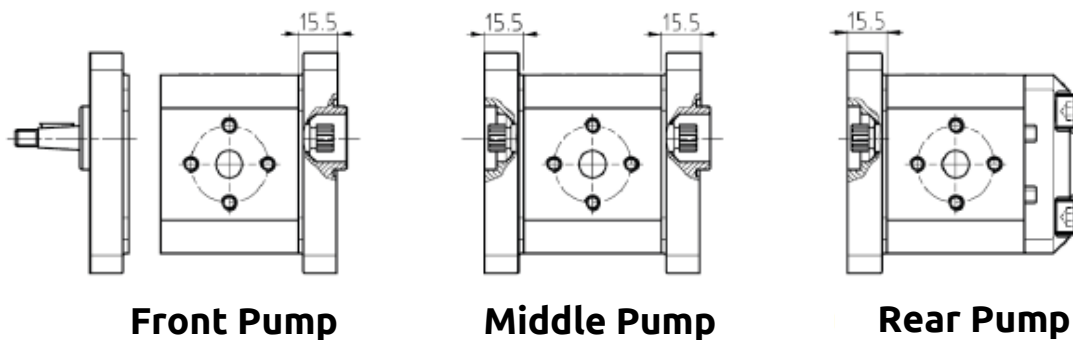
CODE	C		
FOR FLANGE	A	G	4
	A	O	4

## Alloy Cover



TIPO TYPE	L
08	31.8
11	38,3
16	40,3
21	42,3
26	44,3
32	46,5
37	48,6
42	50,6
48	53
55	55,8
62	58,6
78	65
88	69
105	82.3

## Cast Iron Cover



Front Pump

Middle Pump

Rear Pump

