



Ronzio (罗茨)

单/双向齿轮泵/齿轮马达
超高压齿轮泵

(连续工作压力410bar, 峰值压力500bar)

双联/三联/四联齿轮泵
铝合金体
铸铁体



Made in Italy

Made in Italy



公 司 简 介

上海华歌实业有限公司是一家经营欧美流体与传动产品的专业公司，是欧美很多著名公司中国一级经销商，公司致力于解决液压，润滑，冷却，传动，仪表，水泵，高压泵等机电领域的问题，特别擅长解决疑难问题。本公司与很多外国公司有良好的合作关系。

本公司经营之产品，种类广泛，品质及安装尺寸均符合欧美相应的工业标准。广泛应用在工程机械、普通机械、机床、船舶、钢铁、冶金、煤矿、建筑、石化、医药、食品、能源等领域，皆有很高的选择性和竞争性。价格/性能比必定会使您满意。





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RONZIO



意大利罗茨油压动力公司于1950年由资深机械专家丹特·罗茨先生创立。公司早期致力于生产柴油机马达，几年后开始制造油压齿轮泵，并迅速成为公司的主流产品。

公司创始人对精密机械的热爱最终使罗茨公司在本行业拥有了重要的地位：不论是选择原材料还是监控生产工艺，公司所注重的一直是产品的品质和精密度。



现在，罗茨公司生产齿轮泵、马达和分流器，广泛用于汽车、建筑、农机、森林机械和挖掘搬运等工业领域。公司组织系统精干，经验丰富，可以充分满足客户的要求；我们不仅是客户的供应商，而且还是他们的开发规划的合作伙伴。

1998年，我们通过了DNV质量体系认证。



Ronzio Oleodinamica was established in 1950 by Mr. Dante Ronzio, fond of precision mechanics.

The Company started its activity machining pumps for diesel motors. The passion of the founder for fine mechanics left an important mark in the Company. The production of hydraulic gear pumps started some years later, and became soon the main activity of the Company.

Since the beginning Ronzio Oleodinamica has been focusing on quality and precision. Our Company uses top quality components, and the most advanced computerized machines, in both the production and the testing process.

Ronzio Oleodinamica manufactures gear pumps, motors and flow dividers in aluminium and in cast iron for a wide range of industries including: construction, forestry, agriculture, industrial vehicle, earth moving industrial.

Today, our products are worldwide appreciated.

Our experience and our lean structure are suitable for customers who need a direct involvement of the supplier in their projects.

Our quality system has been certified by DNV since 1998.



Z0.5系列泵和马达
ALUMINIUM PUMPS AND MOTORS Z0.5 SERIES



主要性能

- ❖ 铝泵盖
- ❖ 高压: 最大连续使用压力达 250 bar
- ❖ 用压力平衡衬块进行轴向压力补偿
- ❖ 容积效率高: 平均可达到 95%
- ❖ 排量范围大: 从0.35-0.5-0.6-1.2-1.5-1.8cm³/转
- ❖ 挤压成型铝泵体
- ❖ 齿轮的齿加工精度高, 啮合噪音小
- ❖ 轴、法兰盘和配件规格种类齐全, 符合市场上的
- ❖ 各种主要标准
- ❖ 高温密封
- ❖ 单向泵和马达
- ❖ 双向泵和马达

Main Features

- ◆ alloy covers
- ◆ High pressure option: up to 250 bar max. continuous pressure
- ◆ Axial compensation achieved using pressure balanced bushing blocks.
- ◆ High volumetric efficiency: average 95%
- ◆ Wide range of capacities : 0.35-0.5-0.6-0.8-1.0-1.2-1.5-1.8 cm³/giro
- ◆ Extruded aluminium body
- ◆ Gear tooth profile accurately projected providing low noise operation.
- ◆ A wide variety of shafts, flanges and ports are available to meet specific application requirements.
- ◆ High-temperature seals available.

- ◆ Single rotational pumps and motors.
- ◆ Bi-rotational pumps and motors.

“Z0.5”系列泵 马达使用条件

CONDITIONS OF USE FOR PUMPS AND MOTORS “Z0.5”

泵在运转时, 避免给主轴在径向或轴向加载。

使用弹性接合或“Oldham”接合补偿没有对准的误差, 使齿轮泵位于一条直线上。

我们建议用户仔细阅读下表中的内容, 从而能够正确地使用齿轮泵, 延长泵的使用寿命。

Avoid radial and axial loads on the pump shaft during the use.

The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” coupling.

We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

型泵的使用条件
USE CONDITIONS

流体介质 <i>Hydraulic fluids</i>	矿物油 (DIN 51524) 如果要使用水和乙二醇、水油乳液和磷酸脂等阻燃液体, 请与我们的技术处或销售处联系。 <i>Mineral oil (DIN 51524)</i> <i>For use with fire resistant fluids like water glycol, water- oil emulsion and phosphate-esters, contact our technical or commercial office.</i>		
吸入压力 <i>Inlet pressure</i>	0.7 - 3 bar (绝对值 / Absolute)		
吸入管路中油速 <i>Oil speed on suction line</i>	0.5 ÷ 1.5 m/s		
排出管路中油速 <i>Oil speed on pressure line</i>	6 ÷ 10 m/s		
油温 <i>Oil temperature</i>	-10°C ÷ 80°C		
油粘度 <i>Oil viscosity</i>	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 <i>Max starting viscosity</i>	700 mm ² / s (Cst)		
滤油 <i>Oil filtration</i>	压力 <i>Pressure</i>	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 Ratio β _x ≥ 75	25μm	10μm

参数公式

DETERMINATION OF NOMINAL SIZE

泵
FOR PUMP

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

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

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

马达
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 [cm³]
Q [l/min]
p [bar]
M [Nm]
n [min⁻¹]
P [Kw]

η_v = EFF vol. ≥ 95
η_m = EFF mecc. ~ 0.85

η_t = η_v * η_m. ~ 0.8

主要参数

MAIN CHARACTERISTICS

铝制法兰及泵盖 / ALLOY COVER AND FLANGE

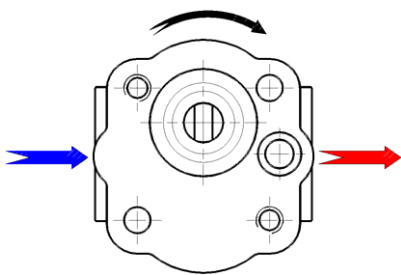
类别 Type		0.35	0.5	0.6	0.8	1	1.2	1.5	1.8
排量 Capacity	Cm ³ / rev	0.33	0.49	0.66	0.82	0.99	1.2	1.53	1.97
P1 最大连续工作压力 Max working pressure	Bar	250	250	250	225	200	180	150	120
P1压力下最大转速 Max speed for P1 pressure	Rpm	10000	9000	8000	7000	6500	6000	5500	5000
后盖油口型P1压力最大转速 Max speed for P1 with rear ports	Rpm	10000	9000	7700	6000	5200	4200	3300	2500
P1压力下最小转速 Min speed for P1 pressure	Rpm	2500	1700	1300	1000	850	700	550	400

双向齿轮泵或马达压力降低15%

With bidirectional pumps or motors , pressure is reduced by 15%

旋转方向

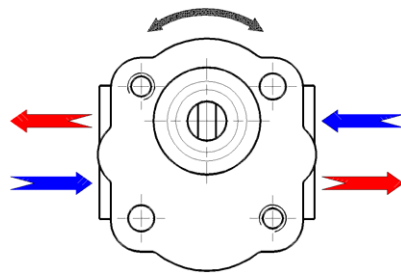
ROTATION



顺时针旋转
Clockwise rotation

代码
Code

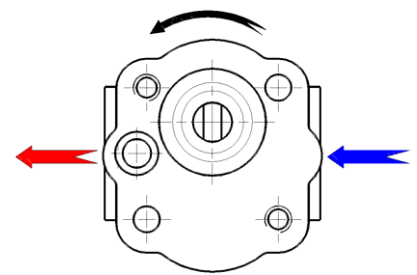
D



外泄双向转动
Bidirectional rotation with external drain

代码
Code

R*



逆时针旋转
Anti-Clockwise rot.

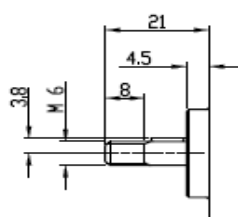
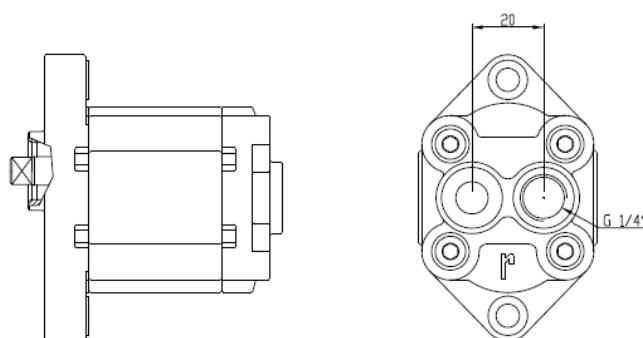
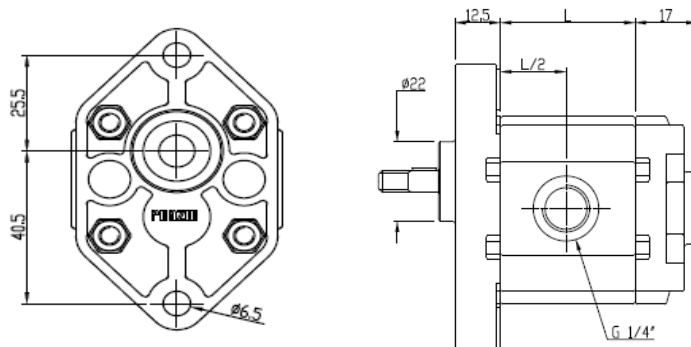
代码
Code

S

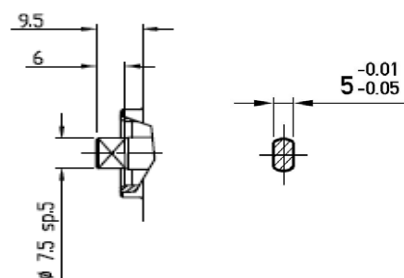
转向见泵体上的箭头标注

Rotation, is indicated by an arrow on the body of the pump.

尺寸
DIMENSIONS



代码/ CODE	C
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代码/ CODE	B
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订货说明
HOW TO ORDERS

				4	5	6	7
0	5	Z	A	12	C	R	D

4	排量 / CAPACITY	代码/ CODE
	SEE PAGE 5	

5	泵轴 / SHAFT	代码/ CODE
	圆轴 / STRAIGHT	C
	扁轴 $\phi 7.5 \times 5$	B

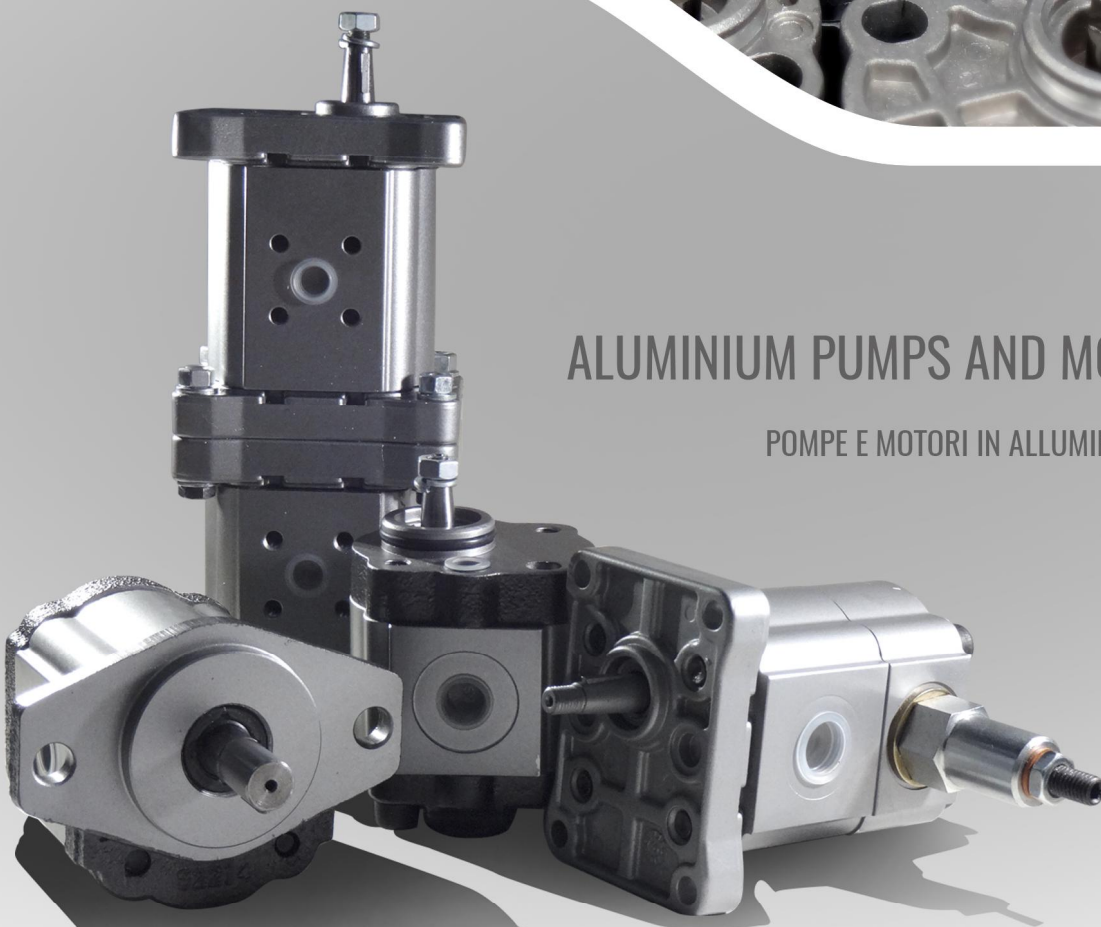
6	油口 / PORTS	代码/ CODE
	后盖油口 / REAR PORTS	P
	侧盖油口 / SIDE PORTS	L

7	旋向 / ROTATION	代码/ CODE
	右旋 / CLOCKWISE	D
	左旋 / ANTI-CLOCKWISE	S
	双向旋转 / BIDIRECTIONAL	R

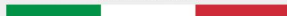


Z1系列泵和马达
ALUMINIUM PUMPS AND MOTORS **Z1 SERIES**

POMPE E MOTORI IN ALLUMINIO SERIE Z1



意大利制造
MADE IN ITALY



主要性能

- ❖ 铝或铸铁泵盖
- ❖ 高压力: 最大连续使用压力达 300 bar (4350 psi)
- ❖ 用压力平衡衬块进行轴向压力补偿
- ❖ 容积效率高: 平均可达到 95%
- ❖ 排量范围大: 从0.8-1.1-1.6-2.1-2.6-3.2-3.7-4.2-4.8
5.5-6.2-7.8-8.8-10.5 cm³/转
- ❖ 挤压成型铝泵体
- ❖ 齿轮的齿加工精度高, 啮合噪音小
- ❖ 轴、法兰盘和配件规格种类齐全, 符合市场上的各种主要标准
- ❖ 高温密封
- ❖ 单向泵和马达
- ❖ 双向泵和马达
- ❖ 可以在罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵

Main Features

- ❖ Cast iron and alloy covers
- ❖ High pressure option: up to 300 bar max. continuous pressure (4350 psi)
- ❖ Axial compensation achieved using pressure balanced bushing blocks.
- ❖ High volumetric efficiency: average 95%
- ❖ Wide range of capacities :
1.1-1.6-2.1-2.6-3.2-3.7-4.2-4.8-5.5
6.2-7.8-8.8 cm³/rev
- ❖ Extruded aluminium body
- ❖ Gear tooth profile accurately projected providing low noise operation.
- ❖ A wide variety of shafts, flanges and ports are available to meet specific application requirements.
- ❖ High-temperature seals available.
- ❖ Single rotational pumps and motors.
- ❖ Bi-rotational pumps and motors.
- ❖ Multiple pumps availability: tandem pumps are possible both in aluminium series and with other cast iron series produced by Ronzio Oleodinamica

“Z1”系列泵 马达使用条件

CONDITIONS OF USE FOR PUMPS “Z1”

泵在运转时, 避免给主轴在径向或轴向加载。

使用弹性接合或“Oldham”接合补偿没有对准的误差, 使齿轮泵位于一条直线上。

我们建议用户仔细阅读下表中的内容, 从而能够正确地使用齿轮泵, 延长泵的使用寿命。

Avoid radial and axial loads on the pump shaft during the use.

The pump must be in line with the P.T.O. To compensate misalignment errors, use flexible or “Oldham” coupling.

We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

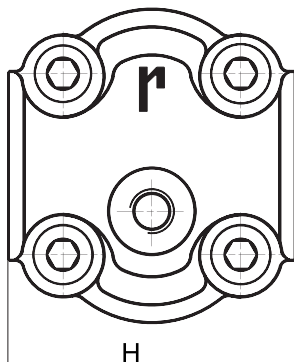
本手册中的技术指标随时有可能被更新。

The technical characteristics in this catalogue can be changed in any moment.

Z1 型泵的使用条件

USE CONDITIONS FOR THE PUMPS Z1

流体介质 Hydraulic fluids	矿物油 (DIN 51524) 如果要使用水和乙二醇、水油乳液和磷酸脂等阻燃液体, 请与我们的的技术处或销售处联系。 <i>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.</i>		
吸入压力 Inlet pressure	0.7 - 3 bar (绝对值 / Absolute)		
吸入管路中油速 Oil speed on suction line	0.5 ÷ 1.5 m/s		
排出管路中油速 Oil speed on pressure line	6 ÷ 10 m/s		
油温 Oil temperature	-10°C ÷ 80°C		
油粘度 Oil viscosity	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 Max starting viscosity	700 mm ² / s (Cst)		
滤油 Oil filtration	压力 Pressure	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 <i>Ratio β_x</i>	25μm	10μm



H=64 mm. 对法兰型孔为 (european or Bosch 型)
 H=65 mm 对进出口为BSPP型

主要参数

MAIN CHARACTERISTICS

铝制法兰盘及泵盖/ALLOY COVER AND FLANGE

类别 Type		08	11	16	21	26	32	37	42	48	55	62	78	88	105
排量 Capacity	Cm ³ / 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
P1 最大连续工作压力 Max working pressure	Bar	240	240	240	240	230	210	210	190	180	170	150	130	120	100
P2 间歇工作压力 intermittent pressure	Bar	260	260	250	250	250	240	230	210	200	180	160	140	130	120
P3 最大峰值压力 Max peak pressure	Bar	280	280	280	280	280	270	260	240	230	210	190	170	160	130
P1压力下最大转速 Max speed for P1 pressure	Rpm	6000	6000	6000	6000	5500	4500	4000	3800	3500	3500	3000	3000	3000	3000
最大空转速度 Max speed without load	Rpm	8000	8000	8000	8000	8000	7000	6000	5500	5000	4500	4500	4000	4000	4000
P1压力下最小转速 Min speed for P1 pressure	Rpm	1100	1100	950	800	700	600	500	450	400	400	400	400	400	400

铸铁法兰盘及泵盖/CAST IRON COVER AND FLANGE

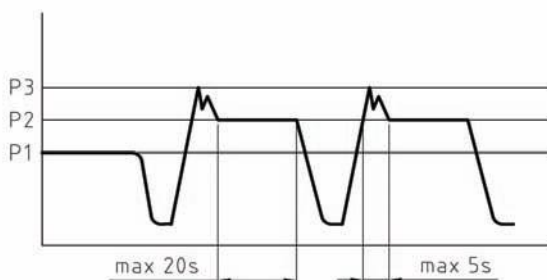
类型 Type		08	11	16	21	26	32	37	42	48	55	62	78	88	105
排量 Capacity	Cm ³ / rev	0.80	1.08	1.59	2.09	2.59	3.15	3.68	4.19	4.79	5.49	6.2	7.81	8.82	10.5
P1 最大连续工作压力 Max working pressure	Bar	300	300	300	300	300	300	275	260	260	240	230	190	170	140
P2 间歇工作压力 Intermittent pressure	Bar	320	320	320	320	320	320	290	275	275	250	240	200	180	160
P3 最大峰值压力 Max peak pressure	Bar	350	350	350	350	350	350	310	290	290	270	260	220	200	170
P1压力下最大转速 Max speed for P1 pressure	Rpm	8000	8000	8000	7000	5700	4700	4400	4000	3600	3400	3200	3000	3000	3000
最大空转速度 Max speed without load	Rpm	8000	8000	8000	8000	8000	7000	6000	5500	5000	4500	4500	4000	4000	4000
P1压力下最小转速 Min speed for P1 pressure	Rpm	1500	1200	1000	800	650	550	450	400	350	300	250	200	200	150

双向齿轮泵或马达压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

对于要求轴D, N, Q, P, S和R的泵性能高于以上表中时, 请咨询我们的技术部。

FORMULE PER DIMENSIONAMENTO / 参数公式



泵
FOR PUMP

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

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

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

马达
FOR MOTOR

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

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

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

V [cm³]

Q [l/min]

p [bar]

M [Nm]

n [min⁻¹]

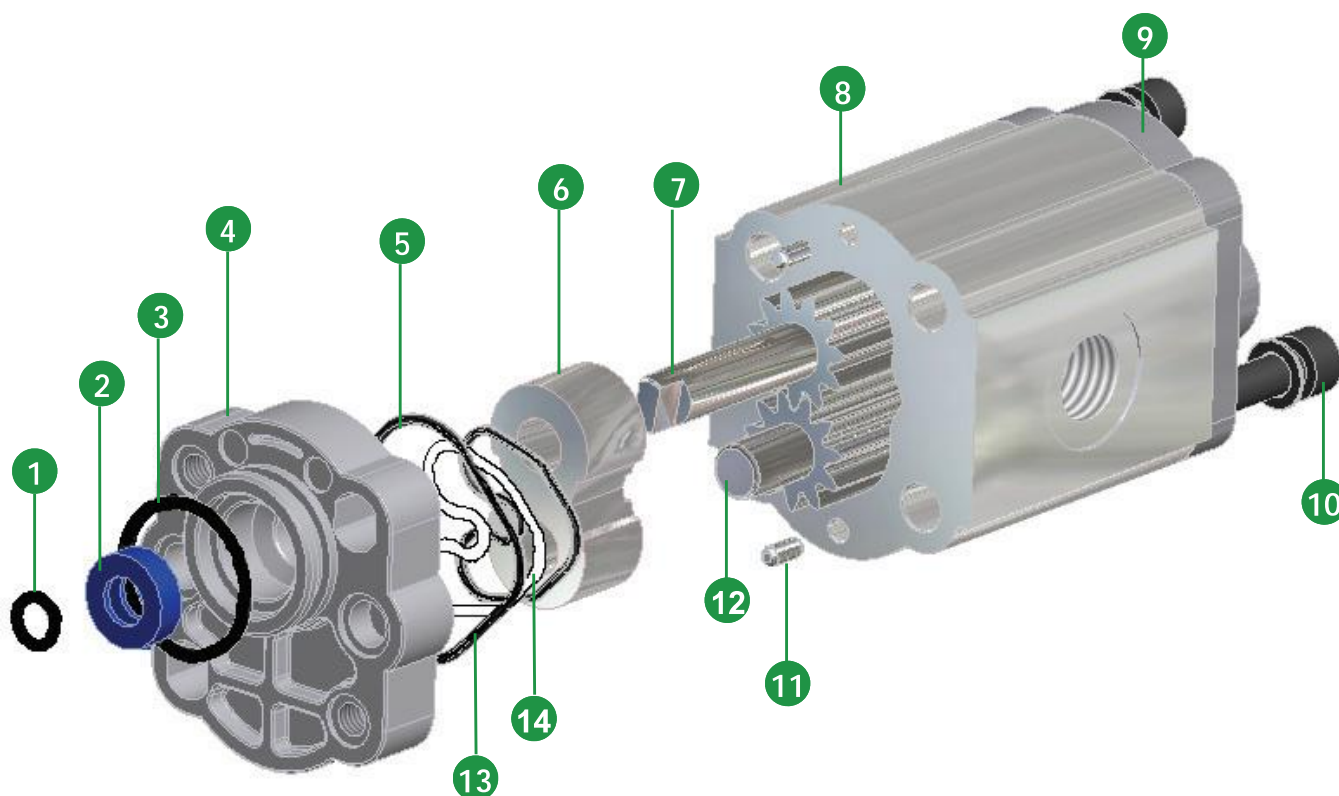
P [Kw]

η_v = EFF vol. ≥ 95

η_m = EFF mecc. ~ 0.85

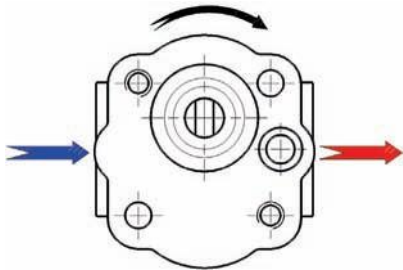
η_t = $\eta_v \cdot \eta_m$. ~ 0.8

部件
PARTS

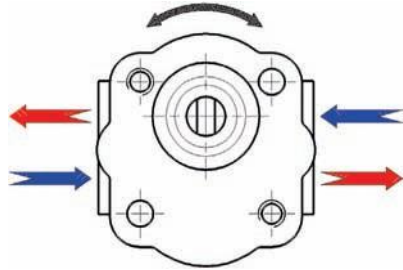


Rif.	Descrizione	Description	Qt.
1	输出端油封	Outlet seal	1
2	轴封环	Rotary shaft seal	1
3	法兰盘油封	Flange seal	1
4	前法兰	Front flange	1
5	泵盖下封条	Under cover seal	2
6	轴衬座	Bushing block	2
7	主动齿轮	Drive gear	1
8	泵体	Housing	1
9	泵盖	Cover	1
10	螺母	Bolt	2
11	圆柱销	Pin	4
12	从动齿轮	Idle gear	1
13	补偿垫圈	Compensation seal	2
14	防挤压密封条	Seal against extruding	2

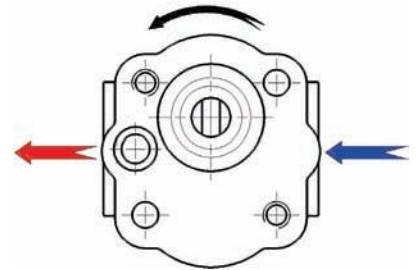
旋转方向
ROTATION



顺时针旋转 <i>Clockwise rotation</i>	代码 <i>Code</i>	D
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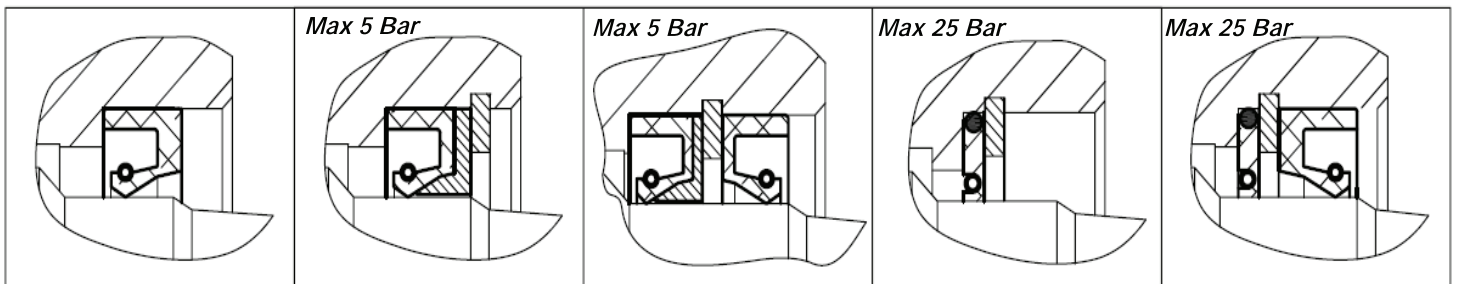
外泄双向转动 <i>Bidirectional rotation with external drain</i>	代码 <i>Code</i>	R*
内泄双向转动 <i>Bidirectional rotation with internal drain</i>	代码 <i>Code</i>	Y



逆时针旋转 <i>Anti-Clockwise rot.</i>	代码 <i>Code</i>	S
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转向见泵体上的箭头标注
Rotation, is indicated by an arrow on the body of the pump.

轴封
SHAFT SEAL



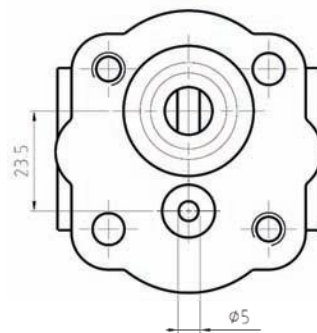
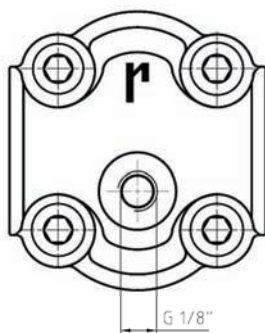
代码 <i>Code</i>	N	NBR
	V	VITON

代码 <i>Code</i>	R	NBR
	RV	VITON

代码 <i>Code</i>	N2	NBR
	V2	VITON

代码 <i>Code</i>	B	NBR
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代码 <i>Code</i>	BN	NBR
	BV	VITON

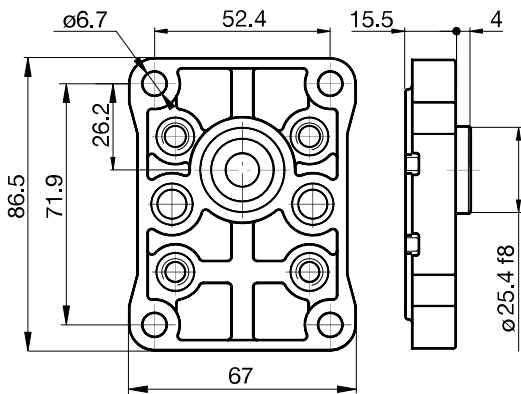


双向旋转泵或马达的后泄油口 <i>Rear drain for bidirectional pumps or motors</i>	R*
--	-----------

泵或马达的前泄油口 <i>Front drain for pumps or motors</i>	R1
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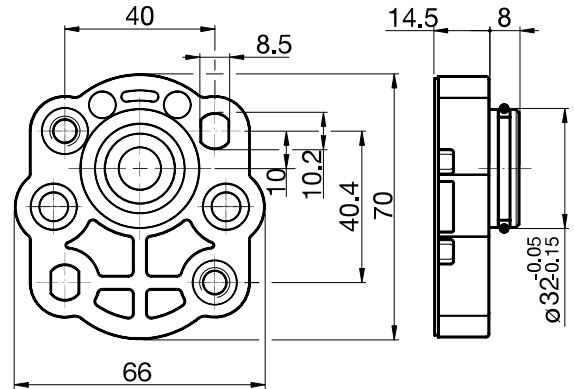
* 注意: "R"可以代表双向旋转; 加强密封; 后泄油。
Code "R" includes bidirectional rotation, reinforced shaft seal 5 bar and rear drain

法兰
FLANGES



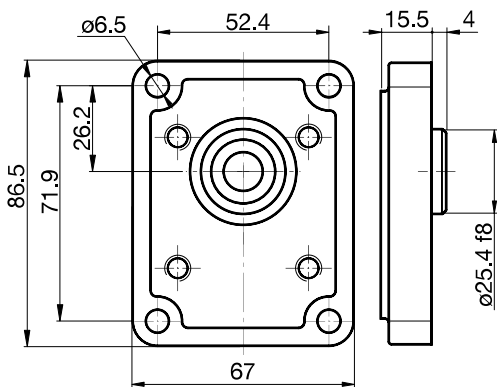
代码 CODE	A	0	4
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注：铝材
NOTE : Material Alloy



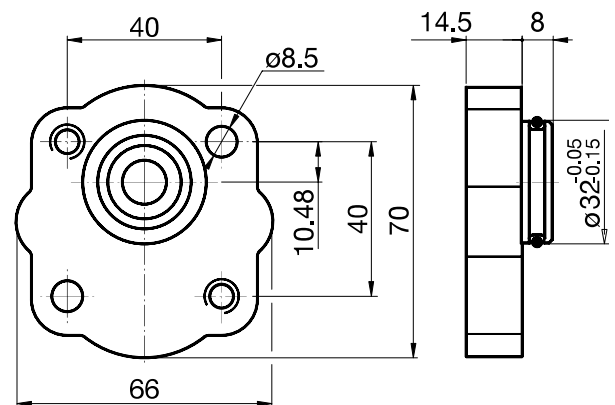
代码 CODE	B	0	1
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注：铝材
NOTE : Material Alloy



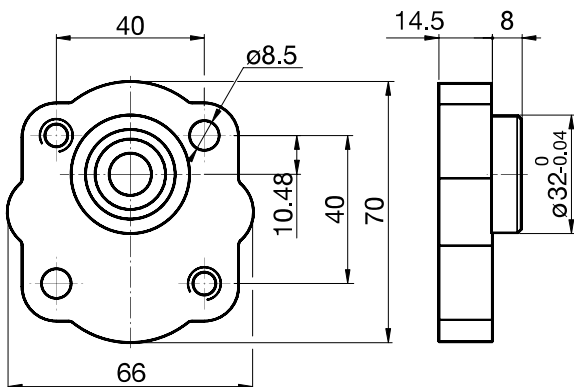
代码 CODE	A	G	4
------------	----------	----------	----------

注：铸铁
NOTE : Material cast iron



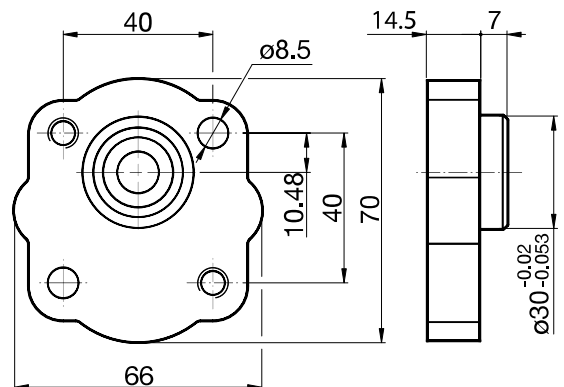
代码 CODE	B	G	1
------------	----------	----------	----------

注：铸铁
NOTE : Material cast iron



代码 CODE	B	G	5
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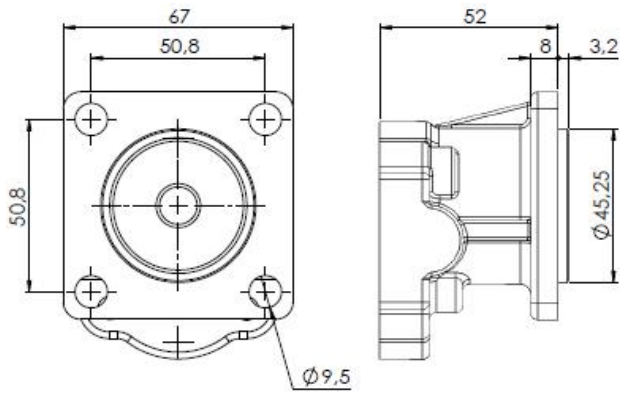
注：铸铁
NOTE : Material cast iron



代码 CODE	B	G	2
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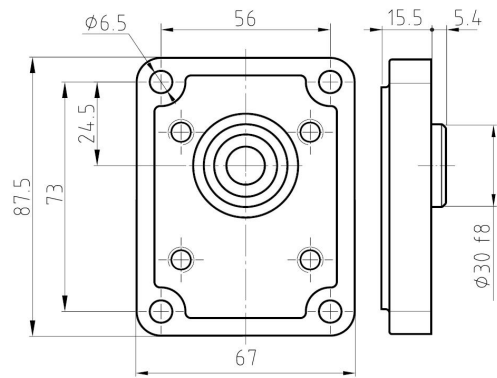
注：铸铁
NOTE : Material cast iron

法兰
FLANGES



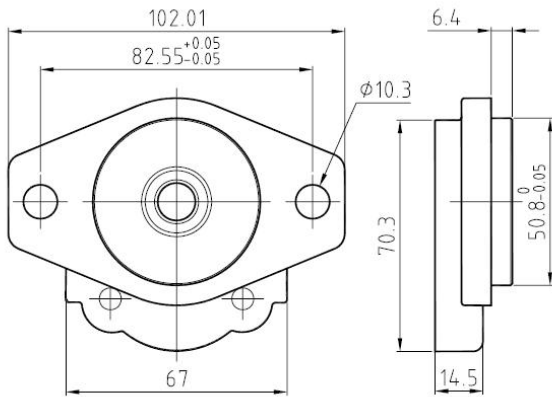
代码 CODE	D	G	7
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注：铸铁
NOTE : Material cast iron



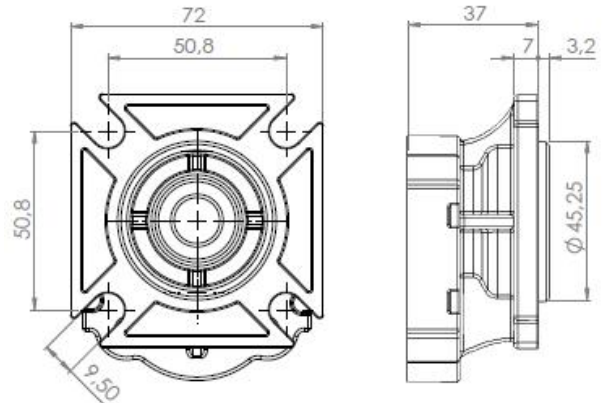
代码 CODE	E	G	2
------------	----------	----------	----------

注：铸铁
NOTE : Material cast iron



代码 CODE	C	G	6
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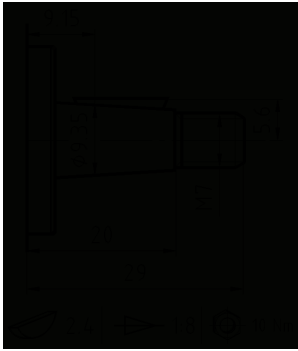
注：铸铁
NOTE : Material cast iron



代码 CODE	D	0	7
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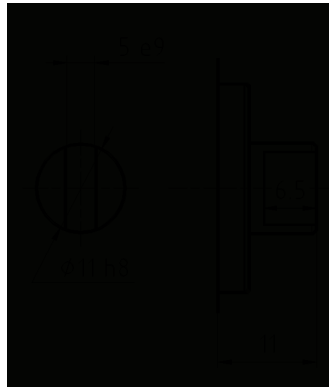
注：铝合金
NOTE : Material Aluminium

泵轴
SHAFTS



最大扭矩 36Nm
Max torque 36 Nm

代码/ CODE	C		
配法兰/FOR FLANGE	A	G	4
	A	0	4



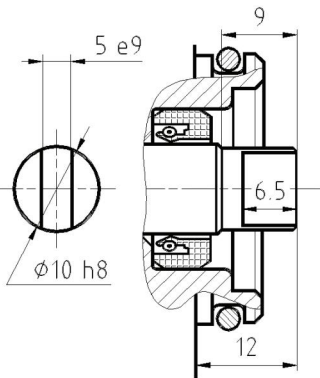
最大扭矩 24Nm
Max torque 24 Nm

代码/ CODE	F		
配法兰/FOR FLANGE	A	G	4
	A	0	4



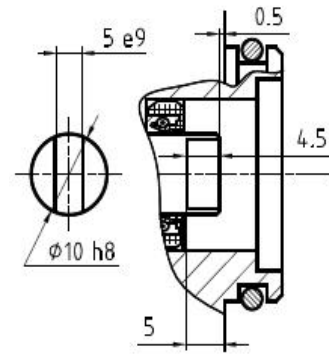
最大扭矩 24Nm
Max torque 24 Nm

代码/ CODE	F		
配法兰/FOR FLANGE	B	G	1
	B	0	1



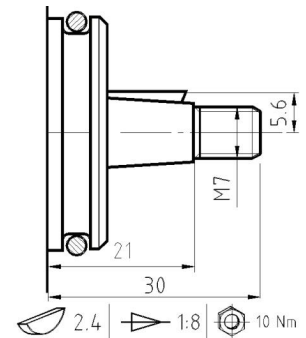
最大扭矩 18Nm
Max torque 18 Nm

代码/ CODE	M		
配法兰/FOR FLANGE	B	G	1
	B	0	1



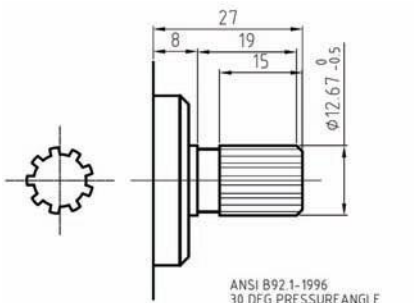
最大扭矩 18Nm
Max torque 18 Nm

代码/ CODE	G		
配法兰/FOR FLANGE	B	G	1
	B	0	1



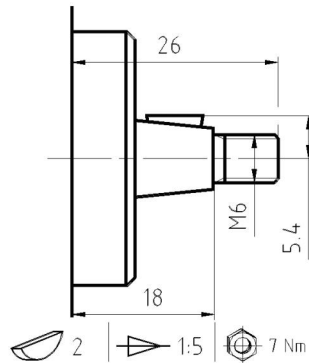
最大扭矩 36Nm
Max torque 36 Nm

代码/ CODE	C		
配法兰/FOR FLANGE	B	G	1
	B	0	1



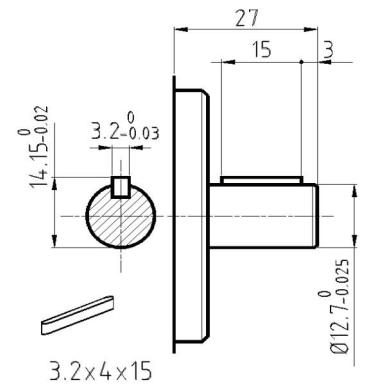
最大扭矩 45 Nm
Max torque 45 Nm

代码/ CODE	Q		
配法兰/FOR FLANGE	C	G	6



最大扭矩 30Nm
Max torque 30 Nm

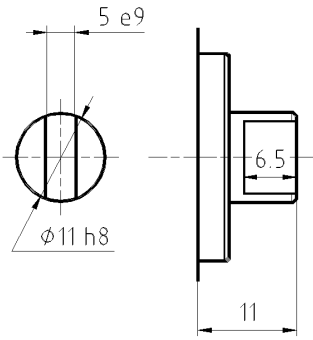
代码/ CODE	B		
配法兰/FOR FLANGE	B	G	5
	B	0	5



最大扭矩 28Nm
Max torque 28 Nm

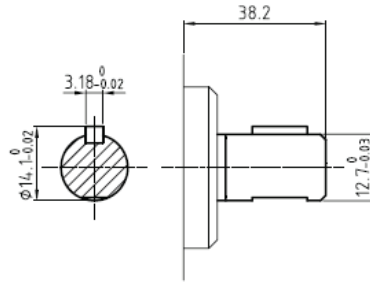
代码/ CODE	N		
配法兰/FOR FLANGE	C	G	6

泵轴 SHAFTS



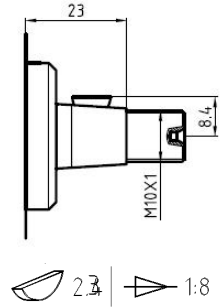
最大扭矩 24 Nm
Max torque 24 Nm

代码/ CODE	V		
配法兰/ FOR FLANGE	D	0	7



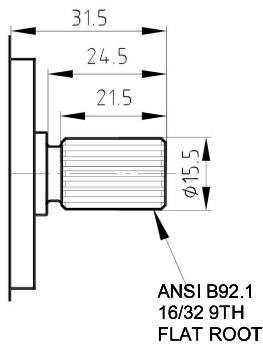
最大扭矩 35 Nm
Max torque 35 Nm

代码/ CODE	P		
配法兰/ FOR FLANGE	D	G	7



最大扭矩 60 Nm
Max torque 60 Nm

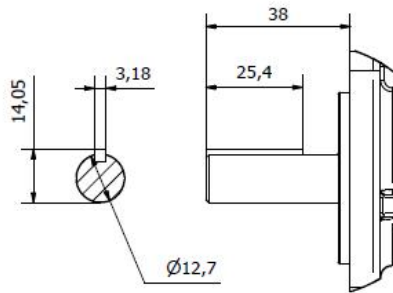
代码/ CODE	S		
配法兰/ FOR FLANGE	A	G	4
	A	0	4
	E	G	2



最大扭矩 27 Nm
Max torque 27 Nm

代码/ CODE	U		
配法兰/ FOR FLANGE	D	0	7

需使用外置轴承1型
ONLY FOR BEARING SUPPORT TYPE 1



最大扭矩 27 Nm
Max torque 27 Nm

代码/ CODE	T		
配法兰/ FOR FLANGE	D	G	7

需使用外置轴承1型
ONLY FOR BEARING SUPPORT TYPE 1

外置轴承1型

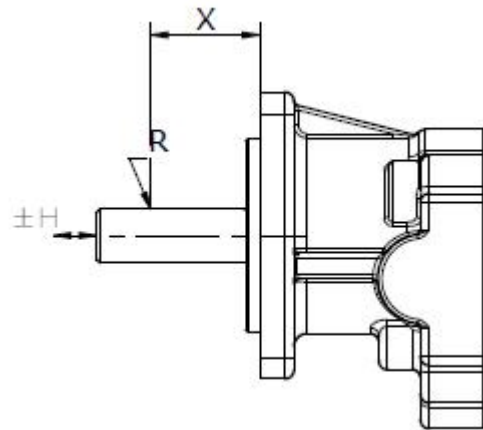
OUTBOARD BEARING TYPE 1

对应法兰
AVAILABLE FOR FLANGE

D G 7

对应泵轴
AVAILABLE FOR SHAFT

U-T



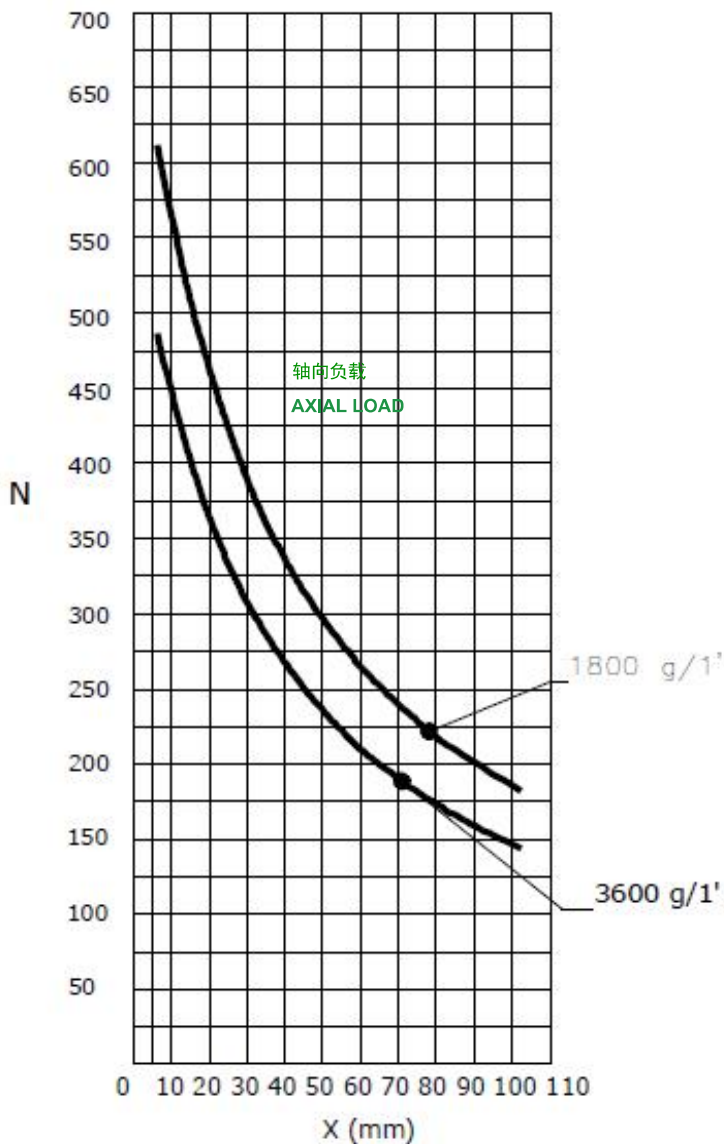
最大扭矩27Nm

Max torque 27 Nm

最高可支持50Nm。

如需再高的扭矩请联系我司技术部。

轴向-径向负载图表
GRAPHIC OF RADIAL AND AXIAL LOAD



荷载图

- 疲劳寿命等级: 1000h
- 油号: VG-46
- 温度: 60°C
- 可信度: 90%
- 污染等级: 10 μ

负载值视工作情况而定

LOAD DIAGRAM

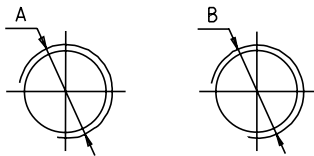
- Rating fatigue life 1000 h
- Oil type VG-46
- Temperature 60°C
- Trust 90%
- Contamination 10 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

进出油口

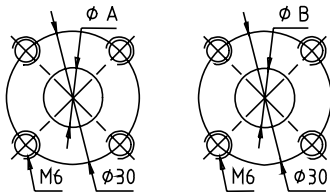
INLET AND OUTLET PORTS

进油口 SIDE INLET	出油口 SIDE OUTLET
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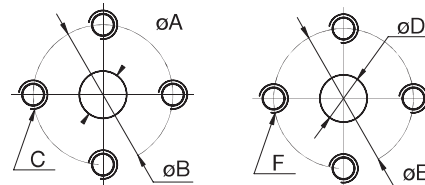
A	B	Code
G 1/2	G 3/8	00
G 3/8	G 3/8	01
G 1/4	G 1/4	06
M18x1.5	M14x1.5	09
9/16-18UNF	9/16-18UNF	54
3/4-16UNF	9/16-18UNF	55

进油口 SIDE INLET	出油口 SIDE OUTLET
-------------------	--------------------



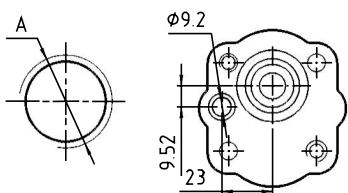
A	B	代码 Code
13	8	13
12	8	16
10	10	17
12	12	42

进油口 SIDE INLET	出油口 SIDE OUTLET
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A	B	C	D	E	F	代码 Code
12	30	M6	12	30	M6	14
10	26	M5	10	26	M5	28

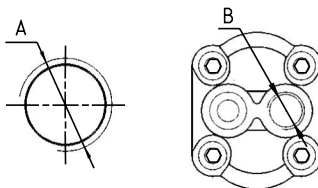
侧吸入 SIDE INLET	前输出 FRONT OUTLET
-------------------	---------------------



LA FIGURA MOSTRA
UNA POMPA SINISTRA

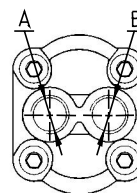
A	Code
G 3/8	05
G 1/4	08

侧吸入 SIDE INLET	后输出 REAR OUTLET
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A	B	Code
G 3/8	G 3/8	03
G 3/8	G 1/4	04

后吸入 REAR INLET	后输出 REAR OUTLET
-------------------	--------------------

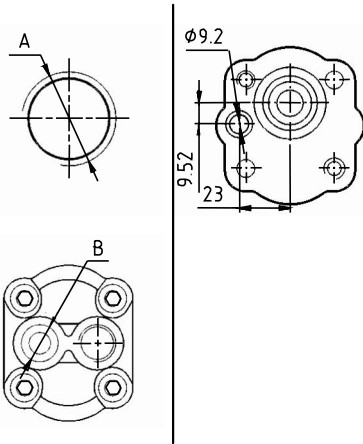


A	B	Code
G 3/8	G 3/8	19
G 3/8	G 1/4	20

进出油口尺寸

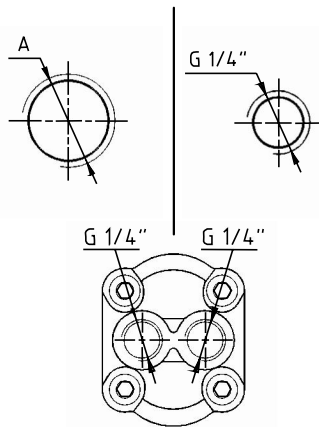
INLET AND OUTLET PORTS

侧吸入 SIDE INLET	前输出 FRONT OUTLET
后吸入 REAR INLET	



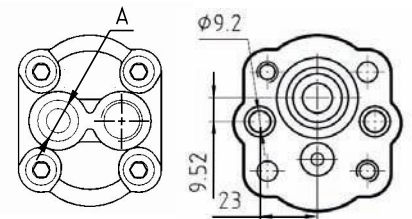
A	B	代码 Code
G 1/4	G 3/8	23
G 1/4	G 1/4	25
3/4-16UNF	G 3/8	39

侧吸入 SIDE INLET	侧输出 SIDE OUTLET
后吸入 REAR INLET	后输出 REAR OUTLET



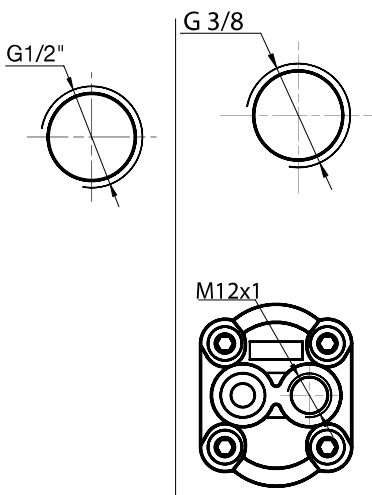
A	代码 Code
G 3/8	22
G 1/4	31

后吸入 REAR INLET	前输出 FRONT OUTLET
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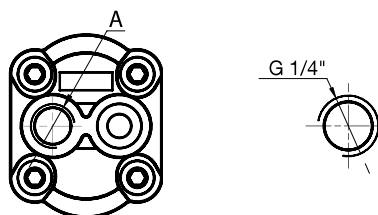
A	代码 Code
G 1/4	24
G 3/8	30

侧吸入 SIDE INLET	侧输出 SIDE OUTLET
	后输出 REAR OUTLET



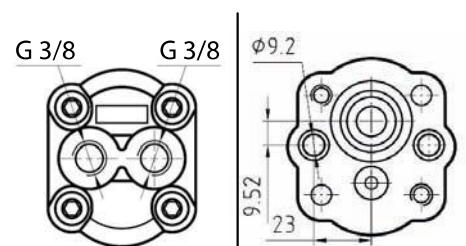
代码 Code	26
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后吸入 REAR INLET	侧输出 SIDE OUTLET
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A	代码 Code
G 1/4	40
G 3/8	43

后吸入 REAR INLET	前吸入 FRONT INLET
后输出 REAR OUTLET	前输出 FRONT OUTLET

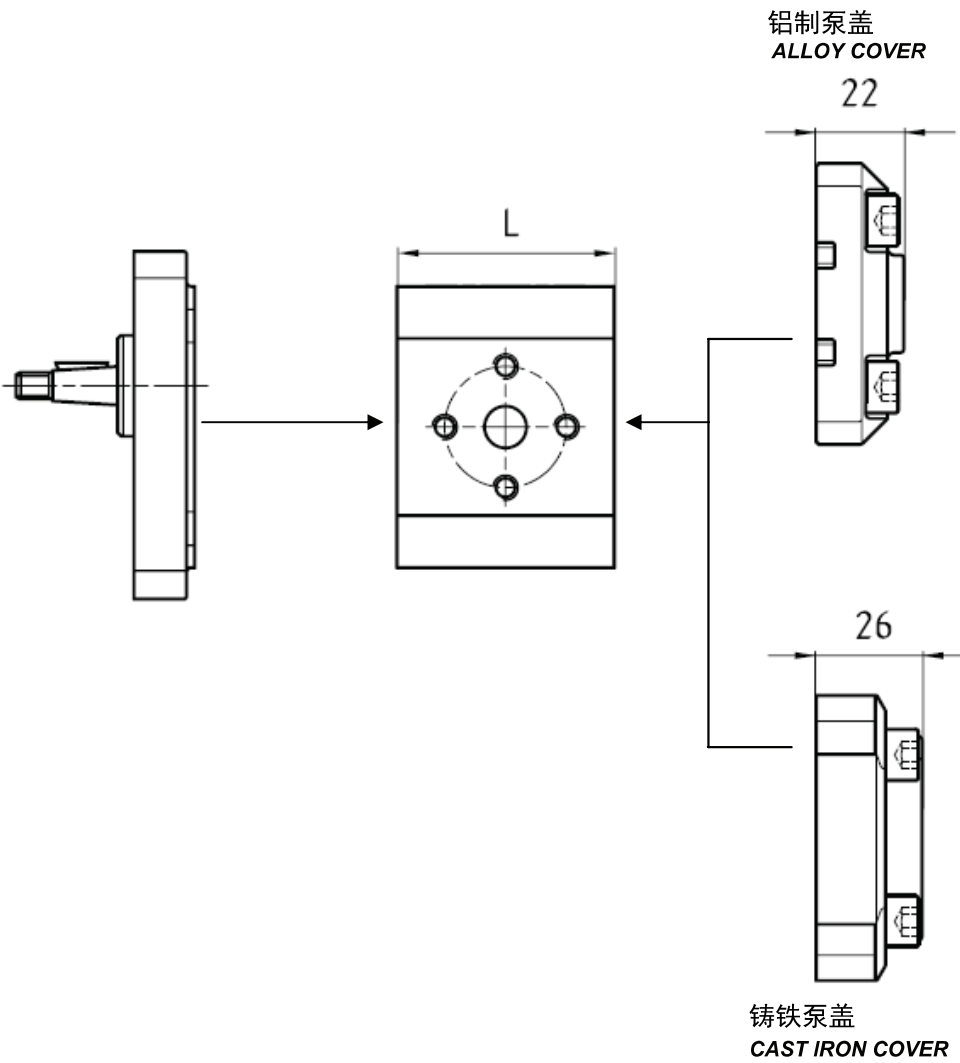


此形式请联系我司技术部。

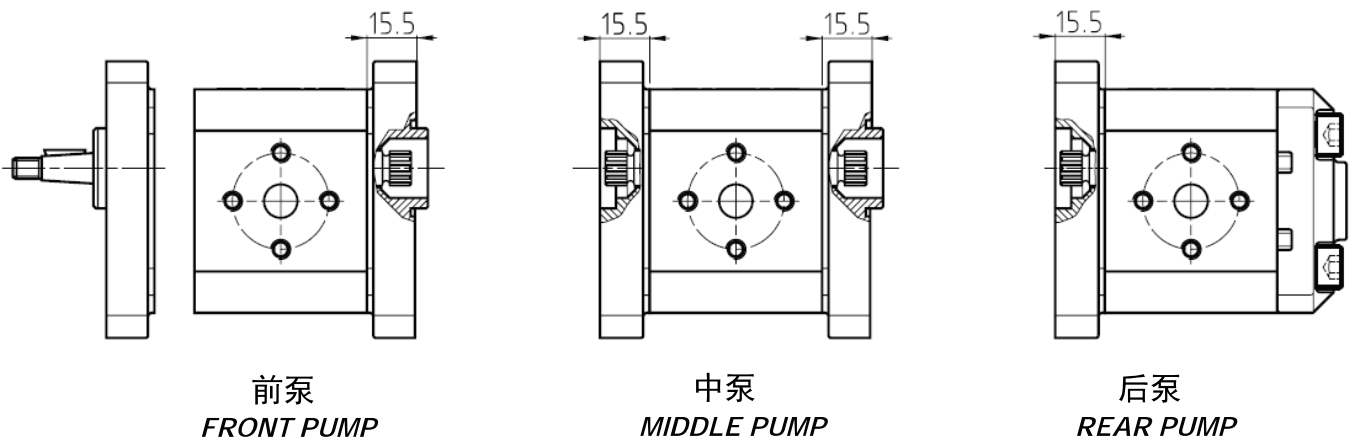
代码 Code	65
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总尺寸

OVERALL DIMENSIONS

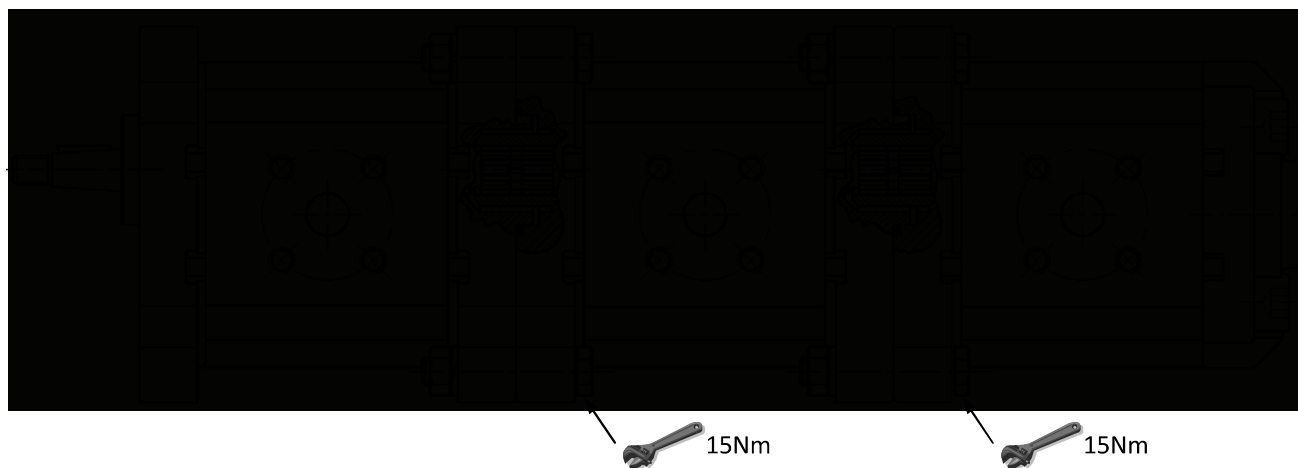


类型 TYPE	L
08	31,8
11	38,3
16	40,3
21	42,3
26	44,3
32	46,5
37	48,6
42	50,6
48	53
55	55,8
62	58,6
78	65
88	69
105	82,3



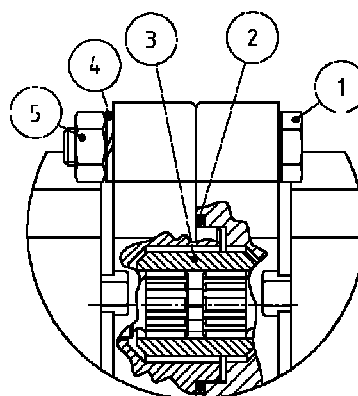
Z1多联泵安装组件

ASSEMBLING KIT FOR MULTIPLE UNITS Z1

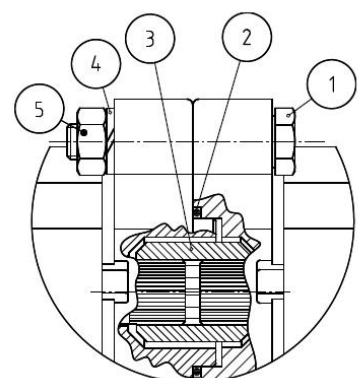


最大轴负载需考虑连接的限制。
最大扭矩为27Nm。
如有需要，轴载荷可达50Nm。

Ref	27Nm规格组件 <i>PARTS</i>
1	M6 x 35 UNI 5737
2	OR 2100
3	连接轴 <i>Coupling (GS87067)</i>
4	垫圈 Washer
5	M6螺母 Stud nut M6
连接件代码 <i>Code KIT</i> K1000000	

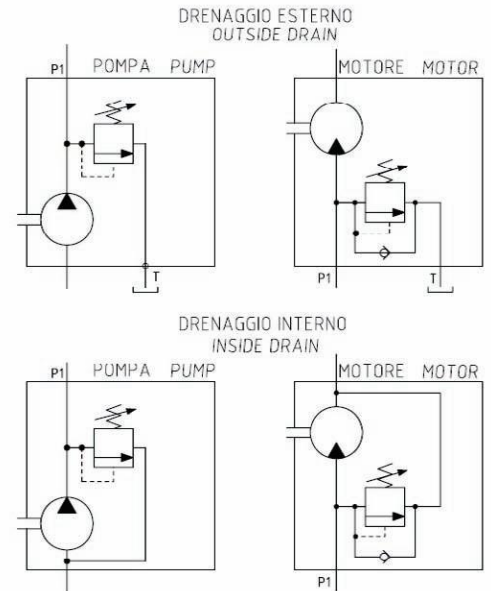
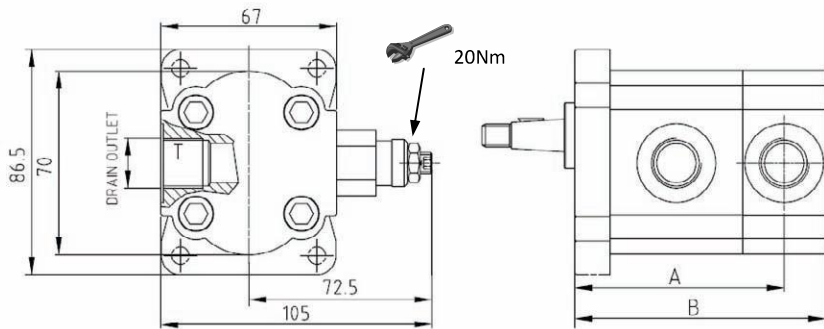


Ref	50Nm规格组件 <i>PARTS</i>
1	M6 x 35 UNI 5737
2	OR 2100
3	连接轴 <i>Coupling (GS87161)</i>
4	垫圈 Washer
5	M6螺母 Stud nut M6
连接件代码 <i>Code KIT</i> K1000011	



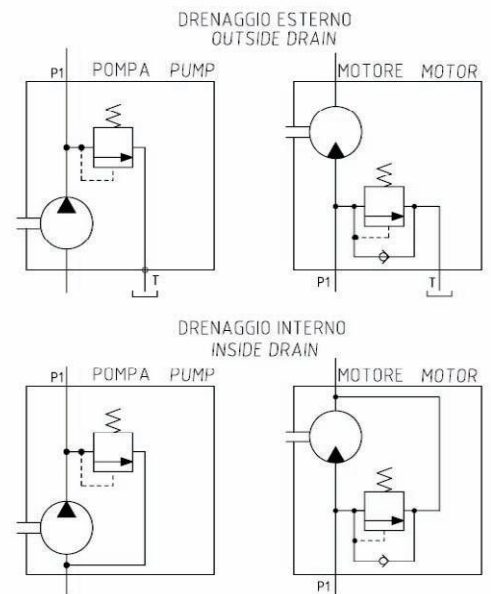
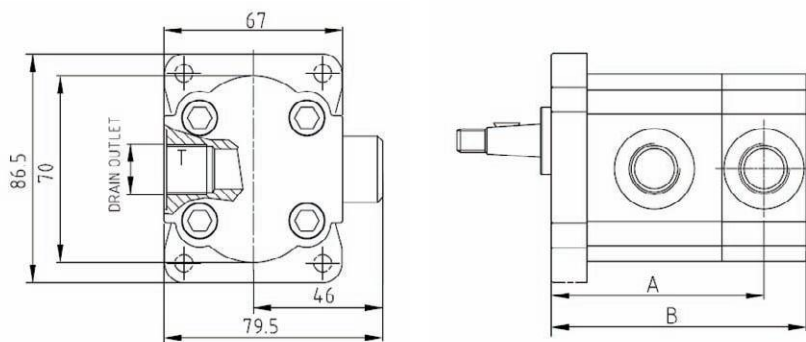
溢流阀 RELIEF VALVES

可调节压力溢流阀 “VR” VALVE WITH ADJUSTABLE CALIBRATION “VR”



TYPE	8	11	16	21	26	32	37	42	48	55	62	78	88	105
A	72	73	75	77	79	81	83	85	87	90	93	99	103	116
B	87	88	90	92	94	96	98	100	102	105	108	114	118	131

固定压力溢流阀 “VF” VALVE WITH FIXED CALIBRATION “VF”



Z1单泵/马达订货说明

HOW TO ORDER Z1 SINGLE UNITS

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	1	Z	A	G	21	C	4	08	--	D	1	N	VR	01	210

1	类型 / UNIT TYPE	代码 / CODE
	泵 PUMP	Z
	马达 MOTOR	ZM

2-3-6	法兰 / FLANGE (见P15-16)	代码 / CODE
	欧标 / EUROPEAN	A 0 4
	德国 / GERMAN	B 0 1
	欧标 / EUROPEAN	A G 4
	德国 / GERMAN	B G 1
	德国 / GERMAN	B G 5
	德国 / GERMAN	B G 2
	美标 SAE AA / AMERICAN SAE AA	D G 7
	欧标 / EUROPEAN	E G 2
	美标 SAE AA / AMERICAN SAE AA	C G 6
	美标 SAE AA / AMERICAN SAE AA	D 0 7

4	排量 / CAPACITY cm ³	代码 / CODE
	0.80	08
	1.08	11
	1.59	16
	2.09	21
	2.59	26
	3.15	32
	3.68	37
	4.19	42
	4.79	48
	5.49	55
	6.2	62
	7.81	78
	8.82	88
	10.5	105

5	泵轴 / SHAFT (见P17-18)	代码 / CODE
	锥轴 1:8 / TAPERED 1:8	C
	扁键 11 x 5	F
	扁键 10 x 5	M
	短锥轴 10 x 5	G
	锥轴 1:5 / TAPERED 1:5	B
	圆轴 / STRAIGHT Ø 12.7	N
	花键轴 /40 FLAT ROOT	Q
	圆轴 Ø 12.7x38 / STRAIGHT Ø 12.7x38	P
	锥轴 1:8 Ø 12.7 / TAPERED 1:8 Ø 12.7	S
	扁键 PENNA 11 x 5	V
	花键轴 ANSI B92.1 9TH 16/32 FLAT ROOT	U
	圆轴 CILINDRICO Ø 12.7 / STRAIGHT Ø 12.7	T

7	油口 / PORTS (见P20-21)	代码 / CODE
	GERMAN	14-28
	EUROPEAN	13-16-17-42
	GAS	00-01-03-04-05-06-08-09-19-20
	SAE	53 - 54

8	多级泵 / FOR TANDEM	代码 / CODE
	多级泵 / FOR TANDEM	T
	忽略 / NONE	--

9	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S
	双向旋转带前泄油口 BIDIRECTIONAL WITH FRONT DRAIN	R1
	双向旋转带外泄油口 BIDIRECTIONAL WITH EXTERNAL REAR DRAIN	R 只适用于铸铁
	双向旋转带内泄油口 BIDIRECTIONAL WITH INTERNAL DRAIN	Y 暂时未供应

10	外置轴承 / BEARING TYPE	代码 / CODE
	NONE	-
	SUPPORTO TIPO 1 / SUPPORT TYPE 1	1

11	轴封 / SHAFT SEAL (见P14)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

12	溢流阀 / RELIEF VALVE	代码 / CODE
	不带溢流阀 / WITHOUT	-
	可调整溢流阀 / ADJUST. CALIBRATION	VR
	固定溢流阀 / FIXED CALIBRATION	VF

13	泄油口尺寸 / DRAIN DIMENSION	代码 / CODE
	1/4" G	1
	7/16" -20 UNF -2B	2

14	溢流阀压力值	代码 / CODE
	50 - 75 - 100 - 125 - 150 - 200 - 250 - 300 - 330	

*: 马达和泵如果使用速度大于2800rpm时, 轴端旋转密封请选择氟橡胶或请咨询我们的销售部

** : 双向旋转泵和马达仅提供铸铁端盖, 内泄Y型

Z1多联齿轮泵/马达订货说明

HOW TO ORDER Z1 MULTIPLE UNITS

			1	2	3	4	5	6	7	8	
0	1	Z	A	G	88	C	4	14	A	S	V

前泵
FRONT PUMP

				2	3			6	7	
0	1	Z	A	G	42	0	0	14	I	S

中泵
MIDDLE PUMP

				2	3			6	7	
0	1	Z	A	G	21	0	0	14	P	S

后泵
REAR PUMP

1-2-5	法兰 / FLANGE (见P15-P16)	代码 / CODE
	EUROPEAN	A 0 4
	GERMAN	B 0 1
	EUROPEAN	A G 4
	GERMAN	B G 1
	GERMAN	B G 5
	GERMAN	B G 2
	AMERICAN SAE AA	D G 7
	EUROPEAN	E G 2
	AMERICAN SAE AA	D 0 7
	EUROPEAN	E 0 2

	圆轴 Ø 12.7 / STRAIGHT Ø 12.7	N
	ANSI B92.1 9TH 20/40 FLAT ROOT	Q
	圆轴 Ø 12.7x38 / STRAIGHT Ø 12.7x38	P
	锥轴 / TAPERED 1:8 Ø 12.7	S
	圆轴 Ø 12 / STRAIGHT Ø 12	R
	圆轴 Ø 10 / STRAIGHT Ø 10	L

3	排量 / CAPACITY cm ³	代码 / CODE
	0.80	08
	1.08	11
	1.59	16
	2.09	21
	2.59	26
	3.15	32
	3.68	37
	4.19	42
	4.79	48
	5.49	55
	6.2	62
	7.81	78
	8.82	88
	10.5	105

6	油口 / PORTS (见P20-P21)	代码 / CODE
	GERMAN	14-27-28-29
	EUROPEAN	11-12-13-15-16-17-18-42
	GAS	00-01-02-03-04-05-06-07-08-09-10-19-20-21
	SAE	53 - 54

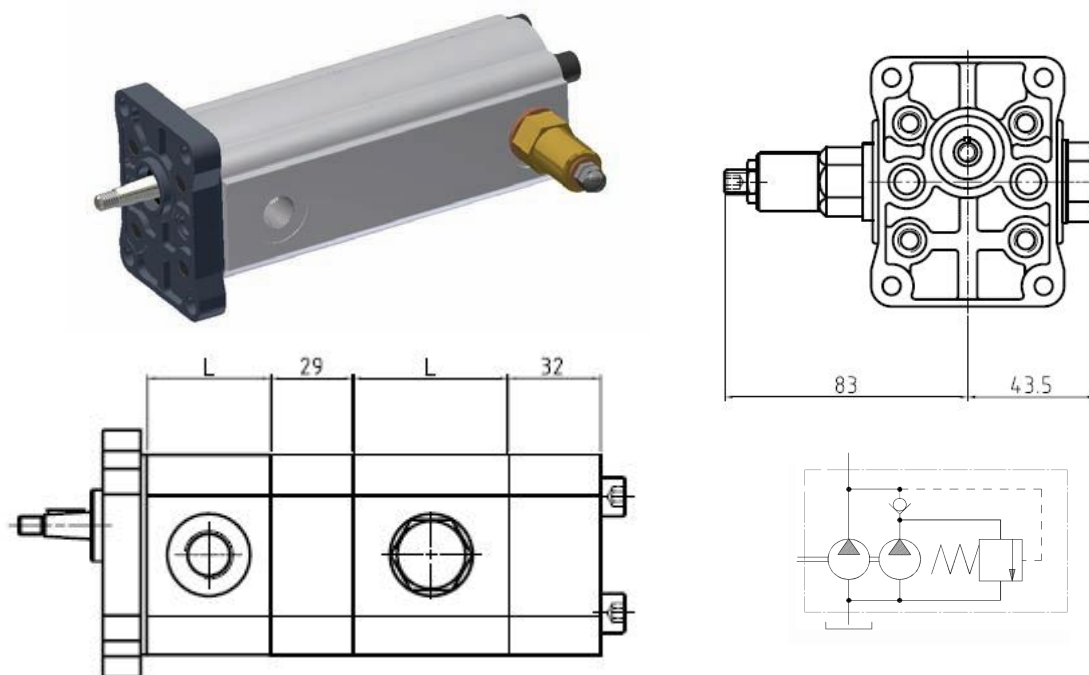
7	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

4	泵轴 / SHAFT (见P17-P18)	代码 / CODE
	锥轴 1:8 / TAPERED 1:8	C
	扁键 11 x 5	F
	扁键 10 x 5	M
	短扁键 / PENNA CORTO 10 x 5	G
	12x9 Z6 DIN 5487	D
	锥轴1: 5 / TAPERED 1:5	B

8	轴封 / SHAFT SEAL (见P14)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

带顺序阀的Z1多联泵(高-低压泵)

MULTIPLE PUMPS Z1 WITH SEQUENCE VALVE (HIGH-LOW PUMP)



			1	2		3	4	5	6	7	8	9
0	1	Z	A	0	D	11	48	C	4	01	S	R

1-2-6	法兰 / FLANGE (见P15-P16)	代码 / CODE
	EUROPEAN	A 0 4
	GERMAN	B 0 1
	EUROPEAN	A G 4
	GERMAN	B G 1
	GERMAN	B G 5
	GERMAN	B G 2
	AMERICAN SAE AA	D G 7
	EUROPEAN	E G 2
	AMERICAN SAE AA	C G 6
	EUROPEAN	E 0 2

3-4	排量 / CAPACITY cm ³	代码 / CODE
	0.80	08
	1.08	11
	1.59	16
	2.09	21
	2.59	26
	3.15	32
	3.68	37
	4.19	42
	4.79	48
	5.49	55

5	泵轴 / SHAFT (见P17-P18)	代码 / CODE
	锥轴 1:8 / TAPERED 1:8	C
	12x9 Z6 DIN 5487	D
	锥轴 / TAPERED 1:5	B

	圆轴 Ø 12.7 / STRAIGHT Ø 12.7	N
	ANSI B92.1 9TH 20/40 FLAT ROOT	Q
	圆轴 Ø 12.7x38 / STRAIGHT Ø 12.7x38	P
	锥轴 / TAPERED 1:8 Ø 12.7	S
	圆轴 Ø 12 / STRAIGHT Ø 12	R
	圆轴 Ø 10 / STRAIGHT Ø 10	L

7	油口 / PORTS (见P20-P21)	代码 / CODE
	GERMAN	14-27-28-29
	EUROPEAN	11-12-13-15-16-17-18-42
	GAS	00-01-02-05-06-08-09-10
	SAE	53 - 54

8	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

9	轴封 / SHAFT SEAL (见P14)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH



Z2系列铝合金泵和马达（铸铁体法兰和后端盖）

ALUMINIUM PUMPS AND MOTORS **Z2 SERIES**

POMPE E MOTORI IN ALLUMINIO SERIE Z2

意大利制造
MADE IN ITALY



主要性能

- ❖ 铸铁泵盖
- ❖ 高压力: 最大连续使用压力达 300 bar (4350 psi)
- ❖ 用压力平衡衬块进行轴向压力补偿
- ❖ 容积效率高: 平均可达到 95%
- ❖ 排量范围大: 从4-6-8-11-14-17-20-25-31 cm³/转
- ❖ 挤压成型铝泵体
- ❖ 齿轮的齿加工精度高, 啮合噪音小
- ❖ 轴、法兰盘和配件规格种类齐全, 符合市场上的各种主要标准
- ❖ 高温密封
- ❖ 单向泵和马达
- ❖ 双向泵和马达
- ❖ 可以在罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵
- ❖ 易于在单泵和多联泵之间转换, 易于改变转动方向

Main Features

- ❖ *Cast iron covers for high performances*
- ❖ *High pressure option: up to 300 bar max. continuous pressure (4350 psi)*
- ❖ *Axial compensation achieved using pressure balanced bushing blocks.*
- ❖ *High volumetric efficiency: average 95%*
- ❖ *Wide range of capacities : 4-6-8-11-14-17-20-25-31 cm³/rev.*
- ❖ *Extruded aluminium body*
- ❖ *Gear tooth profile accurately projected providing low noise operation.*
- ❖ *A wide variety of shafts, flanges and ports are available to meet specific application requirements.*
- ❖ *High-temperature seals available.*
- ❖ *Single rotational pumps and motors.*
- ❖ *Bi-rotational pumps and motors.*
- ❖ *Multiple pumps availability: tandem pumps are possible both in aluminium series and with other cast iron series produced by Ronzio Oleodinamica*
- ❖ *Easy-to-make tandem pumps and easy change of rotation.*

“Z2” 系列泵使用条件

CONDITIONS OF USE FOR PUMPS “Z2”

泵在运转时, 避免给主轴在径向或轴向加载。

使用弹性接合或“Oldham”接合补偿没有对准的误差, 使齿轮泵位于一条直线上。

我们建议用户仔细阅读下表中的内容, 从而能够正确地使用齿轮泵, 延长泵的使用寿命。

Avoid radial and axial loads on the pump shaft during the use.

The pump must be in line with the P.T.O. To compensate misalignment errors, use flexible or “Oldham” coupling.

We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

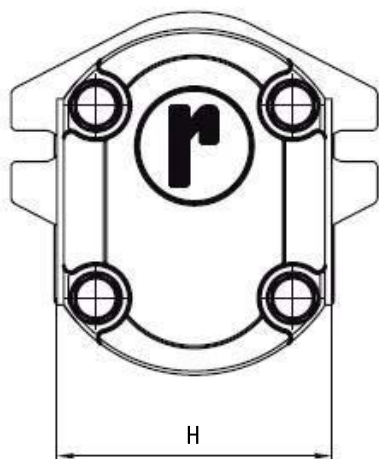
本手册中的技术指标随时有可能被更新。

The technical characteristics in this catalogue can be changed in any moment.

Z2 型泵的使用条件

USE CONDITIONS FOR THE PUMPS Z2

液体 Hydraulic fluids	矿物油 (DIN 51524) 如果要使用水和乙二醇、水油乳液和磷酸酯等阻燃液体, 请与我们的的技术处或销售处联系。 <i>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.</i>		
吸入压力 Inlet pressure	0.7 - 3 bar (绝对值 / Absolute)		
吸入管路中油速 Oil speed on suction line	0.5 ÷ 1.5 m/s		
排出管路中油速 Oil speed on pressure line	6 ÷ 10 m/s		
油温 Oil temperature	-10°C ÷ 80°C		
油粘度 Oil viscosity	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 Max starting viscosity	700 mm ² / s (Cst)		
滤油 Oil filtration	压力 Pressure	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 <i>Ratio β_x</i>	25μm	10μm



H=88 mm. 对进出口法兰型孔为 (european or Bosch 型)
 H=90 mm 进出口为BSPP型或 O-RING BOSS型

主要特性

MAIN CHARACTERISTICS

类型-Type		04	06	08	11	14	17	20	25	31
排量 Capacity	Cm ³ / rev	4.4	6.28	8.16	11.3	14.45	16.95	20.1	25.75	31.4
P1 最大工作压力 Max working pressure	Bar	300	300	300	300	300	270	230	180	160
P2 间歇工作压力 intermittent pressure	Bar	340	310	310	310	300	270	240	200	170
P3 最大峰值压力 Max peak pressure	Bar	360	360	360	360	360	330	290	230	200
P1压力下最大转速 Max speed for P1 pressure	Rpm	4500	4500	3700	3300	2700	2500	2500	2500	2200
空载最大速度 Max speed without load	Rpm	5500	5500	4700	4000	3300	3000	3000	3000	2700
P1压力下最小转速 Min speed for P1 pressure	Rpm	1000	700	550	450	400	350	300	250	200

确认压力、流量、转速及轴的扭矩请通过下列公式进行计算

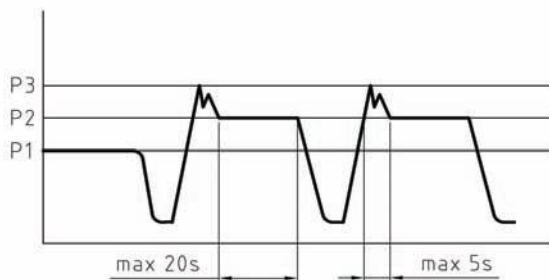
VERIFY THE COMPATIBILITY AMONG PERFORMANCE OF PRESSURE, FLOW REQUIRED AND TORQUE OF THE SHAFT THROUGH THE BELOW FORMULAS

双向旋转的泵和马达，压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

常见参数的计算

DETERMINATION OF NOMINAL SIZE



泵
FOR PUMP

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

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

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

马达
FOR MOTOR

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

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

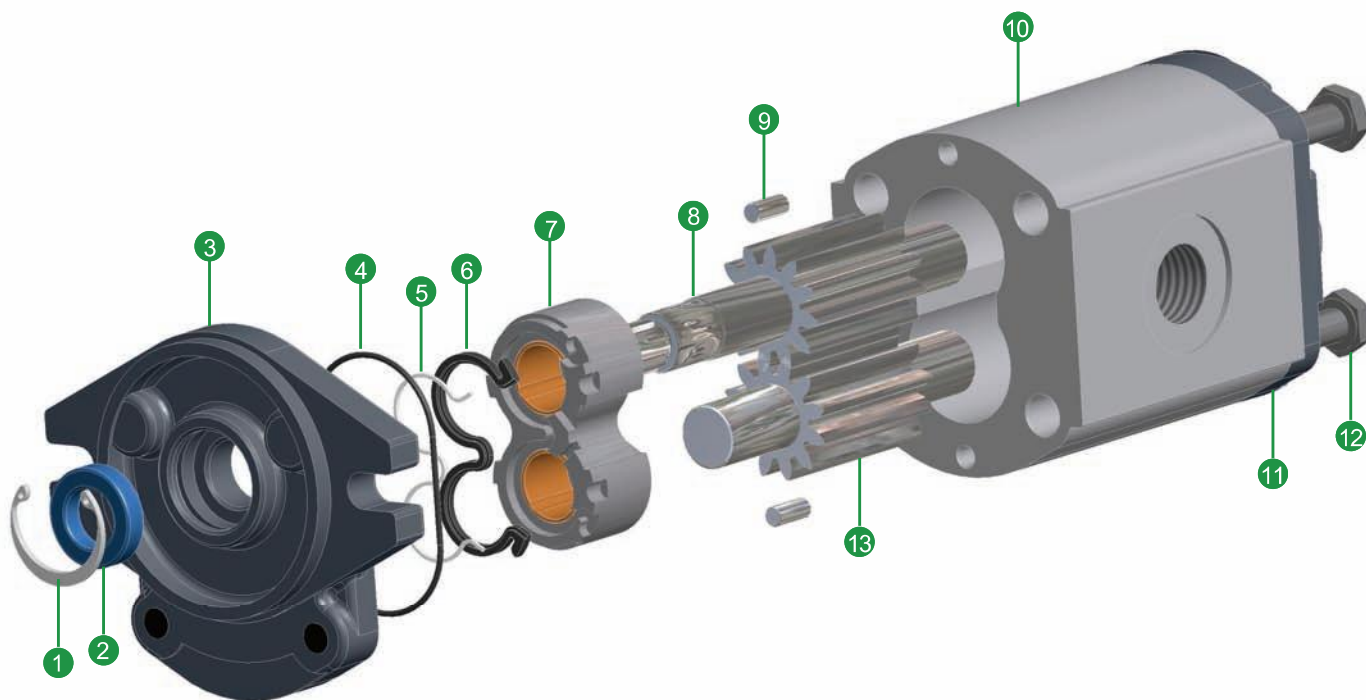
$$P = \frac{p * Q * \eta_t}{600}$$

V [cm³]
Q [l/min]
p [bar]
M [Nm]
n [min⁻¹]
P [Kw]

η_v = EFF vol. ≥ 95
 η_m = EFF mecc. ~ 0.85

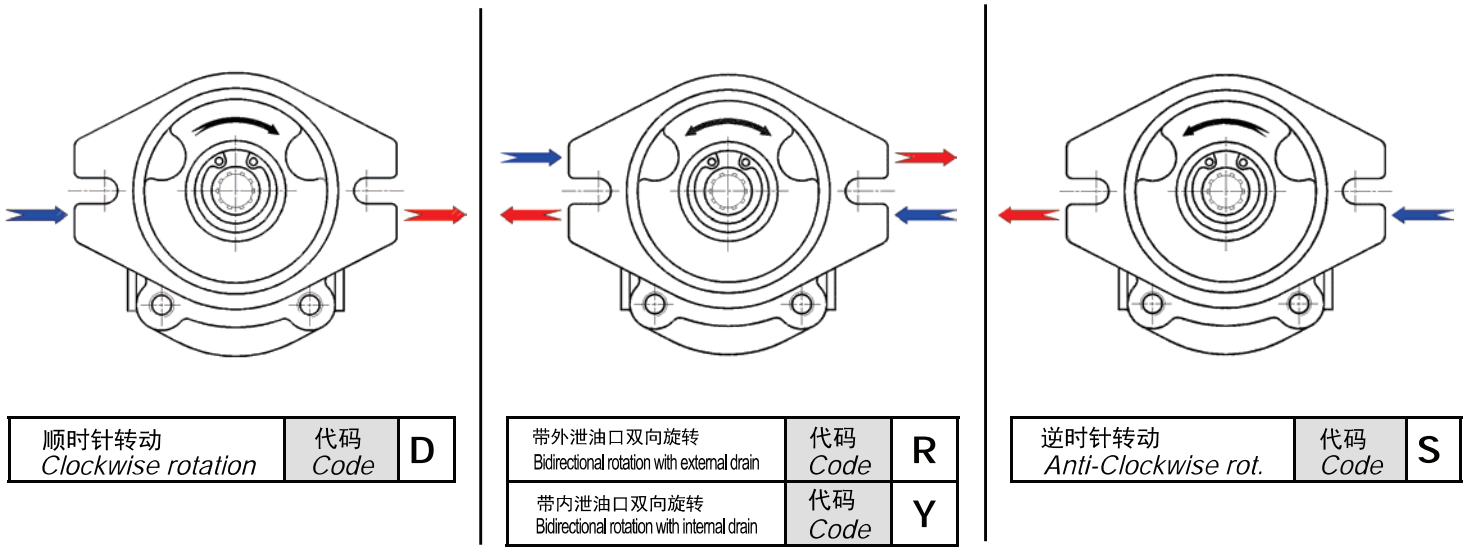
η_t = $\eta_v * \eta_m$. ~ 0.8

部件
PARTS

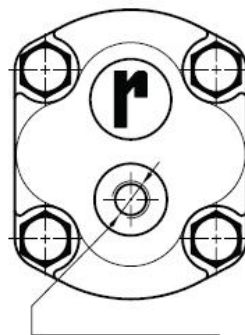
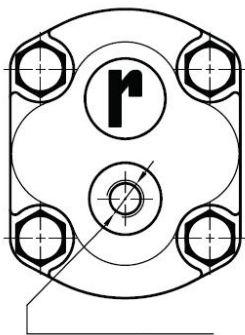
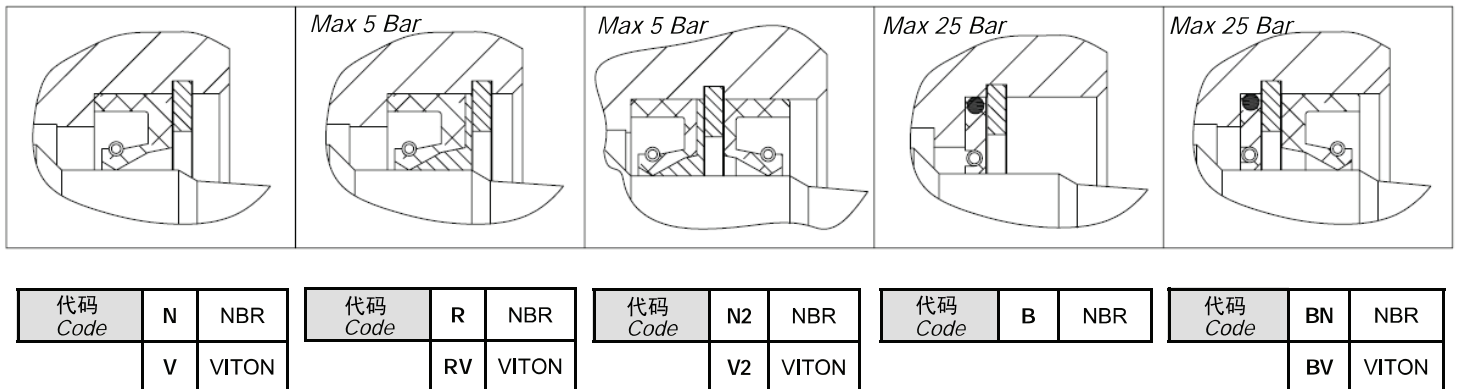


NO.	零件名称	Description	Qt.
1	卡环	Snap ring	1
2	轴封环	Rotary shaft seal	1
3	前法兰	Front flange	1
4	泵盖下封条	Under cover seal	2
5	防挤压密封条	Seal against extruding	2
6	补偿垫圈	Compensation seal	2
7	轴衬座	Bushing block	2
8	主动齿轮	Drive gear	1
9	圆柱销	Pin	4
10	泵体	Housing	1
11	泵盖	Rear cover	1
12	螺母	Bolt	4
13	从动齿轮	Idle gear	1

转动方向
ROTATION



轴封
SHAFT SEAL

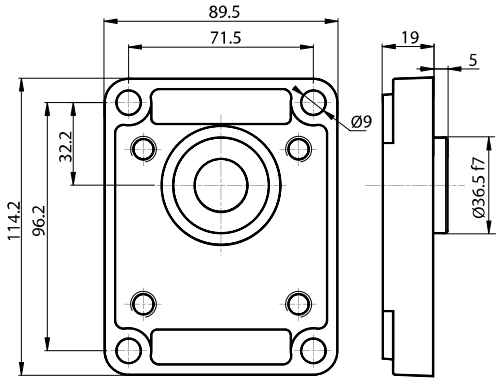


带法兰泄油口
Drain for pumps with flanges **C4 - H6 - C7**

带法兰泄油口
Drain for pumps with flanges **A0 - B1 - D3 - D2 - M3 - M2 - E2 - F5 - L3**

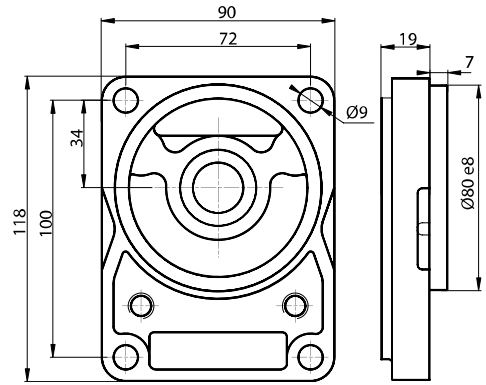
注意：“R”可以代表双向旋转；加强密封；后泄油。

法兰
FLANGES



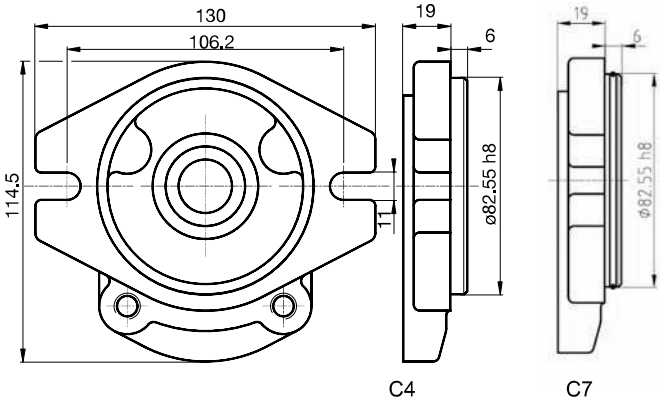
代码 CODE	A	0
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注：铸铁材料
NOTE : Material Cast iron



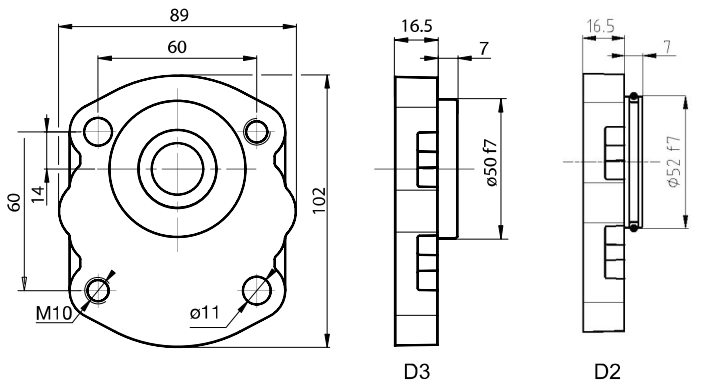
代码 CODE	B	1
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注：铸铁材料
NOTE : Material Cast iron



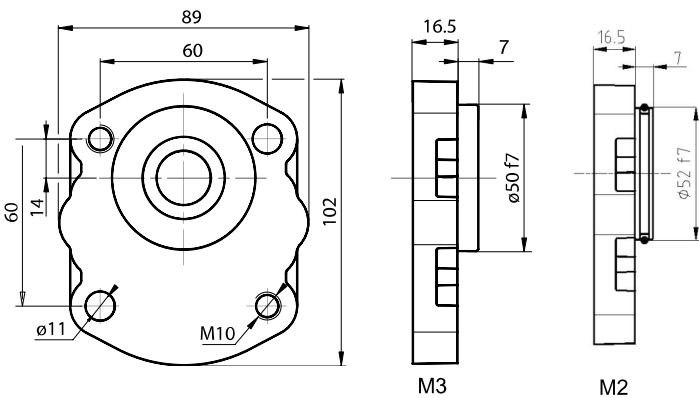
代码 CODE	C	4
	C	7

注：铸铁材料
NOTE : Material Cast iron



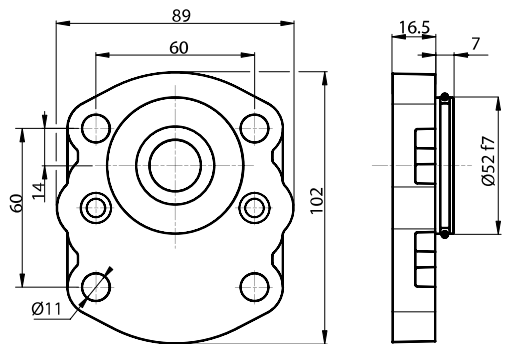
代码 CODE	D	3
	D	2

注：铸铁材料
NOTE : Material Cast iron



代码 CODE	M	3
	M	2

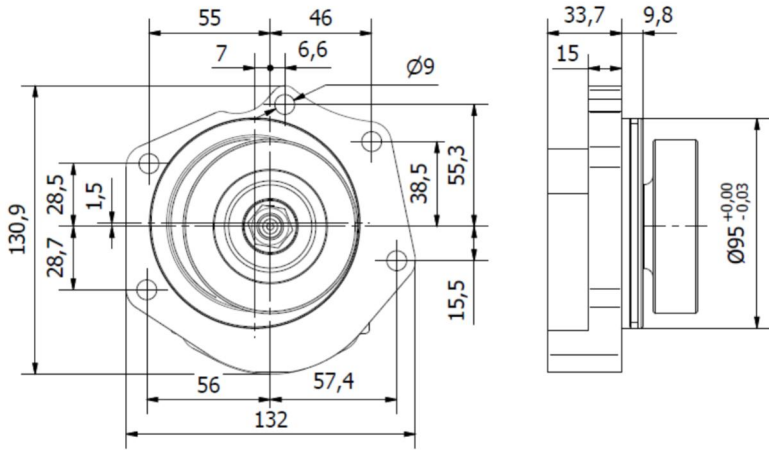
注：铸铁材料
NOTE : Material Cast iron



代码 CODE	E	2
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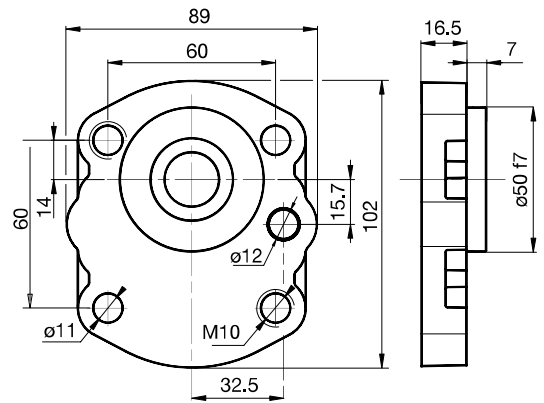
注：铸铁材料
NOTE : Material Cast iron

法兰
FLANGES



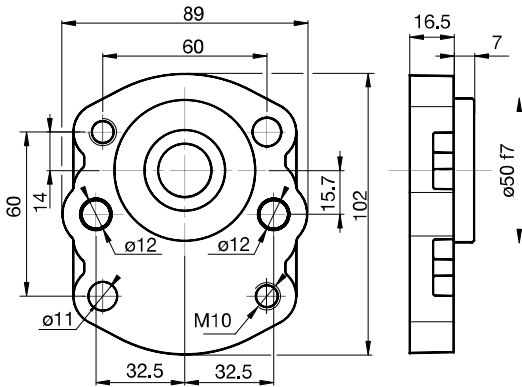
代码 CODE	K	7
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注：铸铁材料
NOTE : Material Cast iron



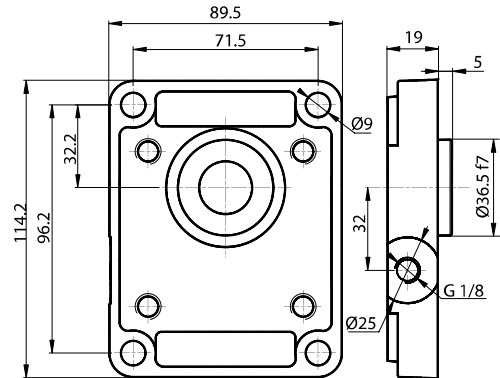
代码 CODE	G	3
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注：铸铁材料
NOTE : Material Cast iron



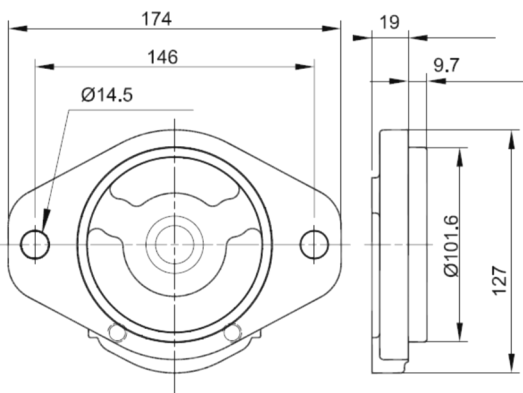
代码 CODE	L	3
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注：铸铁材料
NOTE : Material Cast iron



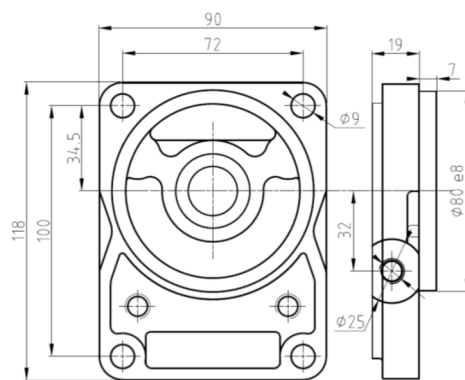
代码 CODE	N	4
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注：铸铁材料
NOTE : Material Cast iron



代码 CODE	H	6
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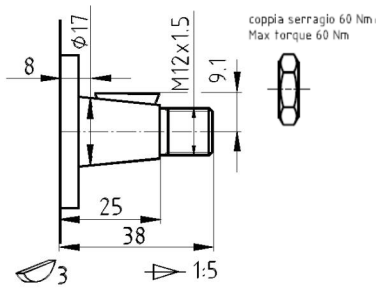
注：铸铁材料
NOTE : Material Cast iron



代码 CODE	P	1
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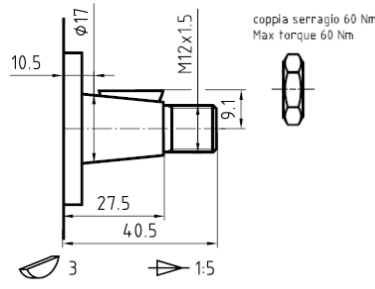
注：铸铁材料
NOTE : Material Cast iron

泵轴 SHAFTS



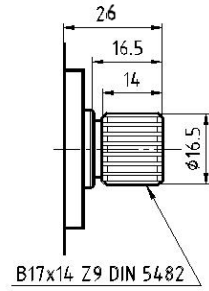
代码/CODE	A	
配法兰 / FOR FLANGE	B	1

最大扭矩 140 Nm
Max torque 140 Nm



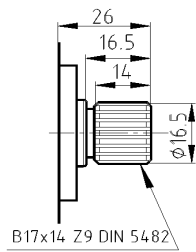
代码/CODE	A	
配法兰 / FOR FLANGE	D	3
	L	3
	M	3

最大扭矩 140 Nm
Max torque 140 Nm



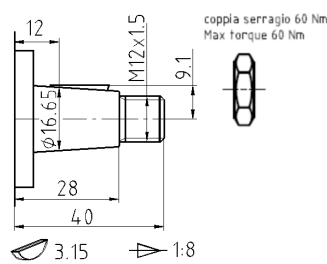
代码/CODE	B	
配法兰 / FOR FLANGE	B	1

最大扭矩 110 Nm
Max torque 110 Nm



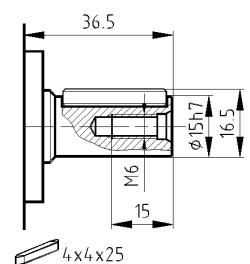
代码/CODE	B	
配法兰 / FOR FLANGE	D	3
	L	3
	M	3

最大扭矩 110 Nm
Max torque 110 Nm



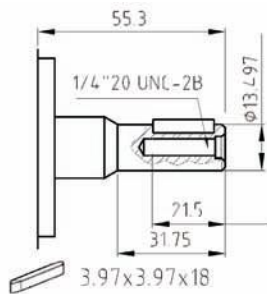
代码/CODE	C	
配法兰 / FOR FLANGE	A	0

最大扭矩 150 Nm
Max torque 150 Nm



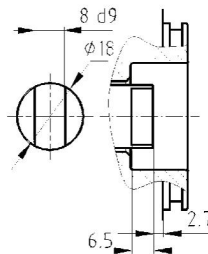
代码/CODE	E	
配法兰 / FOR FLANGE	A	0

最大扭矩 70 Nm
Max torque 70 Nm



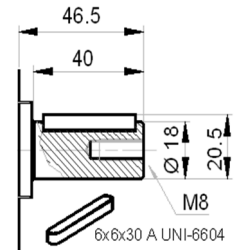
代码/CODE	H	
配法兰 / FOR FLANGE	C	4

最大扭矩 60 Nm
Max torque 60 Nm



代码/CODE	F	
配法兰 / FOR FLANGE	E	2

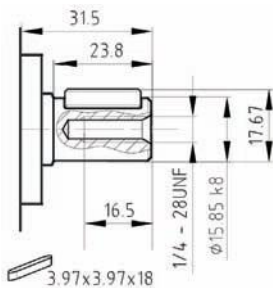
最大扭矩 75 Nm
Max torque 75 Nm



带外置轴承1空

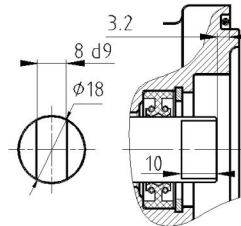
代码/CODE	G	
配法兰 / FOR FLANGE	A	0

最大扭矩 85 Nm
Max torque 85 Nm



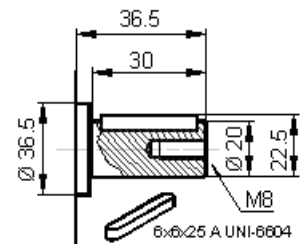
代码/CODE	L	
配法兰 / FOR FLANGE	C	4

最大扭矩 75 Nm
Max torque 75 Nm



代码/CODE	M	
配法兰 / FOR FLANGE	F	5

最大扭矩 75 Nm
Max torque 75 Nm

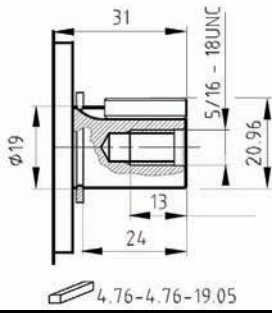


带外置轴承1型

代码/CODE	I	
配法兰 / FOR FLANGE	A	0

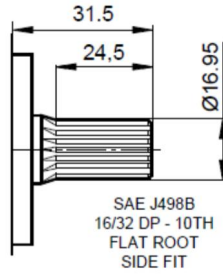
最大扭矩 100 Nm
Max torque 100 Nm

泵轴
SHAFTS



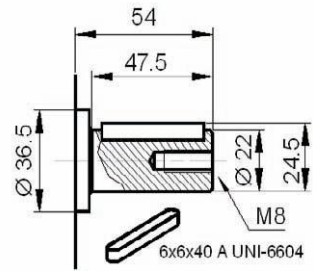
代码/ CODE	N	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 110 Nm
Max torque 110 Nm



代码/ CODE	W	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

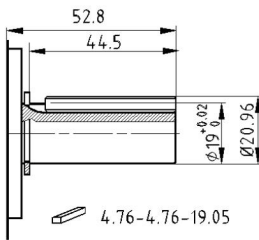
最大扭矩 130 Nm
Max torque 130 Nm



带外置轴承3型

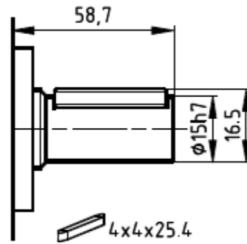
代码/ CODE	Q	
配法兰 / FOR FLANGE	A	0

最大扭矩 180 Nm
Max torque 180 Nm



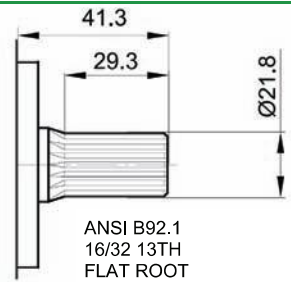
代码/ CODE	R	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 140 Nm
Max torque 140 Nm



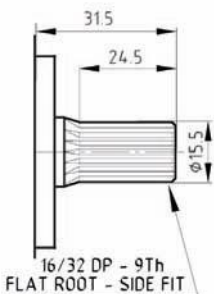
代码/ CODE	LA	
配法兰 / FOR FLANGE	C	4
	C	7

最大扭矩 75 Nm
Max torque 75 Nm



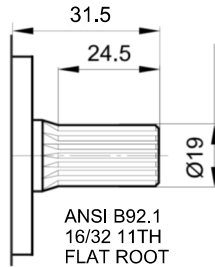
代码/ CODE	T	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 280 Nm
Max torque 280 Nm



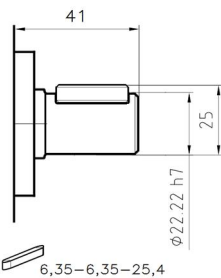
代码/ CODE	U	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 130 Nm
Max torque 130 Nm



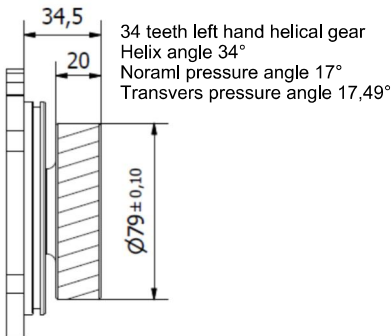
代码/ CODE	K	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 200 Nm
Max torque 200 Nm



代码/ CODE	V	
配法兰 / FOR FLANGE	C	4
	C	7
	H	6

最大扭矩 190 Nm
Max torque 190 Nm

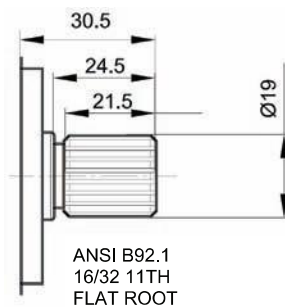


代码/ CODE	J	
配法兰 / FOR FLANGE	K	7

最大扭矩 140 Nm
Max torque 140 Nm

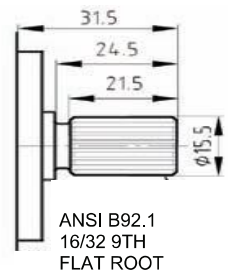
老轴 S停供,U轴完全互换S轴,U轴正常

P停供,K轴完全互换P轴,K轴正常



代码/ CODE	P	
配法兰 / FOR FLANGE	C	2
	C	4

最大扭矩 170 Nm
Max torque 170 Nm



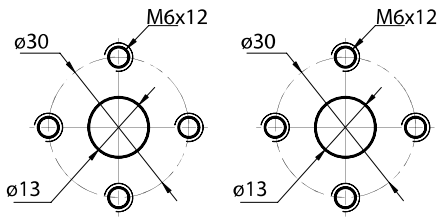
代码/ CODE	S	
配法兰 / FOR FLANGE	C	4
	C	7
	N	6

最大扭矩 100 Nm
Max torque 100 Nm

侧进油口及出油口

SIDE INLET AND OUTLET PORTS

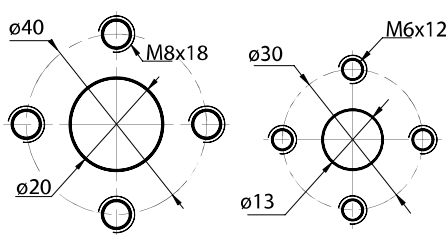
吸入 INLET 输出 OUTLET



8 N/m

代码 CODE **32**

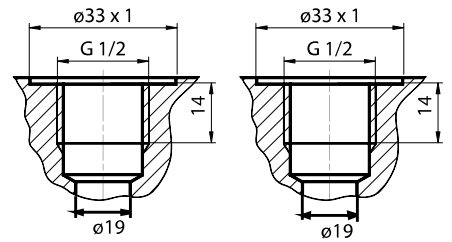
吸入 INLET 输出 OUTLET



8 N/m

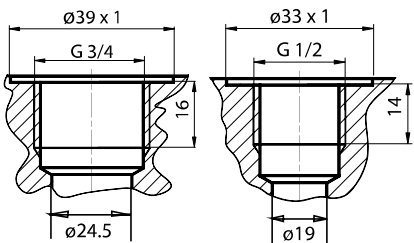
代码 CODE **33**

吸入 INLET 输出 OUTLET



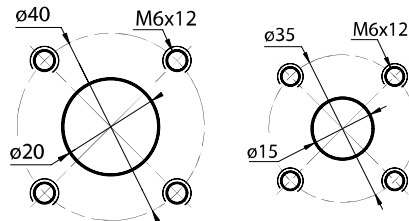
50 N/m

代码 CODE **34**



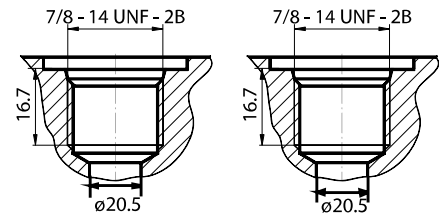
90 N/m - 50N/m

代码 CODE **35**



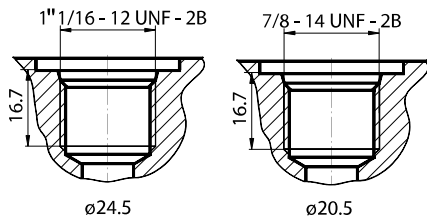
8 N/m

代码 CODE **36**



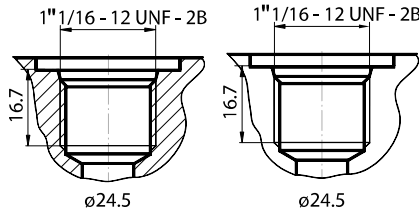
60 N/m

代码 CODE **37**



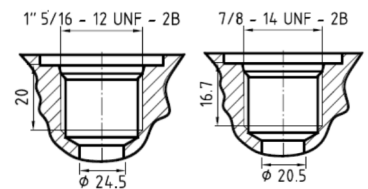
120 N/m - 70 N7m

代码 CODE **38**



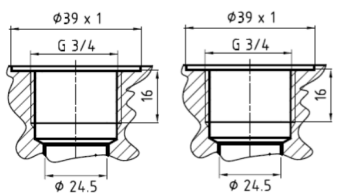
120 N/m

代码 CODE **39**



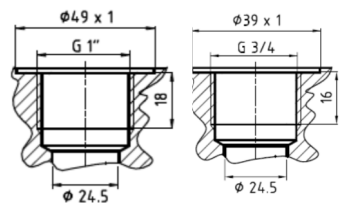
120 N/m - 70 N7m

代码 CODE **40**



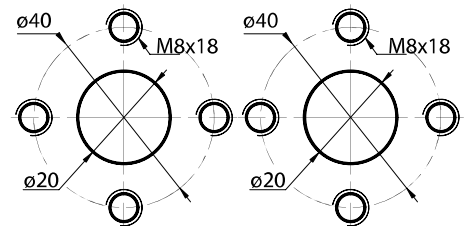
90 N/m

代码 CODE **41**



90 N/m

代码 CODE **42**

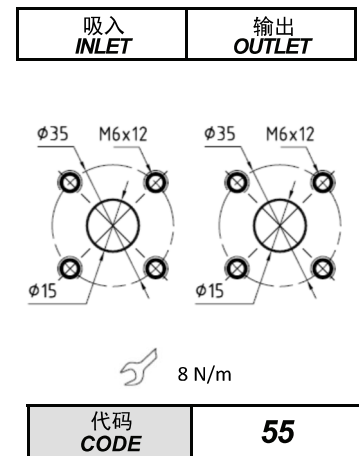
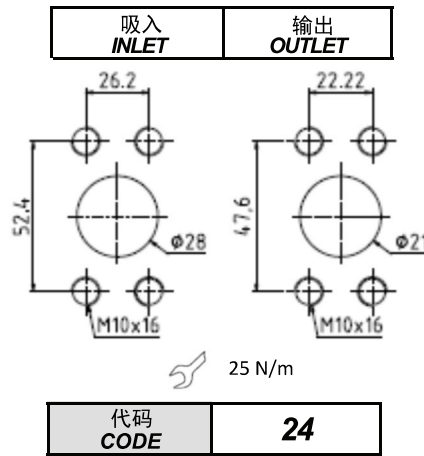
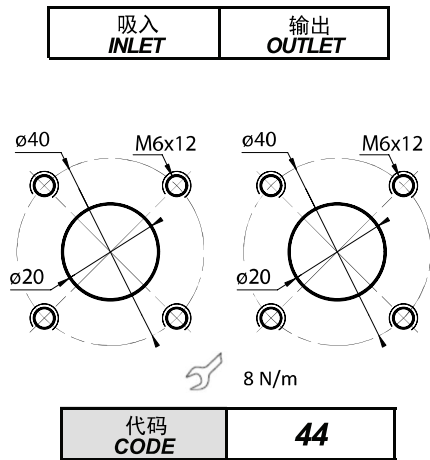


8 N/m

代码 CODE **43**

侧进油口及出油口

SIDE INLET AND OUTLET PORTS



泵/马达 油口代码与规格排量的一般选择关系说明

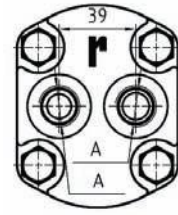
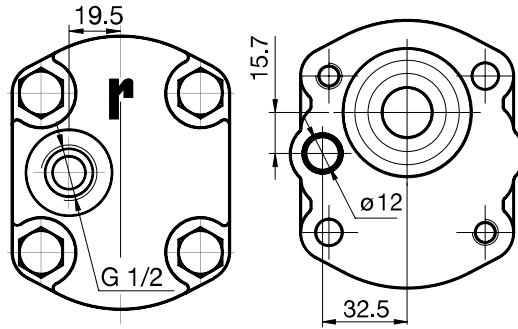
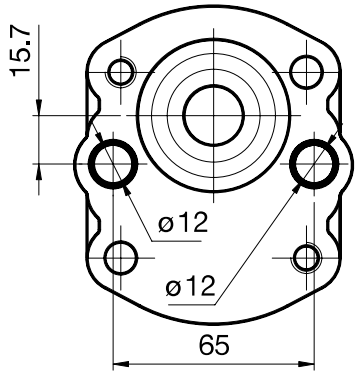
我们的标准产品		泵及马达的油口选型规则	
法兰盘	轴	油口	泵及马达规格
A0-N0	C-E	32-34 33-35 41-43	11以下 / 从14到31 从14到31双向转动
B1	A-B	36 44	所有类型/ 所有双向转动类型
C4	L-S-N	37-39	11以下 / 从14到31 从14到31双向转动
D3-M3	A-B	35 44	所有类型/ 所有双向转动类型
E2	F	35 44	所有类型/ 所有双向转动类型
F5	M	35 44	所有类型/ 所有双向转动类型
G3-L3	A-B	49-51	所有类型

前后进出油口
FRONT AND REAR INLET AND OUTLET PORTS

吸入 INLET	输出 OUTLET
-------------	--------------

吸入 INLET	输出 OUTLET
输出 OUTLET	吸入 INLET

吸入 INLET	输出 OUTLET
-------------	--------------

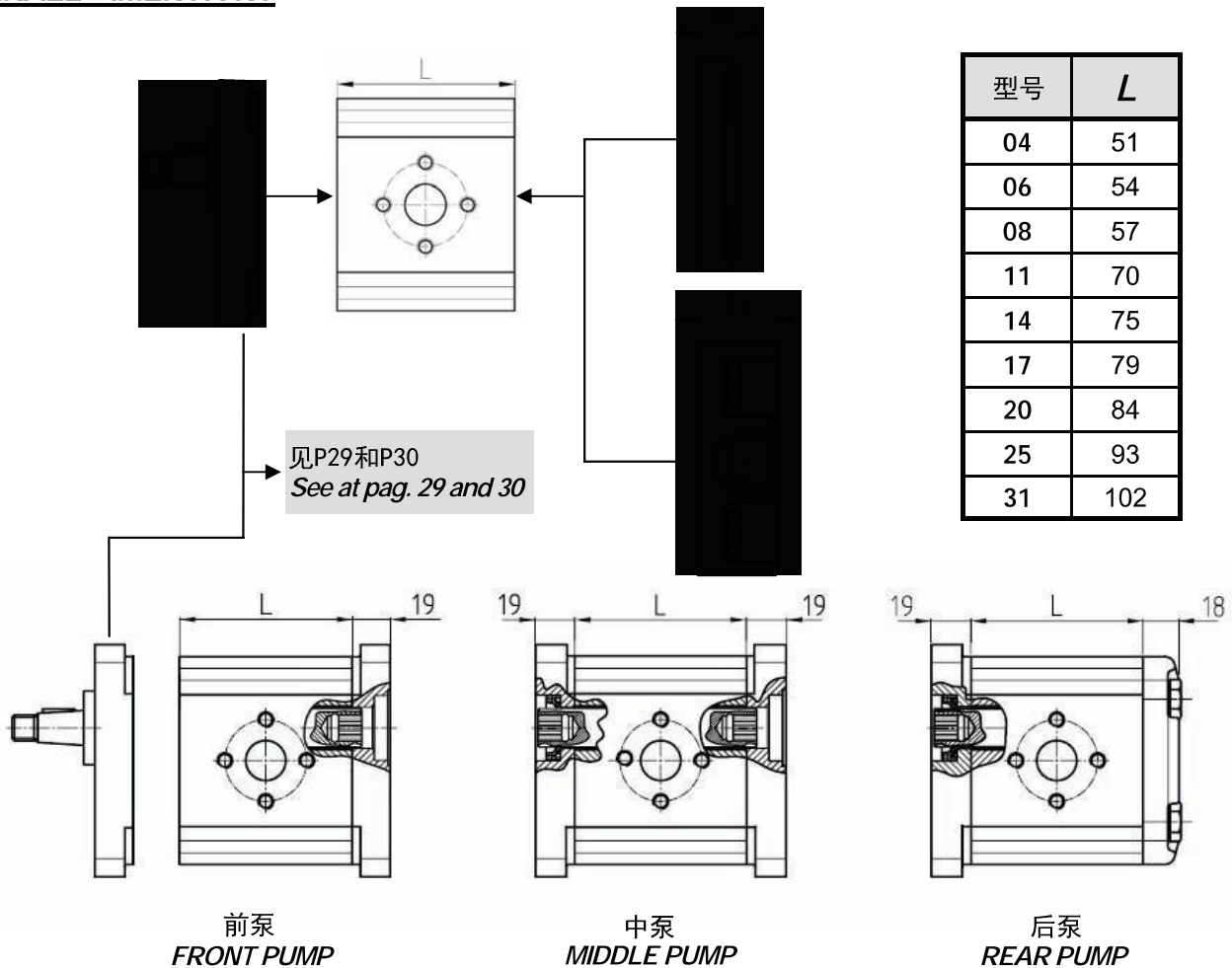


代码 CODE	49
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代码 CODE	50
------------	----

A	代码 CODE
1/2" G	51
3/4" G	52
1 1/16 -12 UN	53
7/8 - 14 UNF	54
3/4"G - 1/2"G	56

总体尺寸
OVERALL DIMENSIONS



外置轴承1型

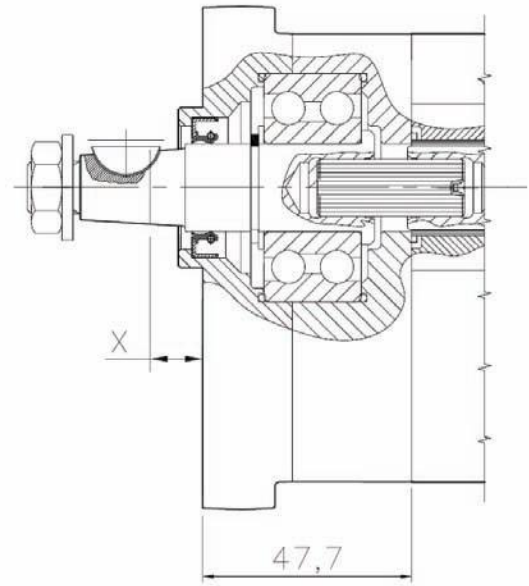
OUTBOARD BEARING TYPE 1

对应法兰
AVAILABLE FOR FLANGE

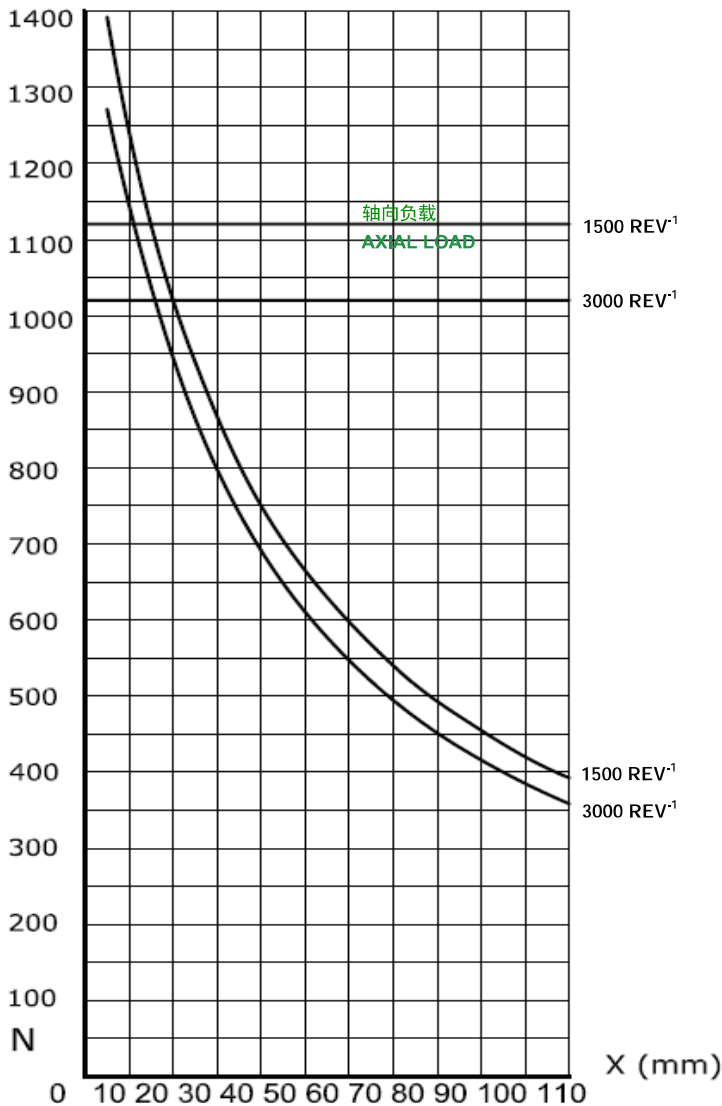
A0 -B1 -C4

对应泵轴
AVAILABLE FOR SHAFT

A -G -I -R -T



轴向-径向负载图表
GRAPHIC OF RADIAL AND AXIAL LOAD



最大扭矩100Nm
Max torque 100 Nm

荷载图

- 疲劳寿命等级: 1000h
- 油号: VG-46
- 温度: 60°C
- 可信度: 90%
- 污染等级: 10 μ

负载值视工作情况而定

LOAD DIAGRAM

- Rating fatigue life 1000 h
- Oil type VG-46
- Temperature 60°C
- Trust 90%
- Contamination 10 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

外置轴承3型 (优先选择)

OUTBOARD BEARING TYPE 3

对应法兰
AVAILABLE FOR FLANGE

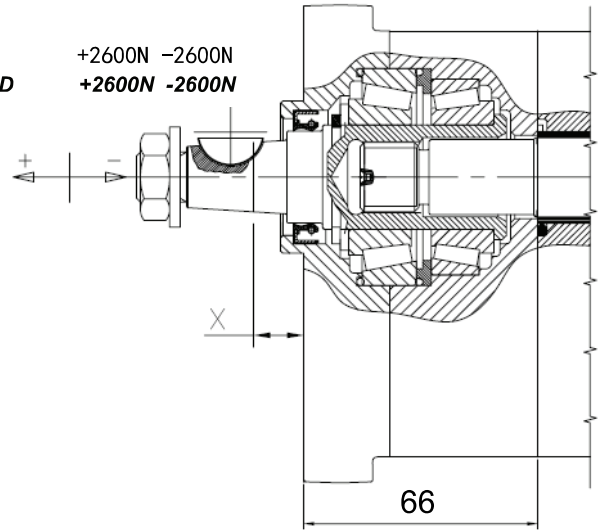
A0 -B1 -C4 -N5

对应泵轴
AVAILABLE FOR SHAFT

A -G -Q -T

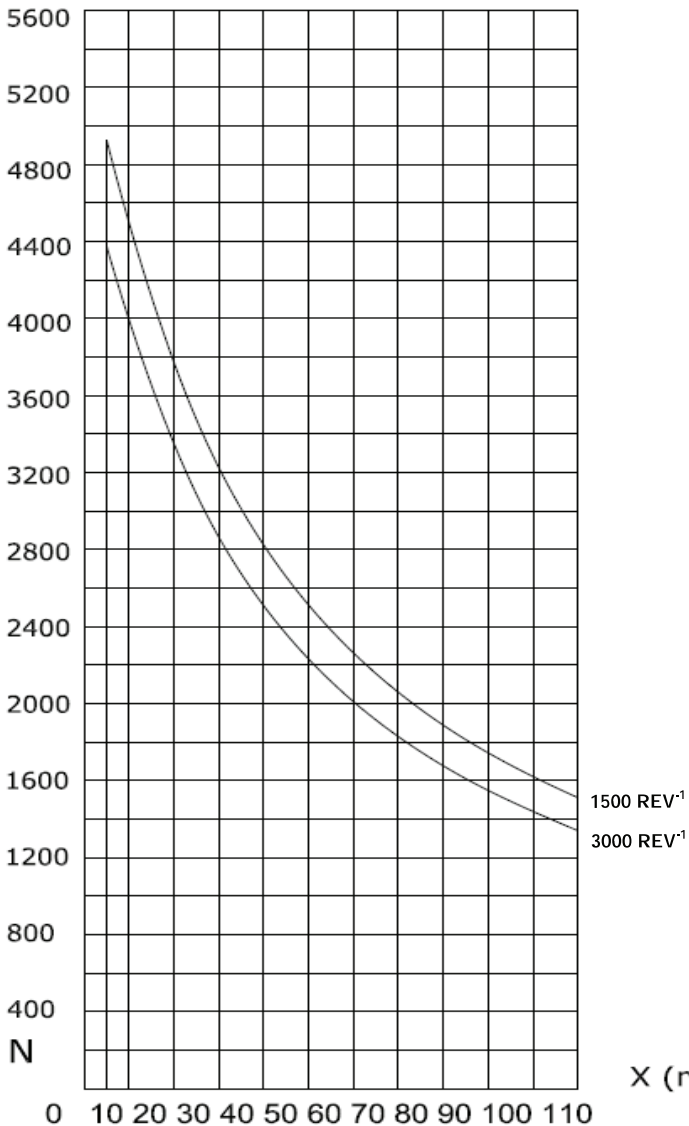
轴向负载
AXIAL LOAD

+2600N -2600N
+2600N -2600N



最大扭矩 175 Nm
Max torque 175 Nm

GRAPHIC OF RADIAL LOAD



荷载图

- 疲劳寿命等级: 1000 h
- 油号: VG-46
- 温度: 60°C
- 可信度: 90%
- 污染等级 10 μ

负载值视工作情况而定

LOAD DIAGRAM

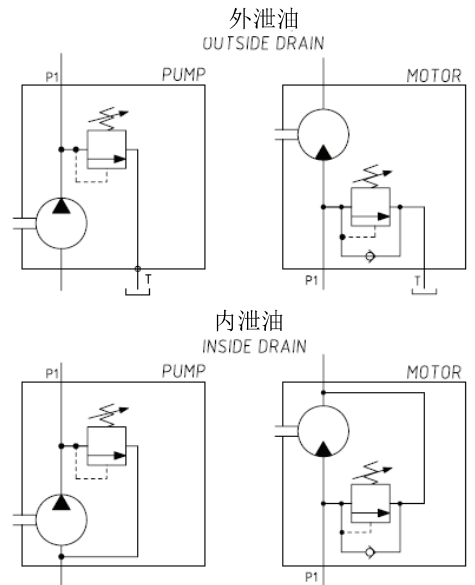
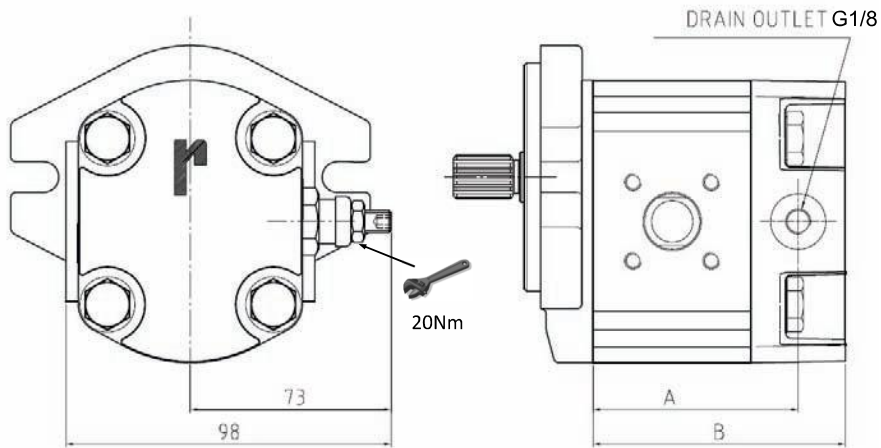
- Rating fatigue life 1000 h
- Oil type VG-46
- Temperature 60°C
- Trust 90%
- Contamination 10 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

溢流阀 RELIEF VALVE

带可调压力溢流阀 “VR”

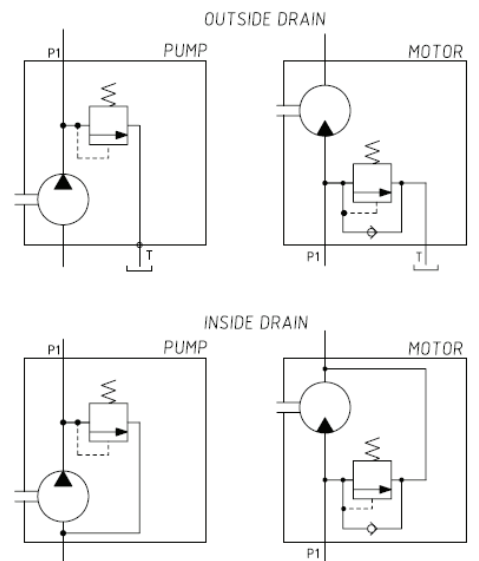
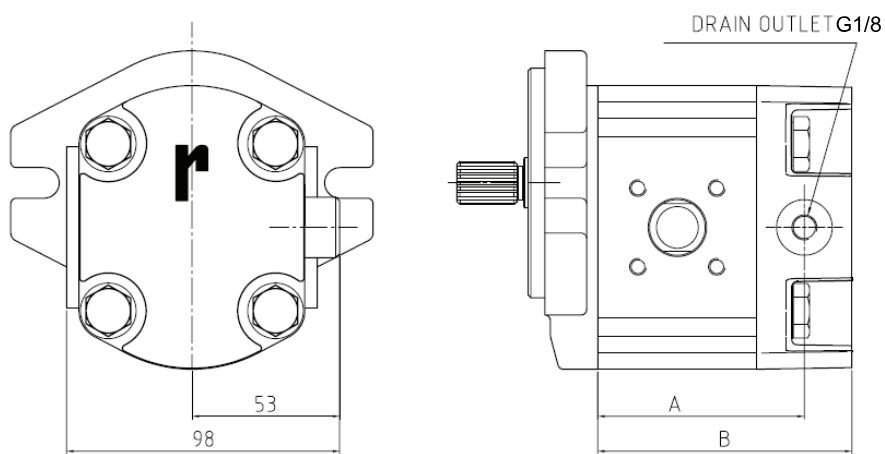
VALVE WITH ADJUSTABLE CALIBRATION “VR”



类型/TYPER	04	06	08	11	14	17	20	25	31
A	86	89	92	105	110	114	119	128	137
B	66.5	69.5	72.5	85.5	90.5	94.5	99.5	108.5	117.5

带固定压力溢流阀 “VF”

VALVE WITH FIXED CALIBRATION “VF”



Z2泵和马达订货说明

HOW TO ORDER Z2 SINGLE UNITS

	1	2	3	4	5	6	7	8	9	10	11	12		
0	2	Z	A	G	06	E	0	34	S	-	0	B	VR	210

1	组件类型/ UNIT TYPE	代码/ CODE
	泵 / PUMP	Z
	马达 / MOTOR	ZM

2-5	法兰/ FLANGE (见P34-35)	代码/ CODE
	EUROPEAN	A - 0
	GERMAN	B - 1
	AMERICAN	C - 4 / C - 7
	GERMAN	D - 3 / D - 2
	GERMAN	M - 3 / M - 2
	GERMAN	E - 2
	匹配汽油机动力 / PETROL ENGINE	K - 7
	GERMAN	G - 3
	GERMAN	L - 3
	带泄油口的欧标/ EUROPEAN WITH DRAIN	N - 4
	AMERICAN	H - 6
	带泄油口的德标/ GERMAN WITH DRAIN	P - 1

3	排量/ CAPACITY cm ³	代码/ CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	14.5	14
	16.9	17
	20.1	20
	25.7	25
	31.4	31

4	泵轴/ SHAFT (见P36-37)	代码/ CODE
	锥轴 1:5 / TAPERED 1:5	A
	17 x 14 DIN 5482	B
	锥轴 / TAPERED 1:8	C
	圆轴/ STRAIGHT Ø 15	E
	圆轴/ STRAIGHT Ø 13	H
	扁轴/ TONGUE Ø18 x 8	F
	圆轴/ STRAIGHT Ø18	G
	圆轴/ STRAIGHT Ø 15.85	L
	扁轴/ TONGUE Ø18 x 8	M
	圆轴/ STRAIGHT Ø 20	I
	圆轴/ STRAIGHT Ø 19	N
	花键轴/ ANSI 921 10TH 16/32 FLAT ROOT	W
	圆轴/ STRAIGHT Ø 22	Q
	圆轴/ STRAIGHT Ø 19x45	R
	圆轴/ STRAIGHT Ø 15.85x58 7	LA
	34 TEETH LEFT HAND HELICAL GEAR	J

	ANSI 921 13 TH 16/32 FLAT ROOT	T
	ANSI 921 9 TH 16/32 FLAT ROOT	U
	ANSI 921 11 TH 16/32 FLAT ROOT	K
	圆轴 Ø 22.22 / STRAIGHT Ø 22.22	V

6	油口/ PORTS (见P38-40)	代码/ CODE
	EUROPEAN	32 - 33 - 43
	GERMAN	36 - 44 - 45
	BSPP	34 - 35 - 41 - 42
	O-RING BOSS	37 - 38 - 39 - 40
	前后油口 FRONT-REAR PORTS	49 - 50 - 51 - 52 - 53 54 - 56

7	转向/ ROTATION	代码/ CODE
	右旋/ RIGHT	D
	左旋/ LEFT	S
	双向旋转带内泄油口	Y
	双向旋转带外泄油口	R

8	泵型/ UNIT TYPE	代码/ CODE
	多级泵/ WITHOUT	T
	省略/ NONE	-

9	支撑轴承/ SUPPORT (见P34, 35, 36)	代码/ CODE
	不带支撑轴承/ WITHOUT	0
	支撑1	1
	支撑2	2
	支撑3	3

10	轴封 / SHAFT SEAL (见P33)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶/ STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封/ 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

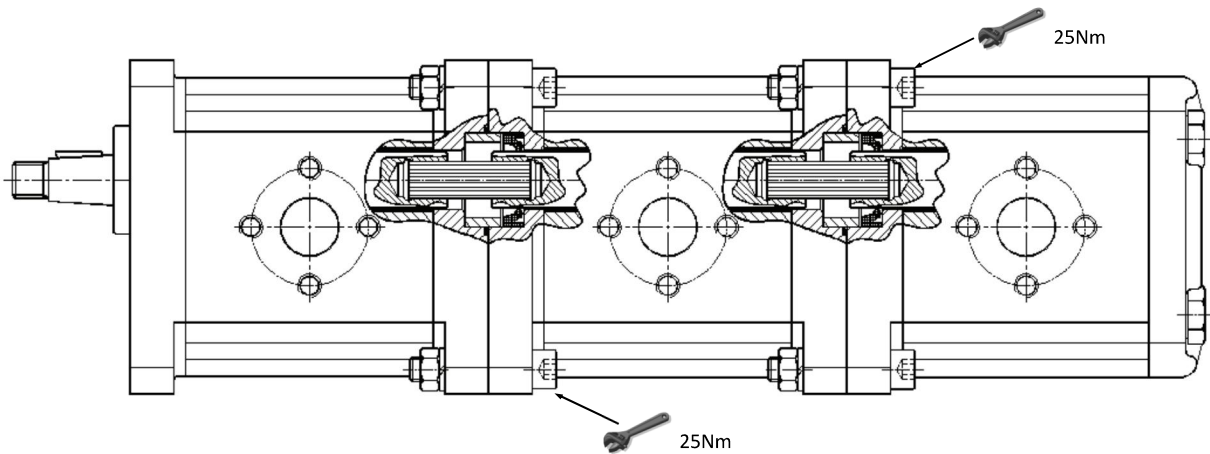
11	溢流阀/ RELIEF VALVE	代码/ CODE
	不带溢流阀/ WITHOUT	-
	带可调溢流阀/ ADJUST. CALIBRATION	VR
	带不可调溢流阀/ FIXED CALIBRATION	VF

12	溢流阀压力值	代码/ CODE
	50 - 75 - 100 - 125 - 150 - 200 - 250 - 300 - 330	

注意：马达和泵如果使用速度大于2800rpm时，轴端旋转密封请选择氟橡胶或请咨询我们的销售部

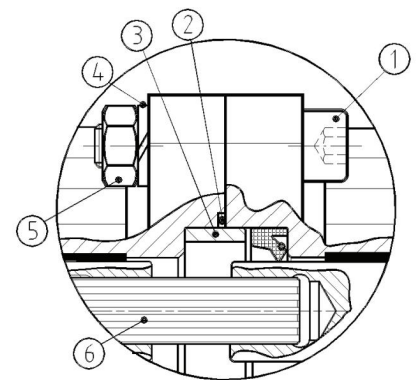
带分开油路的多联齿轮泵安装组件

ASSEMBLING KITS FOR MULTIPLE PUMPS Z2 WITH SEPARATED FLOW



Cm^3 / rev	+	Cm^3 / rev	连接件代码 Code Kit
31-25-20-17-14-11		31-25-20-17-14-11	K2000000
8-6-4		8-6-4	K2000002

Ref	零件 PARTS
1	M8 x 40 UNI 5931
2	OR 2125
3	控制环 Pilot ring
4	垫圈 Washer
5	M8螺母 Stud nut M8
6	花键轴 Z=25 Splined shaft Z=25

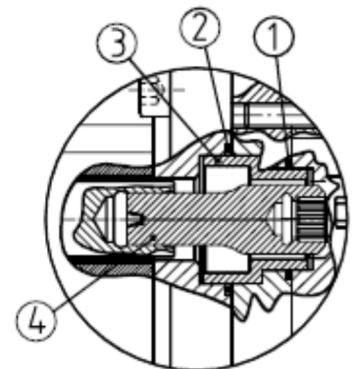
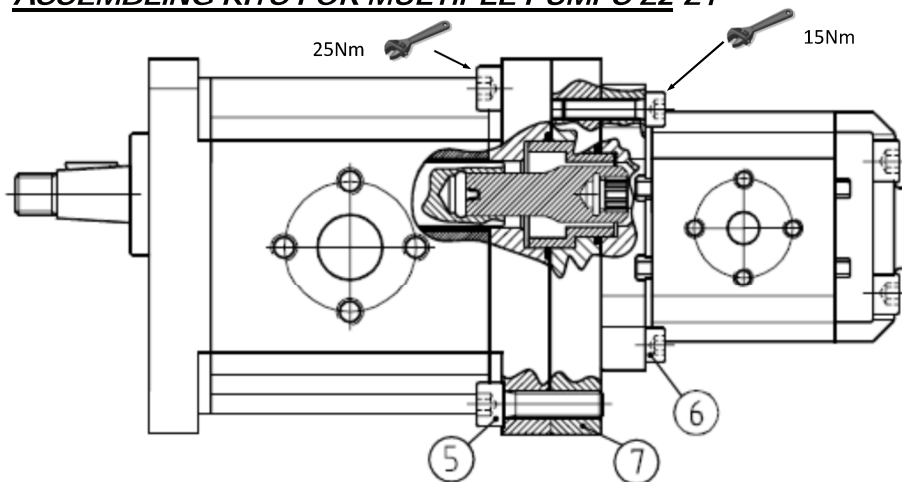


最大扭矩必须与花键轴Z=25向对应。最大扭矩为100Nm

Max. shaft loading must conform to the limitations of shaft Z=25. Max torque is **100 Nm**

多联齿轮泵的组件Z2-Z1

ASSEMBLING KITS FOR MULTIPLE PUMPS Z2-Z1



所有类型的Z2+Z1型多联齿轮泵 Pump Z2+Z1 all of type	连接件代码 Code Kit
类型 Type 31-25-20-17-14-11	K2000003
类型 Type 8-6-4	K2000004

Ref	零件 / PARTS
1	OR 2100
2	OR 2125
3	控制环 / Pilot ring
4	花键轴Z=25 / Splined shaft Z=25
5	M8 x 30 UNI 5931
6	M6 x 25 UNI 5931
7	接盘 / Connection plate

Z2系列多联泵订货说明

HOW TO ORDER Z2 MULTIPLE UNITS

			1		2		3		4		5		6		7		8
0	2	Z	A	G	06	E	0	34	A	S	B	0					

前泵
FRONT PUMP

					2						5		6		7	
0	2	Z	A	G	06	0	0	34	I	S	B					

中泵 Z2 或 Z1
MIDDLE PUMP Z2 or Z1

					2						5		6		7	
0	2	Z	A	G	06	0	0	34	P	S	B					

后泵 Z2 或 Z1
REAR PUMP Z2 or Z1

1-4	法兰 / FLANGE	代码 / CODE
	EUROPEAN	A - 0
	GERMAN	B - 1
	AMERICAN	C - 4 / C - 7
	GERMAN	D - 3 / D - 2
	GERMAN	M - 3 / M - 2
	GERMAN	E - 2
	匹配汽油机动力 / PETROL ENGINE	K - 7
	GERMAN	G - 3
	GERMAN	L - 3
	带泄油口的欧标 / EUROPEAN WITH DRAIN	N - 4
	AMERICAN	H - 6
	带泄油口的德标 / GERMAN WITH DRAIN	P - 1

2	排量 / CAPACITY cm ³	代码 / CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	14.5	14
	16.9	17
	20.1	20
	25.7	25
	31.4	31

5	油口 / PORTS (见P34-35)	代码 / CODE
	EUROPEAN	32 - 33 - 43
	GERMAN	36 - 44 - 45
	BSPP	34 - 35 - 41 - 42
	O-RING BOSS	37 - 38 - 39 - 40
	前后油口 FRONT-REAR PORTS	49 - 50 - 51 - 52 - 53 54 - 56

3	泵轴 / SHAFT (见P36-37)	代码 / CODE
	锥轴 / TAPERED 1:5	A
	17 x 14 DIN 5482	B
	锥轴 / TAPERED 1:8	C
	圆轴 / STRAIGHT Ø 15	E
	圆轴 / STRAIGHT Ø 13	H

	扁键 / PENNA Ø18 x 8	F
	圆轴 / STRAIGHT Ø18	G
	圆轴 / STRAIGHT Ø 15.85	L
	扁键 / PENNA Ø18 x 8	M
	圆轴 / STRAIGHT Ø 20	I
	圆轴 / STRAIGHT Ø 19	N
	花键轴 / ANSI 921 10TH 16 32 FLAT ROOT	W
	圆轴 / STRAIGHT Ø 22	Q
	圆轴 / STRAIGHT Ø 19x45	R
	圆轴 / STRAIGHT Ø 15.85x58 7	LA
	34 TEETH LEFT HAND HELICAL GEAR	J
	ANSI 921 13 TH 16/32 FLAT ROOT	T
	ANSI 921 9 TH 16/32 FLAT ROOT	U
	ANSI 921 11 TH 16/32 FLAT ROOT	K
	圆轴 / STRAIGHT Ø 22.22	V

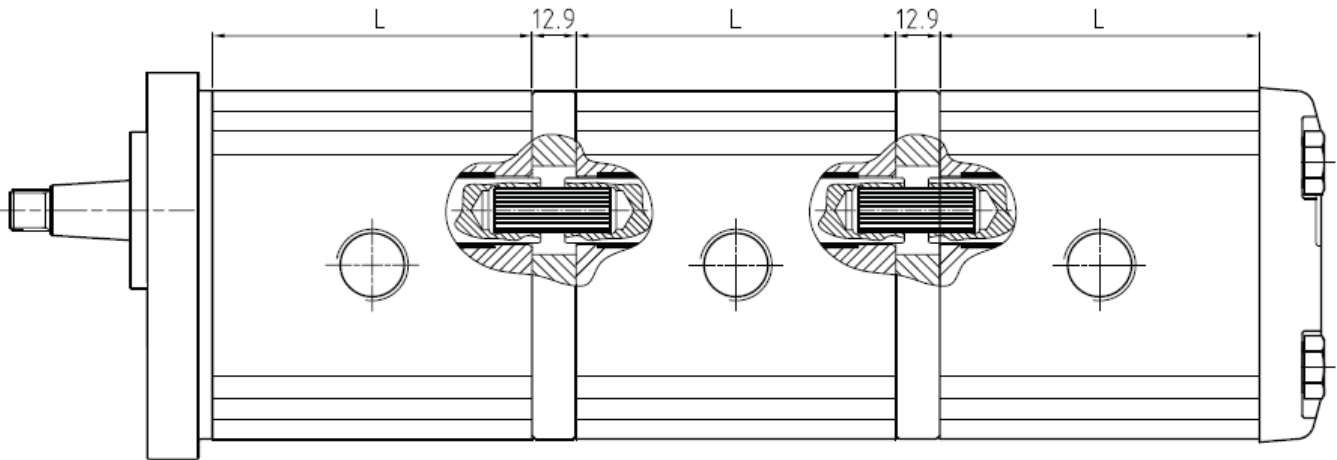
6	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

7	轴封 / SHAFT SEAL (见P33)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

8	支承 / SUPPORT	代码 / CODE
	无 / -	0
	支承1	1
	支撑2	2
	支撑3	3

带普通或分开进油口的多联Z2齿轮泵安装组件

ASSEMBLING KITS FOR MULTIPLE COMPACT PUMPS Z2 WITH COMMON OR SEPARATED INLET PORTS

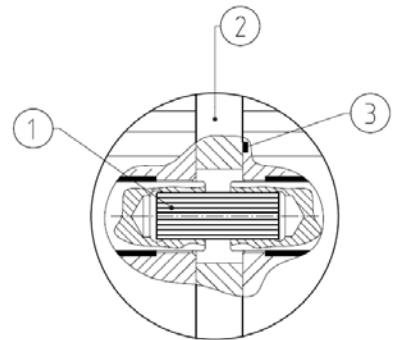


Cm^3 / rev	+	Cm^3 / rev	连接件代码 Code Kit
31-25-20-17-14-11		31-25-20-17-14-11	K2000006
31-25-20-17-14-11		8-6-4	K2000006
8-6-4		8-6-4	K2000008

最大扭矩必须与花键轴Z=25相对应。
最大扭矩为100Nm。

Max. shaft loading must conform to the limitations of shaft Z=25. Max torque is **100 Nm**

Ref	零件 PARTS
1	花键轴 Z=25 Splined shaft Z=25
2	法兰 95-194 Flange 95-194
3	OR 2.6 / 61.6



Z2多级组合泵附加油口 ADDITIONAL PORTS FOR MULTIPLE COMPACT PUMPS Z2								
GAS油口 GAS PORTS			UNF油口 UNF PORTS			法兰油口 FLANGED PORTS		
进口 INLET	出口 OUTLET	代码 CODE	进口 INLET	出口 OUTLET	代码 CODE	进口 INLET	出口 OUTLET	代码 CODE
//	1/2 G	01	//	7/8	11	//	13-30/M6	21
//	3/4 G	02	//	1" 1/16	12	//	15-35/M6	22
1" G	1/2 G	03	1" 5/16	7/8	13	27-55/M8	15-35/M6	23
1" G	3/4 G	04	1" 5/16	1" 1/16	14			
1" 1/4 G	3/4 G	05	1" 5/8	1" 1/16	15			
1" 1/2 G	3/4 G	06	1" 1/16	3/4"	16			

Z2系列简洁型多级泵订货说明

HOW TO ORDER MULTIPLE COMPACT PUMPS Z2

1 2 3 4 5 6 7 8 9 10 11 12

0	2	Z	A	G	06*	06*	06*	E	0	34*	34*	34*	S	R	0
---	---	---	---	---	-----	-----	-----	---	---	-----	-----	-----	---	---	---

以3联齿轮泵为例

EXAMPLE FOR A PUMP WITH THREE STAGE

1-6	法兰 / FLANGE	代码 / CODE
	EUROPEAN	A - 0
	GERMAN	B - 1
	AMERICAN	C - 4 / C - 7
	GERMAN	D - 3 / D - 2
	GERMAN	M - 3 / M - 2
	GERMAN	E - 2
	匹配汽油机动力 / PETROL ENGINE	K - 7
	GERMAN	G - 3
	GERMAN	L - 3
	带泄油口的欧标 / EUROPEAN WITH DRAIN	N - 4
	AMERICAN	H - 6
	带泄油口的德标 / GERMAN WITH DRAIN	P - 1

2-3-4	排量 / CAPACITY cm ³	代码 / CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	14.5	14
	16.9	17
	20.1	20
	25.7	25
	31.4	31

7-8-9	油口 / PORTS (见P38-40)	代码 / CODE
	EUROPEAN	32 - 33 - 43 - 41
	GERMAN	36 - 44
	GAS	01-02-03-04-05-06-34 - 35 - 40
	SAE	11-12-13-14-15-37 - 38 - 39

5	泵轴 / SHAFT (见P36-37)	代码 / CODE
	锥轴 / TAPERED 1:5	A
	17 x 14 DIN 5482	B
	锥轴 / TAPERED 1:8	C
	圆轴 / STRAIGHT Ø 15	E
	圆轴 / STRAIGHT Ø 13	H
	扁键 / PENNA Ø18 x 8	F
	圆轴 / STRAIGHT Ø18	G

	圆轴 / STRAIGHT Ø 15.85	L
	扁键 / PENNA Ø18 x 8	M
	圆轴 / STRAIGHT Ø 20	I
	圆轴 / STRAIGHT Ø 19	N
	花键轴 / ANSI 921 10TH 16 32 FLAT ROOT	W
	圆轴 / STRAIGHT Ø 22	Q
	圆轴 / STRAIGHT Ø 19x45	R
	圆轴 / STRAIGHT Ø 15.85x58 7	LA
	34 TEETH LEFT HAND HELICAL GEAR	J
	ANSI 921 13 TH 16/32 FLAT ROOT	T
	ANSI 921 9 TH 16/32 FLAT ROOT	U
	ANSI 921 11 TH 16/32 FLAT ROOT	K
	圆轴 / STRAIGHT Ø 22.22	V

10	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

11	轴封 / SHAFT SEAL (见P33)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

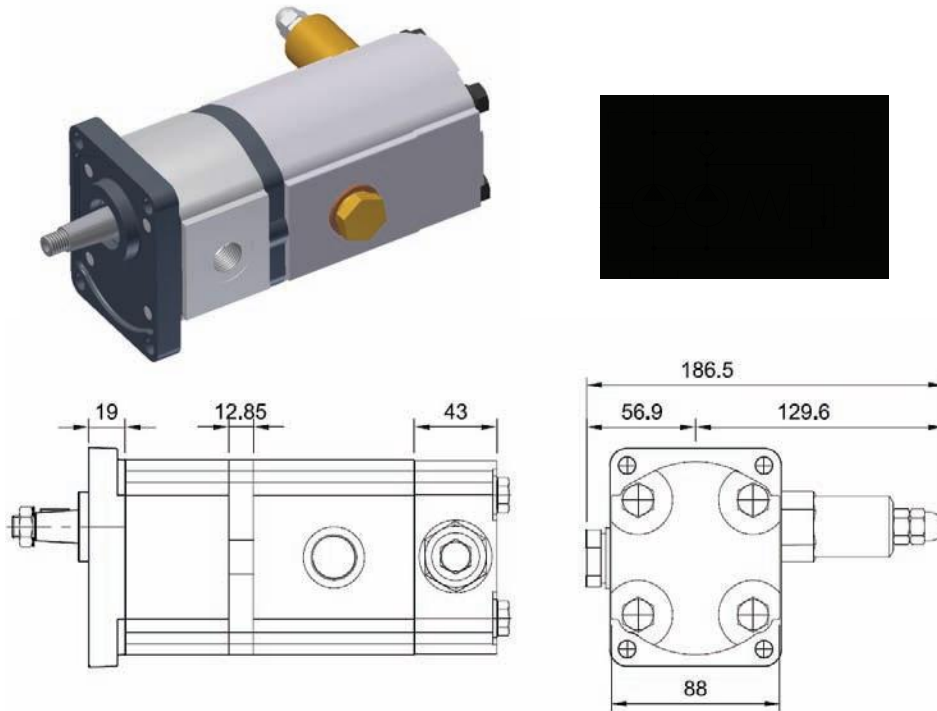
12	支撑 / SUPPORT	代码 / CODE
	无支撑	0
	支撑1	1
	支撑2	2
	支撑3	3

*插入每级泵的排量代码

INSERT IN THE CODE THE VALUE FOR EACH PUMPS EXPECTED

带顺序阀的Z2系列多联齿轮泵(高-低压泵)

MULTIPLE PUMP Z2 WITH SEQUENCE VALVE (HIGH-LOW PUMP)



			1	2				3	4	5	6	7	8
0	2	Z	A	0	G	D	20	6	E	43	D	R	

1-2	法兰 / FLANGE	代码 / CODE
	EUROPEAN	A - 0
	GERMAN	B - 1
	AMERICAN	C - 4 / C - 7
	GERMAN	D - 3 / D - 2
	GERMAN	M - 3 / M - 2
	GERMAN	E - 2
	匹配汽油机动力 / PETROL ENGINE	K - 7
	GERMAN	G - 3
	GERMAN	L - 3
	带泄油口的欧标 / EUROPEAN WITH DRAIN	N - 4
	AMERICAN	H - 6
	带泄油口的德标 / GERMAN WITH DRAIN	P - 1

3-4	排量 / CAPACITY cm^3	代码 / CODE
	3 - 第一级泵 / FIRST STAGE 4 - 第二级泵 / SECOND STAGE	
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	14.5	14
	16.9	17
	20.1	20
	25.7	25
	31.4	31

5	泵轴 / SHAFT (见P36-37)	代码 / CODE
	VEDI PAG (11-12) / (见P30-31)	

6	油口 / PORTS (见P38-40)	代码 / CODE
	GAS	34 - 35 - 40
	SAE	37 - 38 - 39

7	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

8	轴封 / SHAFT SEAL (见P27)	代码 / CODE
	标准 / STANDARD	N
	5 BAR NBR / 5 BAR NBR	R
	5 BAR VITON / 5 BAR VITON	RV

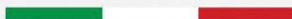


Z3系列铝合金体泵和马达
(铸铁体法兰和后端盖)

ALUMINIUM PUMPS AND MOTORS **Z3 SERIES**

POMPE E MOTORI IN ALLUMINIO SERIE Z3

意大利制造
MADE IN ITALY



主要性能

- > 铸铁泵盖
- > 高压力: 最大连续使用压力达 280 bar (4046 psi)
- > 用压力平衡衬块进行轴向压力补偿
- > 容积效率高: 平均可达到 95%
- > 挤压成型铝泵体
- > 低啮合噪音
- > 高温密封
- > 单向及双向旋转齿轮泵和马达
- > 易于在单泵和多联泵之间转换, 易于改变转动方向

MAIN FEATURES:

- > Cast iron covers for high performances
- > High pressure option: up to 280 bar max. continuous pressure (4046 psi).
- > Axial compensation achieved using pressure balanced bushing blocks.
- > High volumetric efficiency: average 95%.
- > Extruded aluminium body.
- > Low noise operation.
- > High temperature seals available.
- > Bi-rotational pumps and motors.
- > Easy-to-make tandem pumps and easy change of rotation.

“Z3” 系列泵使用条件

CONDITIONS OF USE FOR PUMPS Z3

泵在运转时, 避免给主轴在径向或轴向加载。

使用弹性接合或“Oldham”接合补偿没有对准的误差, 使齿轮泵位于一条直线上。

我们建议用户仔细阅读下表中的内容, 从而能够正确地使用齿轮泵, 延长泵的使用寿命。

Avoid radial and axial loads on the pump shaft during the use.

The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or "Oldham" coupling.

We recommended to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

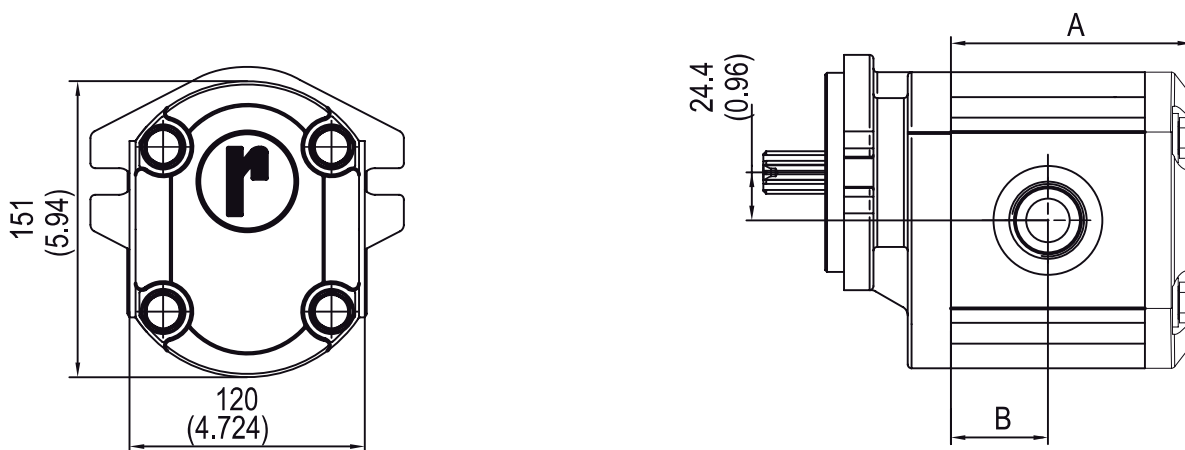
本手册中的技术指标随时有可能被更新。

The technical characteristics in this catalogue can be changed in any moment.

Z3 系列泵的使用条件
 USE CONTITIONS FOR THE PUMPS Z3

液压油 <i>Hydraulic fluids</i>	矿物油 (DIN 51524) 如果要使用水和乙二醇、水油乳液和磷酸脂等阻燃液体, 请与我们的的技术处或销售处联系。 <i>Mineral oil (DIN 51524)</i> <i>For use with fire resistant fluids like water glycol, water-oil emulsion and phosphate-esters, contact our technical or commercial office.</i>		
吸入压力 <i>Inlet pressure</i>	0.7 - 3 bar (绝对值 / Absolute)		
吸入管路中油速 <i>Oil speed on suction line</i>	0.5 - 1.5 m/s		
排出管路中油速 <i>Oil speed on pressure line</i>	6 - 10 m/s		
油温 <i>Oil temperature</i>	-10 °C - :80 °C		
油粘度 <i>Oil viscosity</i>	20 - :120 mm ² /s (Cst)		
最大启动粘度 <i>Max starting viscosity</i>	700 mm ² /s (Cst)		
过滤要求 <i>Oil filtration</i>	压力 <i>Pressure</i>	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 <i>Contamination class NAS 1638</i>	25 μm	15 μm

Z3 系列齿轮泵说明和尺寸
PERFORMANCES AND DIMENSIONS Z3



		Z3型泵和马达 / PUMPS AND MOTORS Z3												
		20	25	30	35	40	45	50	55	60	64	70	80	90
Capacity c.c. 排量 / (cc/rev)		19.9	24.9	29.9	34.3	40.5	45.2	49.9	54.5	60	63.9	70	78.7	89.6
Delivery 流量 / (l/min)		23.2	37.4	44.9	51.5	60.8	67.8	74.9	81.8	90	95.9	105	118	134.4
A (mm)		100.8	104	107.2	110	114	117	120	123	126.5	129	132.9	138.6	145.6
B (mm)		38.5	40	41.6	43	45	46.5	48	49.5	51	52.5	54.5	57.3	60.8
最大连续工作压力 P1 (bar) Max working pressure (bar)		280	280	280	280	250	250	230	230	200	200	170	170	160
最大峰值压力P2 (bar) Max peak pressure (bar)		310	310	310	310	280	280	250	250	220	220	190	190	180
P1压力下最小速度 (rpm) Min speed for P1 press. (Rpm)		450	450	350	350	350	350	350	350	350	350	350	350	350
最大空转速度 (rpm) Max speed without load (Rpm)		3000	3000	3000	3000	2700	2700	2200	2200	2000	2000	1800	1800	1800
马达在 100 bar 压力下的扭矩		26.93	33.7	40.47	46.43	54.82	61.18	67.54	73.77	81.21	86.49	94.75	106.52	121.27
重量 (Kg)		10.6	10.8	11	11.2	11.4	11.5	11.7	11.9	12	12.2	12.4	12.7	13.1

Z3 系列双向齿轮泵和马达

- BIDIRECTIONAL PUMPS AND MOTORS Z3

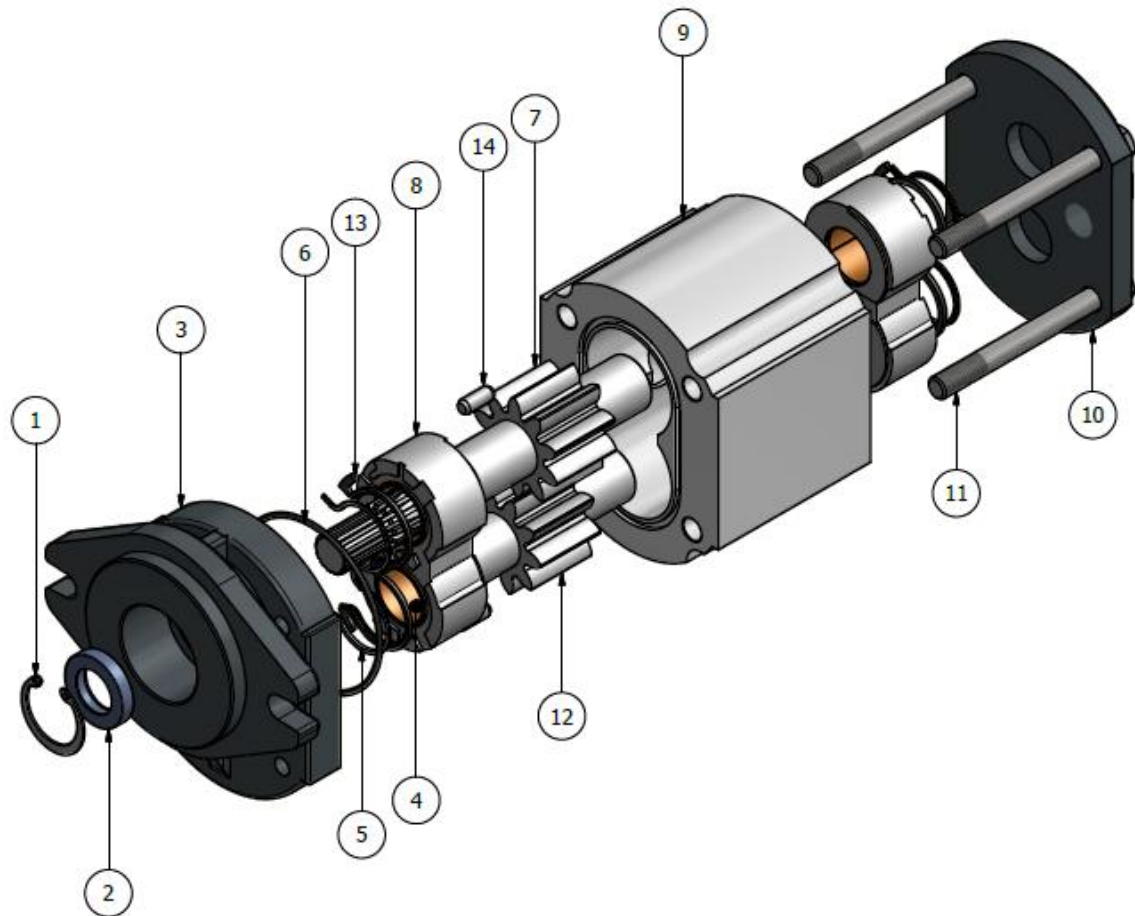
- > 双向齿轮泵或马达的压力降低15%。
- > With bidirectional pumps or motors, pressure is reduced by 15 %.

Z3 系列多联泵

TANDEM PUMPS Z3

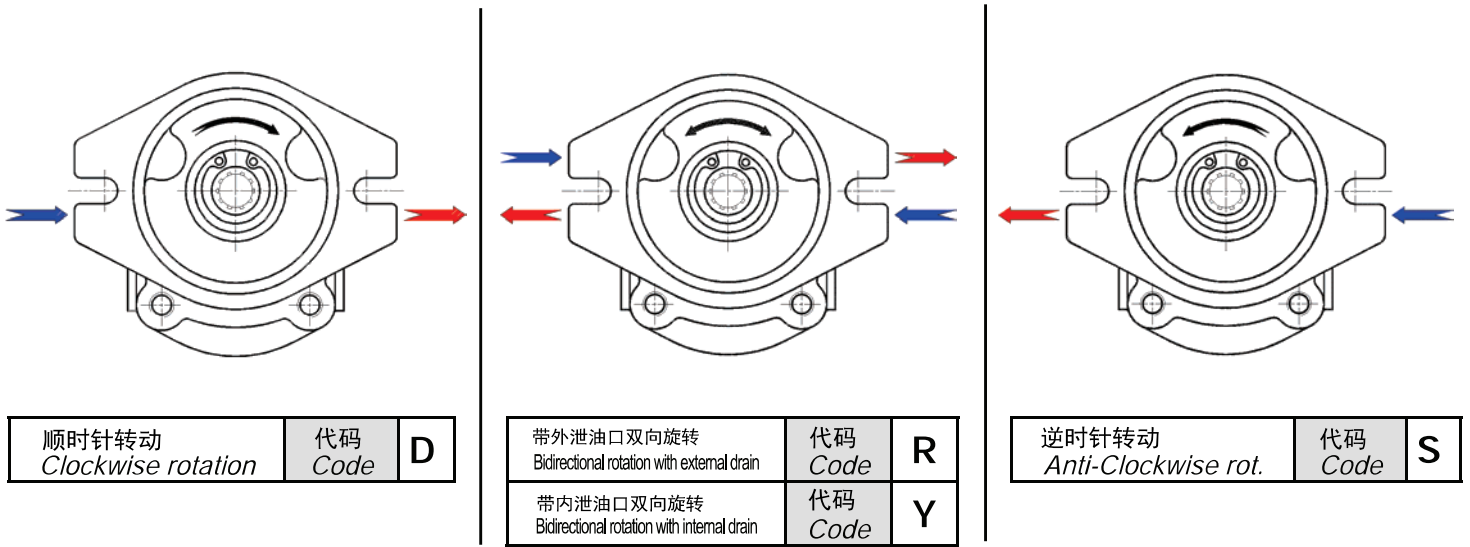
- > 使用多联泵时,主动轴负荷量是所有单个扭矩的总合。其值不可超过表中值。
- > When applying a multiple pump, the drive shaft load is the sum of the torque values of each section. This value cannot be bigger of the value in the table.

Z3 部件 - PARTS Z3

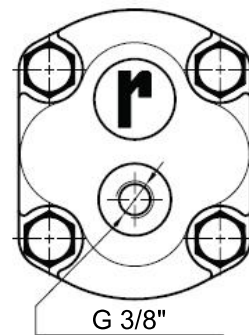
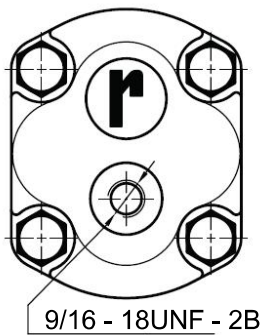
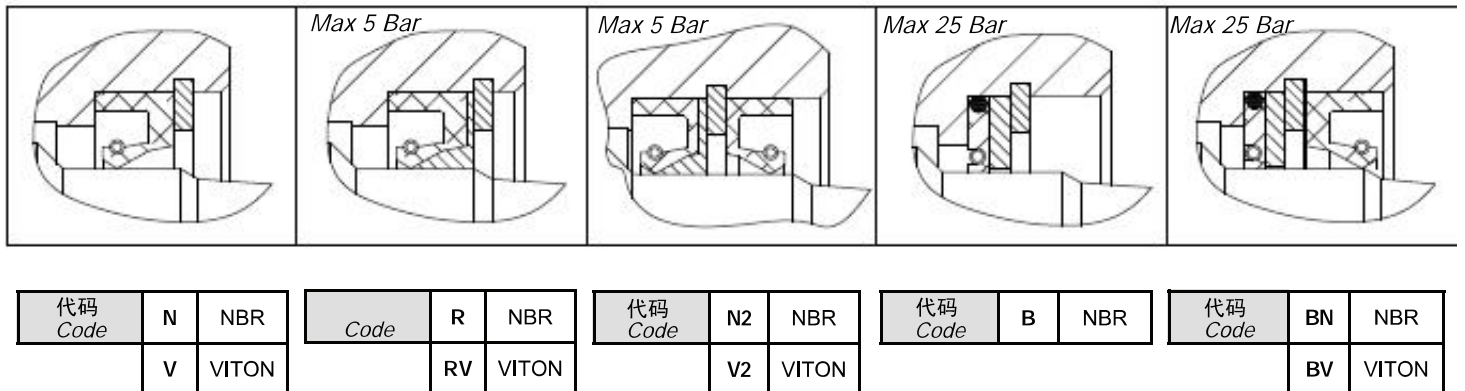


Rif.	DESCRIZIONE	DESCRIPTION	QTA'
1	卡环	Snap ring	1
2	轴封环	Rotary shaft seal	1
3	前法兰	Front flange	1
4	轴衬	Bushings	4
5	防挤压密封条	Seal against extruding	2
6	泵盖下封条	Under cover seal	2
7	主动齿轮	Drive gear	1
8	轴衬座	Bushing block	2
9	泵体	Body	1
10	泵盖	Rear cover	1
11	螺母	Bolt	4
12	从动齿轮	Idle gear	1
13	补偿垫圈	Compensation seal	2
14	圆柱销	Pins	2

转动方向
ROTATION



轴封
SHAFT SEAL



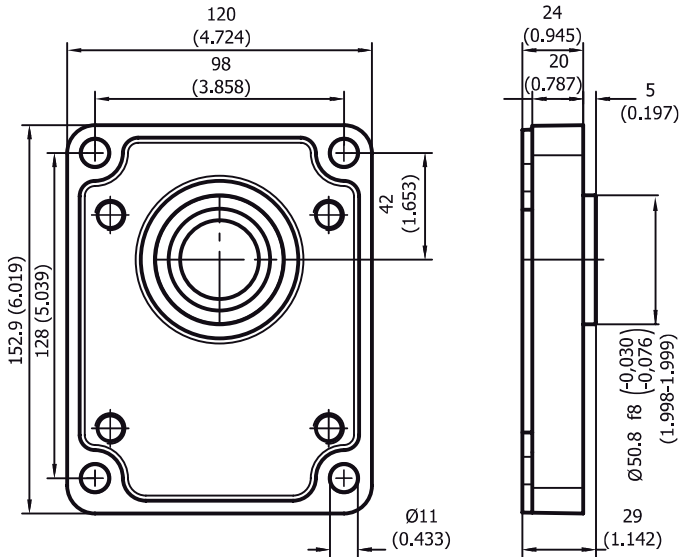
带法兰泄油口 <i>Drain for pumps with flanges</i>	B2 - B3
---	----------------

带法兰泄油口 <i>Drain for pumps with flanges</i>	A0 - C4 - D5
---	---------------------

注意：“R”可以代表双向旋转；加强密封；后泄油。

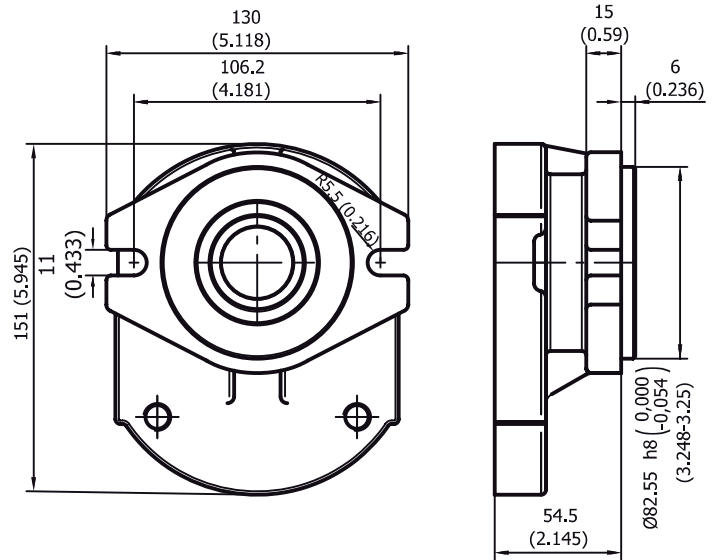
Z3 法兰盘-尺寸及代码 (铸铁材料)
COVERS Z3 - DIMENSIONS AND CODES

欧洲标准



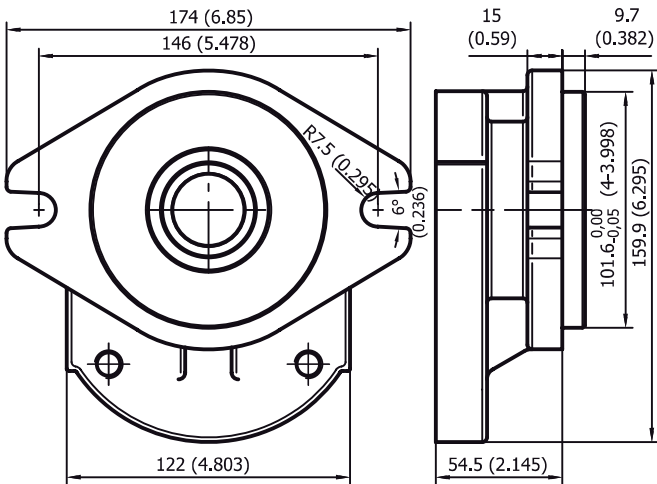
代码 CODE	A	0
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SAE "A"



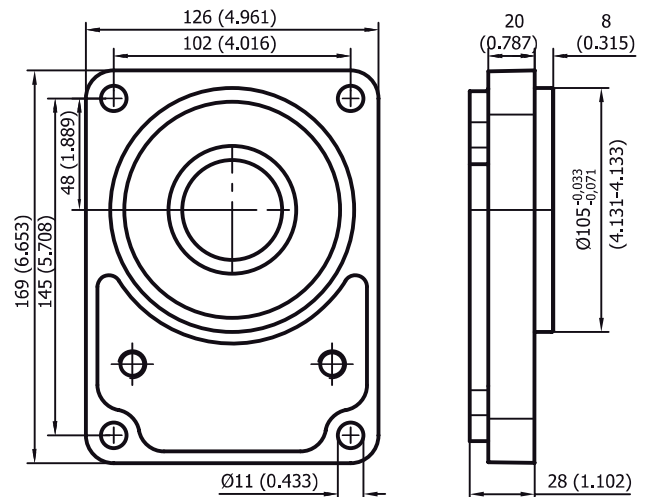
代码 CODE	B	2
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SAE "B"



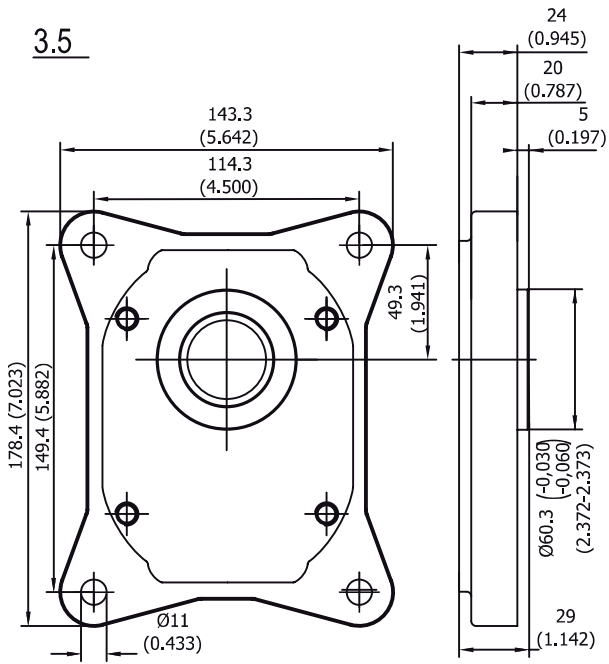
代码 CODE	B	3
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德国标准



代码 CODE	C	4
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Z3 法兰盘 - 尺寸及代码
COVERS Z3 - DIMENSIONS AND CODES

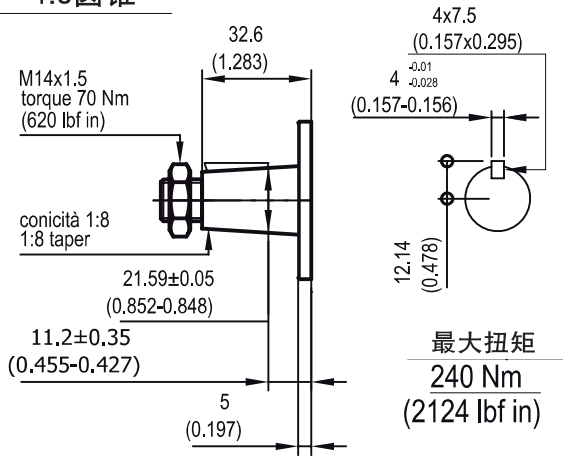


代码 CODE	D	5
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Z3 型齿轮泵轴 - 尺寸和代码

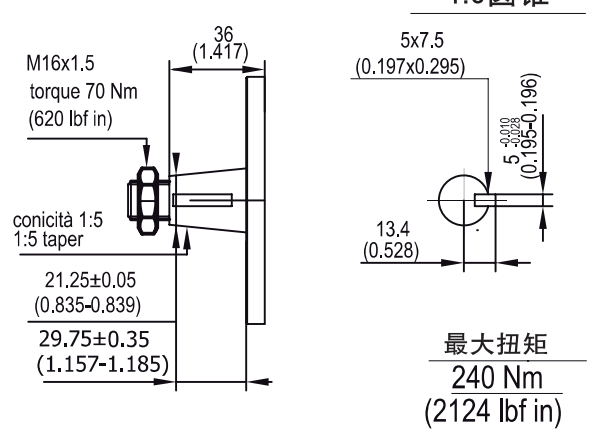
SHAFTS Z3 - DIMENSIONS AND CODES

1:8圆锥



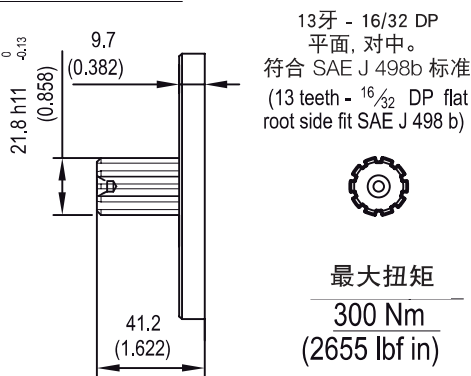
代码 / CODE	C	
法兰盘 / FOR FLANGE	A	0

1:5圆锥



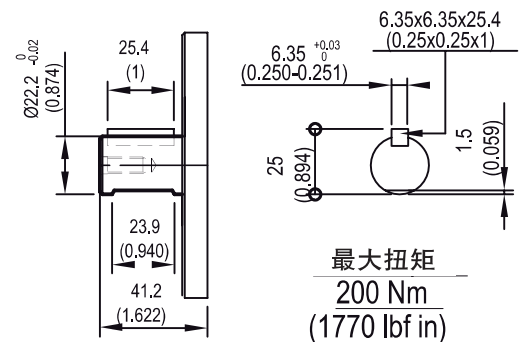
代码 / CODE	A	
法兰盘 / FOR FLANGE	C	4

SAE "B" 槽



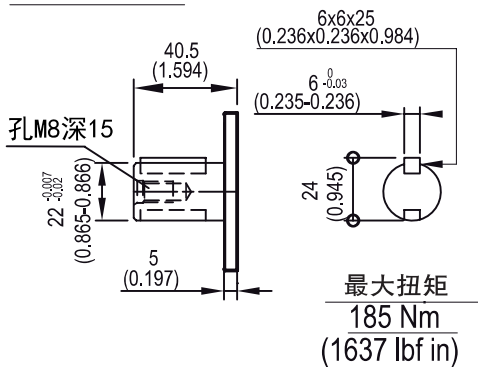
代码 / CODE	B	
法兰盘 / FOR FLANGE	B	2
	B	3

SAE "B" 7/8" 圆柱



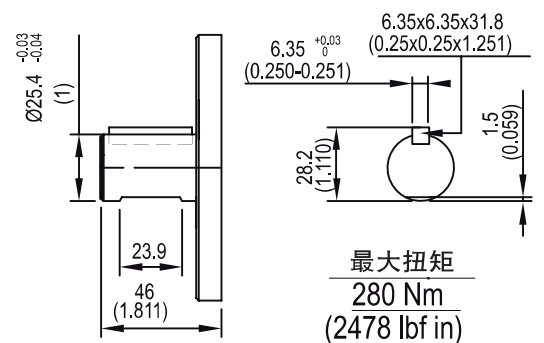
代码 / CODE	L	
法兰盘 / FOR FLANGE	B	2
	B	3

圆柱



代码 / CODE	Q	
法兰盘 / FOR FLANGE	A	0
	D	5

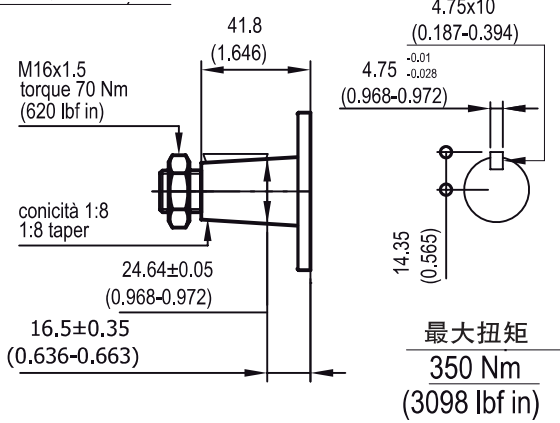
SAE "B" 1" 圆柱



代码 / CODE	M	
法兰盘 / FOR FLANGE	B	2
	B	3

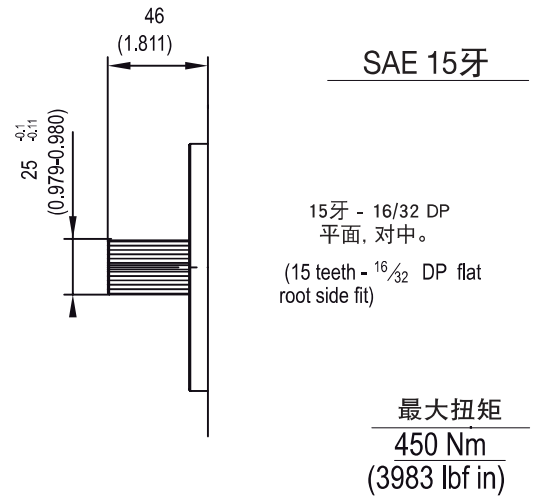
Z3 型齿轮泵轴 - 尺寸和代码
 SHAFTS Z3 - DIMENSIONS AND CODES

3.5圆锥



代码 / CODE	R	
法兰盘 / FOR FLANGE	D	5

SAE 15牙



代码 / CODE	S	
法兰盘 / FOR FLANGE	B	3

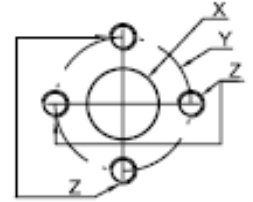
Z3系列齿轮泵进出油口-尺寸和代码

INLET AND OUTLET PORTS

- XX 标准
- XX 按要求
- 不可选

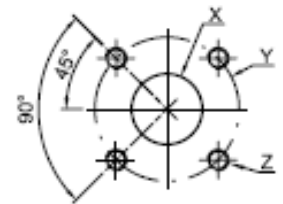
	X	Y	Z
A	19	40	M8 18
B	27	51	M10 18
C	33	62	M12 18

		OUT		
IN		A	B	C
	A	49		
	B	48	46	
	C		47	45



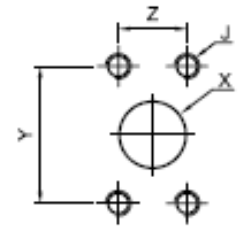
	X	Y	Z
A	19	40	M8 18
B	27	51	M10 18

		OUT	
IN		A	B
	A	50	
	B	51	52



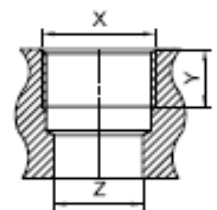
	X	Y	Z	J
A	12.5	38.1	17.5	5/16-18UNC-2B
B	19	47.6	22.2	3/8-16UNC-2B
C	25.4	52.4	26.2	
D	30.5	58.7	30.2	7/16-14UNC-2B
E	39.3	69.8	35.7	1/2-13UNC-2B
F	51	77.8	42.9	

		OUT					
IN		A	B	C	D	E	F
	A	53					
	B	54	55				
	C		56	57			
	D			58	59		
	E				60	61	
	F					62	63



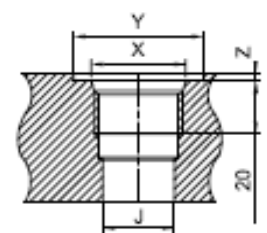
	X	Y	Z	名义尺寸 NOMINALE
A	1"G	22	27	1
B	1" 1/4 G	22	33	1-1/4
C	1" 1/2 G	24	38	1-1/2

		OUT		
IN		A	B	C
	A	64		
	B	65	66	
	C		67	68



	名义尺寸 NOMINALE	X	Y	Z	J
A	3/4"	1-1/16-12UN-2B	42	0.5	24.5
B	1"	1-5/16-12UN-2B	49	0.5	30.5
C	1"-1/4	15/8-12UN-2B	58	0.5	39
D	1"-1/2	1-7/8-12UN-2B	65	0.5	45

		OUT			
IN		A	B	C	D
	A	69			
	B	70	71		
	C		72	73	
	D			74	75



Z3系列齿轮泵进出油口-尺寸和代码

INLET AND OUTLET PORTS

各种不同排量下可用的“标准”油口代码

STANDARD PORT CODES AVAILABLE IN RELATION OF CAPACITY

74								△	△	△	△	△	△
73					○	○	○	○	○	○			
72					△	△	△						
71			○	○									
70	△	△	△	△									
69													
68													
67												△	△
66													
65		○	○	○	○	○	○	△	△	△	△		
64	△	△	△	△	△		△						
63													
62													△
61													
60								△	△	△	△	△	
59													
58					△	△	△						
57													
56		△	△	△									
55													
54	△												
53													
52													
51	△	△	△	△	△	△	△	○					
50													
49													
48	△	△	△	△	△	△	△	△	△	△			
47											△	△	△
46													
45													
	20	25	30	35	40	45	50	55	60	64	70	80	90



标准/ STANDARD



仅适用于马达/ MOTORS ONLY



不可选/ NOT AVAILABLE

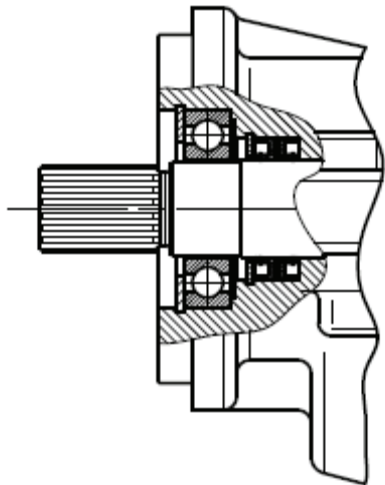
内置轴承

INBOARD BEARINGS

类型1- ***TYPE 1***

用单滚珠轴承支撑的组合轴承

Integrated bearing support with single ball bearing



当需要承受径向负载，轴向无负载时应用
Application made to support radial load and without axial load on the shaft

对应法兰型号：B3-L3-C6-E6

Available for flanges type B3 - L3 - C6 - E6.

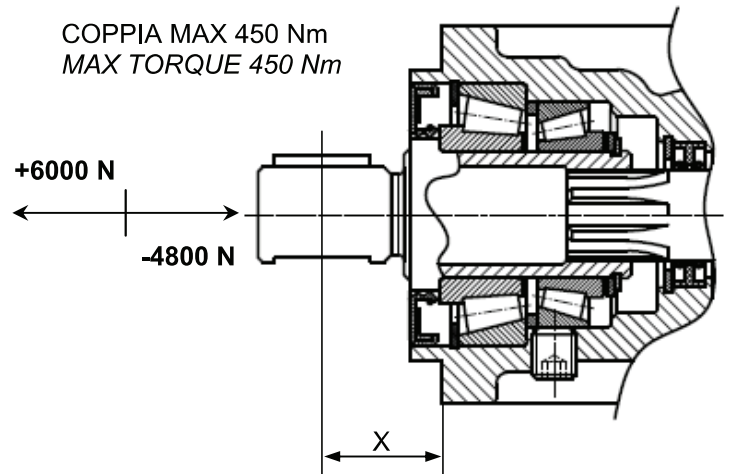
对应泵轴型号：B-L-D-S-K-P-H

Available for shafts type B - L - D - S - K - P - H.

类型2- ***TYPE 2***

用锥辊轴承支撑的组合轴承

Integrated bearing support with double taper roller bearings



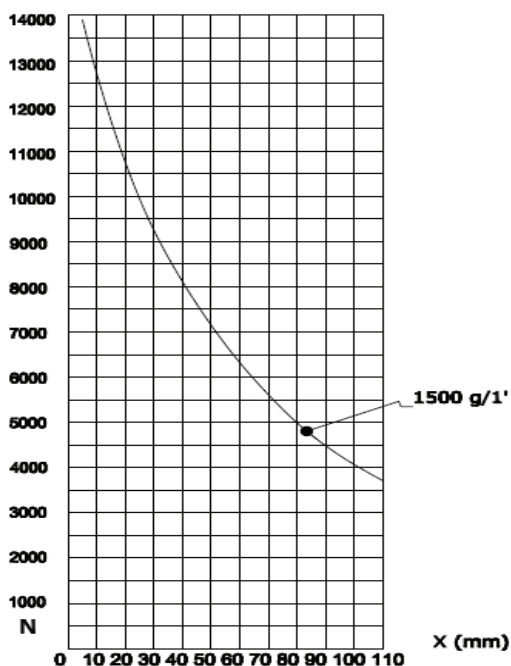
当需要承受径向及轴向负载时应用
Application made to support axial and radial load.

对应法兰型号：I4

Available for flange type I4

对应泵轴型号：S-K-P-H-M-R

Available for shafts type S - K - P - H - M - R.



负载图

- 疲劳寿命等级1000H
- 油号：VG-46
- 温度70°C
- 可信度90%
- 污染等级60 μ

LOAD DIAGRAM

- Rating fatigue life 1000 h
- Grease type VG-46
- Temperature 70°C
- Trust 90%
- Contamination 60 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

Z3泵和马达订货说明

HOW TO ORDER Z3 SINGLE UNITS

	1	2	3	4	5	6	7	8	9	10		
0	3	Z	A	G	35	C	0	48	S	-	1	B

1	组件类型 / UNIT TYPE	代码 / CODE
	泵 / PUMP	Z
	马达 / MOTOR	ZM

2-5	法兰 / FLANGE (见P56-57)	代码 / CODE
	EUROPEAN	A - 0
	SAE "A"	B - 2
	SAE "B"	B - 3
	GERMAN	C - 4
	EUROPEA GR. 3,5	D - 5

3	排量 / CAPACITY cm^3	代码 / CODE
	19.9	20
	24.9	25
	29.9	30
	34.5	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

4	泵轴 / SHAFT (见P58-59)	代码 / CODE
	锥轴1: 8 / TAPERED 1:8	C
	锥轴1: 5 / TAPERED 1:5	A
	SAE "B" 花键轴 / SAE "B" SPLINED	B
	SAE "B" 7/8" 圆轴 / SAE "B" STRAIGHT 7/8"	L
	圆轴 Ø 22 / STRAIGHT Ø 22	Q
	SAE "B" 1" 圆轴 / SAE "B" STRAIGHT 1"	M
	锥轴 GR. 3,5 / TAPERED GR. 3,5	R
	/ SAE 15 TH	S

6	油口 / PORTS (见P60-61)	代码 / CODE
	欧标 / EUROPEAN	49 - 48 - 46 - 47 - 45
	德标 / GERMAN	50 - 51 - 52
	BSPP	64 - 65 - 66 - 67 - 68
	O-RING BOSS	69 - 70 - 71 - 72 - 73 - 74 - 75
	SAE 3000 PSI	53 - 54 - 55 - 56 - 57 - 58 - 59 - 60 - 61 - 62 - 63

7	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S
	双向旋转带内泄 BIDIRECTIONAL WITH INTERNAL DRAIN	Y
	双向旋转带外泄 BIDIRECTIONAL WITH EXTERNAL DRAIN	R

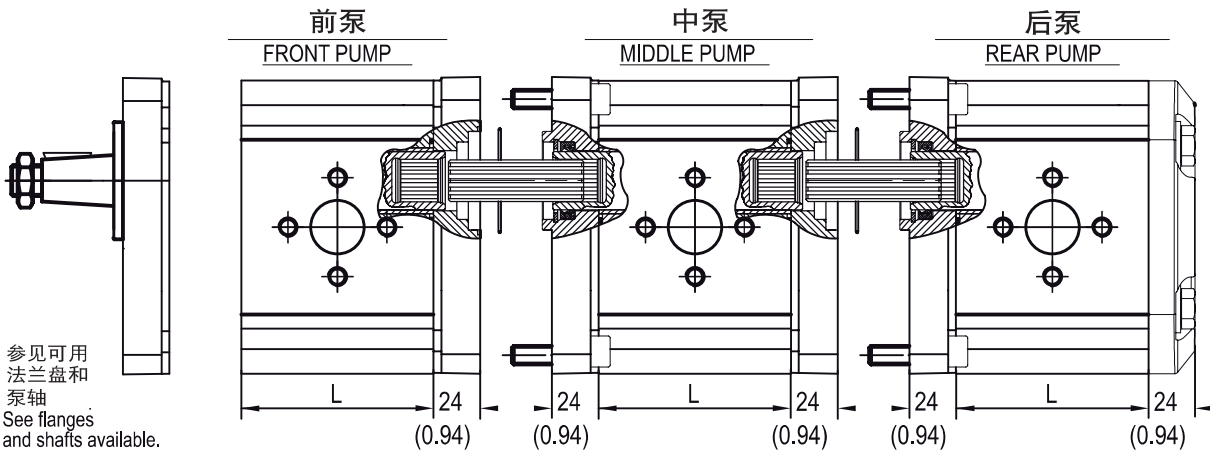
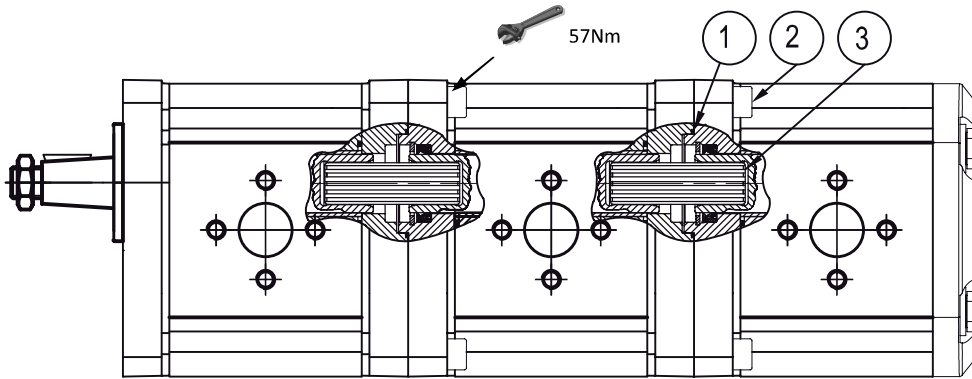
8	多联 / 单联代码 / UNIT TYPE	代码 / CODE
	多联 / FOR TANDEM	T
	普通 / NORMAL	-

9	SUPPORTO INTEGRATO / INBOARD BEARINGS	CODICE / CODE
	TIPO 1 / TYPE 1	1
	NESSUNO / NORMAL	-

10	轴封 / SHAFT SEAL (见P55)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR 丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

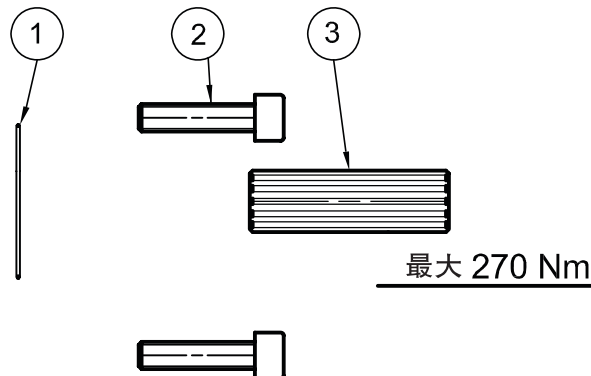
Z3 型多联齿轮泵 - TANDEM PUMPS Z3

Z3/Z3/Z3



Z3与Z3之间的连接件 MIDDLE KIT Z3-Z3

C.C.	L
20	77
25	80
30	83.2
35	86
40	90
45	93
50	96
55	99
60	102
64	105
70	109
80	114.6
90	121.6



连接件代码: K3000033	
Code Kit.: K3000033	
Ref.	部件 / PARTS
1	OR178/5052 油封
2	M10x40 螺丝
3	花键轴 22x19 Splined shaft 22x19

花键轴限制中泵和后泵的最大压力, 最大扭矩为 270 Nm。
Max. shaft loading must conform to the limitations of splined shaft. Max torque is 270 Nm.

Z3系列多联泵订货说明

HOW TO ORDER Z3 MULTIPLE UNITS

			1		2		3		4		5		6		7
0	3	Z	A	G	80	E	0	48	A	S	B				

前泵
FRONT PUMP

					2				5		6		7
0	3	Z	A	G	45	0	0	48	I	S	B		

中泵
MIDDLE PUMP

					2				5		6		7
0	3	Z	A	G	45	0	0	48	P	S	B		

后泵
REAR PUMP

1-4	法兰/FLANGE (见P56-57)	代码/CODE
	EUROPEAN	A - 0
	SAE "A"	B - 2
	SAE "B"	B - 3
	GERMAN	C - 4
	EUROPEA GR. 3,5	D - 5

5	油口 / PORTS (见P60-61)	代码/CODE
	EUROPEAN	49 - 48 - 46 - 47 - 45
	GERMAN	50 - 51 - 52
	BSPP	64 - 65 - 66 - 67 - 68
	O-RING BOSS	69 - 70 - 71 - 72 - 73 - 74 - 75
	SAE 3000 PSI	53 - 54 - 55 - 56 - 57 - 58 - 59 - 60 - 61 - 62 - 63

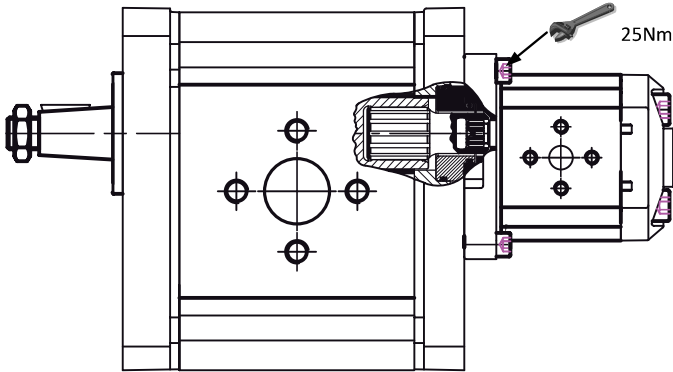
2	排量/CAPACITY cm ³	代码/CODE
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

6	转向 / ROTATION	代码/CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

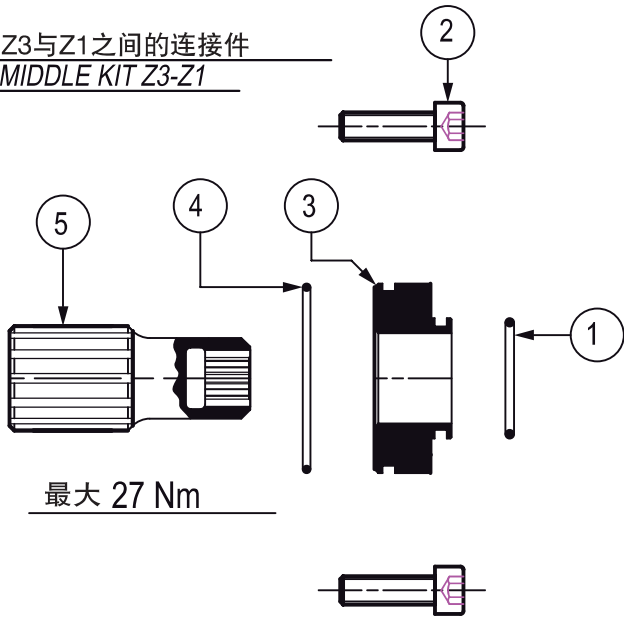
3	泵轴/SHAFT (见P58-59)	代码/CODE
	锥轴 1:8 / TAPERED 1:8	C
	锥轴 1:5 / TAPERED 1:5	A
	SAE "B" 花键 / SAE "B" SPLINED	B
	SAE "B" 7/8" 圆轴 / SAE "B" STRAIGHT 7/8"	L
	圆轴 Ø 22 / STRAIGHT Ø 22	Q
	SAE "B" 1" 圆轴 / SAE "B" STRAIGHT 1"	M
	锥轴 GR. 3,5 / TAPERED GR. 3,5	R
	SAE 15 TH	S

7	轴封 / SHAFT SEAL (见P55)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

Z3/Z1



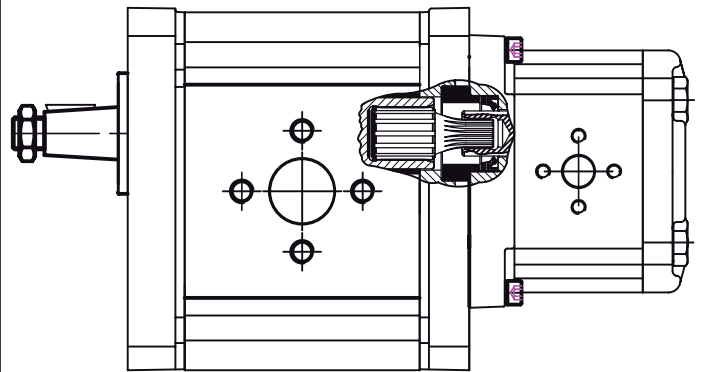
Z3与Z1之间的连接件
MIDDLE KIT Z3-Z1



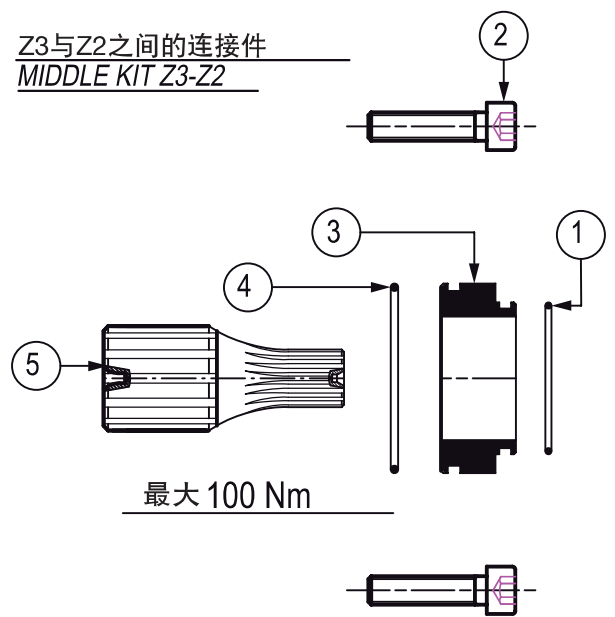
最大 27 Nm

连接件代码: Code Kit.:		K3000029
Ref.	部件 / PARTS	
1	ORM0210-20	
2	M6x25/ 螺丝	
3	控制环 / Pilot ring	
4	ORM0360	
5	花键轴 / Splined shaft	

Z3/Z2



Z3与Z2之间的连接件
MIDDLE KIT Z3-Z2



最大 100 Nm

连接件代码: Code Kit.:		K3000030
Ref.	部件 / PARTS	
1	OR2112	
2	M6x45 / 螺丝	
3	控制环 / Pilot ring	
4	ORM0360	
5	花键轴 / Splined shaft	

花键轴限制中泵和后泵的最大压力, 最大扭矩为27Nm (Z3/Z1) 和100Nm (Z3/Z2)。

Max. shaft loading must conform to the limitations of splined shaft. Max torque is 27 Nm for Z3/Z1 and 100 Nm for Z3/Z2.

Z3多联齿轮泵订货说明

HOW TO ORDER Z3 MULTIPLE UNITS

			1		2		3		4		5		6		7
0	3	Z	A	G	80	E	0	48	A	S	B				

前泵Z3
FRONT PUMP Z3

K3000029

连接件Z3/Z1
TANDEM KIT Z3/Z1

					8*				9*		6		7
0	1	Z	A	G	21	0	0	48	I	S	B		

中泵Z1
MIDDLE PUMP Z1

					8*				9*		6		7
0	1	Z	A	G	21	0	0	48	P	S	B		

后泵Z1
REAR PUMP Z1

1-4	法兰 / FLANGE (见P56-57)	代码 / CODE
	EUROPEAN	A - 0
	SAE "A"	B - 2
	SAE "B"	B - 3
	GERMAN	C - 4
	EUROPEA GR. 3,5	D - 5

5	油口 / PORTS (见P60-61)	代码 / CODE
	EUROPEE / EUROPEAN	SEE PAGE 13-14
	TEDESCHE / GERMAN	SEE PAGE 13-14
	BSPP	SEE PAGE 13-14
	O-RING BOSS	SEE PAGE 13-14
	SAE 3000 PSI	SEE PAGE 13-14

2	排量 / CAPACITY cm ³	代码 / CODE
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

6	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

7	轴封 / SHAFT SEAL (见P55)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5BAR 丁橡胶 / 5 BAR NBR	R
	5BAR 氟橡胶 / 5 BAR VITON	RV
	双层密封丁橡胶 / DOUBLE SEAL NBR	N2
	双层密封氟橡胶 / DOUBLE SEAL VITON	V2
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

3	泵轴 / SHAFT (见P58-59)	代码 / CODE
	锥轴 1:8 / TAPERED 1:8	C
	锥轴 1:5 / TAPERED 1:5	A
	SAE "B" 花键轴 / SAE "B" SPLINED	B
	SAE "B" 7/8" 圆轴 / SAE "B" STRAIGHT 7/8"	L
	圆轴 Ø 22 / STRAIGHT Ø 22	Q
	SAE "B" 1" 圆轴 / SAE "B" STRAIGHT 1"	M
	锥轴 GR. 3, 5 / TAPERED GR. 3,5	R
	SAE 15 TH	S

8	排量 / CAPACITY cm ³	代码 / CODE
	0.80	08
	1.08	11
	1.59	16
	2.09	21
	2.59	26
	3.15	32
	3.68	37
	4.19	42
	4.79	48
	5.49	55
	6.2	62
	7.81	78
	8.82	88
	10.5	105

8*9* 见Z1说明书

8*9* SEE ALSO Z1 CATALOGUE

Z3多联齿轮泵订货说明

HOW TO ORDER Z3 MULTIPLE UNITS

			1		2		3		4		5		6		7
0	3	Z	A	G	80	E	0	48	A	S	B				

前泵Z3
FRONT PUMP Z3

K3000030

连接件Z3/Z2
TANDEM KIT Z3/Z2

					8*				9*		6		7
0	2	Z	A	G	14	0	0	48	I	S	B		

中泵Z2
MIDDLE PUMP Z2

					8*				9*		6		7
0	2	Z	A	G	14	0	0	48	P	S	B		

后泵Z2
REAR PUMP Z2

1-4	法兰/FLANGE (见P56-57)	代码/CODE
	EUROPEAN	A-0
	SAE "A"	B-2
	SAE "B"	B-3
	GERMAN	C-4
	EUROPEA GR. 3,5	D-5

5	油口/PORTS (见P60-61)	代码/CODE
	EUROPEAN	SEE PAGE 13-14
	GERMAN	SEE PAGE 13-14
	BSPP	SEE PAGE 13-14
	O-RING BOSS	SEE PAGE 13-14
	SAE 3000 PSI	SEE PAGE 13-14

2	排量/CAPACITY cm ³	代码/CODE
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

6	转向/ROTATION	代码/CODE
	右旋/RIGHT	D
	左旋/LEFT	S

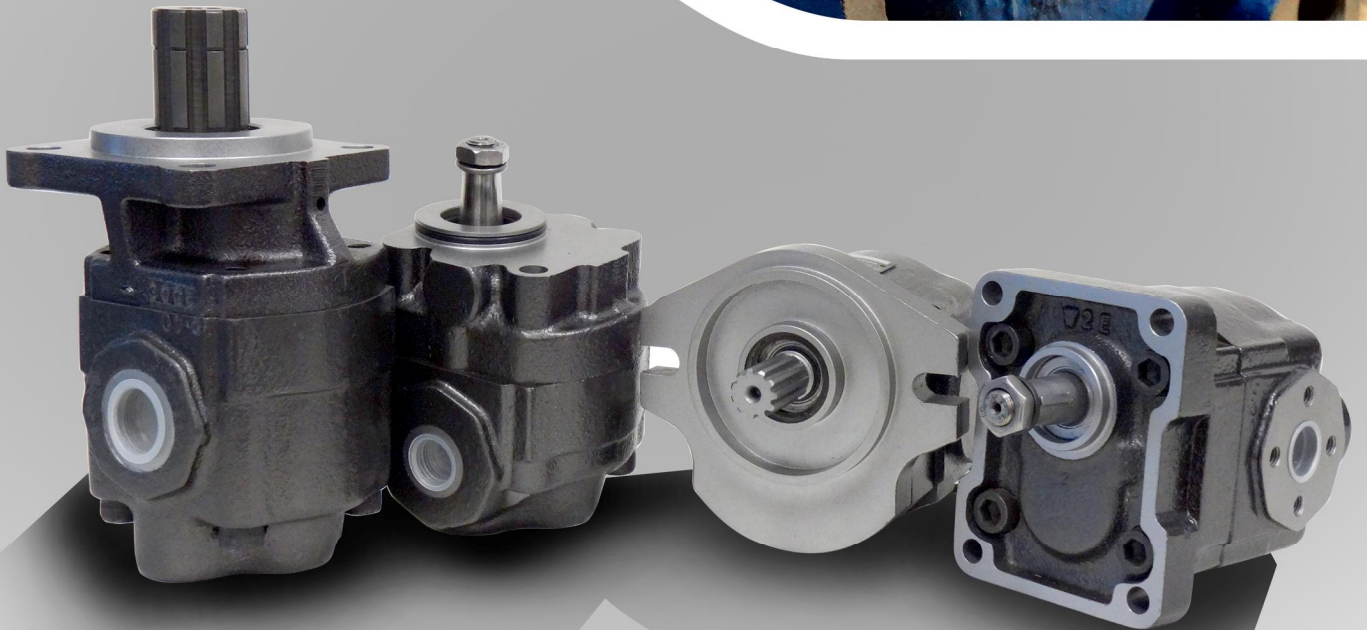
7	轴封/SHAFT SEAL (见P55)	代码/CODE
	标准/STANDARD	N
	标准氟橡胶/STANDARD VITON	V
	5BAR 丁橡胶/5 BAR NBR	R
	5BAR 氟橡胶/5 BAR VITON	RV
	双层密封丁橡胶/DOUBLE SEAL NBR	N2
	双层密封氟橡胶/DOUBLE SEAL VITON	V2
	25BAR真空密封丁橡胶/25 BAR VARISEAL NBR	B
	25BAR丁橡胶/25 BAR NBR	BN
	25BAR氟橡胶/25 BAR VITON	BV

3	泵轴/SHAFT (见P58-59)	代码/CODE
	锥轴 1:8 / TAPERED 1:8	C
	锥轴 1:5 / TAPERED 1:5	A
	SAE "B" 花键轴 / SAE "B" SPLINED	B
	SAE "B" 7/8" 圆轴 / SAE "B" STRAIGHT 7/8"	L
	圆轴 Ø 22 / STRAIGHT Ø 22	Q
	SAE "B" 1" 圆轴 / SAE "B" STRAIGHT 1"	M
	锥轴 GR. 3,5 / TAPERED GR. 3,5	R
	SAE 15 TH	S

8	排量/CAPACITY cm ³	代码/CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	14.5	14
	16.9	17
	20.1	20
	25.7	25
	31.4	31

8*9* 见Z2说明书

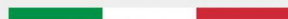
8*9* SEE ALSO Z1 CATALOGUE



W2系列 铸铁齿轮泵和马达
CAST IRON PUMPS AND MOTORS **W2 SERIES**

POMPE E MOTORI N GHISA SERIE W2

意大利制造
MADE IN ITALY



主要性能

- ◆ 高压力：高达300bar连续工作压力
- ◆ 用压力平衡衬块进行轴向压力补偿
- ◆ 容积效率高：平均可达95%
- ◆ 排量范围大：4-6-8-11-15-20-25-40cm³/转
- ◆ 铸铁泵体
- ◆ 齿轮加工精度高，啮合噪音小
- ◆ 轴、法兰和配件的规格种类齐全，可适应各种特殊要求
- ◆ 高温密封
- ◆ 单向泵和马达
- ◆ 双向泵和马达
- ◆ 可以用罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵
- ◆ 易于在单泵和多联泵之间转换，易于改变转动方向

Main Features

- ◆ *High pressure option: up to 300 bar max. continuous pressure (4350 psi)*
- ◆ *Axial compensation achieved using pressure balanced bushing blocks.*
- ◆ *High volumetric efficiency: average 95%*
- ◆ *Wide range of capacities : 4-6-8-11-15-20-25-40 cm³/rev.*
- ◆ *Cast iron body*
- ◆ *Gear tooth profile accurately projected providing low noise operation.*
- ◆ *A wide variety of shafts, flanges and ports are available to meet specific application requirements.*
- ◆ *High-temperature seals available.*
- ◆ *Single rotational pumps and motors.*
- ◆ *Bi-rotational pumps and motors.*
- ◆ *Multiple pumps availability: tandem pumps are possible both in aluminium series and with other cast iron series produced by Ronzio Oleodinamica*
- ◆ *Easy-to-make tandem pumps and easy change of rotation.*

“W2” 系列泵使用条件

CONDITIONS OF USE FOR PUMPS “W2”

泵在运转时，避免给主轴在径向或轴向上加载负载。
使用弹性接合或“Oldham”结合补偿没有对准的误差，使齿轮泵位于一条直线上。
我们建议用户仔细阅读下表中的内容，从而能够正确地使用齿轮泵，延长泵的使用寿命。

*Avoid radial and axial loads on the pump shaft during the use.
The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” coupling.
We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.*

W2型泵使用条件

USE CONDITIONS FOR THE PUMPS W2

液体 <i>Hydraulic fluids</i>	矿物油 (DIN 51524) 如果要使用水乙二醇、水油乳液和磷酸酯等阻燃液体，请与我们的技术部或销售处联系。 <i>Mineral oil (DIN 51524)</i> <i>For use with fire resistant fluids like water glycol, water- oil emulsion and phosphate-esters, contact our technical or commercial office.</i>		
吸入压力 <i>Inlet pressure</i>	0.7 - 3 bar (Assoluti / Absolute)		
吸入管路中油速 <i>Oil speed on suction line</i>	0.5 ÷ 1.5 m/s		
排出管路中油速 <i>Oil speed on pressure line</i>	6 ÷ 10 m/s		
油温 <i>Oil temperature</i>	-10°C ÷ 80°C		
油粘度 <i>Oil viscosity</i>	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 <i>Max starting viscosity</i>	700 mm ² / s (Cst)		
滤油 <i>Oil filtration</i>	压力 <i>Pressure</i>	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 ≥ 75 <i>Ratio β_x ≥ 75</i>	25μm	10μm

主要参数

MAIN CHARACTERISTICS

类型-Type		04	06	08	11	15	20	25	40
排量 Capacity	Cm ³ / rev	4.4	6.28	8.16	11.3	15.5	20.5	26.1	38.8
P1 最大工作压力 Max working pressure	Bar	300	300	300	300	260	230	200	140
P2 间歇工作压力 intermittent pressure	Bar	320	320	320	320	300	250	220	155
P3 最大峰值压力 Max peak pressure	Bar	350	350	350	350	320	270	240	175
P1压力下最大转速 Max speed for P1 pressure	Rpm	3500	3500	3500	3000	3000	2500	2300	2000
最大空转速度 Max speed without load	Rpm	4000	4000	4000	3500	3500	3000	2700	2400
P1压力下最小转速 Min speed for P1 pressure	Rpm	400	400	400	350	350	300	300	250

确认压力流量转速及扭矩请通过下列公式计算

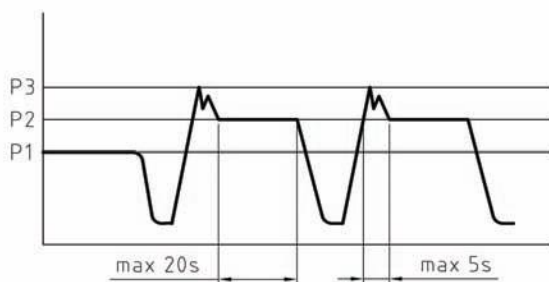
VERIFY THE COMPATIBILITY AMONG PERFORMANCE OF PRESSURE, FLOW REQUIRED AND TORQUE OF THE SHAFT THROUGH THE BELOW FORMULAS

双向齿轮泵或马达压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

常见参数计算

DETERMINATION OF NOMINAL SIZE



泵
FOR PUMP

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

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

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

马达
FOR MOTOR

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

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

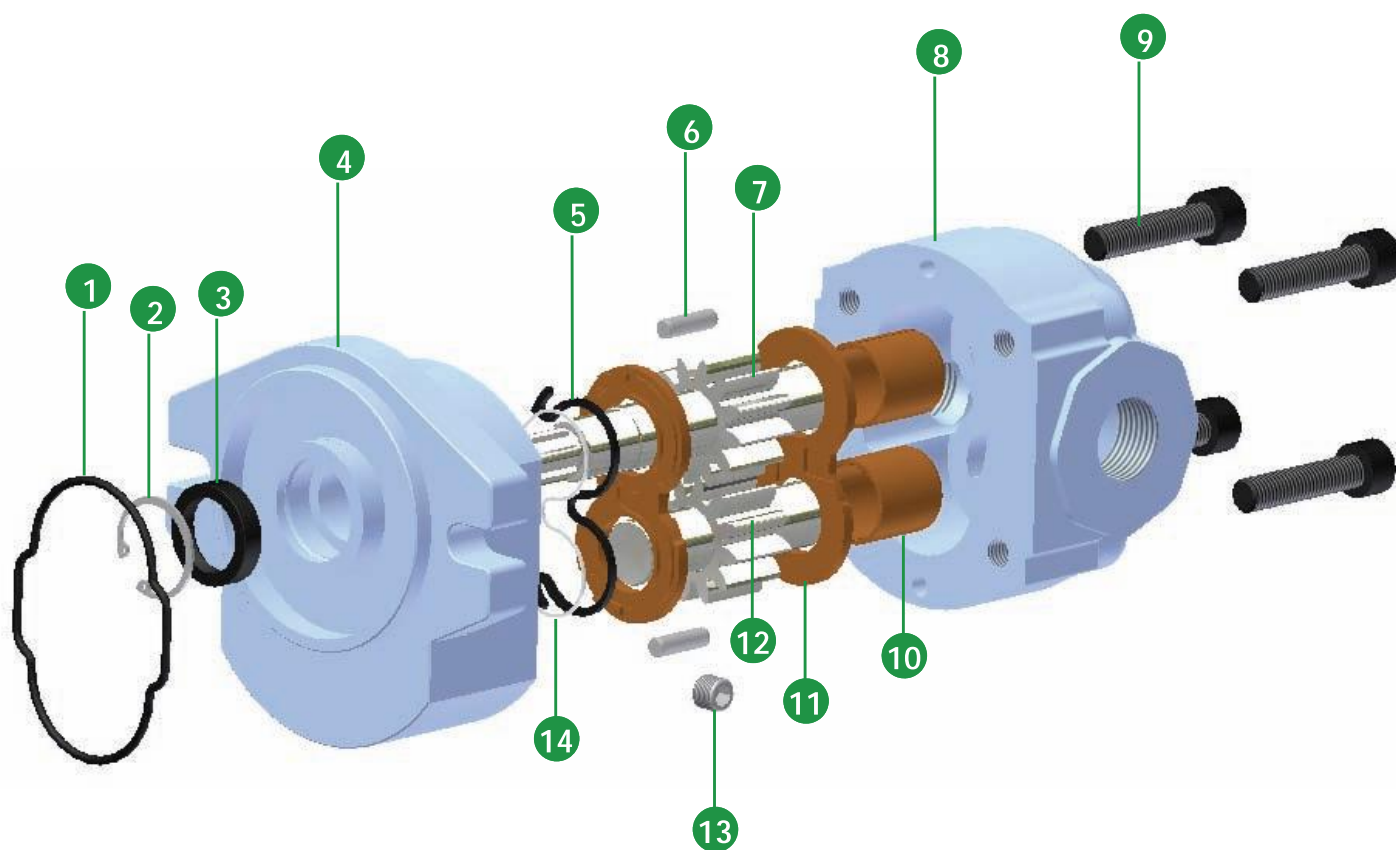
$$P = \frac{p * Q * \eta_t}{600}$$

V [cm³]
Q [l/min]
p [bar]
M [Nm]
n [min⁻¹]
P [Kw]

η_v = EFF vol. ≥ 95
 η_m = EFF mecc. ~ 0.85

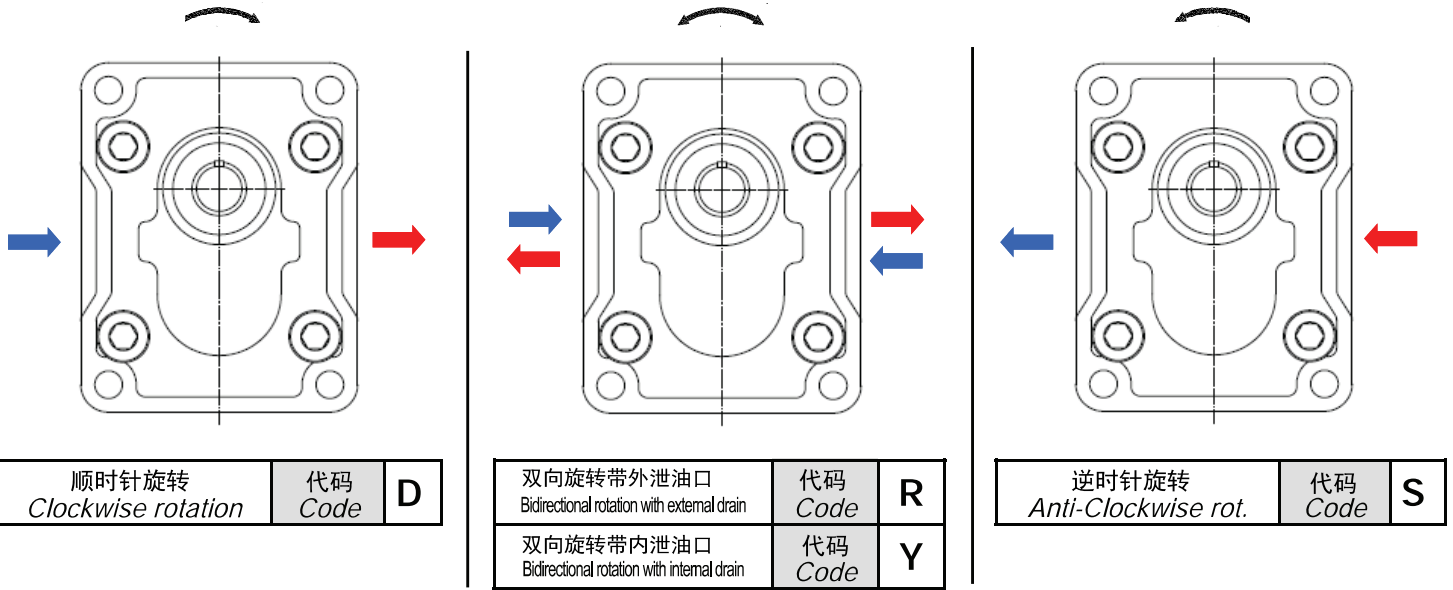
η_t = $\eta_v * \eta_m$. ~ 0.8

零件
PARTS

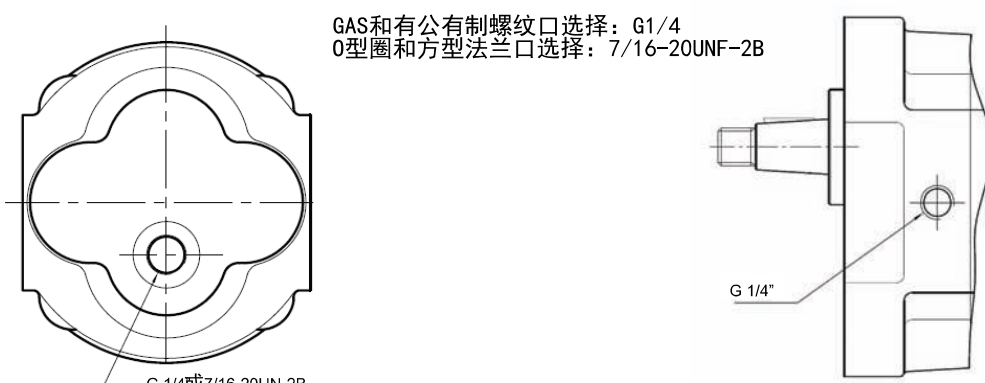
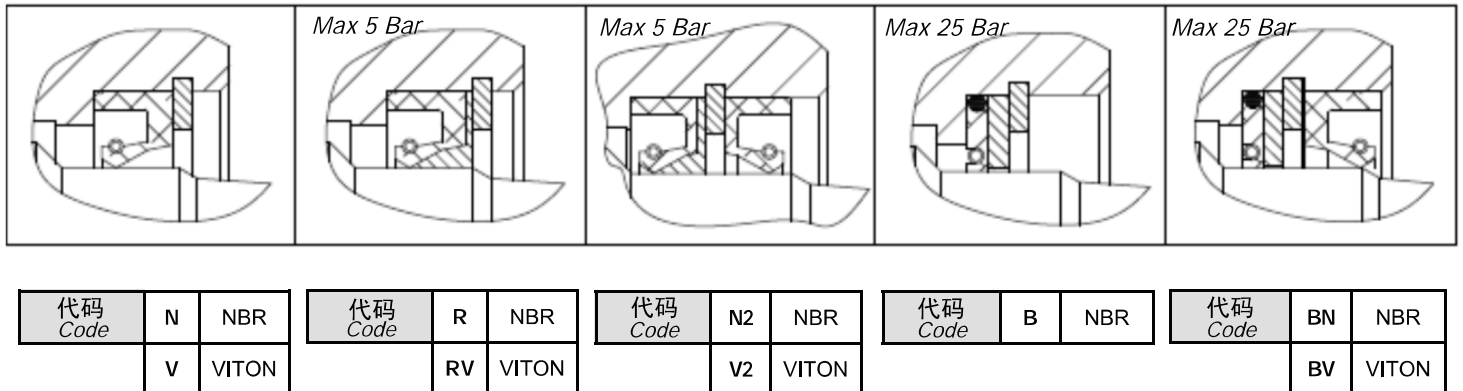


NO.	说明	Description	Qt.
1	泵盖下封条	<i>Under cover seal</i>	1
2	卡环	<i>Snap ring</i>	1
3	转轴油封	<i>Rotary shaft seal</i>	1
4	法兰	<i>Flange</i>	1
5	补偿垫圈	<i>Compensation seal</i>	2
6	圆柱销	<i>Pin</i>	2
7	主动齿轮	<i>Drive gear</i>	1
8	泵体	<i>Housing</i>	1
9	螺母	<i>Bolt</i>	4
10	轴衬	<i>Bushing</i>	4
11	轴衬座	<i>Bushing bloc</i>	2
12	从动齿轮	<i>Idle gear</i>	1
13	埋头螺钉	<i>Grub screw</i>	1
14	防挤压环	<i>Seal against extruding</i>	2

转动方向
ROTATION



轴封
SHAFT SEAL

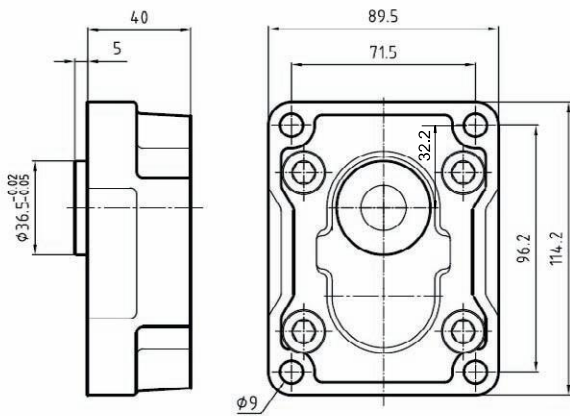


双向旋转泵或马达的后泄油口
Rear drain for bidirectional pumps or motors **R**

泵或马达的前泄油口
Front drain for pumps or motors **R1**

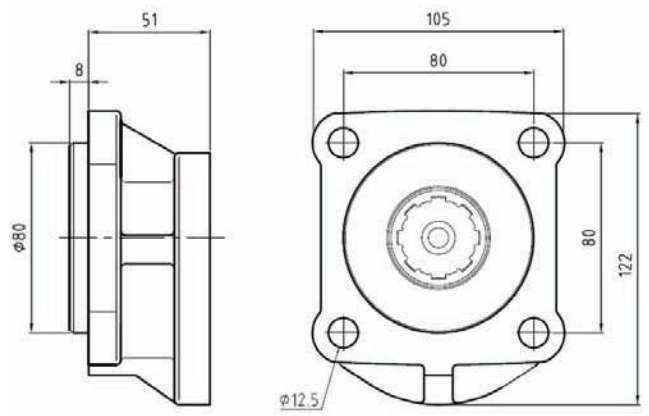
注意：“R”可以代表双向旋转；加强密封；后泄油。
Code “R” includes bidirectional rotation, reinforced shaft seal 5 bar and rear drain

法兰 FLANGES



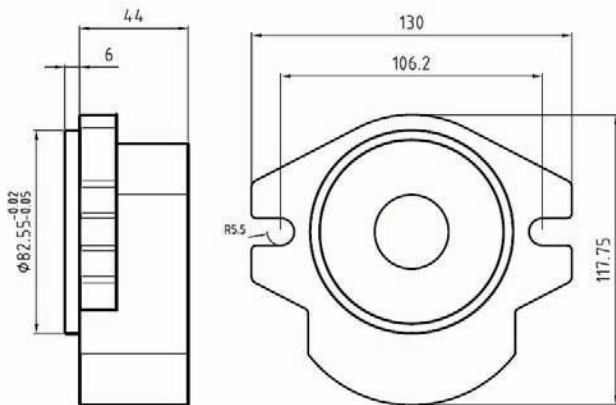
代码 CODE	E	0
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注：铸铁材料
NOTE : Material Cast iron



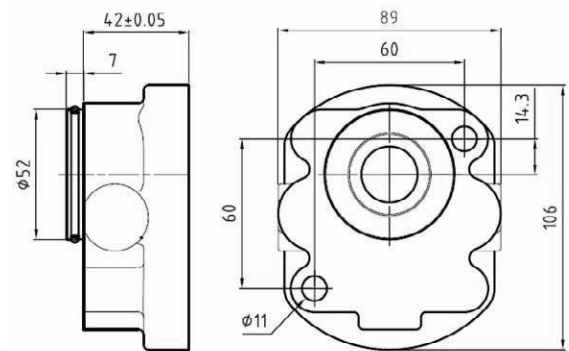
代码 CODE	I	4
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注：铸铁材料
NOTE : Material Cast iron



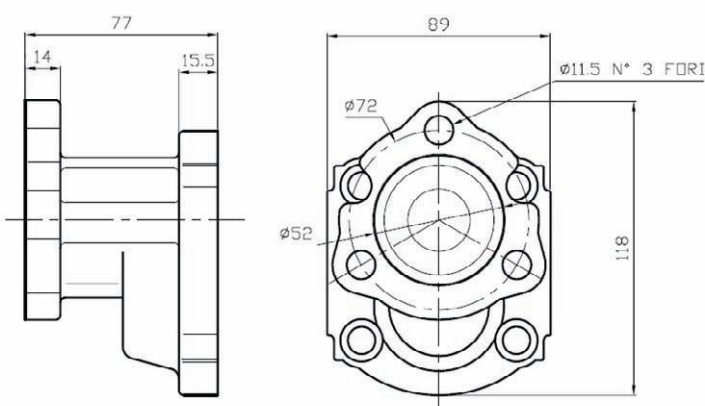
代码 CODE	C	5
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注：铸铁材料
NOTE : Material Cast iron



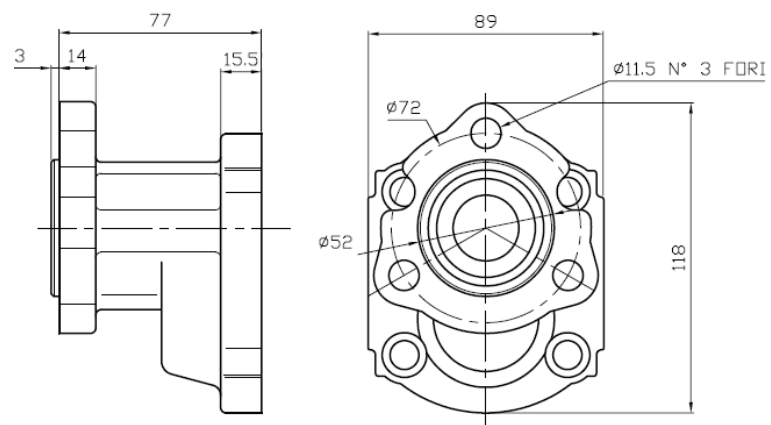
代码 CODE	D	2
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注：铸铁材料
NOTE : Material Cast iron



代码 CODE	N	7
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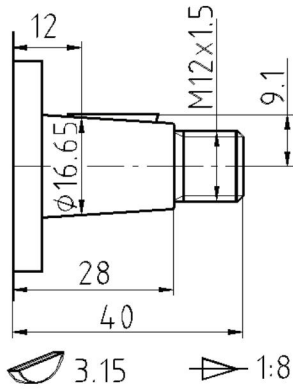
注：铸铁材料
NOTE : Material Cast iron



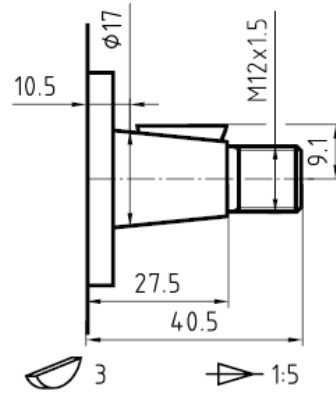
代码 CODE	N	8
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注：铸铁材料
NOTE : Material Cast iron

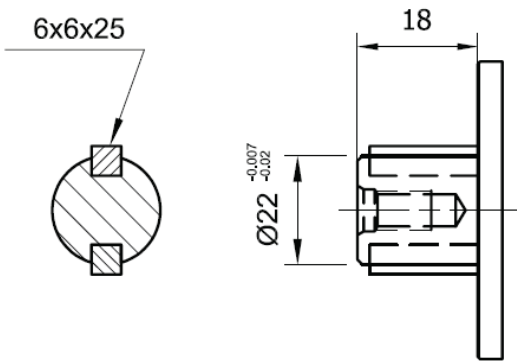
泵轴
SHAFTS



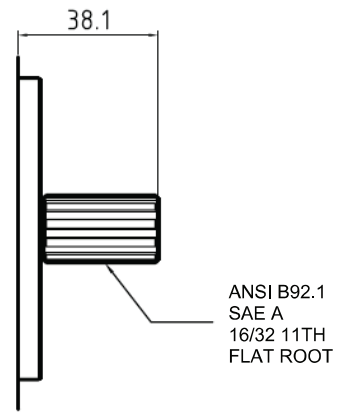
代码 / CODE	C	
配法兰 / FOR FLANGE	E	0



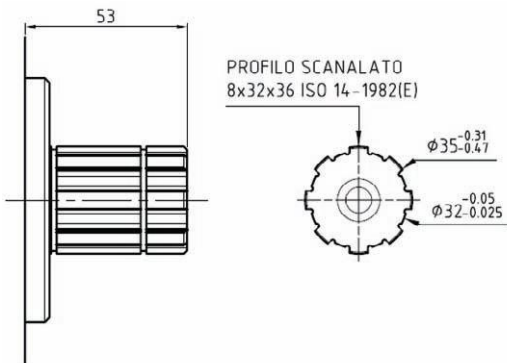
代码 / CODE	A	
配法兰 / FOR FLANGE	D	2



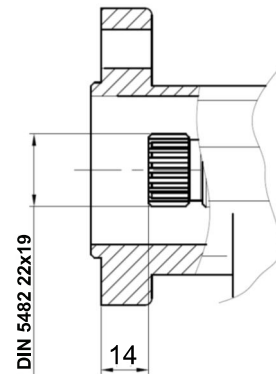
代码 / CODE	N	
配法兰 / FOR FLANGE	N	7



代码 / CODE	I	
配法兰 / FOR FLANGE	C	5



代码 / CODE	H	
配法兰 / FOR FLANGE	N	7
	I	4

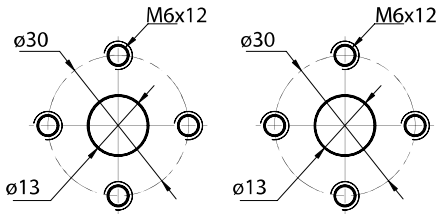


代码 / CODE	F	
配法兰 / FOR FLANGE	N	8

侧吸入及输出油口

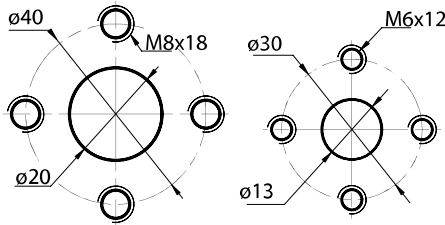
SIDE INLET AND OUTLET PORTS

吸入 INLET	输出 OUTLET
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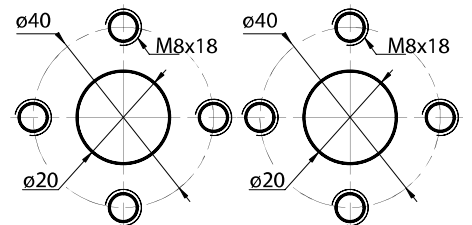
代码 CODE	32
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吸入 INLET	输出 OUTLET
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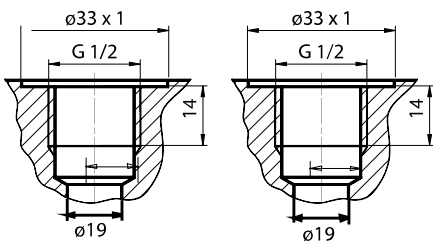


代码 CODE	33
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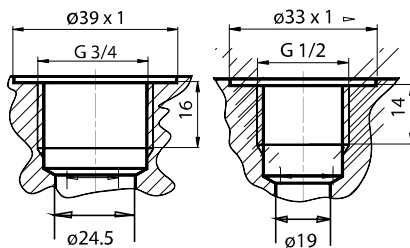
吸入 INLET	输出 OUTLET
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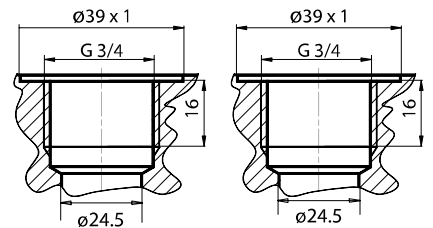
代码 CODE	43
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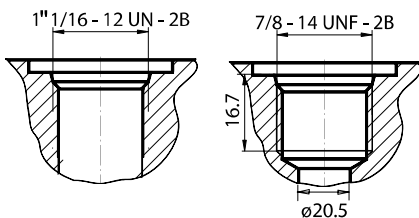
代码 CODE	34
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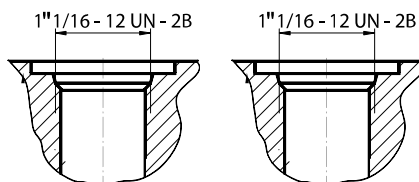
代码 CODE	35
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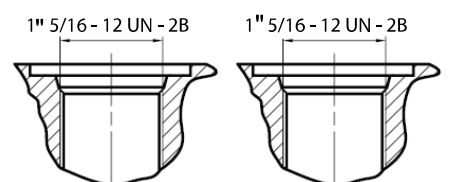
代码 CODE	41
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代码 CODE	38
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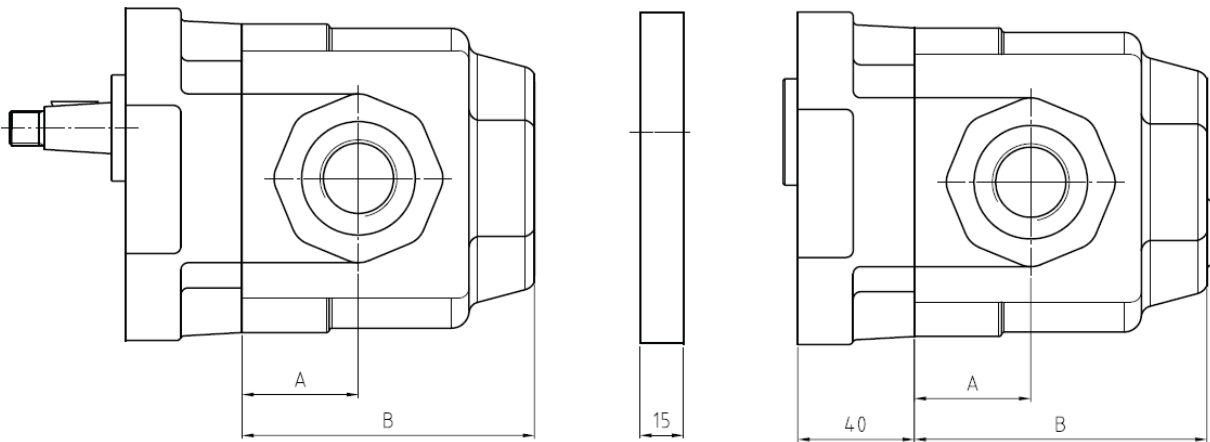
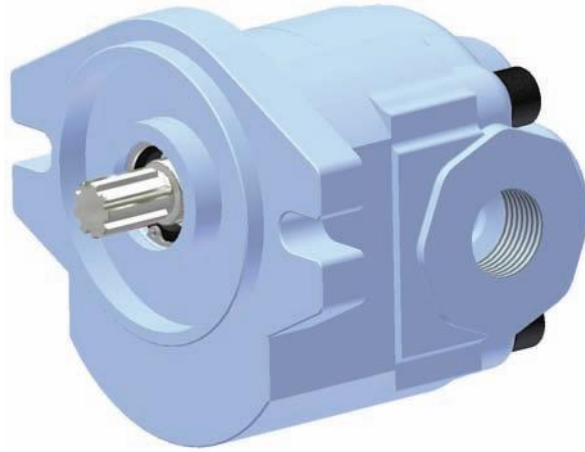


代码 CODE	39
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代码 CODE	40
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总体尺寸
OVERALL DIMENSIONS



类型- Type		04	06	08	11	15	20	25	40
A	mm	25	25	30	30	36	31	39	41
B	mm	54	54	59	63	69	76	84	102

W2系列 订货说明

HOW TO ORDER W2 SINGLE UNITS

		1	2		3	4	5	6	7	8	9
0	2	W	E	G	06	C	0	32	D	N	X

1	单元类型/ UNIT TYPE	代码/ CODE
	泵/ PUMP	W
	马达/ MOTOR	WM

2-5	法兰/ FLANGE (见P75)	代码/ CODE
	EUROPEAN	E - 0
	ISO	I - 4
	SAE A	C - 5
	GERMAN	D - 2
	ITALIAN TYPE N	N - 7
	ITALIAN TYPE N	N - 8

3	排量/ CAPACITY cm ³	代码/ CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	15.5	15
	20.5	20
	26.1	25
	38.8	40

4	泵轴/ SHAFT (见P76)	代码/ CODE
	锥轴/ TAPERED 1:8	C
	圆轴/ STRAIGHT Ø22	N
	锥轴/ TAPERED 1:5	A
	ANSI B92.1SAE A 11TH 13/32 FLAT ROOT	I
	ISO 14-1982 8x32x36	H
	DIN 5482 22x19	F

6	油口/ PORTS (见P77)	代码/ CODE
	EUROPEAN	32 - 34 - 43
	GAS	34 - 35 - 41
	ORING BOSS	38 - 39 - 40

7	转向/ ROTATION	代码/ CODE
	右旋/ RIGHT	D
	左旋/ LEFT	S
	双向旋转带内泄油口	Y
	双向旋转带外泄油口	R
	双向旋转带侧泄油口	R1

8	轴封 / SHAFT SEAL (见P74)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶/ STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封/ 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶/ STANDARD HNBR	H
	5 BAR 丁腈橡胶/ 5 BAR HNBR	RH

9	油口位置/ PORTS POSITION	CODICE / CODE
	侧面/ LATERAL	X
	后盖/ REAR	J

W2多联齿轮泵和马达订货说明

HOW TO ORDER W2 MULTIPLE UNITS

			1		2		3		4		5		6		7
0	2	W	E	G	06	C	0	32	A	D	N				

前泵
FRONT PUMP

					2						5		6
0	2	W	E	G	06	0	0	32	I	D			

中泵
MIDDLE PUMP

					2						5		6
0	2	W	E	G	06	0	0	32	P	D			

后泵
REAR PUMP

1-4	法兰/ FLANGE (见P75)	代码/ CODE
	EUROPEAN	E - 0
	ISO	I - 4
	SAE A	C - 5
	GERMAN	D - 2
	ITALIAN TYPE N	N - 7
	ITALIAN TYPE N	N - 8

2	排量/ CAPACITY cm ³	代码/ CODE
	4.4	04
	6.3	06
	8.15	08
	11.3	11
	15.5	15
	20.5	20
	26.1	25
	38.8	40

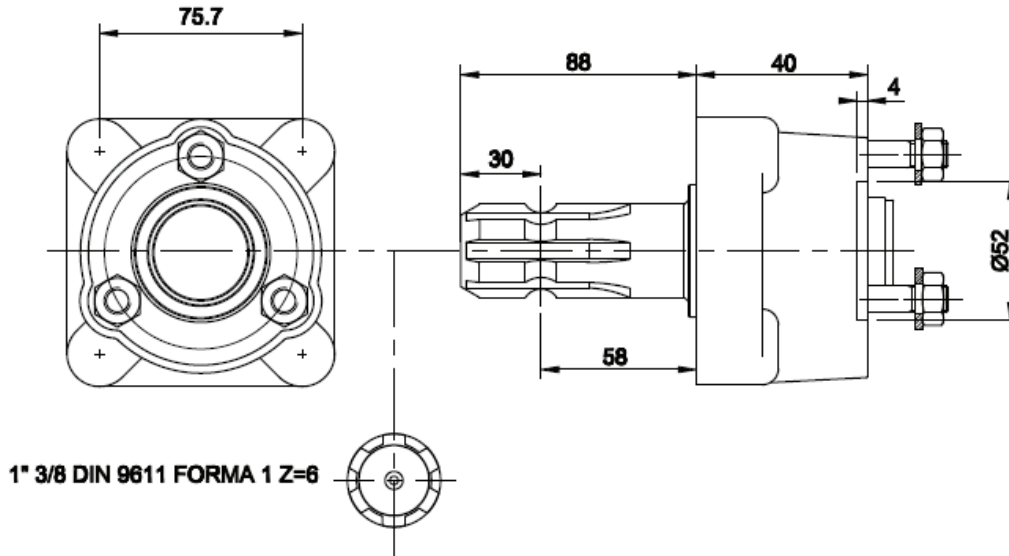
3	泵轴/ SHAFT (见P76)	代码/ CODE
	锥轴/ TAPERED 1:8	C
	圆轴/ STRAIGHT Ø22	N
	锥轴/ TAPERED 1:5	A
	ANSI B92.1SAE A 11TH 13/32 FLAT ROOT	I
	ISO 14-1982 8x32x36	H
	DIN 5482 22x19	F

5	油口/ PORTS (见P77)	代码/ CODE
	EUROPEAN	32 - 33 - 43
	GAS	34 - 35 - 36
	SAE	38 - 39 - 40

6	转向/ ROTATION	代码/ CODE
	右旋/ RIGHT	D
	左旋/ LEFT	S
	双向旋转带内泄油口	Y
	双向旋转带外泄油口	R
	双向旋转带侧泄油口	R1

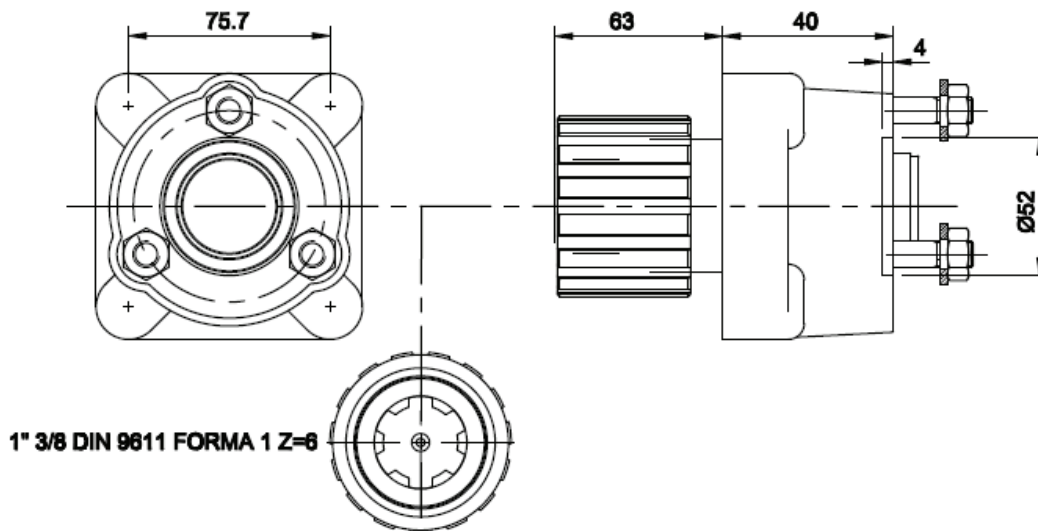
7	轴封 / SHAFT SEAL (见P74)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶/ STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封/ 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶/ STANDARD HNBR	H
	5 BAR 丁腈橡胶/ 5 BAR HNBR	RH

SEM 2

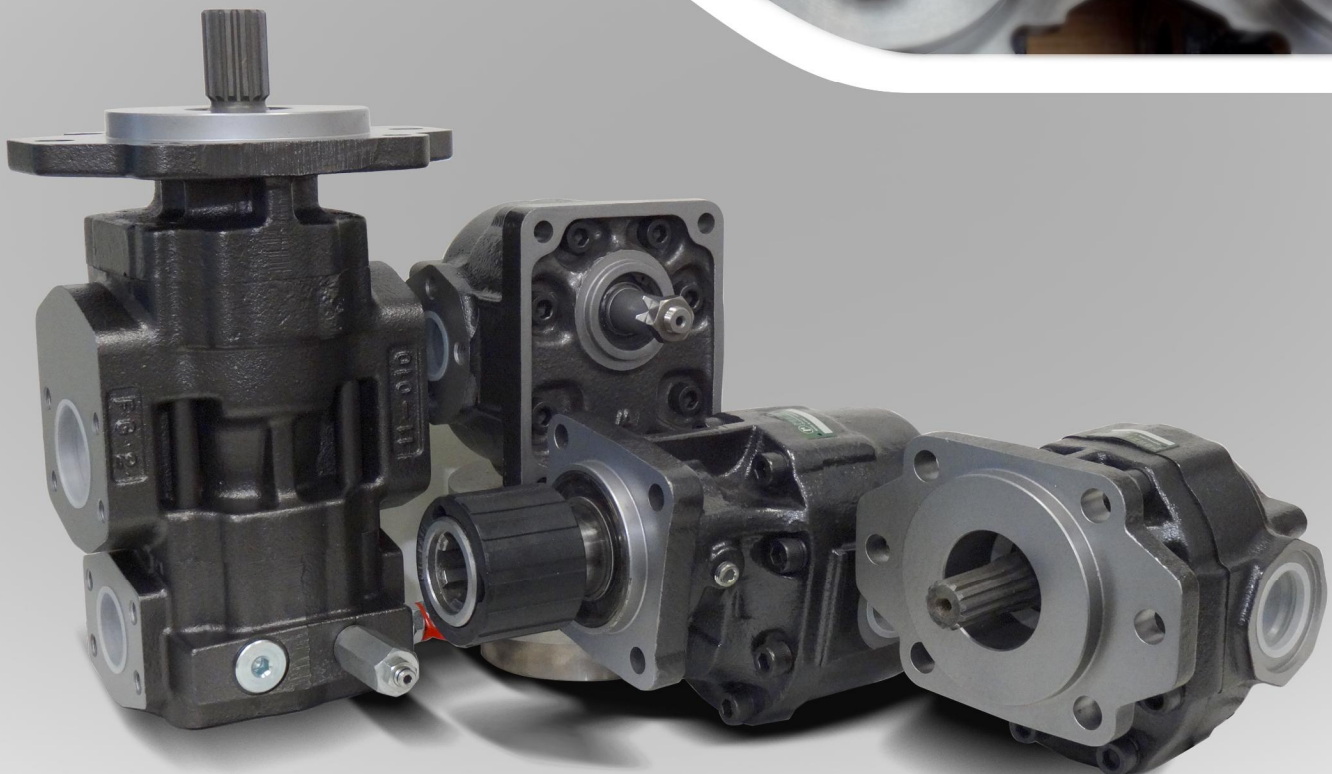
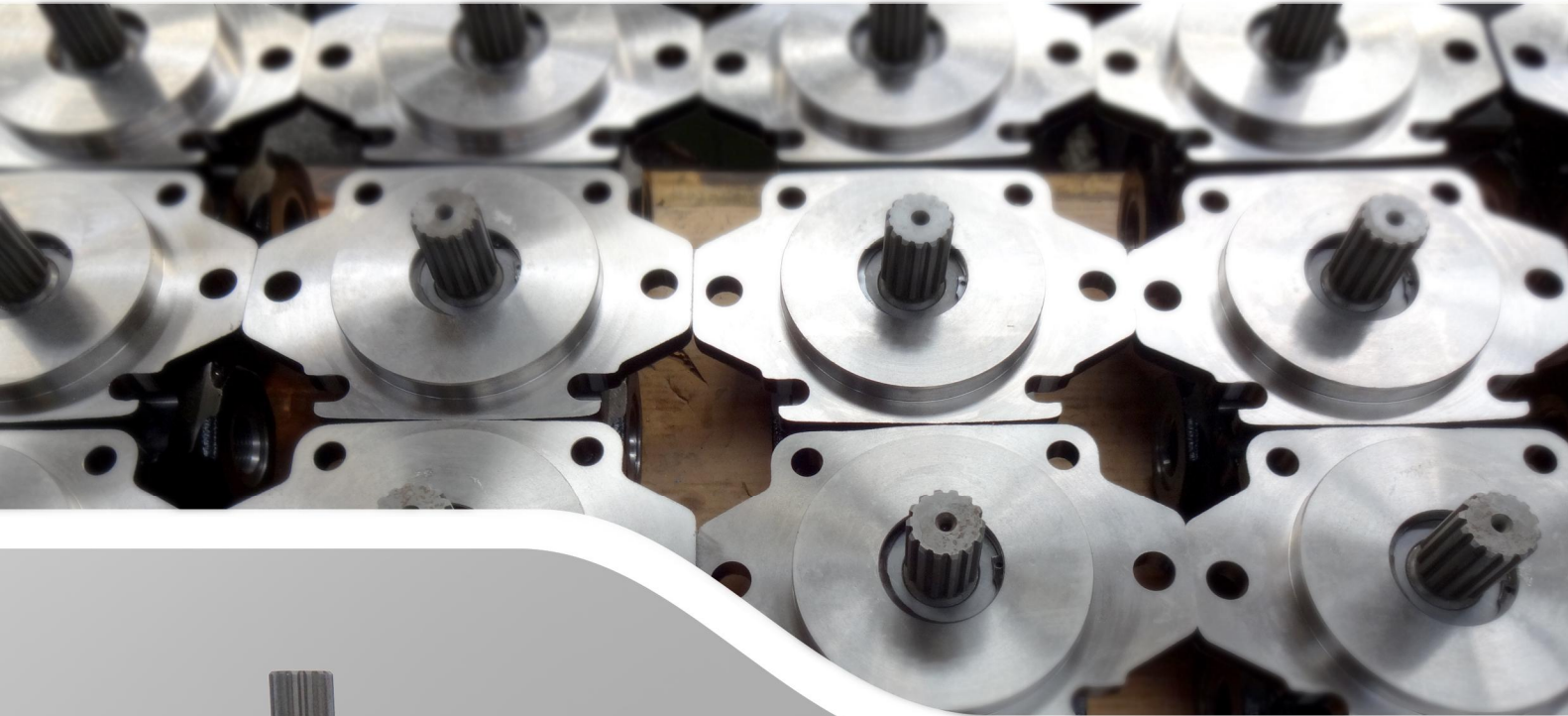


径向负载780N-轴向负载800N
Radial load 780 N - axial load 800 N

SER 2



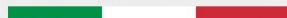
径向负载780N-轴向负载800N
Radial load 780 N - axial load 800 N



W3系列铸铁齿轮泵和马达
CAST IRON PUMPS AND MOTORS **W3 SERIES**

POMPE E MOTORI IN GHISA SERIE W3

意大利制造
MADE IN ITALY



主要性能

- ◆ 高压力：高达300bar连续工作压力
- ◆ 用压力平衡衬块进行轴向压力补偿
- ◆ 容积效率高：平均可达95%
- ◆ 排量范围大：15-20-25-30-35-40-45-50-55-60-64-70-80-90cm³/转
- ◆ 铸铁泵体
- ◆ 齿轮加工精度高，啮合噪音小
- ◆ 轴、法兰和配件的规格种类齐全，可适应各种特殊要求
- ◆ 高温密封
- ◆ 单向泵和马达
- ◆ 双向泵和马达
- ◆ 可以用罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵
- ◆ 易于在单泵和多联泵之间转换，易于改变转动方向

Main Features

- ◆ *High pressure option: up to 300 bar max. continuous pressure (4350 psi)*
- ◆ *Axial compensation achieved using pressure balanced bushing blocks.*
- ◆ *High volumetric efficiency: average 95%*
- ◆ *Wide range of capacities : 4-6-8-11-15-20-25-40 cm³/rev.*
- ◆ *Cast iron body*
- ◆ *Gear tooth profile accurately projected providing low noise operation.*
- ◆ *A wide variety of shafts, flanges and ports are available to meet specific application requirements.*
- ◆ *High-temperature seals available.*
- ◆ *Single rotational pumps and motors.*
- ◆ *Bi-rotational pumps and motors.*
- ◆ *Multiple pumps availability: tandem pumps are possible both in aluminium series and with other cast iron series produced by Ronzio Oleodinamica*
- ◆ *Easy-to-make tandem pumps and easy change of rotation.*

“W3” 系列泵使用条件

CONDITIONS OF USE FOR PUMPS “W3”

泵在运转时，避免给主轴在径向或轴向上加载负载。
使用弹性接合或“Oldham”结合补偿没有对准的误差，使齿轮泵位于一条直线上。
我们建议用户仔细阅读下表中的内容，从而能够正确地使用齿轮泵，延长泵的使用寿命。

*Avoid radial and axial loads on the pump shaft during the use.
The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” coupling.
We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.*

使用条件

USE CONDITIONS

液体 <i>Hydraulic fluids</i>	矿物油 (DIN 51524) 如果要使用水乙二醇、水油乳液和磷酸酯等阻燃液体，请与我们的技术部或销售处联系。 <i>Mineral oil (DIN 51524)</i> <i>For use with fire resistant fluids like water glycol, water- oil emulsion and phosphate-esters, contact our technical or commercial office.</i>		
吸入压力 <i>Inlet pressure</i>	0.7 - 3 bar (Assoluti / Absolute)		
吸入管路中油速 <i>Oil speed on suction line</i>	0.5 ÷ 1.5 m/s		
排出管路中油速 <i>Oil speed on pressure line</i>	6 ÷ 10 m/s		
油温 <i>Oil temperature</i>	-10°C ÷ 80°C		
油粘度 <i>Oil viscosity</i>	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 <i>Max starting viscosity</i>	700 mm ² / s (Cst)		
滤油 <i>Oil filtration</i>	压力 <i>Pressure</i>	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 ≥ 75 <i>Ratio β_x ≥ 75</i>	25μm	10μm

主要性能

MAIN CHARACTERISTICS

类型- Type		15	20	25	30	35	40	45	50	55	60	64	70	80	90
排量 Capacity	Cm ³ / rev	15.5	19.9	24.9	29.9	34.3	40.5	45.2	49.9	54.5	60	63.9	70	78.7	89.6
1500转/分钟时流量 Delivery at 1500 rev. / min	l / min	25.9	29.9	37.4	44.9	51.5	60.8	67.8	74.9	81.8	90	95.9	105	118	134.4
P1 最大工作压力 Max working pressure	Bar	300	300	300	280	280	250	250	230	230	200	200	170	170	160
P2 间歇工作压力 intermittent pressure	Bar	320	320	320	300	300	270	270	250	250	220	220	190	190	180
P3 最大峰值压力 Max peak pressure	Bar	350	350	350	330	330	300	300	270	270	240	240	210	210	200
P1压力下最大转速 Max speed for P1 pressure	Rpm	3000	3000	3000	2500	2500	2200	2200	2000	2000	2000	2000	1800	1800	1800
最大空转速度 Max speed without load	Rpm	3500	3500	3500	3000	3000	2800	2800	2500	2500	2500	2500	2200	2200	2200
P1压力下最低转速 Min speed for P1 pressure	Rpm	450	450	450	350	350	350	350	300	300	250	250	200	200	200

确认压力、流量、转速、扭矩等参数请通过下列公式进行计算

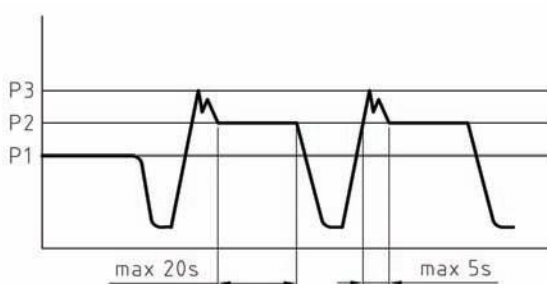
VERIFY THE COMPATIBILITY AMONG PERFORMANCE OF PRESSURE, FLOW REQUIRED AND TORQUE OF THE SHAFT THROUGH THE BELOW FORMULAS

双向旋转的泵和马达，压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

常见参数计算

DETERMINATION OF NOMINAL SIZE



泵
FOR PUMP

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

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

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

马达
FOR MOTOR

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

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

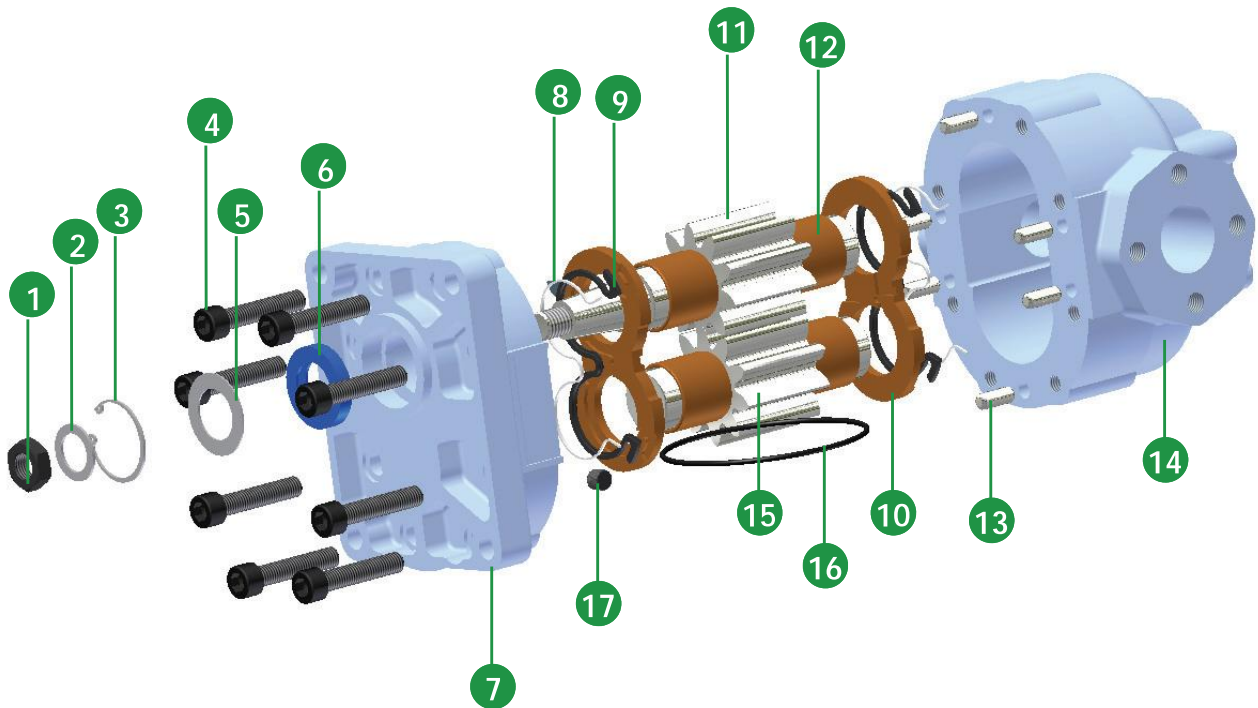
$$P = \frac{p * Q * \eta_t}{600}$$

V [cm³]
Q [l/min]
p [bar]
M [Nm]
n [min⁻¹]
P [Kw]

η_v = EFF vol. ≥ 95
 η_m = EFF mecc. ~ 0.85

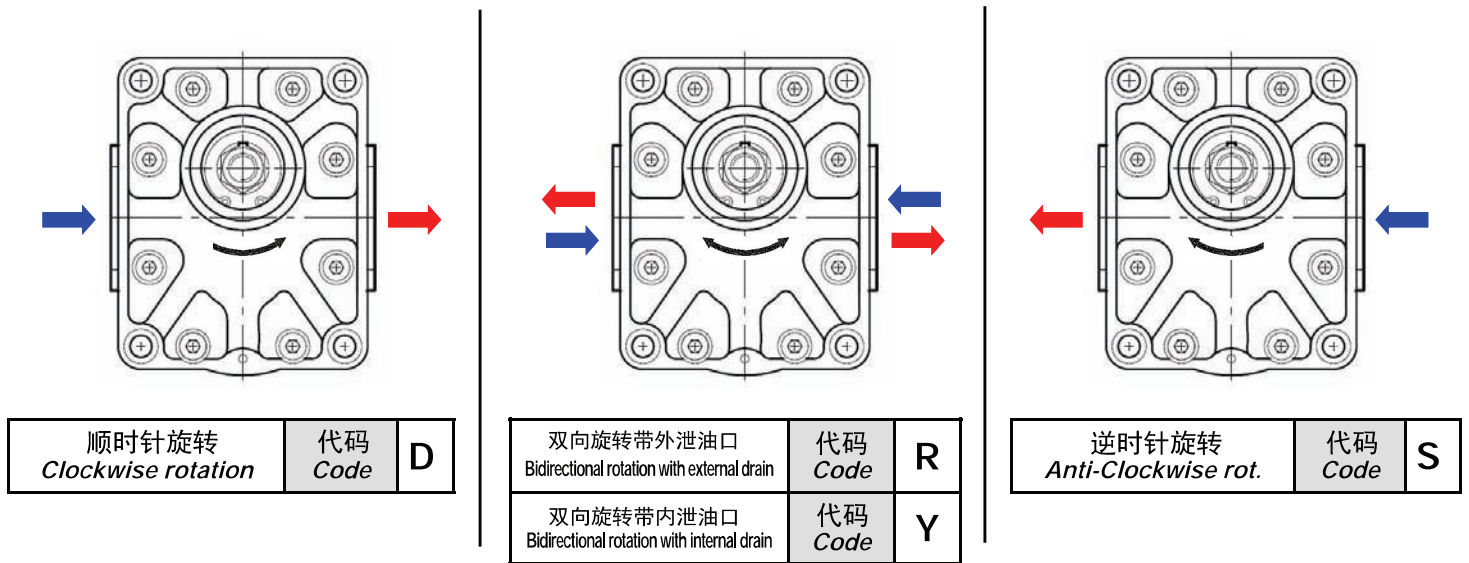
η_t = $\eta_v * \eta_m$. ~ 0.8

零件
PARTS



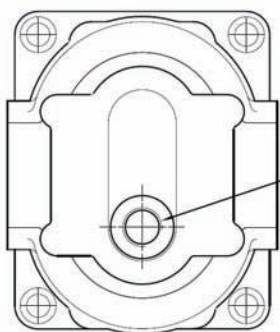
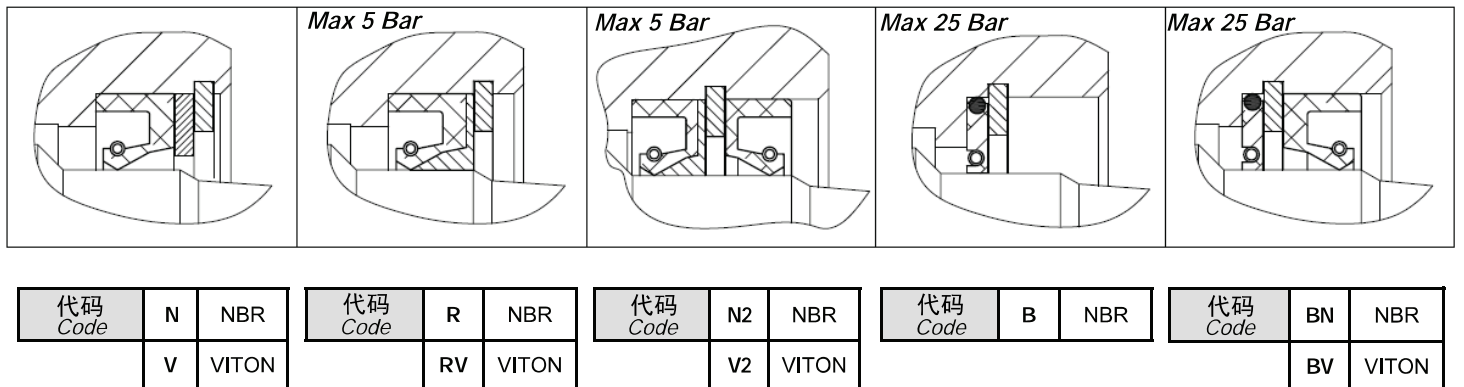
No.	说明	Description	Qt.
1	六角螺母	Hexagonal nut	1
2	安全环	Safety ring	1
3	卡环	Snap ring	1
4	螺栓	Bolt	8
5	轴封环	Rotary shaft seal ring	1
6	轴封	Rotary shaft seal	1
7	前法兰	Front flange	1
8	防挤压密封条	Seal against extruding	2
9	补偿垫圈	Compensation seal	2
10	轴衬座	Bushing block	2
11	主动齿轮	Drive gear	1
12	轴衬	Bushing	4
13	圆柱销	Pin	6
14	泵体	Housing	1
15	从动轴	Idle shaft	1
16	泵盖下封条	Under cover seal	1
17	G" 1/8埋头螺钉	Grub screw 1/8" G	1

转向
ROTATION

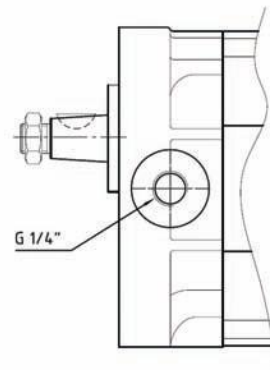


泵的转向见泵体上箭头
Rotation, is indicated by an arrow on the body of the pump.

SHAFT SEAL



GAS和有公制螺纹口选择: G3/8
O型圈和方型法兰口选择: 9/16-18UNF-2B
G3/8" FOR GAS AND METRIC PORTS
9/16-18UNF-2B FOR O-RING BOSS AND SPLIT PORTS
G3/8"或9/16-18UNF-2B



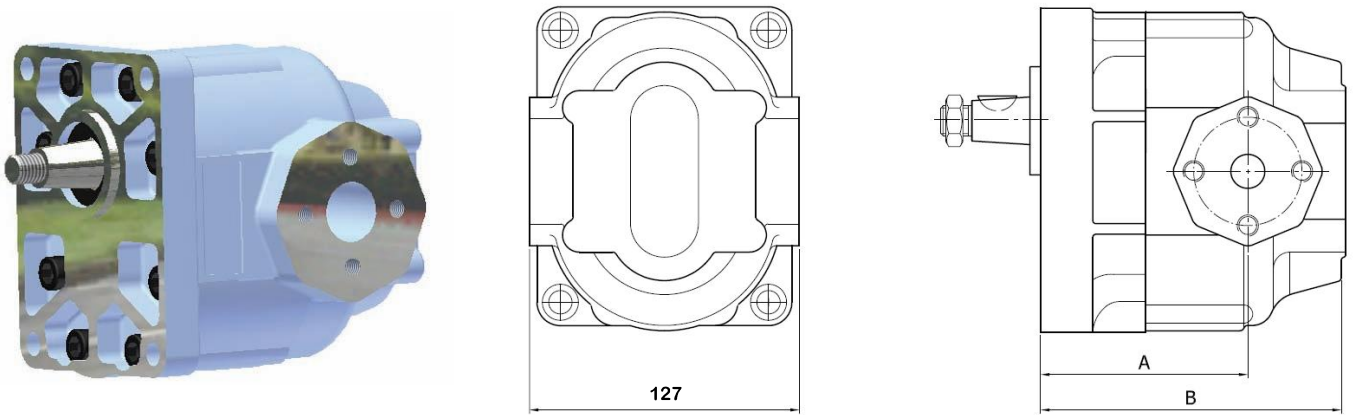
配双向旋转泵或马达的后泄油口
Rear drain for bidirectional pumps or motors **R**

配泵或马达的前泄油口
Front drain for pumps or motors **R1**

* Code "R" include bidirectional rotation, reinforced shaft seal and rear drain

注意: "R"可以代表双向旋转; 加强密封; 后泄油。

W3系列（标准型）外形尺寸-（侧进/侧出油口型）
HOLDING W3 DIMENSIONS



类型- Type		15	20	25	30	35	40	45	50	55	60	64	70	80
A	mm	70	76	76	79	82	82	85	85	85	89	89	90	95
B	mm	115	120	127	127	127	127	127	127	127	132	132	132	132

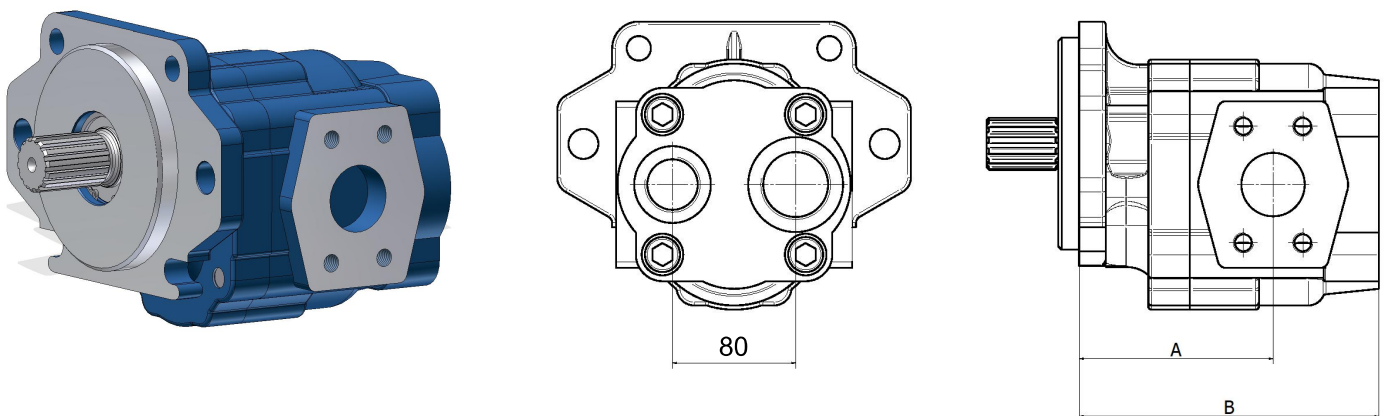
W3L系列(可定制型)外形尺寸（后端盖进/出油口型， 侧进油口/后出油口型 或 后进油口/侧出油口型）
HOLDING W3L DIMENSIONS

背出口
Rear ports

代码/ CODE
J

侧出口
Lateral ports

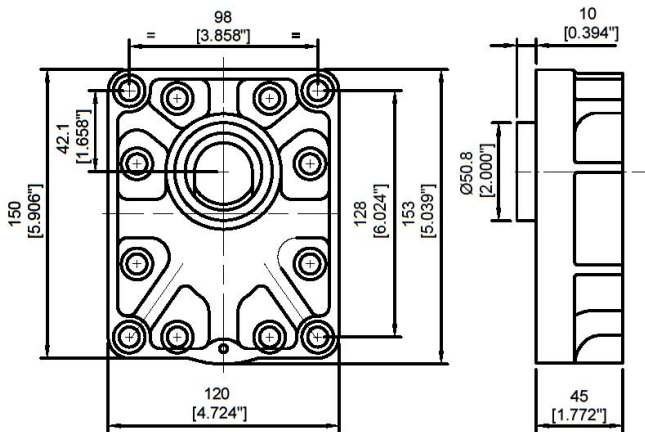
代码/ CODE
X



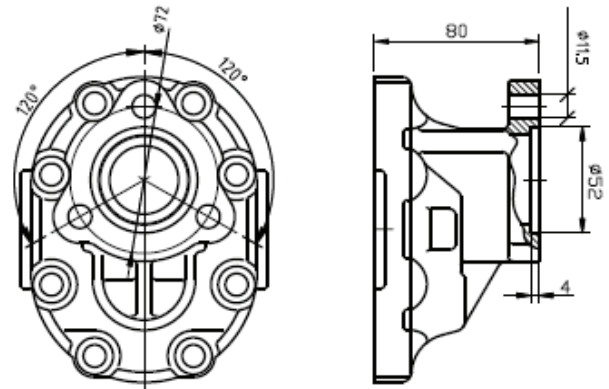
Tipo - Type		20	25	30	35	40	45	50	55	60	64	70	80	90
A	mm	103	106	110	112	108	110	114	116	105	107	111	116	116
B	mm	142	145	149	152	156	158	162	165	168	170	174	180	180

* 单吸油口/多个出油口型多联泵-详见P104页。

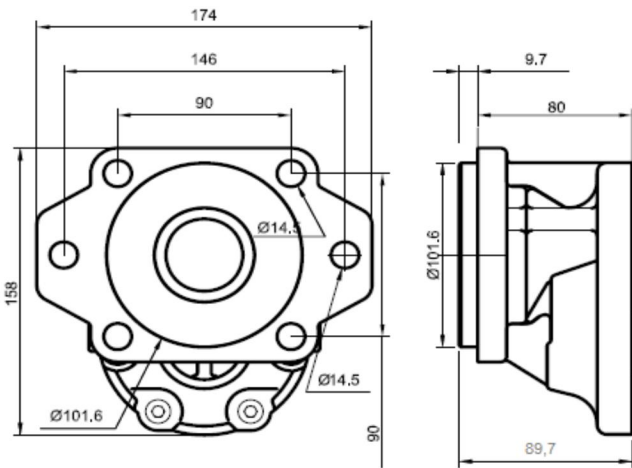
法兰
FLANGES



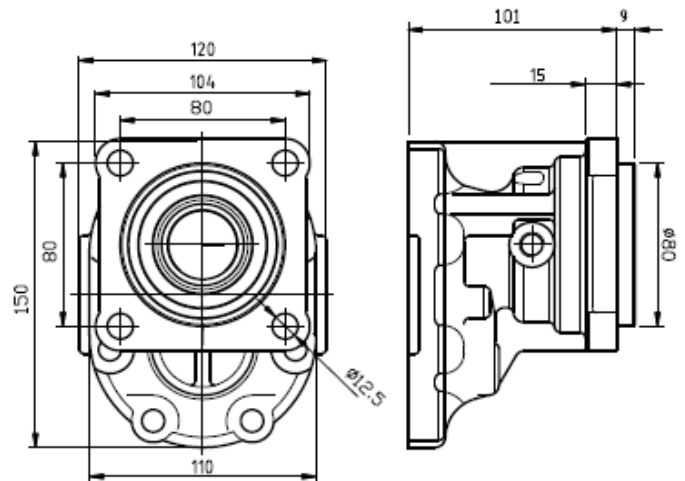
代码 CODE	A	0
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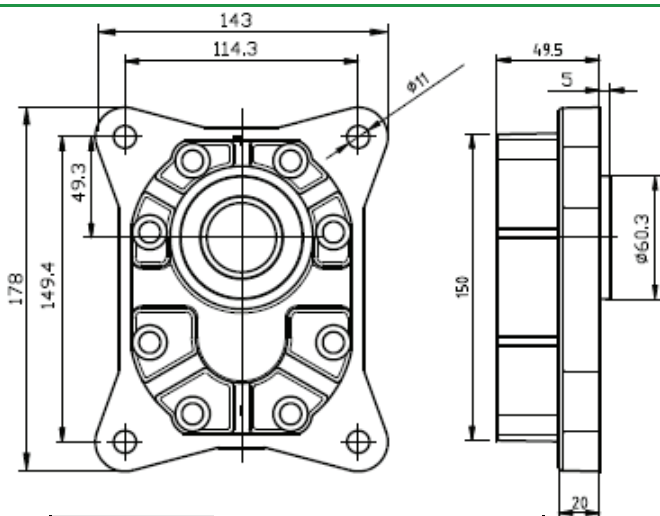
代码 CODE	N	7
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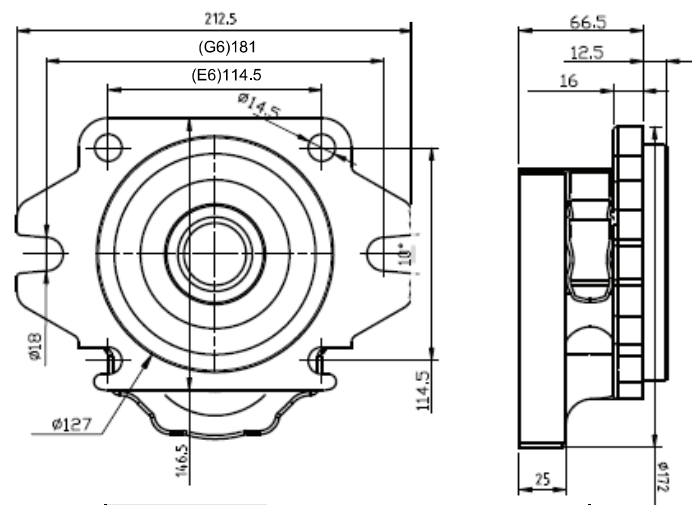
代码 CODE	B	3
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代码 CODE	I	4
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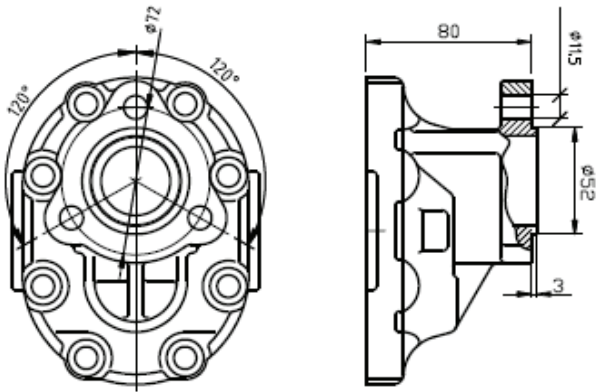
代码 CODE	D	5
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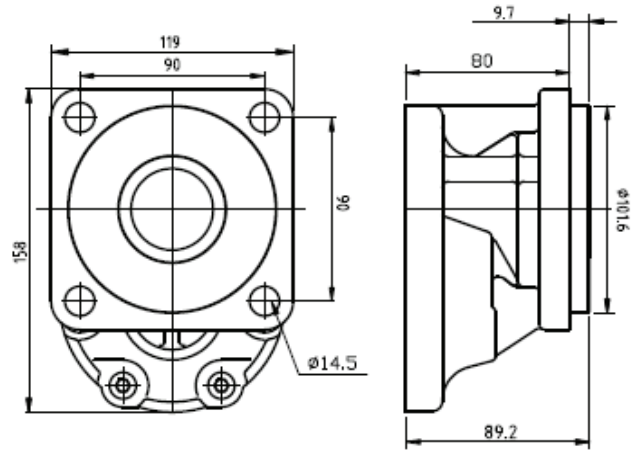
代码 CODE	C	6
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SAE J 744 标准

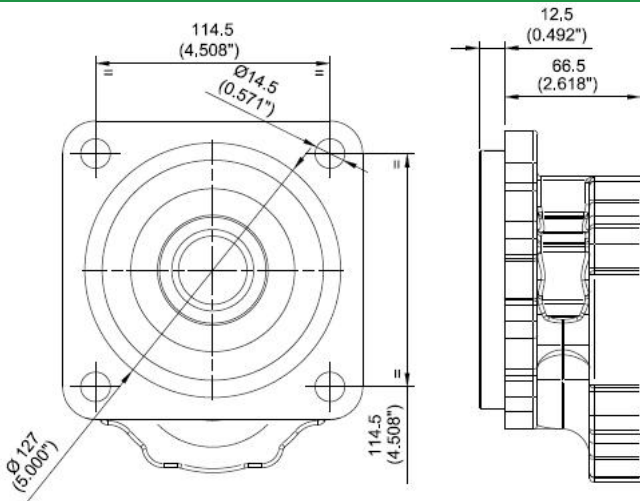
法兰
FLANGES



代码 CODE	N	8
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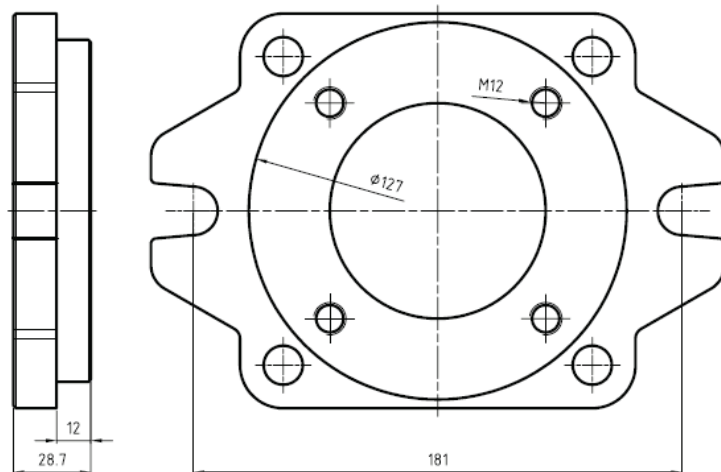


代码 CODE	L	3
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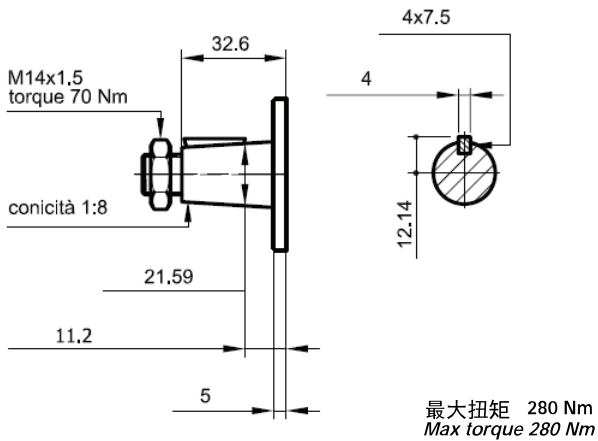


代码 CODE	E	6
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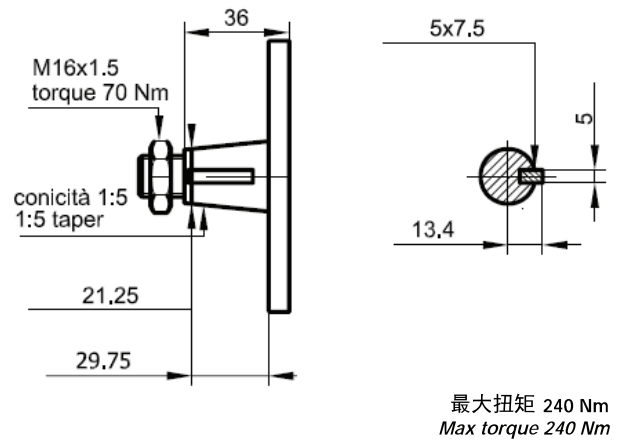
SAE “C” 法兰, “I4”法兰, 对应P & Q轴
FLANGE SAE “C”, FOR FLANGE “I4”, FOR SHAFTS TYPE P&Q



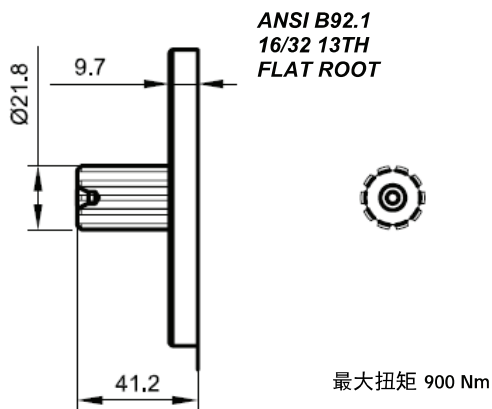
泵轴
SHAFTS



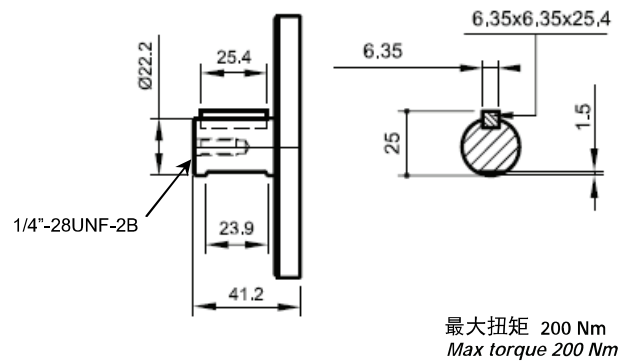
代码/CODE	C	
配法兰/FOR FLANGE	A	0



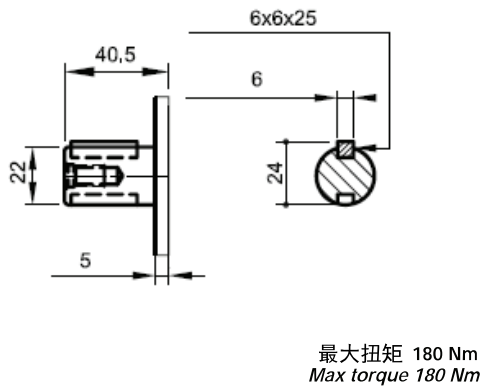
代码/CODE	A	
配法兰/FOR FLANGE	G	4



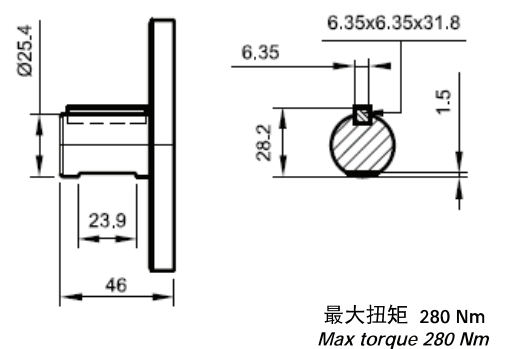
代码/CODE	B	
配法兰/FOR FLANGE	L	3
	B	3



代码/CODE	L	
配法兰/FOR FLANGE	L	3
	B	3

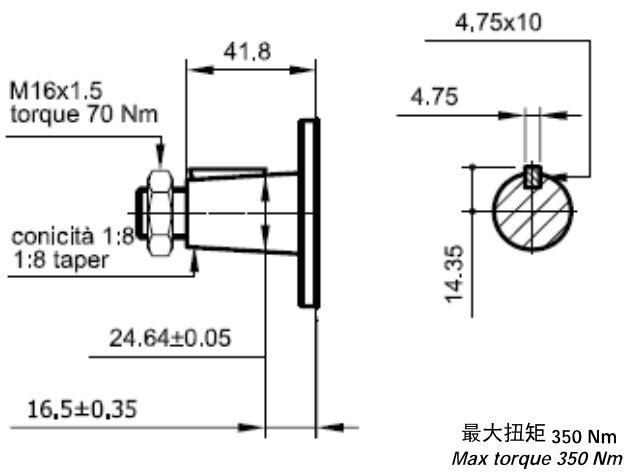


代码/CODE	Q	
配法兰/FOR FLANGE	A	0
	D	5

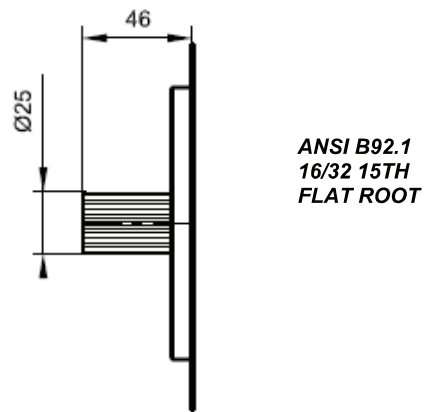


代码/CODE	D	
配法兰/FOR FLANGE	L	3
	B	3

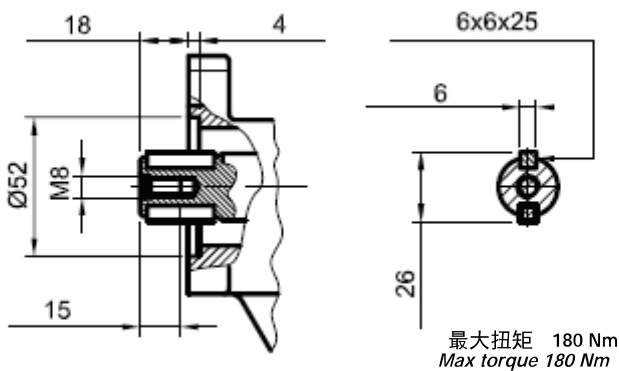
泵轴
SHAFTS



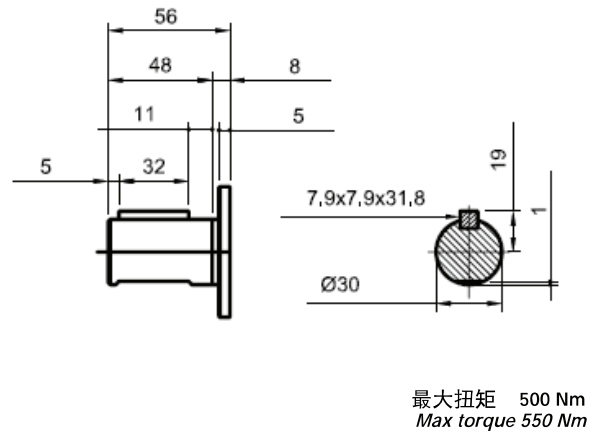
代码 CODE	E	
配法兰 / FOR FLANGE	D	5



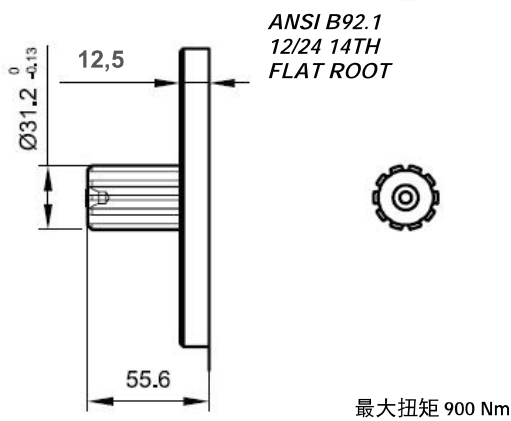
代码 CODE	S	
配法兰 / FOR FLANGE	L	3
	B	3



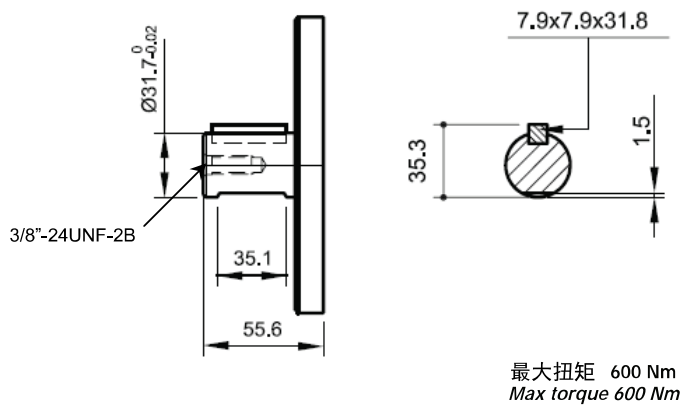
代码 CODE	N	
配法兰 / FOR FLANGE	N	7



代码 CODE	G	
配法兰 / FOR FLANGE	D	5

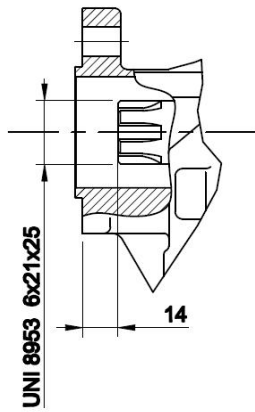


代码 CODE	K	
配法兰 / FOR FLANGE	C	6
	E	6



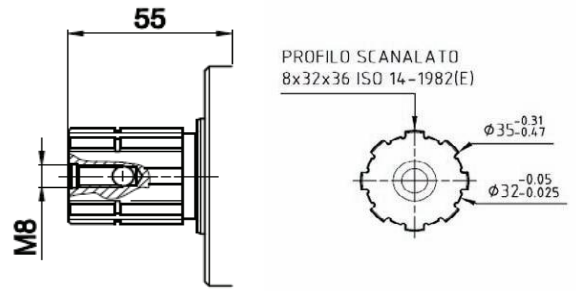
代码 CODE	P	
配法兰 / FOR FLANGE	C	6
	E	6

泵轴
SHAFTS



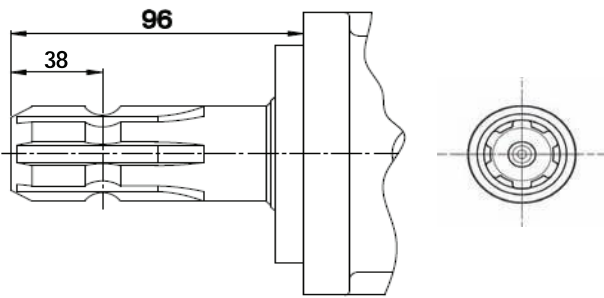
Coppia max 350 Nm
Max torque 350 Nm

代码 / CODE	F	
配法兰 / FOR FLANGE	N	8



Max torque 800 Nm

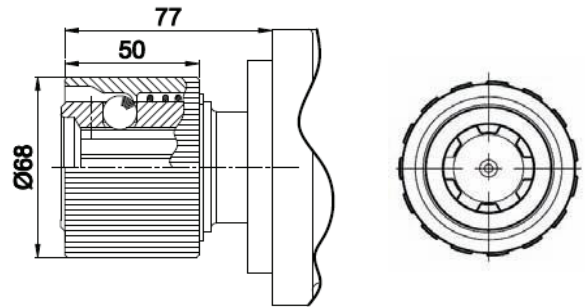
代码 / CODE	H	
配法兰 / FOR FLANGE	I	4



1"-3/8 DIN 9611 -Z6

Coppia max 180 Nm
Max torque 180 Nm

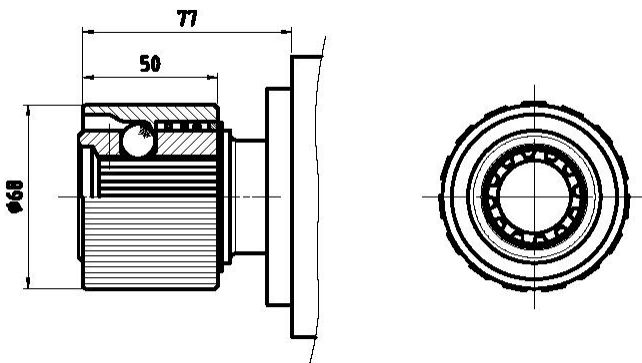
代码 / CODE	M	
配法兰 / FOR FLANGE	I	4



1"-3/8 DIN 9611 -Z6

Coppia max 500 Nm
Max torque 550 Nm

代码 / CODE	R	
配法兰 / FOR FLANGE	I	4



1"-3/8 DIN 9611 -Z21

Coppia max 280 Nm
Max torque 280 Nm

代码 / CODE	U	
配法兰 / FOR FLANGE	I	4

进出油口

INLET AND OUTLET PORTS

XX

标准

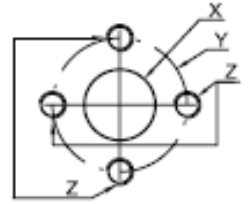
XX

按要求

不可选

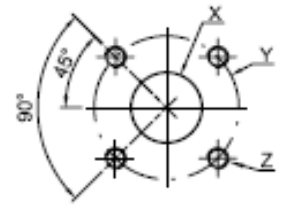
	X	Y	Z
A	19	40	M8 18
B	27	51	M10 18
C	33	62	M12 18

		OUT		
		A	B	C
IN	A	49		
	B	48	46	
	C		47	45



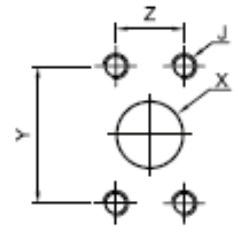
	X	Y	Z
A	19	40	M8 18
B	27	51	M10 18

		OUT	
		A	B
IN	A	50	
	B	51	52



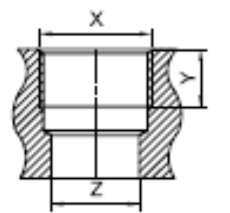
	X	Y	Z	J
A	12.5	38.1	17.5	M10
B	19	47.6	22.2	M10
C	25.4	52.4	26.2	M10
D	30.5	58.7	30.2	M10
E	39.3	69.8	35.7	M12
F	51	77.8	42.9	M12

		OUT					
		A	B	C	D	E	F
IN	A	76					
	B	77	78				
	C		79	80			
	D			81	82		
	E				83	84	
	F					85	86



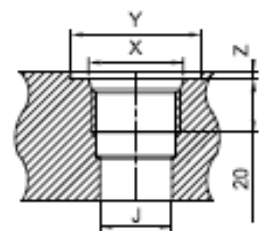
	X	Y	Z	名义尺寸 NOMINALE
A	1" G	22	27	1
B	1" 1/4 G	22	33	1-1/4
C	1" 1/2 G	24	38	1-1/2

		OUT		
		A	B	C
IN	A	64		
	B	65	66	
	C		67	68



	名义尺寸 NOMINALE	X	Y	Z	J
A	5/8"	1-1/16-12UN-2B	41	19	2.4
B	1"	1-5/16-12UN-2B	49	27	3.2
C	1"-1/4	15/8-12UN-2B	58	32	3.2
D	1"-1/2	1-7/8-12UN-2B	65	32	3.2

		OUT			
		A	B	C	D
IN	A	69			
	B	70	71		
	C		72	73	
	D			74	75

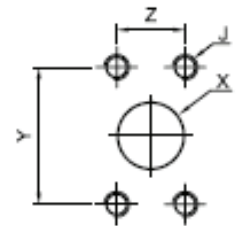


进出油口尺寸

INLET AND OUTLET PORTS

	X	Y	Z	J
A	12.5	38.1	17.5	5/16-18UNC-2B
B	19	47.6	22.2	3/8-16UNC-2B
C	25.4	52.4	26.2	
D	30.5	58.7	30.2	7/16-14UNC-2B
E	39.3	69.8	35.7	1/2-13UNC-2B
F	51	77.8	42.9	

		OUT					
IN		A	B	C	D	E	F
	A	53					
	B	54	55				
	C		56	57			
	D			58	59		
	E				60	61	
	F					62	63



对应各排量标准油口代码

STANDARD PORT CODES AVAILABLE IN RELATION OF CAPACITY

86														
85														
84														
83														
82														
81														
80														
79														
78														
77														
76														
75														
74														
73														
72														
71														
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51														
50														
49														
48														
47														
46														
45														
	20	25	30	35	40	45	50	55	60	64	70	80	90	

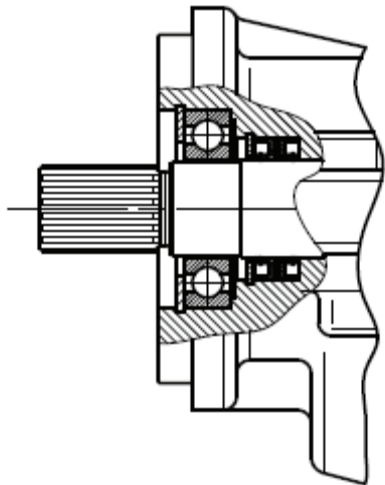
内置轴承

INBOARD BEARINGS

类型1- TYPE 1

用单滚珠轴承支撑的组合轴承

Integrated bearing support with single ball bearing



当需要承受径向负载，轴向无负载时应用

Application made to support radial load and without axial load on the shaft

对应法兰型号：B3-L3-C6-E6

Available for flanges type B3 - L3 - C6 - E6.

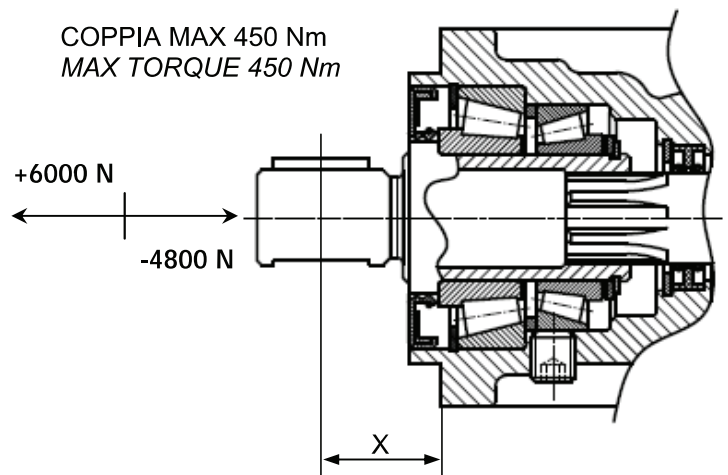
对应泵轴型号：B-L-D-S-K-P-H

Available for shafts type B - L - D - S - K - P - H.

类型2- TYPE 2

用锥辊轴承支撑的组合轴承

Integrated bearing support with double taper roller bearings



当需要承受径向及轴向负载时应用

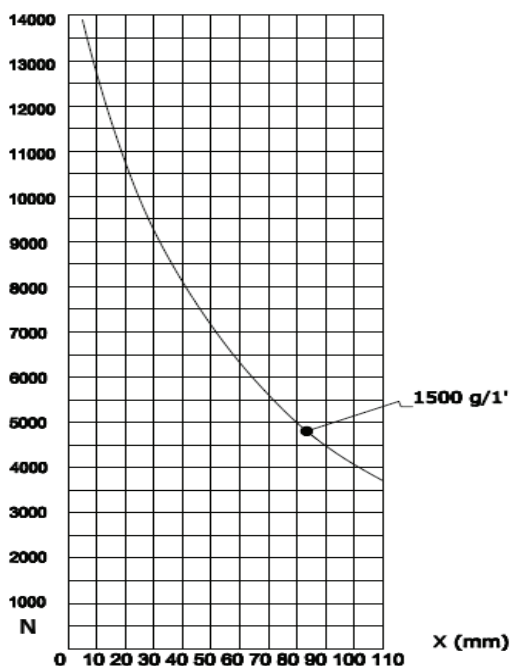
Application made to support axial and radial load.

对应法兰型号：I4

Available for flange type I4

对应泵轴型号：S-K-P-H-M-R

Available for shafts type S - K - P - H - M - R.



负载图

- 疲劳寿命等级1000H
- 油号：VG-46
- 温度70°C
- 可信度90%
- 污染等级60 μ

LOAD DIAGRAM

- Rating fatigue life 1000 h
- Grease type VG-46
- Temperature 70°C
- Trust 90%
- Contamination 60 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

W3系列订货说明

HOW TO ORDER W3 SINGLE UNITS

1	2	3	4	5	6	7	8	9	10	11	12	13		
03	0	W0	M	A	55	C	0	48	X	S	1	B	VR	75

1	轴衬座/ BUSHING BLOCK	代码/ CODE
	铝合金/ ALLOY	2
	青铜/BRONZE	0

2	类型/ UNIT TYPE	代码/ CODE
	泵/PUMP	-
	马达/MOTOR	M

3 - 6	法兰/ FLANGE (见P89-90)	代码/ CODE
	EUROPEAN GR. 3	A - 0
	ITALIAN	N - 7
	AMERICAN SAE B	B - 3
	ISO	I - 4
	EUROPEAN GR. 3,5	D - 5
	AMERICAN SAE C	C - 6
	AMERICAN SAE C	E - 6
	ITALIAN	N - 8
	AMERICAN SAE B	L - 3

4	排量/ CAPACITY cm ³	代码/ CODE
	15.5	15
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

5	泵轴/ SHAFT (见P91-93)	代码/ CODE
	锥轴/ TAPERED 1:8	C
	锥轴/ TAPERED 1:5	A
	ANSI B92.1 13TH 16/32 DP	B
	圆轴/ STRAIGHT Ø22.22	L
	圆轴/ STRAIGHT Ø22	Q
	圆轴/ STRAIGHT Ø25.4	D
	锥轴/ TAPERED 1:8	E
	ANSI B92.1 15TH 16/32 DP	S
	ISO 14 8x32x36	H

	圆轴/ STRAIGHT Ø22	N
	圆轴/ STRAIGHT Ø30	G
	ANSI B92.1 14TH 12/24 DP	K
	圆轴/ STRAIGHT Ø31.7	P
	UNI 8953 6x21x25	F
	1" 3/8 DIN 9611 / MALE	M
	1" 3/8 DIN 9611 / FEMALE	R
	1" 3/8 DIN 9611 - Z21 FEMMINA / FEMALE	U

7	油口/ PORTS (见P94-95)	代码/ CODE
	见16页表格/ SEE TABLE AT PAGE 16	

8	油口位置/ PORTS POSITION	代码/ CODE
	侧面油口/ LATERAL	X
	后面油口/ REAR	J

9	转向/ ROTATION	代码/ CODE
	右旋/ RIGHT	D
	左旋/ LEFT	S
	双向旋转带内泄油口	Y
	双向旋转带外泄油口	R
	双向旋转带侧泄油口	R1

10	支撑轴承/ SUPPORT (见P96)	代码/ CODE
	无/ WITHOUT	0
	类型1/ TYPE 1	1
	类型2/ TYPE 2	2

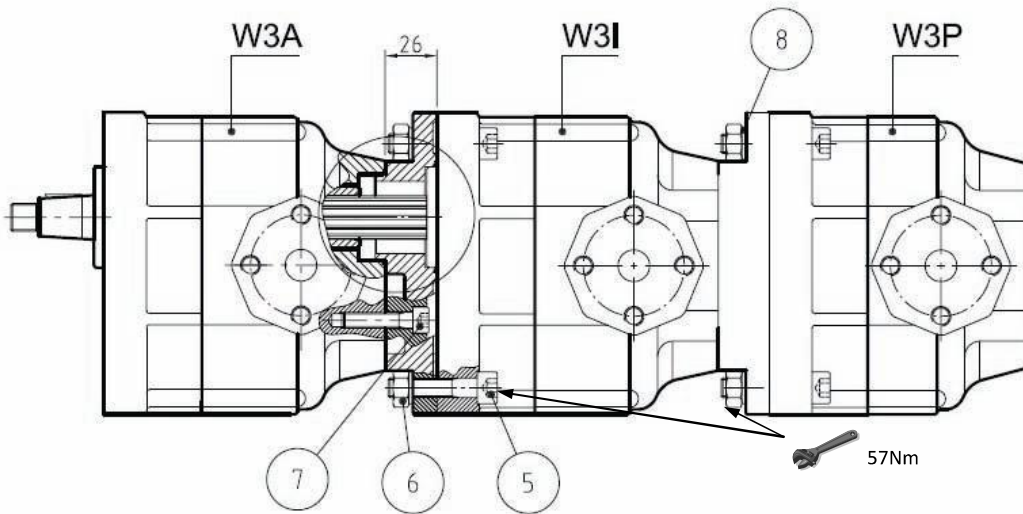
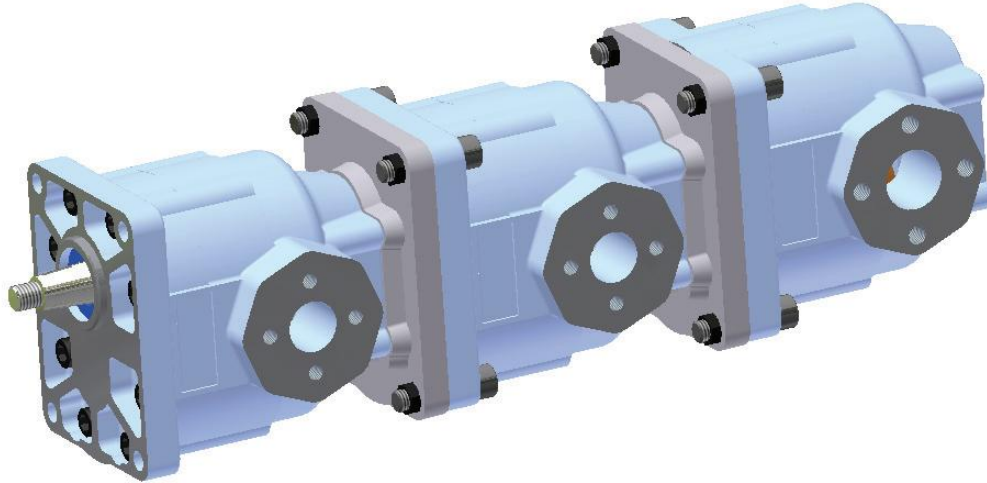
11	轴封/ SHAFT SEAL (见P87)	代码/ CODE
	标准/ STANDARD	N
	标准氟橡胶/ STANDARD VITON	V
	5 BAR 丁橡胶/ 5 BAR NBR	R
	5 BAR 氟橡胶/ 5 BAR VITON	RV
	双层丁橡胶密封/ DOUBLE SEAL NBR	N2
	双层氟橡胶密封/ DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封/ 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶/ 25 BAR NBR	BN
	25 BAR 氟橡胶/ 25 BAR VITON	BV
	标准丁腈橡胶/ STANDARD HNBR	H
	5 BAR 丁腈橡胶/ 5 BAR HNBR	RH

12	溢流阀/ RELIEF VALVE	代码/ CODE
	无/ WITHOUT	-
	可调式溢流阀/ ADJUST. CALIBRATION	VR
	不可调式溢流阀/ FIXED CALIBRATION	VF

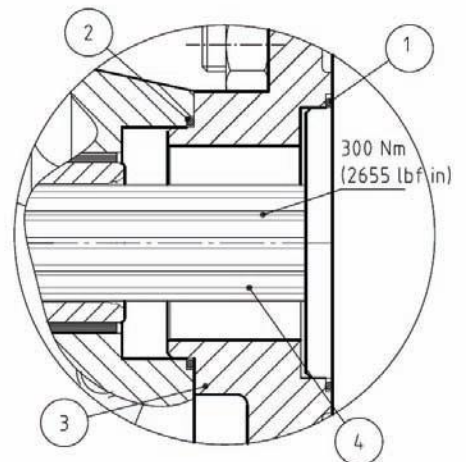
13	溢流阀压力值	代码/ CODE
	50 - 75 - 100 - 125 - 150 - 200 - 250 - 300 - 330	75

W3系列多联泵连接组件

ASSEMBLING KITS FOR MULTIPLE PUMPS W3



组装配件/ ASSEMBLING KIT		Cod. K3000028
No.	零件/ PARTS	
1	O形圈2200/ O-Ring 2200	
2	O形圈2162/ O-Ring 2162	
3	连接板/ Connection plate	
4	联结件/ Coupling DIN 5482	
5	TCE M10x55 UNI 5931	
6	M10螺栓/ Stud nut M10	
7	TCE M8x25 UNI 5931	
8	10.5x16x2垫圈/ Washer 10.5x16x2	



W3多联泵订货说明

HOW TO ORDER W3 MULTIPLE PUMP

1	2	3	4	5	6	7	8	9											
03	0	W0	A	A	55	C	0	48	X	S	1	B							

前泵
FRONT PUMP

中泵
MIDDLE PUMP

后泵
REAR PUMP

1	轴衬座材料 / BUSHING BLOCK	代码 / CODE
	铝合金 / ALLOY	2
	铜 / BRONZE	0

2-5	法兰 / FLANGE (见P89-90)	代码 / CODE
	EUROPEAN GR. 3	A - 1
	ITALIAN	N - 7
	AMERICAN SAE B	B - 3
	ISO	I - 4
	EUROPEAN GR. 3,5	D - 5
	AMERICAN SAE C	C - 6
	AMERICAN SAE C	E - 6
	ITALIAN	N - 8
	AMERICAN SAE B	L - 3

3	排量 / CAPACITY cm ³	代码 / CODE
	15.5	15
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

4	泵轴 / SHAFT (见P91-93)	代码 / CODE
	锥轴 / TAPERED 1:8	C
	锥轴 / TAPERED 1:5	A
	ANSI B92.1 13TH 16/32 DP	B
	圆轴 / STRAIGHT Ø22.22	L

	圆轴 / STRAIGHT Ø22	Q
	圆轴 / STRAIGHT Ø25.4	D
	锥轴 / TAPERED 1:8	E
	ANSI B92.1 15TH 16/32 DP	S
	ISO 14 8x32x36	H
	圆轴 / STRAIGHT Ø22	N
	圆轴 / STRAIGHT Ø30	G
	ANSI B92.1 14TH 12/24 DP	K
	圆轴 / STRAIGHT Ø31.7	P
	UNI 8953 6x21x25	F
	1" 3/8 DIN 9611 MASCHIO / MALE	M
	1" 3/8 DIN 9611 FEMMINA / FEMALE	R
	1" 3/8 DIN 9611 - Z21 FEMMINA / FEMALE	U

6	油口 / PORTS (见P94-95)	代码 / CODE
	SEE TABLE AT PAGE 16	

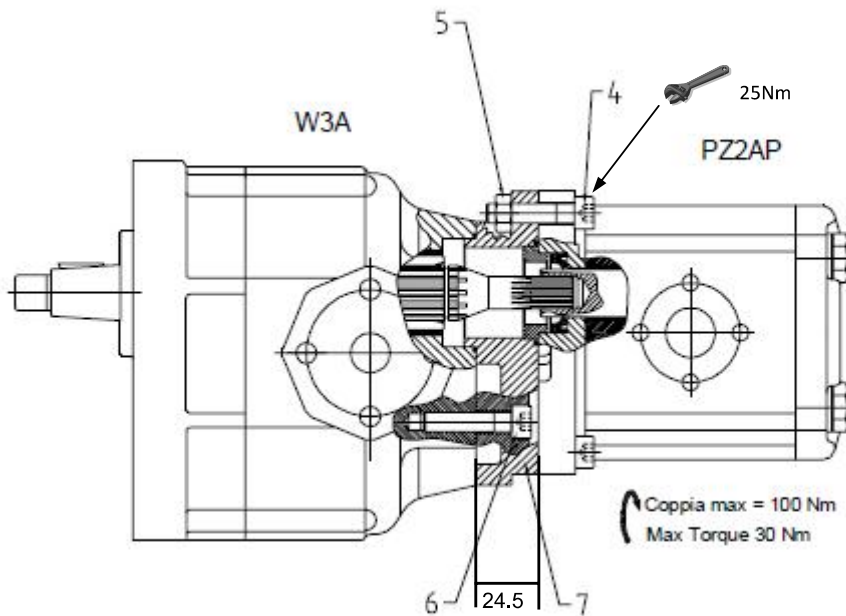
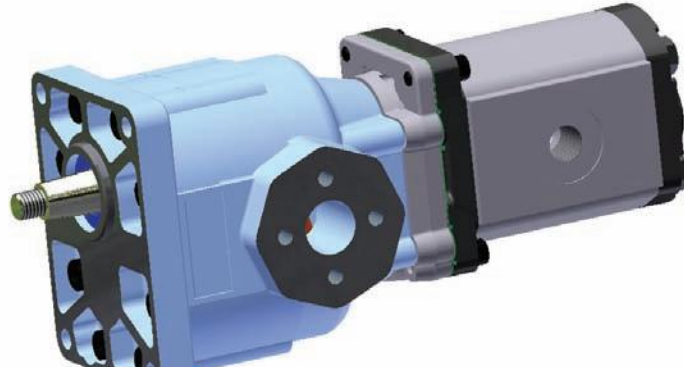
7	转向 / ROTATION	代码 / CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

8	支撑轴承 / SUPPORT (见P96)	代码 / CODE
	无 / WITHOUT	0
	型号1 / TYPE 1	1
	型号2 / TYPE 2	2

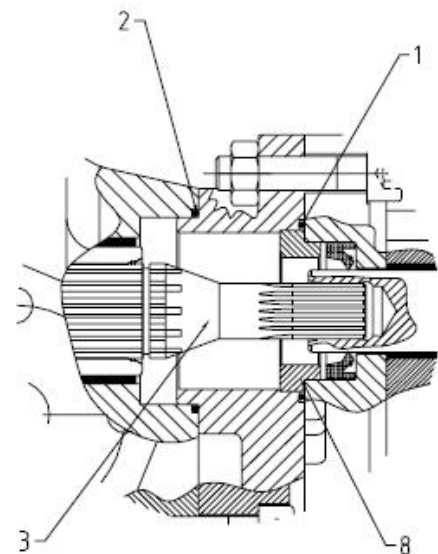
9	轴封 / SHAFT SEAL (见P87)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

W3-Z2多联泵连接组件

ASSEMBLING KITS FOR MULTIPLE PUMPS W3 - Z2

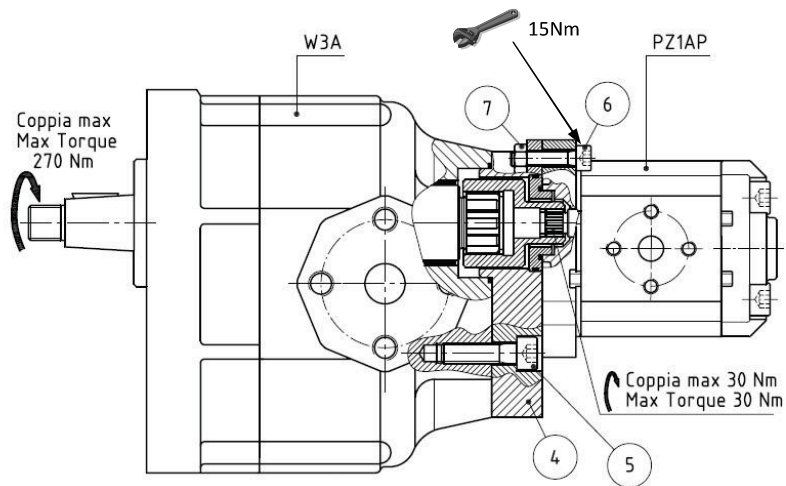


连接组件 ASSEMBLING KIT	
W3 + 02ZA	cod. K3000038
No.	零件 PARTS
1	0形圈 2150/ O-Ring 2150
2	0形圈 2162/ O-Ring 2162
3	连接轴25x21/Z=25 / Coupling 25x21/Z=25
4	TCE M8X35 UNI 5931 / TCE M8x35 UNI 5931
5	M8螺栓 / Stud nut M8
6	TCE M8X35 UNI 5931 / TCE M8x35 UNI 5931
7	连接盘/ Connection plate
8	控制环/ Pilot ring

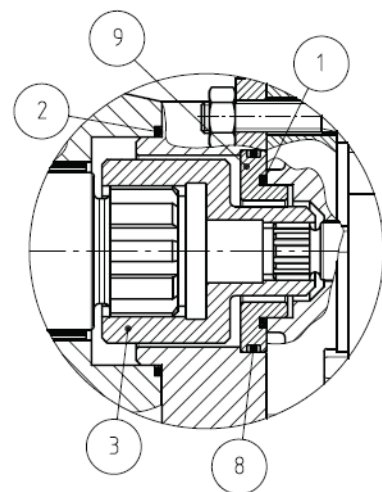


W3-Z1多联泵连接组件

ASSEMBLING KITS FOR MULTIPLE PUMPS W3 - Z1

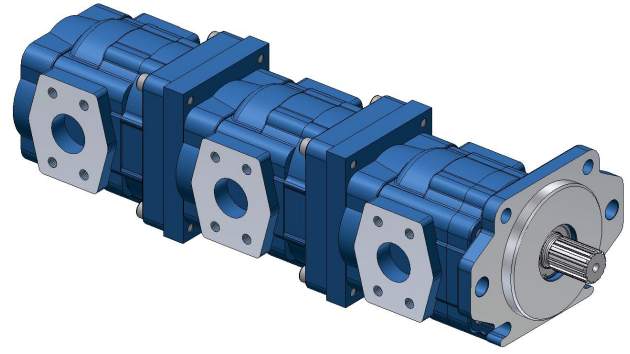


连接组件 ASSEMBLING KIT	
cod. K3000003	
No.	零件 PARTS
1	0形圈2100/ O-Ring 2100
2	0形圈2162/ O-Ring 2162
3	连接轴25x21-12/19 / Coupling 25x21-12/19
4	连接法兰/ Connection plate
5	TCE M8x30 UNI 5931 / TCE M8x30 UNI 5931
6	TCE M6x25 UNI 5931 / TCE M6x25 UNI 5931
7	M6螺栓 / Stud nut M6
8	0形圈2137/ O-Ring 2137
9	控制环/ Pilot ring

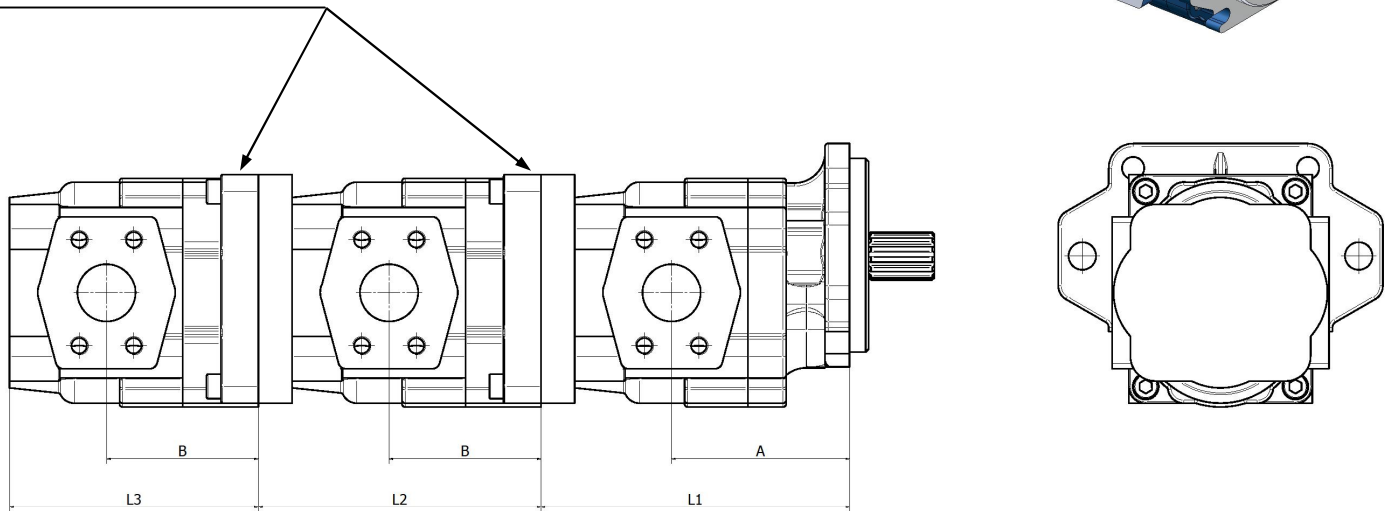


W3L多联泵总体尺寸

OVERALL DIMENSIONS MULTIPLE PUMPS W3L



MAX TORQUE 300 Nm

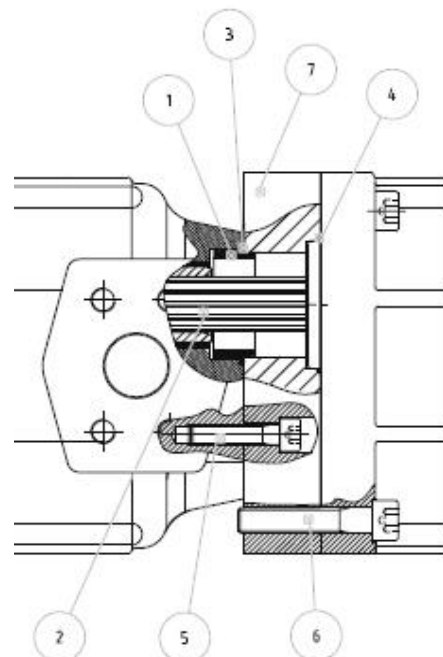


Tipo - Type		20	25	30	35	40	45	50	55	60	64	70	80	90
A	mm	104	107	110	113	108	111	114	117	105	107	111	117	117
B	mm	87	90	93	96	91	94	97	100	88	90	94	100	100
L1	mm	159	162	165	168	172	175	178	181	185	187	191	197	202
L2	mm	142	145	148	151	155	158	161	164	168	170	174	180	185
L3	mm	126	129	132	135	139	142	145	148	152	154	158	164	164

KIT DI MONTAGGIO ASSEMBLING KIT

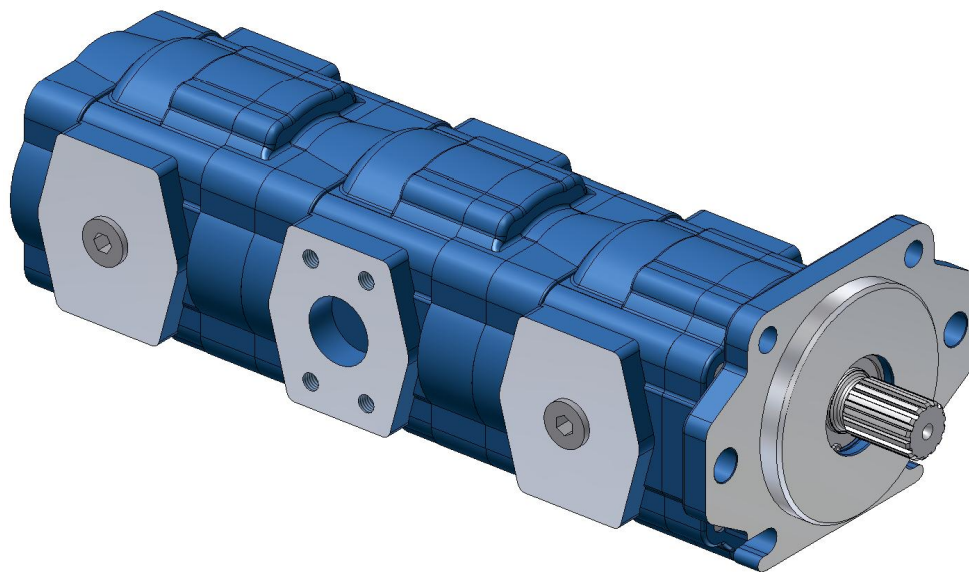
Cod. K3000041

Ref	PARTI PARTS
1	Bussola / Center ring
2	Mozzo DIN 5482 / Coupling DIN 5482
3	OR 2162 / O-Ring 2162
4	OR 3200 / O-Ring 3200
5	TCE M8x30 UNI 5931 / TCE M8x30 UNI 5931
6	TCE M10x45 UNI 5931 / TCE M10x45 UNI 5931
7	Piastra di collegamento / Connection plate

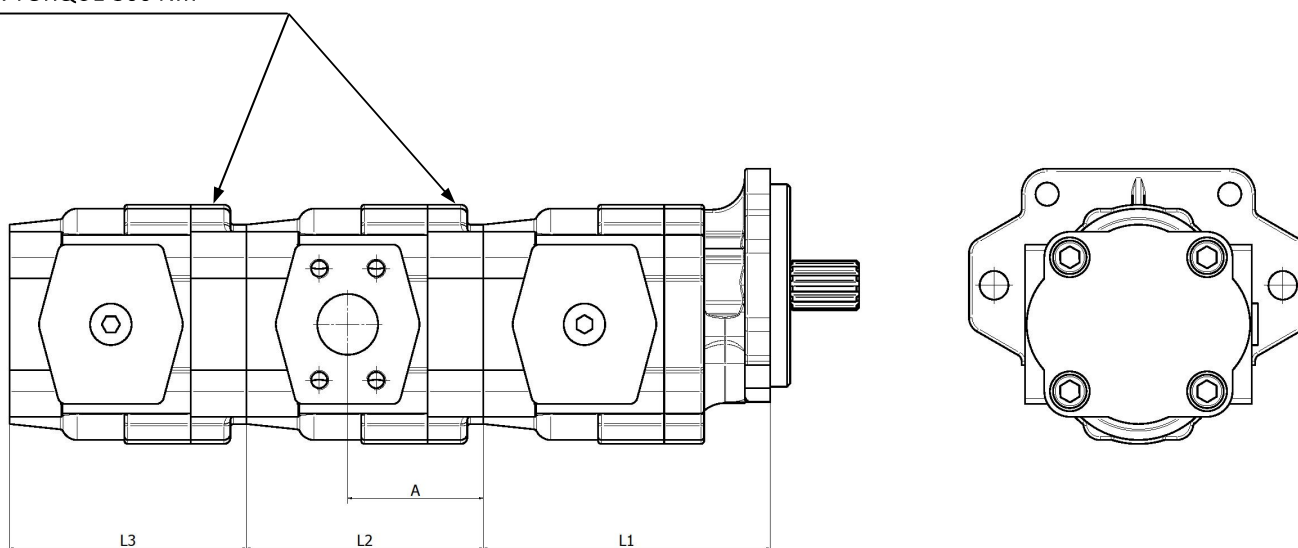


单进口紧凑型W3L多联泵总体尺寸

OVERALL DIMENSIONS MULTIPLE PUMPS W3L WITH COMMON INLET - "COMPACT"



MAX TORQUE 300 Nm



Tipo - Type		20	25	30	35	40	45	50	55	60	64	70	80	90
A	mm	72	75	78	81	76	79	82	85	73	75	79	85	85
L1	mm	137	140	143	146	150	153	156	159	163	165	169	175	180
L2	mm	106	109	112	115	119	122	125	128	132	134	138	144	149
L3	mm	111	114	117	120	124	127	130	133	137	139	143	149	149

更多信息请联系我司技术部。

For more info, please contact our technical office.

WR3多联泵订货说明

HOW TO ORDER WR3 MULTIPLE PUMP

	1	2	3	3	3	4	5	6	6	6	7	8	9	
03	0	WR	A	20*	20*	20*	E	0	70*	70*	70*	D	0	N

以3联泵为例

EXEMPLE FOR A PUMP WITH THREE STAGES

1	轴衬座 / BUSHING BLOCK	CODE
	铝合金 / ALLOY	2
	青铜 / BRONZE	0

2 - 5	法兰 / FLANGE (见P89-90)	CODE
	AMERICAN SAE B	B - 3
	ISO	I - 4
	EUROPEAN GR. 3,5	D - 5
	AMERICAN SAE C	C - 6
	AMERICAN SAE C	E - 6
	AMERICAN SAE B	L - 3

3	排量 / CAPACITY cm^3	CODE
	19.9	20
	24.9	25
	29.9	30
	34.3	35
	40.5	40
	45.2	45
	49.9	50
	54.5	55
	60	60
	63.9	64
	70	70
	78.7	80
	89.6	90

4	泵轴 / SHAFT (见P91-93)	CODE
	ANSI B92.1 13TH 16/32 DP	B
	圆轴 / STRAIGHT Ø22.22	L
	圆轴 / STRAIGHT Ø25.4	D
	锥轴 / TAPERED 1:8	E
	ANSI B92.1 15TH 16/32 DP	S
	ISO 14 8x32x36	H

	圆轴 / STRAIGHT Ø30	G
	ANSI B92.1 14TH 12/24 DP	K
	圆轴 / STRAIGHT Ø31.7	P
	UNI 8953 6x21x25	F

6	油口 / PORTS (见P94-95)	CODE
	见87页表格 / SEE TABLE AT PAGE 87	

7	转向 / ROTATION	CODE
	右旋 / RIGHT	D
	左旋 / LEFT	S

8	支撑轴承 / SUPPORT (见P96)	CODE
	无 / WITHOUT	0
	型号1 / TYPE 1	1

9	轴封 / SHAFT SEAL (见P87)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH

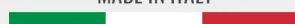
* 输入需要泵排量对应的代码
INSERT IN THE CODE THE VALUE FOR EACH PUMP EXPECTED



W4系列铸铁齿轮泵和马达
CAST IRON PUMPS AND MOTORS **W4 SERIES**

POMPE E MOTORI IN GHISA SERIE W4

意大利制造
MADE IN ITALY



主要性能

- ◆ 高压力：高达300bar连续工作压力
- ◆ 用压力平衡衬块进行轴向压力补偿
- ◆ 容积效率高：平均可达95%
- ◆ 排量范围大：75-90-110-130-150-190cm³/转
- ◆ 铸铁泵体
- ◆ 齿轮加工精度高，啮合噪音小
- ◆ 轴、法兰和配件的规格种类齐全，可适应各种特殊要求
- ◆ 高温密封
- ◆ 单向泵和马达
- ◆ 双向泵和马达
- ◆ 可以用罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵
- ◆ 易于在单泵和多联泵之间转换，易于改变转动方向

Main Features

- ◆ *High pressure option: up to 300 bar max. continuous pressure (4350 psi)*
- ◆ *Axial compensation achieved using pressure balanced bushing blocks.*
- ◆ *High volumetric efficiency: average 95%*
- ◆ *Wide range of capacities : 4-6-8-11-15-20-25-40 cm³/rev.*
- ◆ *Cast iron body*
- ◆ *Gear tooth profile accurately projected providing low noise operation.*
- ◆ *A wide variety of shafts, flanges and ports are available to meet specific application requirements.*
- ◆ *High-temperature seals available.*
- ◆ *Single rotational pumps and motors.*
- ◆ *Bi-rotational pumps and motors.*
- ◆ *Multiple pumps availability: tandem pumps are possible both in aluminium series and with other cast iron series produced by Ronzio Oleodinamica*
- ◆ *Easy-to-make tandem pumps and easy change of rotation.*

“W4” 系列泵使用条件

CONDITIONS OF USE FOR PUMPS “W4”

泵在运转时，避免给主轴在径向或轴向上加载负载。
使用弹性接合或“Oldham”结合补偿没有对准的误差，使齿轮泵位于一条直线上。
我们建议用户仔细阅读下表中的内容，从而能够正确地使用齿轮泵，延长泵的使用寿命。

*Avoid radial and axial loads on the pump shaft during the use.
The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” coupling.
We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.*

使用条件

USE CONDITIONS

液体 <i>Hydraulic fluids</i>	矿物油 (DIN 51524) 如果要使用水乙二醇、水油乳液和磷酸酯等阻燃液体，请与我们的技术部或销售处联系。 <i>Mineral oil (DIN 51524)</i> <i>For use with fire resistant fluids like water glycol, water- oil emulsion and phosphate-esters, contact our technical or commercial office.</i>		
吸入压力 <i>Inlet pressure</i>	0.7 - 3 bar (Assoluti / Absolute)		
吸入管路中油速 <i>Oil speed on suction line</i>	0.5 ÷ 1.5 m/s		
排出管路中油速 <i>Oil speed on pressure line</i>	6 ÷ 10 m/s		
油温 <i>Oil temperature</i>	-10°C ÷ 80°C		
油粘度 <i>Oil viscosity</i>	20 ÷ 120 mm ² / s (Cst)		
最大启动粘度 <i>Max starting viscosity</i>	700 mm ² / s (Cst)		
滤油 <i>Oil filtration</i>	压力 <i>Pressure</i>	< 200 bar	> 200 bar
	污染级别 NAS 1638 <i>Contamination class NAS 1638</i>	10	9
	污染级别 ISO 4406 <i>Contamination class ISO 4406</i>	19/16	18/15
	β 率 ≥ 75 <i>Ratio β_x ≥ 75</i>	25μm	10μm

主要参数

MAIN CHARACTERISTICS

型号 - Type		75	90	110	130	150	190*	250*
排量 Capacity	Cm ³ / rev	72.1	88.7	105.4	127.5	149.7	193	250
P1 最大工作压力 Max working pressure	Bar	270	250	240	220	180	150	130
P2 间歇工作压力 intermittent pressure	Bar	300	280	260	240	200	170	150
P3 峰值工作压力 Max peak pressure	Bar	320	300	280	260	220	190	170
P1压力下最大转速 Max speed for P1 pressure	Rpm	1800	1800	1500	1500	1500	1500	1500
最大空转速度 Max speed without load	Rpm	2500	2300	2000	2000	2000	2000	2000
P1压力下最小转速 Min speed for P1 pressure	Rpm	300	300	250	250	250	250	250

* 190排量和250排量选型请咨询我司技术部。

确认压力、流量、转速、扭矩等参数请通过下列公式进行计算

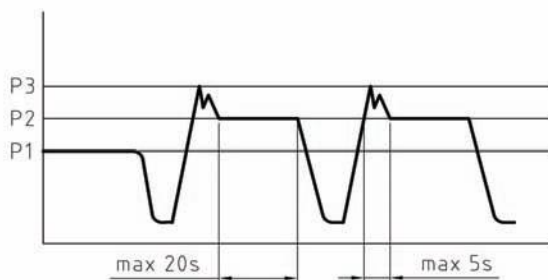
VERIFY THE COMPATIBILITY AMONG PERFORMANCE OF PRESSURE, FLOW REQUIRED AND TORQUE OF THE SHAFT THROUGH THE BELOW FORMULAS

双向旋转的泵和马达，压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

常见参数计算

DETERMINATION OF NOMINAL SIZE



泵
FOR PUMP

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

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

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

马达
FOR MOTOR

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

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

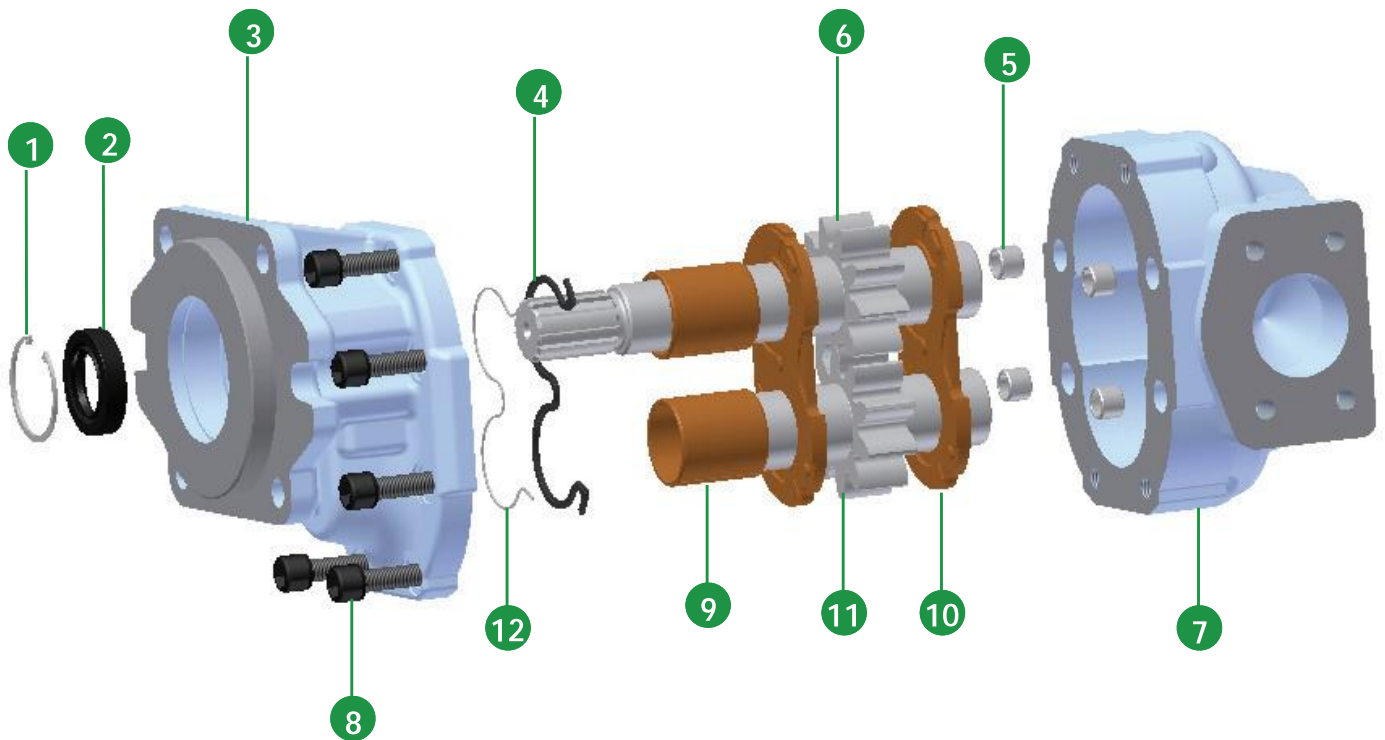
$$P = \frac{p * Q * \eta_t}{600}$$

V [cm³]
Q [l/min]
p [bar]
M [Nm]
n [min⁻¹]
P [Kw]

η_v = EFF vol. ≥ 95
 η_m = EFF mecc. ~ 0.85

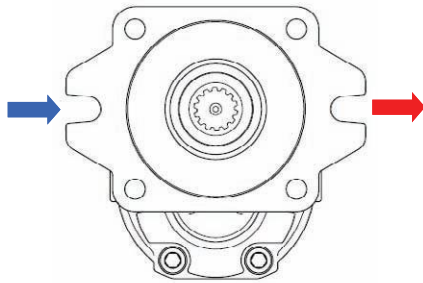
η_t = $\eta_v * \eta_m$. ~ 0.8

零件
PARTS

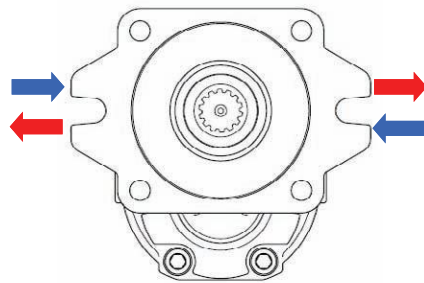


No.	说明	Description	Qt.
1	卡环	<i>Snap ring</i>	1
2	轴封	<i>Rotary shaft seal</i>	1
3	法兰	<i>Flange</i>	1
4	补偿垫圈	<i>Compensation seal</i>	2
5	圆柱销	<i>Pin</i>	4
6	主动齿轮	<i>Drive gear</i>	1
7	泵体	<i>Housing</i>	1
8	螺栓	<i>Bolt</i>	8
9	轴衬	<i>Bushing</i>	4
10	轴衬座	<i>Bushing block</i>	2
11	从动齿轮	<i>Idle gear</i>	1
12	防挤压环	<i>Seal against extruding</i>	2

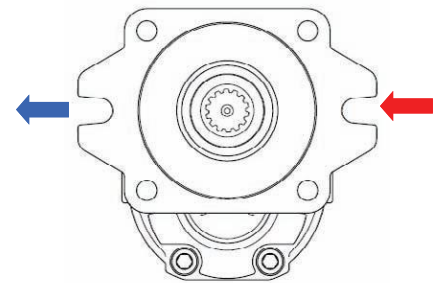
转向
ROTATION



顺时针旋转 <i>Clockwise rotation</i>	代码 <i>Code</i>	D
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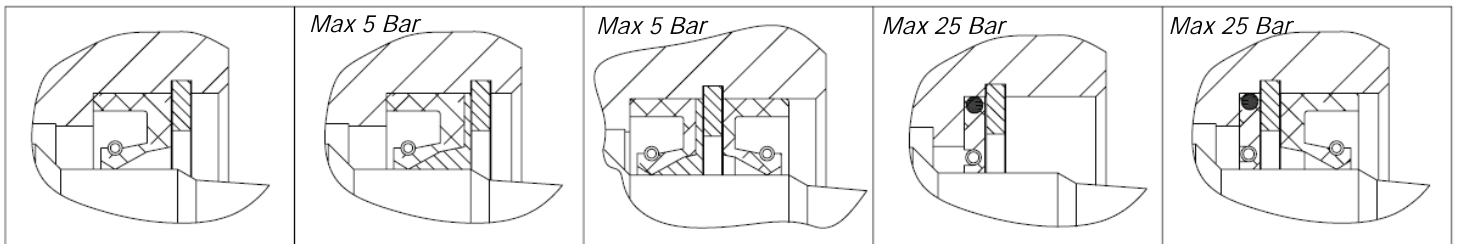


双向旋转带外泄油口 <i>Bidirectional rotation with external drain</i>	代码 <i>Code</i>	R
双向旋转带内泄油口 <i>Bidirectional rotation with internal drain</i>	代码 <i>Code</i>	Y



逆时针旋转 <i>Anti-Clockwise rot.</i>	代码 <i>Code</i>	S
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轴封
SHAFT SEAL



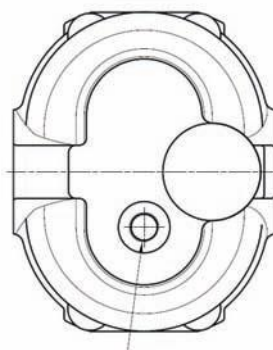
代码 <i>Code</i>	N	NBR
	V	VITON

代码 <i>Code</i>	R	NBR
	RV	VITON

代码 <i>Code</i>	N2	NBR
	V2	VITON

代码 <i>Code</i>	B	NBR
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代码 <i>Code</i>	BN	NBR
	BV	VITON



G3/8 或
9/16-18UNF-2B

带后泄油口双向旋转齿轮泵或马达 <i>Rear drain for bidirectional pumps or motors</i>	R
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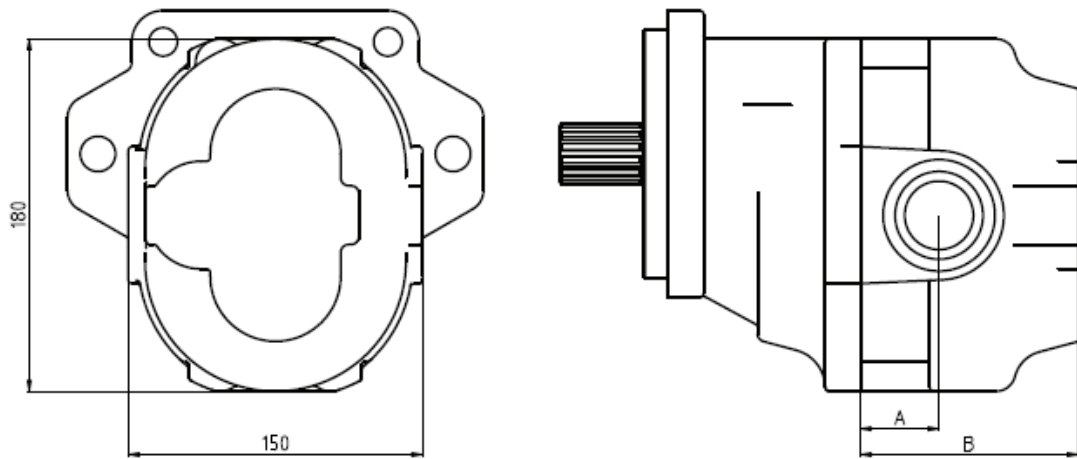
GAS和有公制螺纹口选择: G3/8
O型圈和方型法兰口选择: 9/16-18UNF-2B
G3/8" FOR GAS AND METRIC PORTS
9/16-18UNF-2B FOR O-RING BOSS AND SPLIT PORTS

注意: "R"可以代表双向旋转; 加强密封; 后泄油。

Code "R" includes bidirectional rotation, reinforced shaft seal 5 bar and rear drain

下列外观尺寸对应法兰C6-I4-N8

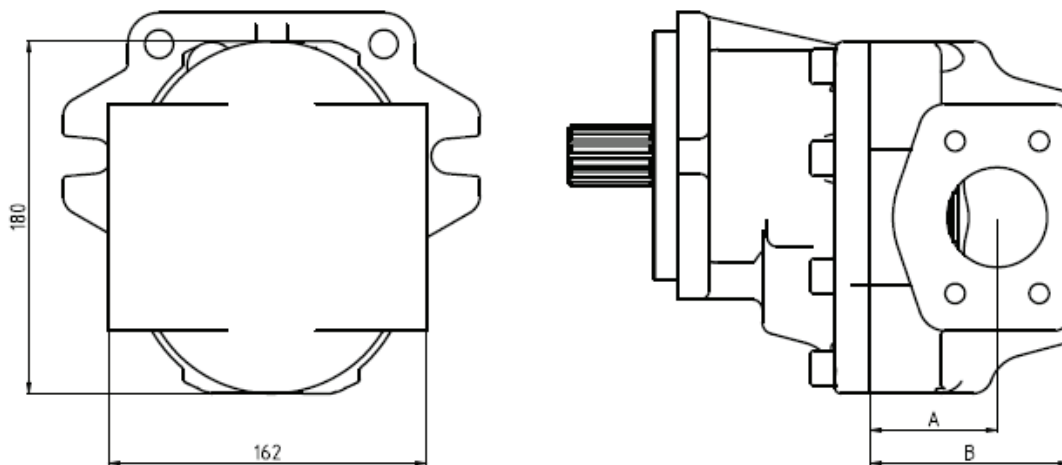
HOLDING DIMENSIONS FOR FLANGES C6 - I4 - N8



类型- Type		75	90	110	130	150
A	mm	32	38	44	40	48
B	mm	96	102	108	116	124

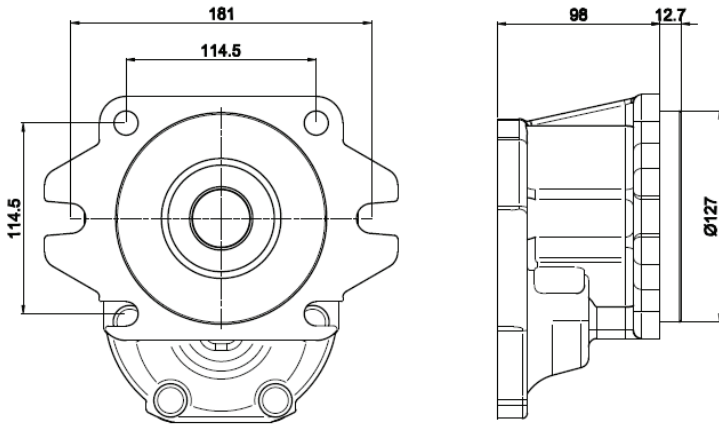
下列外观尺寸对应法兰C6-A0

HOLDING DIMENSIONS FOR FLANGES C6 - A0



类型- Type		75	90	110	130	150	190
A	mm	43	43	46	48	52	65
B	mm	100	100	106	114	122	152

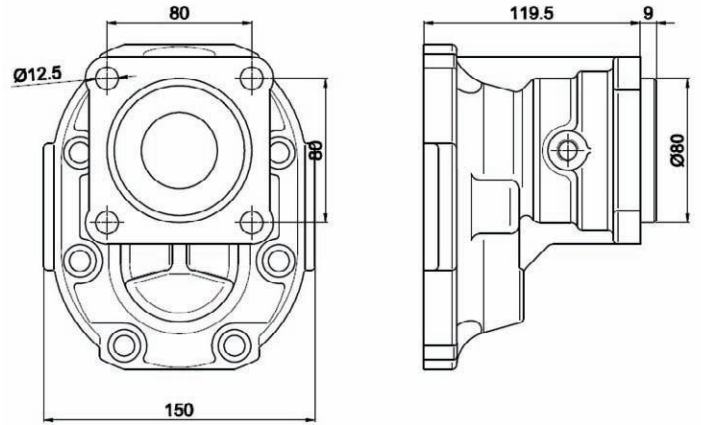
法兰
FLANGES



SAE C

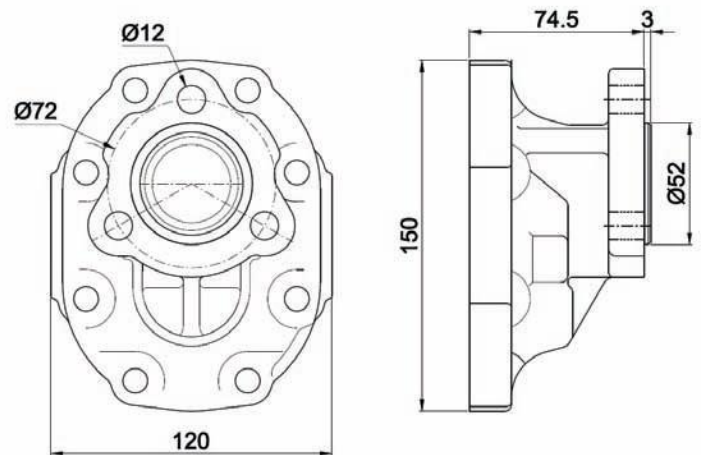
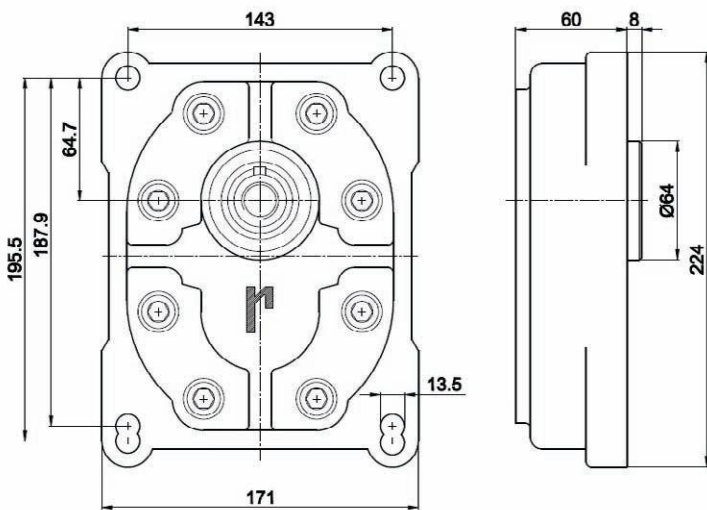
代码 CODE	C	6
------------	---	---

注：铸铁材料
NOTE : Material Cast iron



代码 CODE	I	4
------------	---	---

注：铸铁材料
NOTE : Material Cast iron



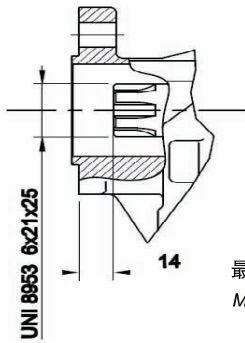
代码 CODE	A	0
------------	---	---

注：铸铁材料
NOTE : Material Cast iron

代码 CODE	N	8
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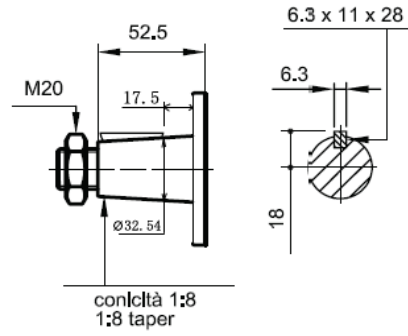
注：铸铁材料
NOTE : Material Cast iron

泵轴
SHAFTS



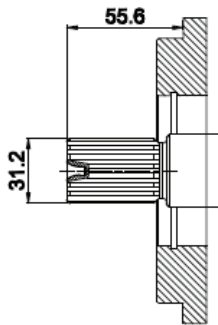
最大扭矩450 Nm
MAX TORQUE 450Nm

代码/CODE	F	
配法兰/ FOR FLANGE	N	8



最大扭矩 550Nm
MAX TORQUE 550Nm

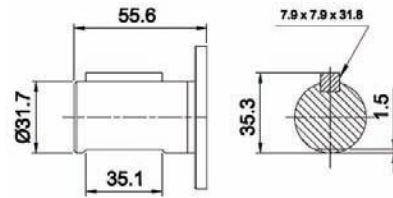
代码/CODE	C	
配法兰/ FOR FLANGE	A	0



ANSI B92.1
SAE C 14 teeth
12/24 DP
Flat root

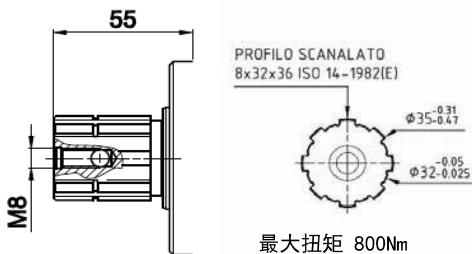
最大扭矩900Nm
MAX TORQUE 900Nm

代码/CODE	K	
配法兰/ FOR FLANGE	C	6



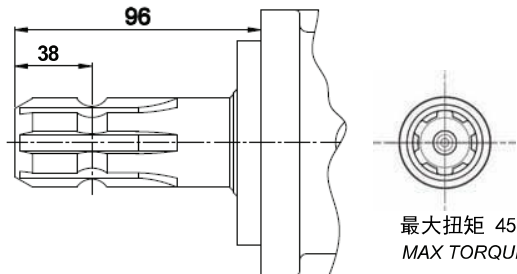
最大扭矩 600Nm
MAX TORQUE 600Nm

代码/CODE	P	
配法兰/ FOR FLANGE	C	6



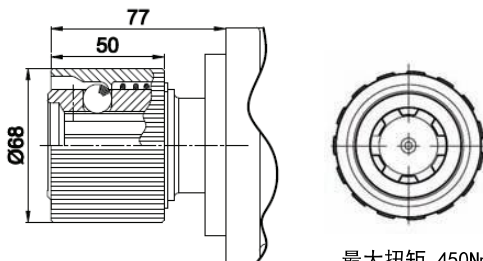
最大扭矩 800Nm
MAX TORQUE 800Nm
带内置轴承 450Nm
WITH INBOARD BEARINGS 450Nm

代码/CODE	H	
配法兰/ FOR FLANGE	I	4



最大扭矩 450Nm
MAX TORQUE 450Nm

代码/CODE	M	
配法兰/ FOR FLANGE	I	4



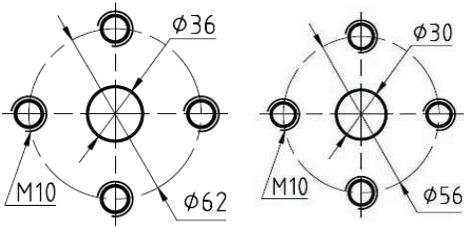
最大扭矩 450Nm
MAX TORQUE 450Nm

代码/CODE	R	
配法兰/ FOR FLANGE	I	4

侧吸入、输出油口

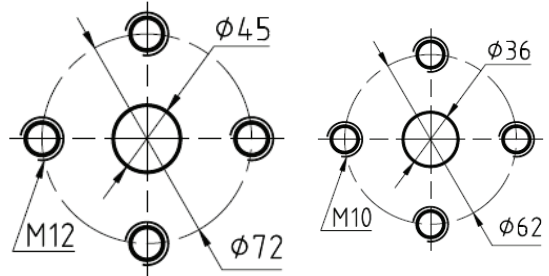
SIDE INLET AND OUTLET PORTS

吸入 INLET	输出 OUTLET
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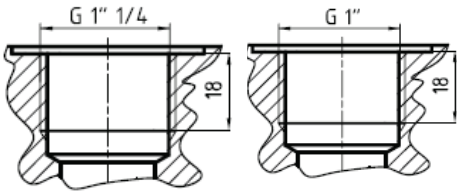
代码 CODE	10
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吸入 INLET	输出 OUTLET
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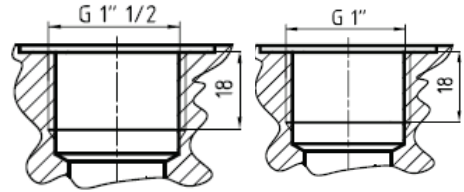
代码 CODE	12
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吸入 INLET	输出 OUTLET
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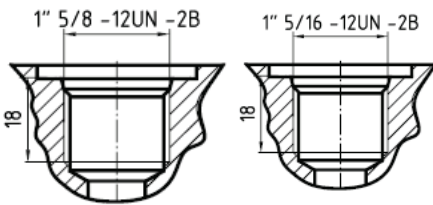
代码 CODE	20
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吸入 INLET	输出 OUTLET
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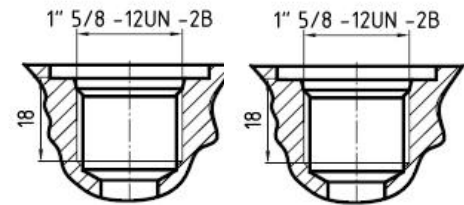
代码 CODE	22
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吸入 INLET	输出 OUTLET
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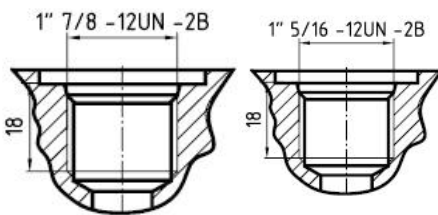
代码 CODE	30
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吸入 INLET	输出 OUTLET
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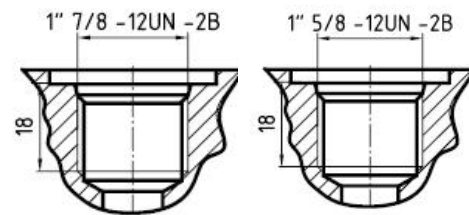
代码 CODE	31
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吸入 INLET	输出 OUTLET
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代码 CODE	32
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吸入 INLET	输出 OUTLET
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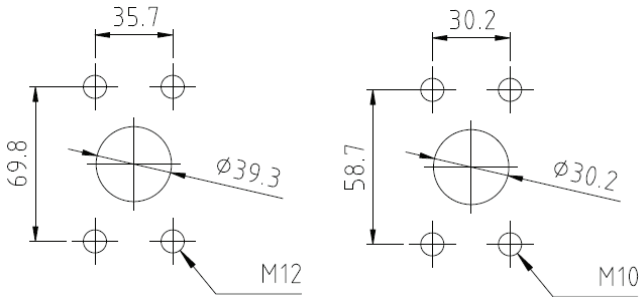


代码 CODE	33
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侧面吸入及输出油口

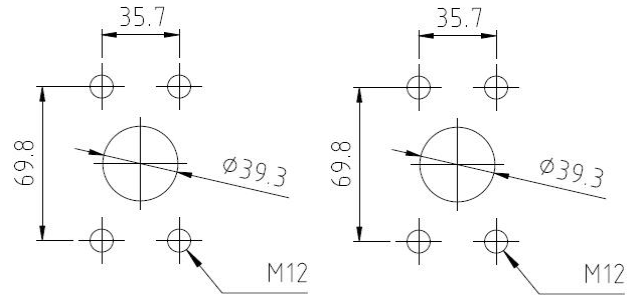
SIDE INLET AND OUTLET PORTS

吸入 INLET	输出 OUTLET
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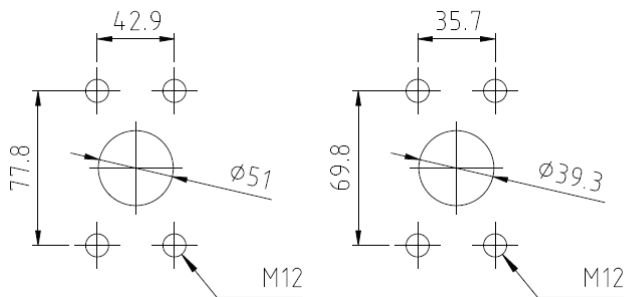
代码 CODE	40
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吸入 INLET	输出 OUTLET
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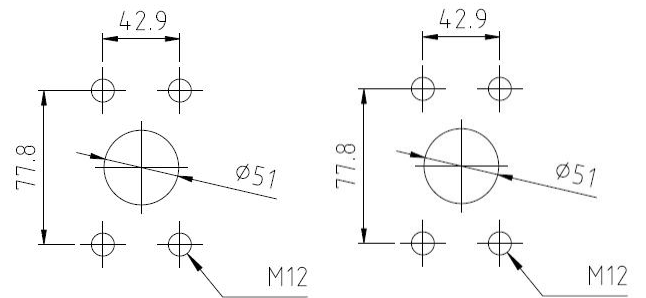
代码 CODE	41
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吸入 INLET	输出 OUTLET
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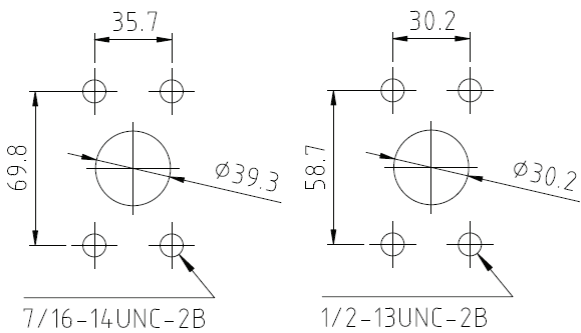


代码 CODE	42
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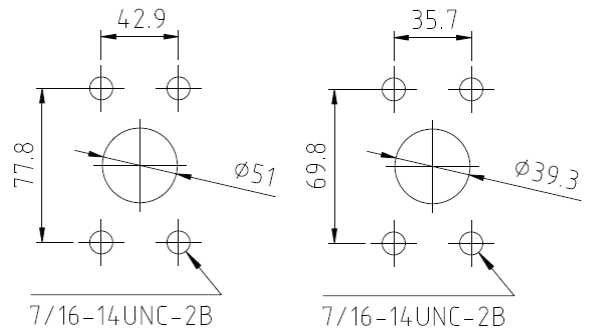
吸入 INLET	输出 OUTLET
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代码 CODE	43
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代码 CODE	50
------------	-----------



代码 CODE	52
------------	-----------

对应不同流量的标准油口代码

STANDARD PORT CODES AVAILABLE IN RELATION OF CAPACITY

55						
54						
53						
52						
51						
50						
45						
44						
43						
42						
41						
40						
35						
34						
33						
32						
31						
30						
25						
24						
23						
22						
21						
20						
15						
14						
13						
12						
11						
10						
	75	90	110	130	150	190

其他进/出油口形式也可提供，具体请联系我司技术部
OTHER SUCTION / OUTLET PORTS ARE AVAILABLE ON REQUEST

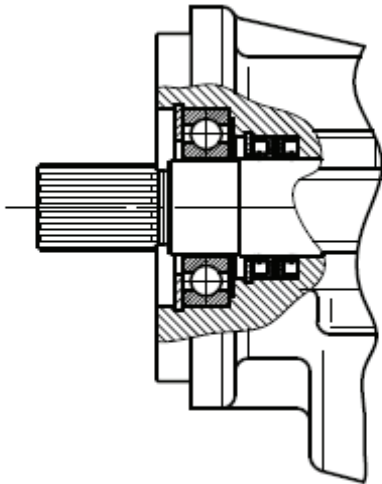
内置轴承

INBOARD BEARINGS

类型1- TYPE 1

用单滚珠轴承支撑的组合轴承

Integrated bearing support with single ball bearing



当需要承受径向载荷，轴向无负载时应用

Application made to support radial load and without axial load on the shaft

对应法兰型号C6-I4

Available for flanges type C6 - I4.

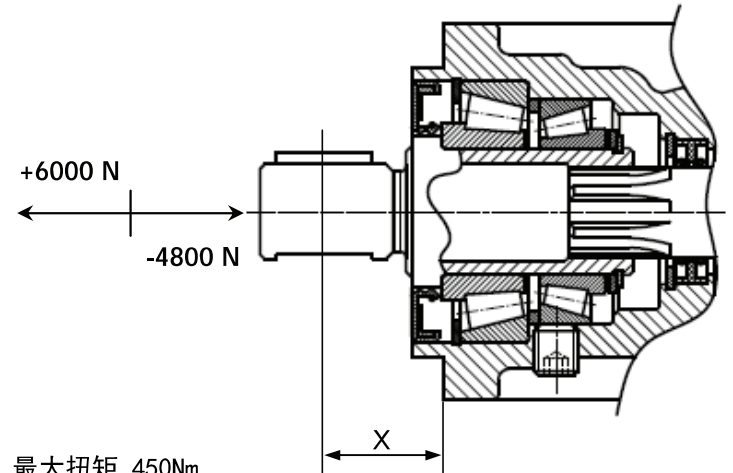
对应轴H & K

Available for shaft type H & K.

类型2- TYPE 2

用锥辊轴承支撑的组合轴承

Integrated bearing support with double taper roller bearings



最大扭矩 450Nm

MAX TORQUE 450 Nm

当需要承受径向及轴向负载时应用

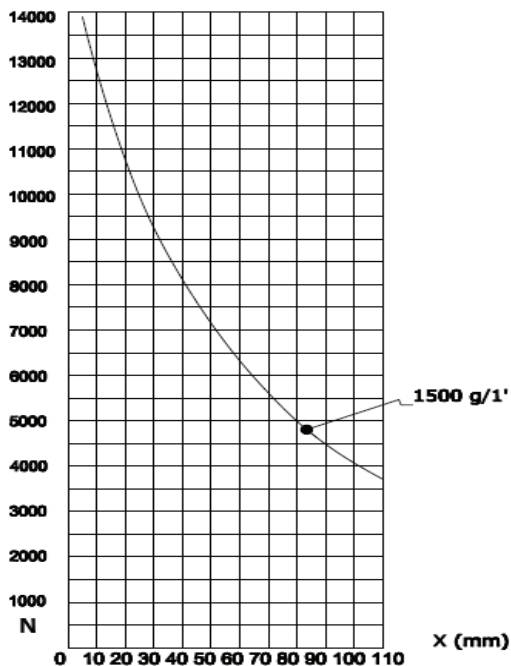
Application made to support axial and radial load.

对应法兰型号C6-I4

Available for flanges type C6 - I4.

对应轴型号H, K, M, R

Available for shaft type H, K, M, R.



负载图

- 疲劳寿命等级 1000h
- 油号VG-46
- 温度70°C
- 可信度90%
- 污染等级60 μ

负载值视工作条件而定

LOAD DIAGRAM

- Rating fatigue life 1000 h
- Grease type VG-46
- Temperature 70°C
- Trust 90%
- Contamination 60 μ

LOAD VALUE IS DUE TO WORKING CONDITIONS

W4单泵/马达订货说明

HOW TO ORDER W4 SINGLE UNITS

	1	2	3		4	5	6	7	8	9	10	
0	4	0	W	A	G	110	C	0	32	S	0	N

1	轴衬座/ <i>BUSHING BLOCK</i>	CODE
	铝合金/ <i>ALLOY</i>	2
	青铜/ <i>BRONZE</i>	0

2	单元类型/ <i>UNIT TYPE</i>	CODE
	泵/ <i>PUMP</i>	W
	马达/ <i>MOTOR</i>	WM

3-6	法兰/ <i>FLANGE</i> (见P112)	CODE
	EUROPEAN	A - 0
	ISO	I - 4
	SAE C	C - 6
	ITALIAN	N - 8

4	排量/ <i>CAPACITY cm³</i>	CODE
	72.1	75
	88.7	90
	105.4	110
	127.5	130
	149.7	150
	193	190

5	泵轴/ <i>SHAFT</i> (见P113)	CODE
	锥轴/ <i>TAPERED 1:8</i>	C
	21 UNI 222	F
	ANSI B92.1 SAE C 14TH 12/24 FLAT ROOT	K
	圆轴/ <i>STRAIGHT Ø31.7</i>	P
	8x32x36 ISO 14	H
	1" 3/8 DIN 9611 MASCHIO / <i>MALE</i>	M
	1" 3/8 DIN 9611 FEMMINA / <i>FEMALE</i>	R

7	油口/ <i>PORTS</i> (见P114-115)	CODE
	EUROPEAN	10 - 12
	BSP	20 - 22
	O-RING BOSS	30 - 32
	SPLIT	40-42-50-52

8	转向/ <i>ROTATION</i>	CODE
	顺时针(右旋)/ <i>RIGHT</i>	D
	逆时针(左旋)/ <i>LEFT</i>	S
	双向旋转带内泄油口	Y
	双向旋转带外泄油口	R

9	支撑轴承/ <i>SUPPORT</i> (见P113)	CODE
	无/ <i>WITHOUT</i>	0
	类型1/ <i>TYPE 1</i>	1
	类型2/ <i>TYPE 2</i>	2

10	轴封 / <i>SHAFT SEAL</i> (见P110)	代码 / <i>CODE</i>
	标准 / <i>STANDARD</i>	N
	标准氟橡胶/ <i>STANDARD VITON</i>	V
	5 BAR 丁橡胶 / <i>5 BAR NBR</i>	R
	5 BAR 氟橡胶 / <i>5 BAR VITON</i>	RV
	双层丁橡胶密封 / <i>DOUBLE SEAL NBR</i>	N2
	双层氟橡胶密封 / <i>DOUBLE SEAL VITON</i>	V2
	25BAR丁橡胶真空成型密封/ <i>25 BAR VARISEAL NBR</i>	B
	25 BAR 丁橡胶 / <i>25 BAR NBR</i>	BN
	25 BAR 氟橡胶 / <i>25 BAR VITON</i>	BV
	标准丁腈橡胶/ <i>STANDARD HNBR</i>	H
	5 BAR 丁腈橡胶/ <i>5 BAR HNBR</i>	RH

W4多联泵订货说明

HOW TO ORDER W4 MULTIPLE UNITS

	1		2	3	4	5	6		7	8	9			
	04	0	W	A	A	75	C	0	20	X	S	1	N	前泵 FRONT PUMP
	1			3				6		7				中泵 MIDDLE PUMP
	04	0	W	I	A	75	0	0	22	X	S	0		
	1			3				6		7				后泵 REAR PUMP
	04	0	W	P	A	75	0	0	22	X	S	0		

1	轴衬座/ BUSHING BLOCK	CODE
	铝合金/ ALLOY	2
	青铜/ BRONZE	0

2 - 5	法兰/ FLANGE (见P112)	CODE
	EUROPEAN	E - 0
	ISO	I - 4
	SAE C	C - 4
	ITALIAN	N - 8

3	排量/ CAPACITY cm ³	CODE
	72.1	75
	88.7	90
	105.4	110
	127.5	130
	149.7	150
	193	190

4	泵轴/ SHAFT (见P113)	CODE
	锥轴/ TAPERED 1:8	C
	21 UNI 222	F
	ANSI B92.1 SAE C 14TH 12/24 FLAT ROOT	K
	圆轴/ STRAIGHT Ø31.7	P
	8x32x36 ISO 14	H
	1" 3/8 DIN 9611 MASCHIO / MALE	M
	1" 3/8 DIN 9611 FEMMINA / FEMALE	R

6	油口/ PORTS (见P114-115)	CODE
	EUROPEAN	10 - 12
	BSPP	20 - 22
	O-RING BOSS	30 - 32
	SPLIT	40-42-50-52

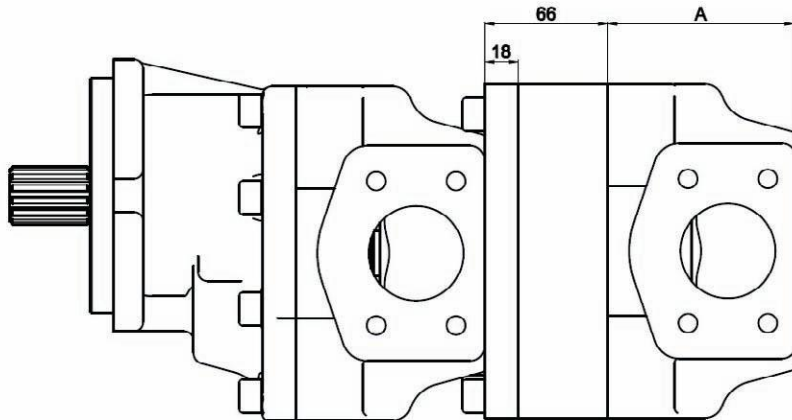
7	转向/ ROTATION	CODE
	顺时针(右旋)/ RIGHT	D
	逆时针(左旋)/ LEFT	S

8	支撑轴承/ SUPPORT	CODE
	无/ WITHOUT	0
	类型1/ TYPE 1	1
	类型2/ TYPE 2	2

9	轴封 / SHAFT SEAL (见P113)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶/ STANDARD VITON	V
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封/ 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	标准丁腈橡胶/ STANDARD HNBR	H
	5 BAR 丁腈橡胶/ 5 BAR HNBR	RH

W4-W4多联泵

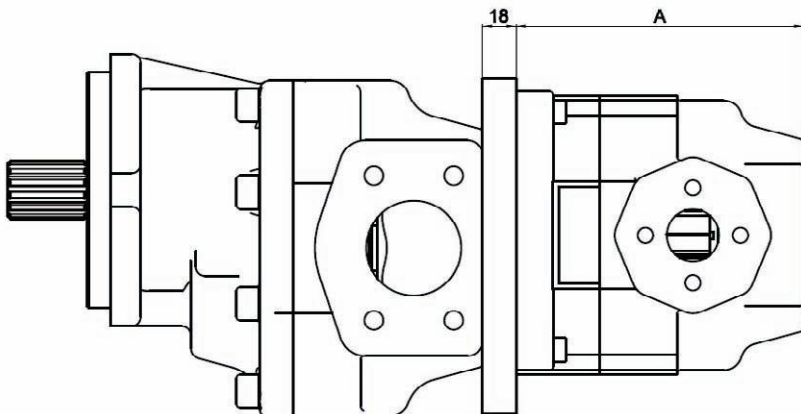
MULTIPLE PUMPS W4-W4



排量 CAPACITY	mm
75	100
90	100
110	106
130	114
150	122
190	126

W4-W3多联泵

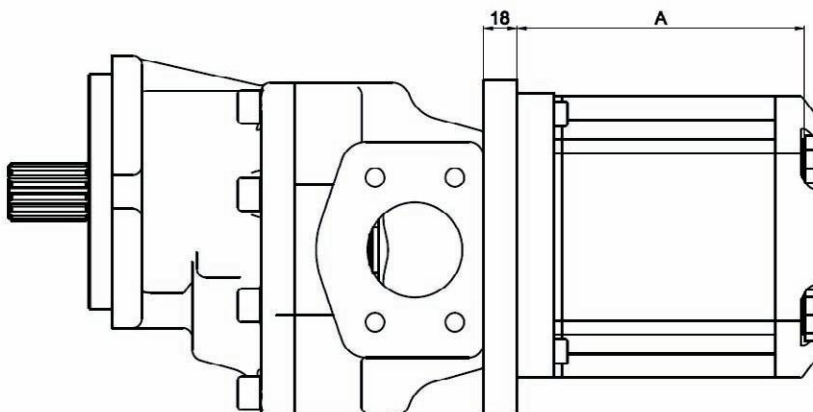
MULTIPLE PUMPS W4-W3



排量 CAPACITY	mm	排量 CAPACITY	mm
15	115	50	127
20	120	55	127
25	127	60	132
30	127	64	132
35	127	70	132
40	127	80	132
45	127		

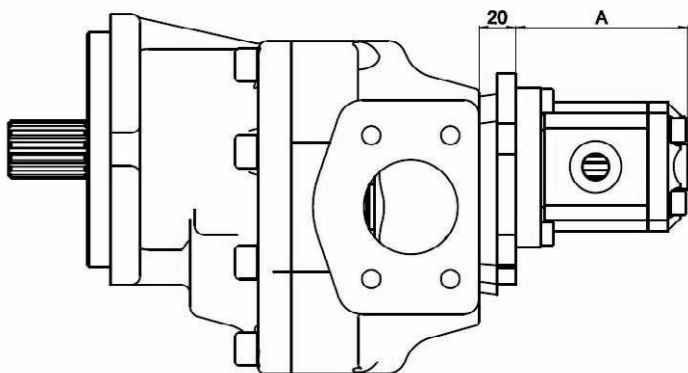
W4-Z3多联泵

MULTIPLE PUMPS W4-Z3



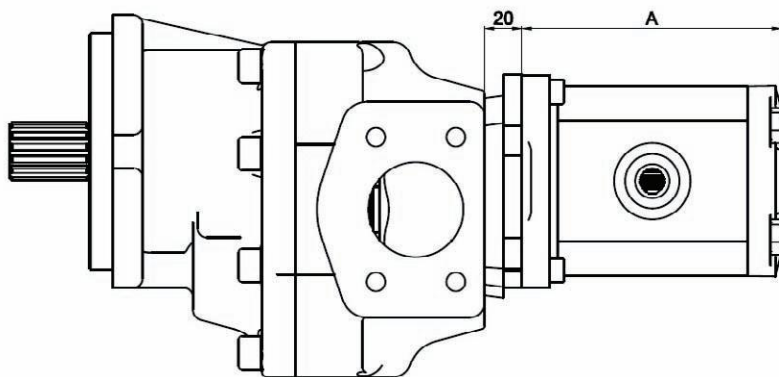
排量 CAPACITY	mm	排量 CAPACITY	mm
20	100	55	123
25	104	60	126
30	107	64	129
35	110	70	132
40	114	80	138
45	117	90	145
50	120		

W4-Z1多联泵
MULTIPLE PUMPS W4-Z1



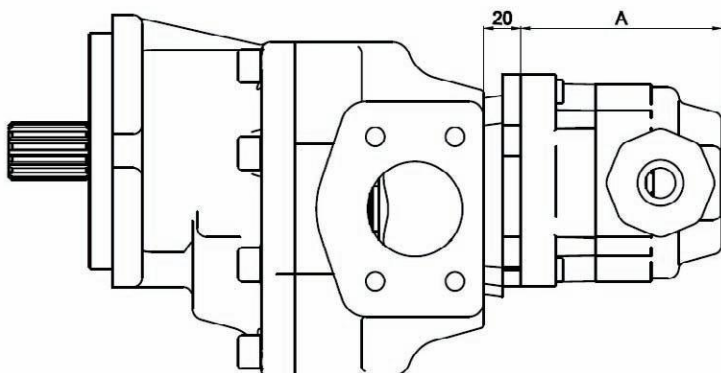
排量 CAPACITY	mm	排量 CAPACITY	mm
08	73	42	91
11	79	48	94
16	81	55	97
21	83	62	99
26	85	78	106
32	87	88	110
37	89	105	123

W4-Z2多联泵
MULTIPLE PUMPS W4-Z2



排量 CAPACITY	mm	排量 CAPACITY	mm
04	88	20	121
06	91	25	130
08	94	31	139
11	107		
14	112		
17	116		

W4-W2多联泵
MULTIPLE PUMPS W4-W2



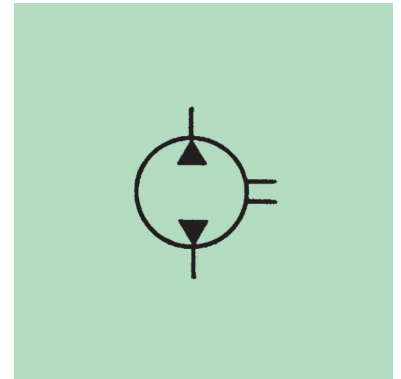
排量 CAPACITY	mm	排量 CAPACITY	mm
04	94	25	124
06	94	40	142
08	99		
11	103		
15	109		
20	116		

齿轮泵 GEAR PUMPS



PN

双向旋转齿轮泵，广泛应用于移动工程机械及农业机械中。



PN SERIES PUMPS - Available in dual rotation version, these are the units most commonly-utilized for mobile industrial and agricultural applications.

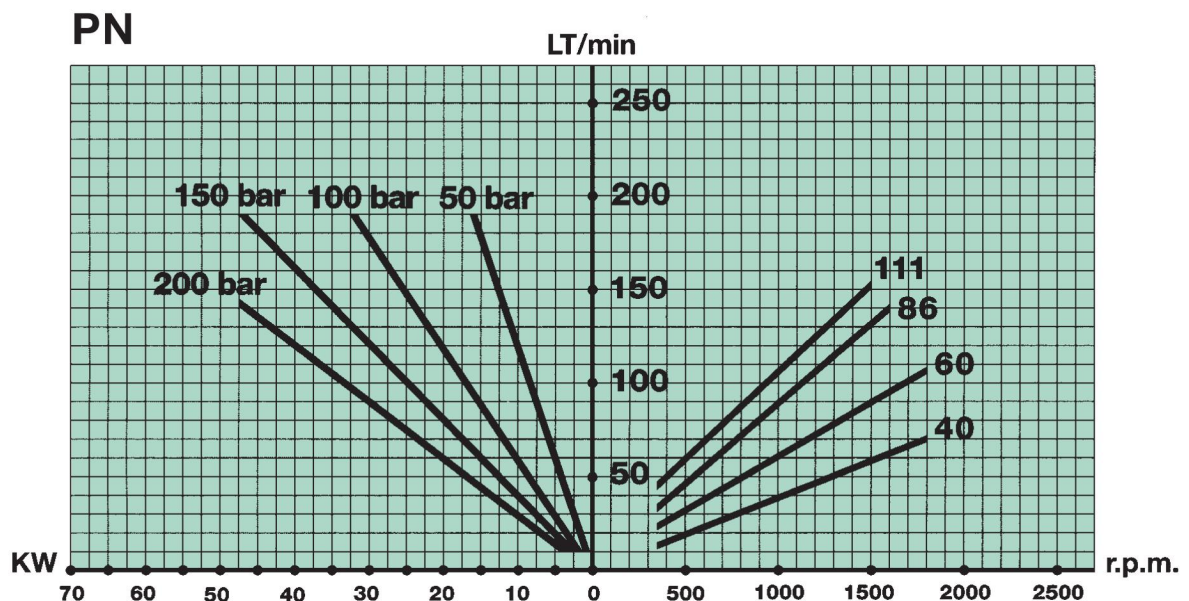
主要参数 MAIN CHARACTERISTICS

类型-Type PN		40	60	86	111
排量 Capacity	cc/rev.	38,4	60	85,8	104,8
P2 最大间歇工作压力 Max. intermittent pressure	bar	180	170	150	150
P3 峰值压力 Peak pressure	bar	210	200	180	180
P2压力下最小转速 Min. speed for P2 pressure	r.p.m.	350	350	350	350
P2压力下最大转速 Max. speed for P2 pressure	r.p.m.	1800	1800	1600	1500
最大空载转速 Max intermittent speed without load.	r.p.m.	2100	2100	1900	1800

P3压力下最长工作时间为5" P3: - operating max for 5"

容积效率 VOLUMETRIC CAPACITY

输入功率 INPUT POWER



50°C时油粘度
Oil viscosity at 50° C

2,5 ÷ 6,5° E

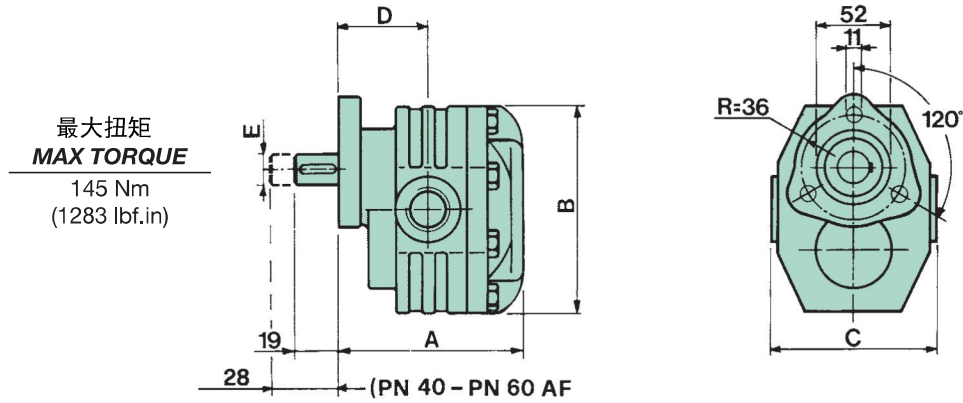
过滤要求
Oil Filtration

105bar 以下是60 μ，超过为40 μ
60 μ for pressure up to 105 bar - 40 μ for pressure over

油温
Oil temperature

- 10 ÷ 80° C (10 ÷ 176° F)

总体尺寸
OVERALL DIMENSIONS

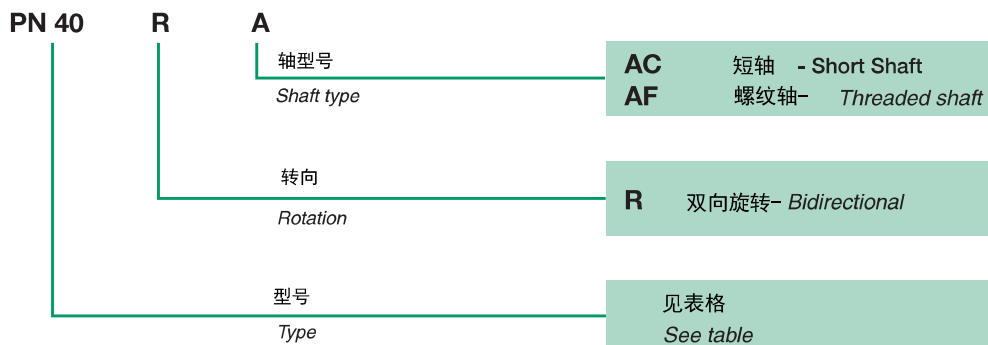


型号 Type	A	B	C	D	E	进口 Inlet	出口 Outlet	转向 Rotation	KG
PN 40	126	138	112	64	22	3/4" gas	3/4" gas	R	7,3
PN 60	142	138	112	67	22	1" gas	1" gas	R	8,6
PN 86	167	166	128	107	22	1" gas	1" gas	R	10,-
PN 111	177	166	128	117	22	1" gas	1" gas	R	11,3

注：如果产品尺寸和性能更改时，公司有权不做通知

RONZIO OLEODINAMICA reserve the right to change specifications without notice.

订货说明- ORDERING ISTRUCTION





PN BILANCIATA

PN对称型

PN对称系列泵-压力平衡特性使其应对连续负载时有优势。
只可单向旋转。



BALANCED PN SERIE PUMPS - Pressure balanced units recommended for continuous duty. Available only in single rotation.

主要参数

MAIN CHARACTERISTICS

型号-Type PN BILANCIATA		40	60	86	111
排量 Capacity	cc/r _{ev.}	38,4	60	85,8	104,8
P2 最大间歇工作压力 Max. intermittent pressure	bar	200	190	180	180
P3 峰值压力 Peak pressure	bar	230	220	220	210
P2压力下最小转速 Min. speed for P2 pressure	r.p.m.	350	350	350	350
P2压力下最大转速 Max. speed for P2 pressure	r.p.m.	1800	1800	1600	1500
最大空转速度 Max intermittent speed without load	r.p.m.	2100	2100	1900	1800

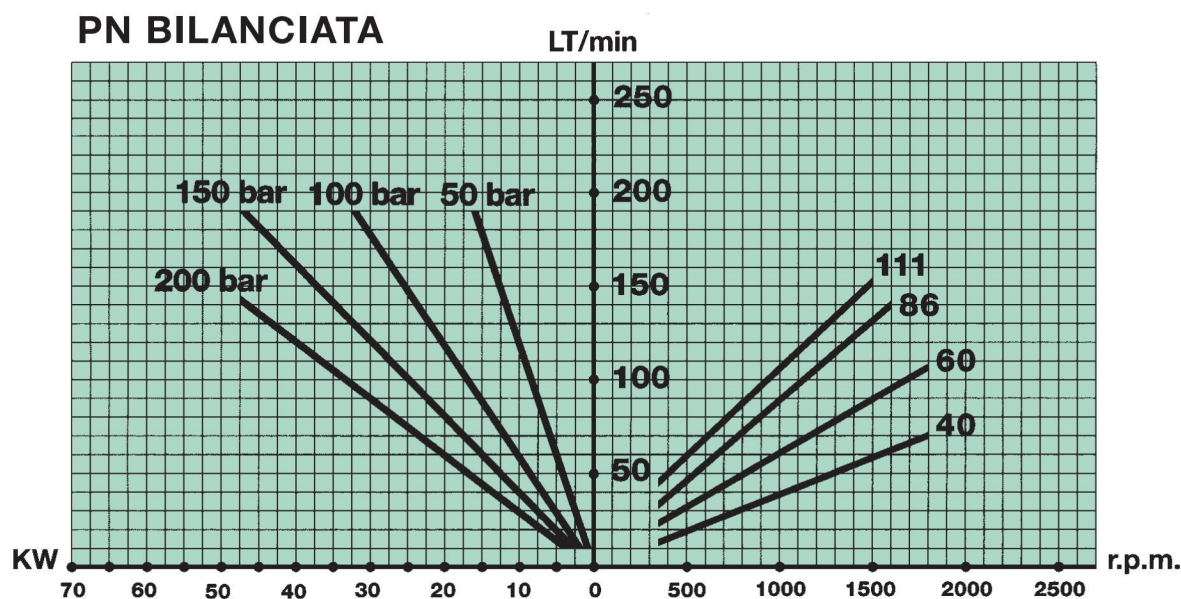
P3压力下最长工作时间5" P3: operating max for 5"

容积效率

VOLUMETRIC CAPACITY

输入功率

INPUT POWER



50°C时油粘度
Oil viscosity at 50° C

2,5 ÷ 6,5° E

过滤要求
Oil Filtration

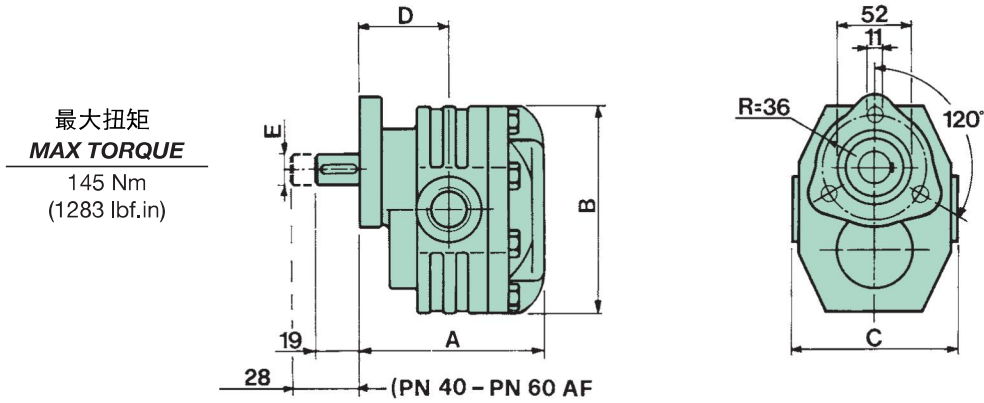
105bar 以下60 μ, 超过则40 μ
60 μ for pressure up to 105 bar - 40 μ for pressure over

油温
Oil temperature

- 10 ÷ 80° C (10 ÷ 176° F)

总体尺寸

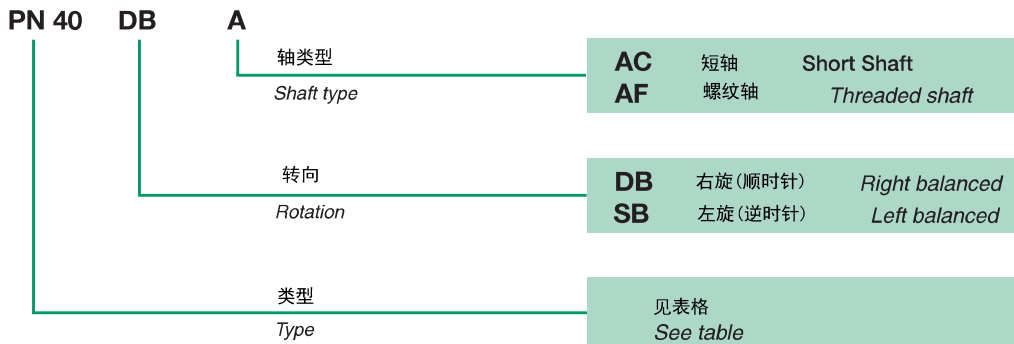
OVERALL DIMENSIONS



型号 Type	A	B	C	D	E	进口 Inlet	出口 Outlet	转向 Rotation	KG
PN 40	128	138	112	64	22	3/4" gas	3/4" gas	SB-DB	7,3
PN 60	144	138	112	67	22	1" gas	1" gas	SB-DB	8,6
PN 86	167	166	128	107	22	1" gas	1" gas	SB-DB	10,-
PN 111	177	166	128	117	22	1" gas	1" gas	SB-DB	11,3

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订货说明 - ORDERING ISTRUCTION



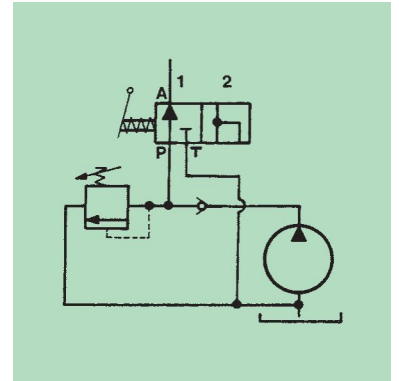
齿轮泵 GEAR PUMPS



PD

PD系列齿轮泵(单向旋转) -
PD系列泵带集成单向阀, 旁通阀和2位3通阀, 特别适用翻斗车类农用车辆, 尤其适用压力平衡的应用。

PD SERIES PUMPS (Single rotation) - These have integral check, by-pass and 3-way 2-position control valves, and are particularly suitable for dumper-type agricultural vehicles. Option of pressure-balanced versions (to order).



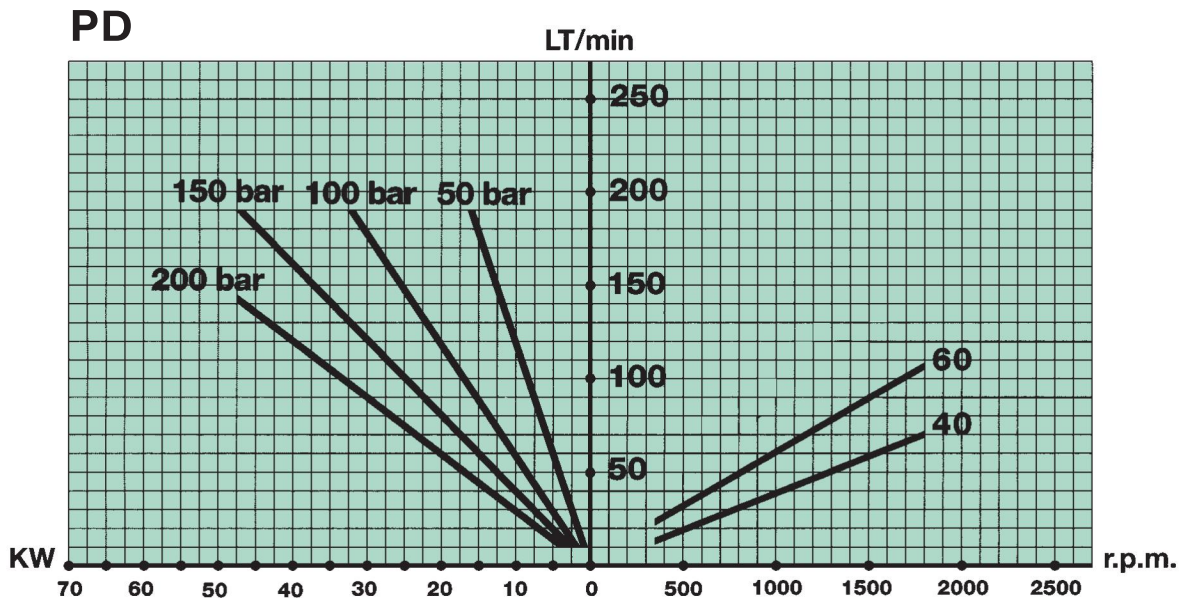
主要参数 MAIN CHARACTERISTICS

类型-Type PD		40	60
排量 Capacity	cc/rev.	38,4	60
P2 最大间歇工作压力 Max. intermittent pressure	bar	180	170
P3 峰值压力 Peak pressure	bar	210	200
P2压力下最小转速 Min. speed for P2 pressure	r.p.m.	350	350
P2压力下最大转速 Max. speed for P2 pressure	r.p.m.	1800	1800
最大空转速度 Max intermittent speed without load	r.p.m.	2100	2100

P3压力下最长运行时间为5" P3: operating max for 5"

容积效率 VOLUMETRIC CAPACITY

输入功率 INPUT POWER



50°C时油粘度
Oil viscosity at 50° C

2,5 ÷ 6,5° E

过滤要求
Oil Filtration

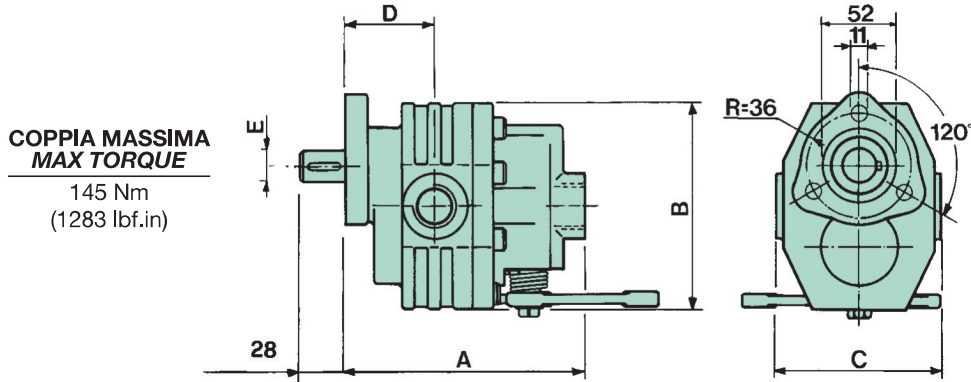
105bar 以下时为60 μ, 超过则为40 μ
60 μ for pressure up to 105 bar - 40 μ for pressure over

油温
Oil temperature

- 10 ÷ 80° C (10 ÷ 176° F)

外型尺寸

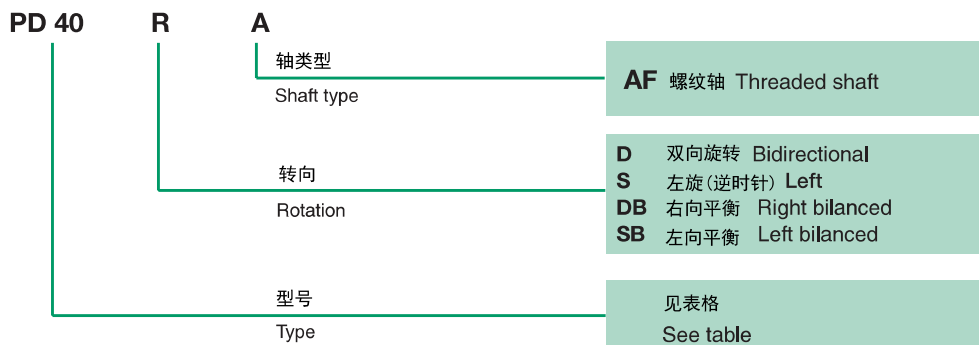
OVERALL DIMENSIONS

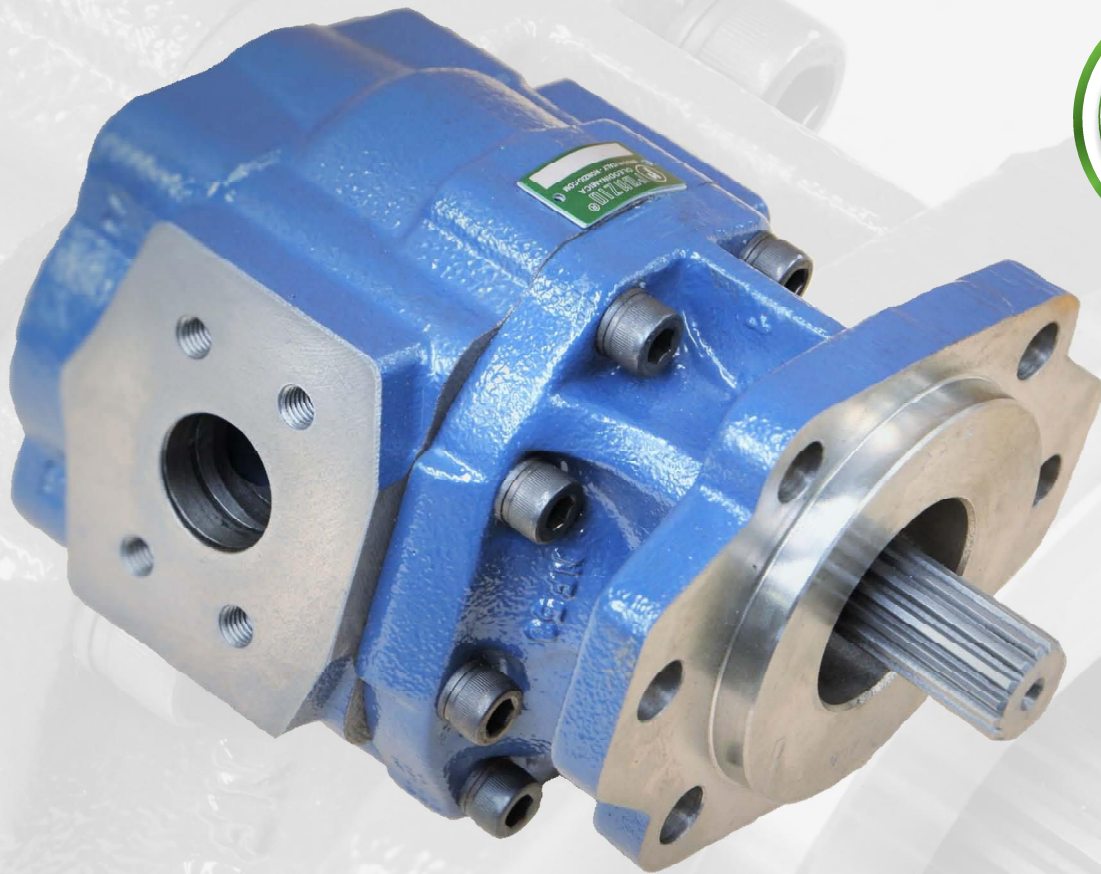


类型 Type	A	B	C	D	E	吸入 Inlet	输出 Outlet	转向 Rotation	KG
PD 40	169	138	112	64	22	3/4" gas	3/4" gas	S-D-SB-DB	8,5
PD 60	186	138	112	67	22	1" gas	3/4" gas	S-D-SB-DB	9,5

RONZIO OLEODINAMICA reserve the right to change specifications without notice.

订货说明 - ORDERING ISTRUCTION





AP 系列超高压齿轮泵/齿轮马达
HIGH PRESSURE GEAR PUMPS & MOTORS
(连续工作压力410bar，峰值压力500bar)

主要性能

MAIN CHARACTERISTICS

AP3系列

型号 - Type		20	25	30	35	40	45	50	55 *	60	64	70 *	80 *	90 *	100 *
排量 Capacity	Cm ³ /rev	20,6	25,1	30,5	35,1	40,4	45	49,6	54,9	60,3	64,8	70,2	79,3	90	100
流量 (@1500rpm) Delivery at 1500 rev./min	l/min	30,9	37,6	45,7	52,6	60,6	67,5	74,4	82,3	90,4	97,2	105,3	118,9	135	150
P1 最大连续工作压力 Max working pressure	Bar	410	410	410	410	410	410	410	380	350	325	300	270	230	210
P2 间歇工作压力 intermittent pressure	Bar	470	470	470	470	470	470	470	440	400	370	340	300	260	240
P3 最大峰值压力 Max peak pressure	Bar	500	500	500	500	500	500	500	470	430	400	370	330	290	260
P1压力下最大转速 Max speed for P1 pressure	Rpm	2800	2300	2200	1900	1700	1700	1550	1500	1500	1500	1500	1500	1500	1500

备注：选择带有*规格产品时，请咨询上海华歌实业有限公司

AP4系列

	75	90	110	130	150	200
排量 / CAPACITY cm ³ /giro	75.1	89.6	109.8	130	150.2	199.4
流量 (@1500rpm) L/min at 1000 (giri/min)	75.1	89.6	109.8	130	150.2	199.4
P1 最大连续工作压力 Max working pressure (bar)	360	360	320	280	240	180
P2 间歇工作压力 Max peak pressure (bar)	420	420	370	320	280	220
P1压力下最大转速 Max speed for P1 pressure (Rpm)	2000	1700	1500	1500	1500	1500
最大峰值压力下转速 Max speed without load (Rpm)	2500	2500	2100	2100	1900	1900
最低工作转速 Min working speed	选用直流电机时请咨询我司技术部 Please contact our technical office in case of application with DC motors					

双向旋转的泵和马达，压力降低15%

With bidirectional pumps or motors, pressure is reduced by 15%

主要性能

- ◆ 铸铁泵体
- ◆ 高压力：间断工作条件下最高压力可至470bar.
- ◆ 用压力平衡衬块进行轴向压力补偿
- ◆ 容积效率高：平均可达95%
- ◆ 新型齿轮设计，无困油现象，啮合噪音小，压力脉动低。
- ◆ 高温密封及低温密封均可提供
- ◆ 单向泵和马达
- ◆ 双向泵和马达
- ◆ 轴、法兰和配件的规格种类齐全，可适应各种特殊要求
- ◆ 可以用罗茨油压动力公司生产的铝制泵系列之间或与铸铁泵系列组成多联泵

Main Features

- *Cast iron covers and body for high performance.*
- *High pressure option up to 470 bar max. intermittent pressure (6700 psi).*
- *Axial compensation achieved using pressure balanced bushing blocks.*
- *High volumetric efficiency: average >95%*
- *“Zero” backlash gear tooth profile to reduce noise and oil pulsations.*
- *High-temperature and low-temperature seals available.*
- *Single rotational pumps and motors.*
- *Bi-rotational pumps and motors.*
- *Multiple pumps availability: tandem pumps are possible both with other series produced by Ronzio Oleodinamica.*

“AP” 系列泵使用条件

USE CONDITIONS FOR PUMPS AND MOTORS “AP3”

泵在运转时，避免给主轴在径向或轴向上加载负载。
使用弹性接合或“Oldham”结合补偿没有对准的误差，使齿轮泵位于一条直线上。
我们建议用户仔细阅读下表中的内容，从而能够正确地使用齿轮泵，延长泵的使用寿命。

Avoid radial and axial loads on the pump shaft during the use, where it happens please contact our technical department.

The pump must be in line with the P.T.O. to compensate misalignment errors, use flexible or “Oldham” coupling.

We recommend to read the specifications in this catalogue very carefully. This will help you in getting the best, in terms of working conditions and life, from Ronzio gear pumps.

使用条件

USE CONDITIONS

流体 Hydraulic fluids	矿物油 (DIN 51524) 如果要使用水乙二醇、水油乳液和磷酸酯等阻燃液体，请与我们的技术部或销售处联系。 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.			
吸入压力 Inlet pressure	0.7 - 3 bar (Assoluti / Absolute) 10 - 44 psi (Assoluti / Absolute)			
吸入管路中油速 Oil speed on suction line	0.5 ÷ 1.5 m/s			
排出管路中油速 Oil speed on pressure line	6 ÷ 10 m/s			
油温 Oil temperature	-10°C ÷ 80°C			
油粘度 Oil viscosity	20 ÷ 120 mm ² /s (Cst)			
最大启动粘度 Max starting viscosity	700 mm ² /s (Cst)			
过滤 Oil filtration	压力 (bar) Pressure (bar)	< 140	140 > 210	>210
	污染级别 NAS 1638 Contamination class NAS 1638	10	9	8
	污染级别 ISO 4406:1999 Contamination class ISO 4406:1999	21/19/16	20/18/15	19/17/14
	β ₁₀ 率 ≥ 75 - ISO16889 Ratio β ₁₀ ≥ 75 - ISO16889	//	10 μm	10 μm
	β ₂₅ 率 ≥ 200 - ISO16889 Ratio β ₂₅ ≥ 200 - ISO16889	25 μm	//	//

常见参数计算

DETERMINATION OF NOMINAL SIZE

泵
FOR PUMP

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

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

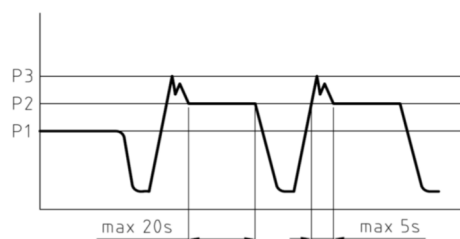
$$P = \frac{p * Q}{600 * \eta_t}$$

马达
FOR MOTOR

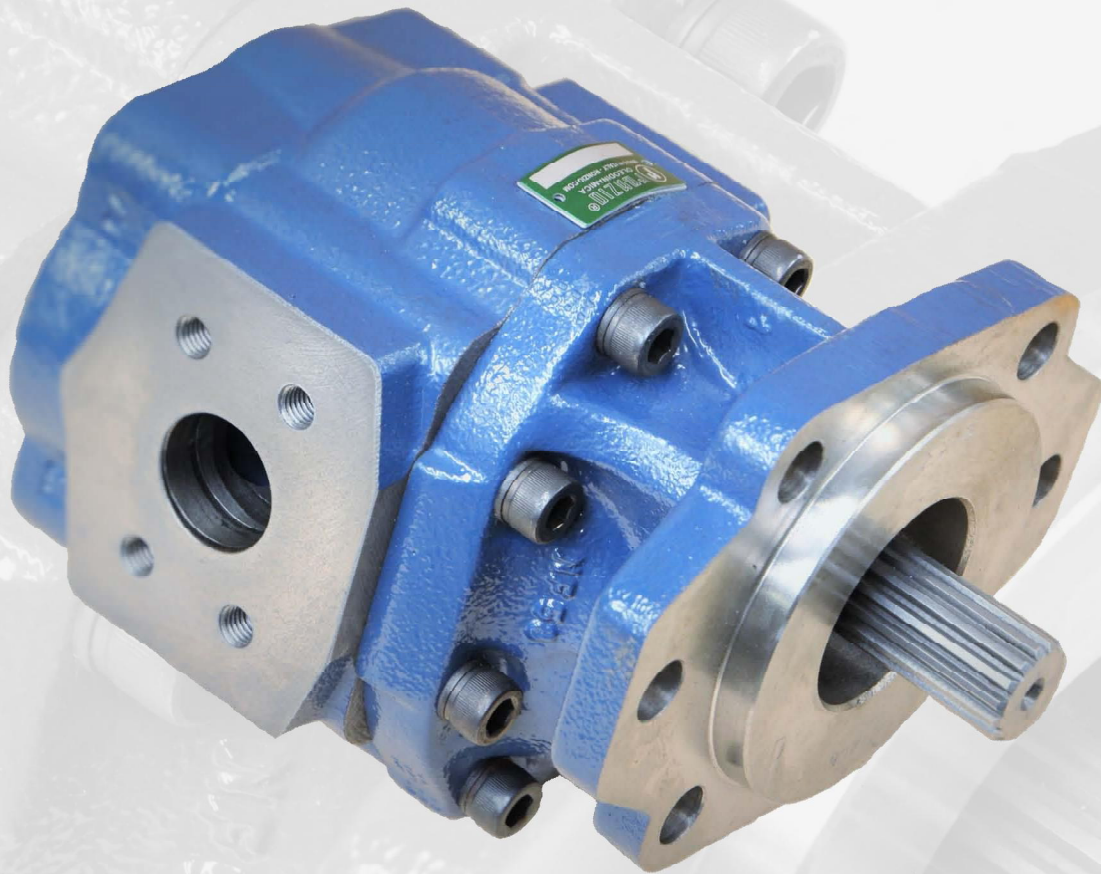
$$Q = \frac{V * n}{1000 * \eta_v}$$

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

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

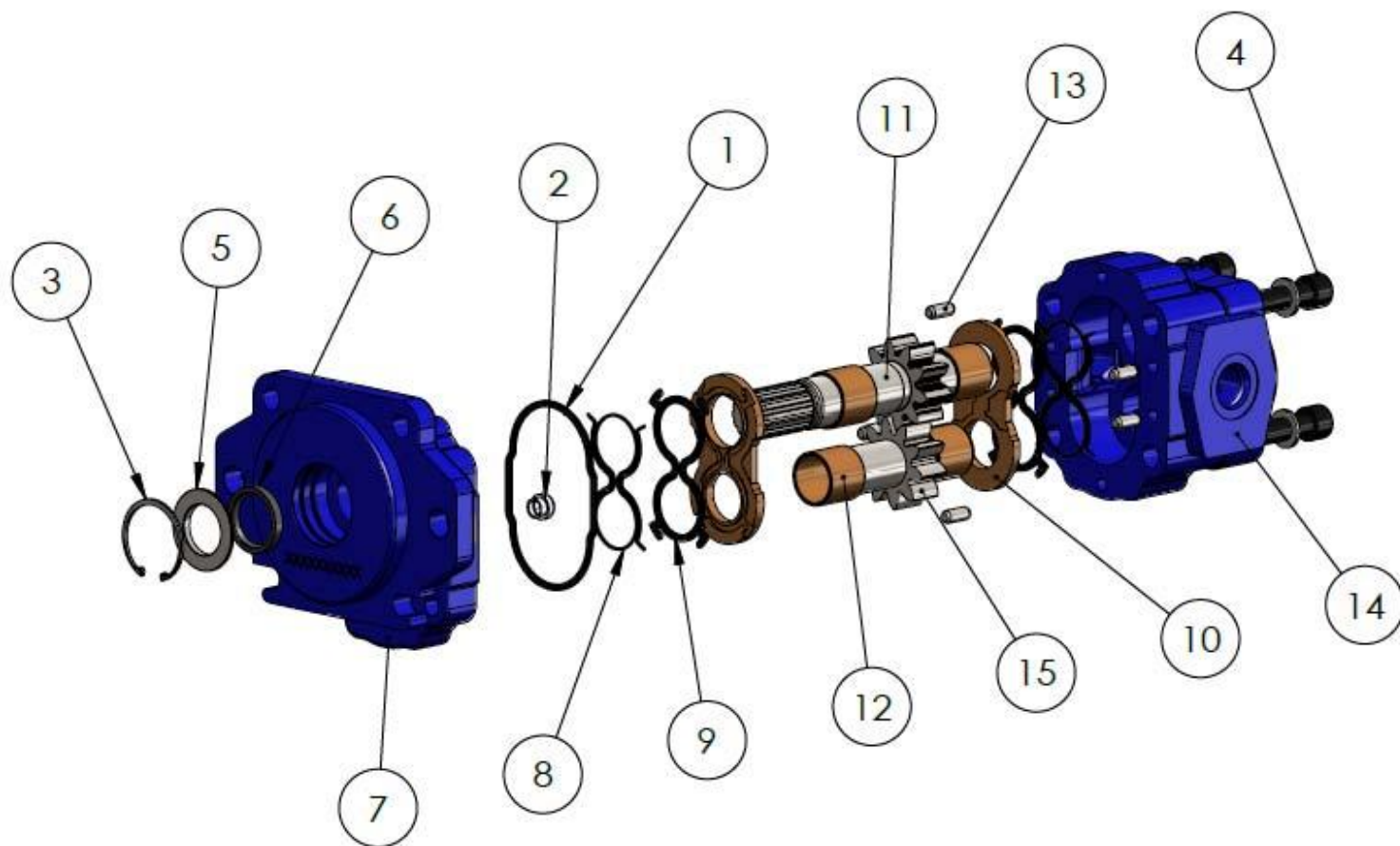


- V [cm³]
 - Q [l/min]
 - p [bar]
 - M [Nm]
 - n [min⁻¹]
 - P [Kw]
- $\eta_v = \text{EFF vol.} \geq 95$
 $\eta_m = \text{EFF mecc.} \sim 0.85$
 $\eta_t = \eta_v * \eta_m. \sim 0.8$



AP3 系列超高压齿轮泵/齿轮马达
HIGH PRESSURE GEAR PUMPS & MOTORS **AP3**
(连续工作压力410bar, 峰值压力500bar)

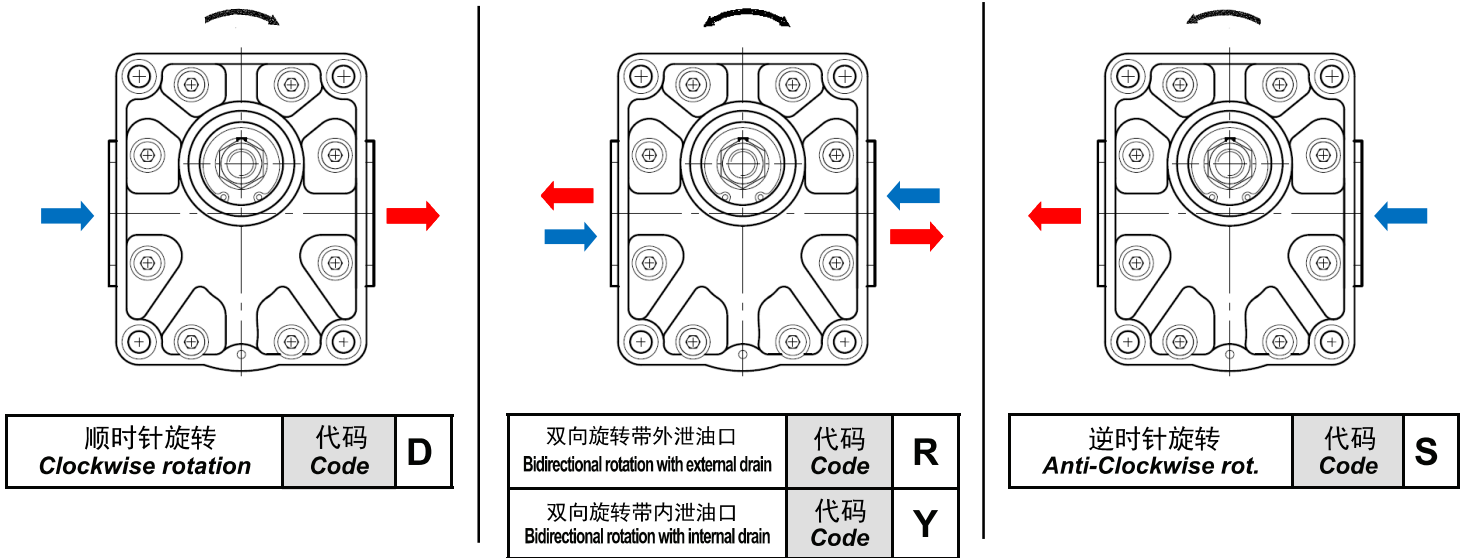
零件
PARTS



No.	说明	Description	数量
1	泵盖下封条	Under cover seal	1
2	G" 1/8埋头螺钉	Grub screw 1/8" G	1
3	卡环	Snap ring	1
4	螺栓	Bolt	8
5	轴封环	Rotary shaft seal ring	1
6	轴封	Rotary shaft seal	1
7	前法兰	Front flange	1
8	防挤压密封条	B-K seals	2
9	补偿垫圈	Compensation seal	2
10	轴衬座	Thrust plates	2
11	主动齿轮	Drive gear	1
12	轴衬	Bushing	4
13	圆柱销	Pin	6
14	泵体	Housing	1
15	从动齿轮	Idle gear	1

转向

ROTATION

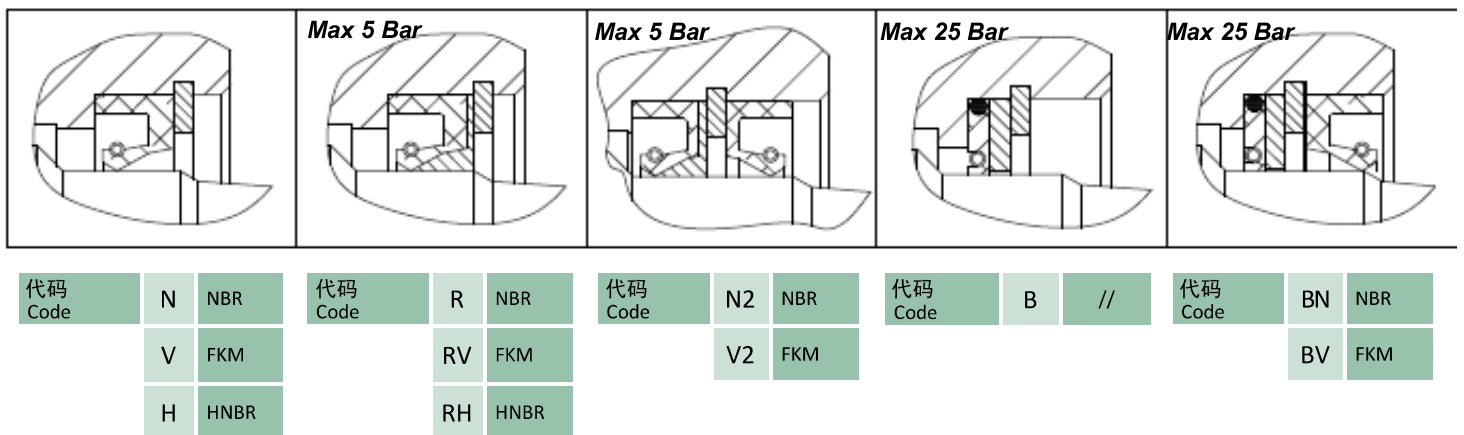


泵的转向见泵体上箭头

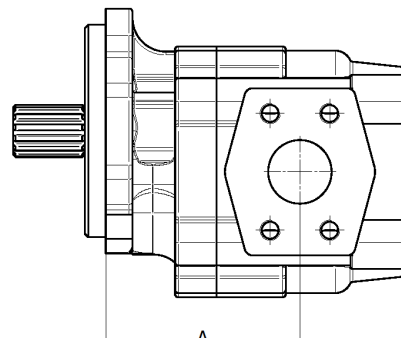
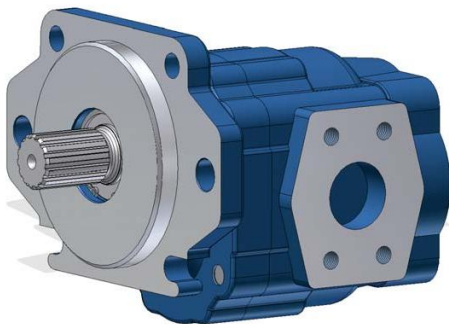
Rotation, is indicated by an arrow on the body of the pump.

轴封

SHAFT SEAL



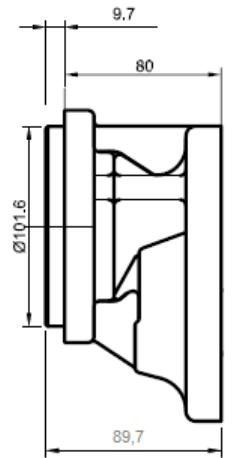
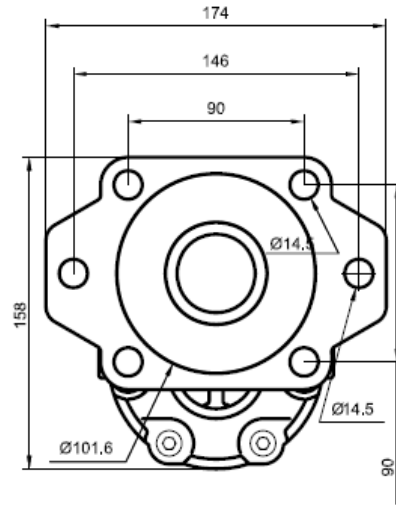
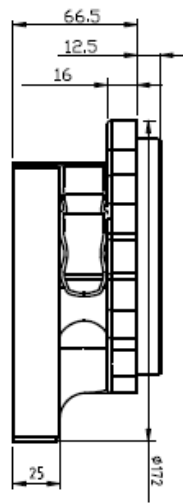
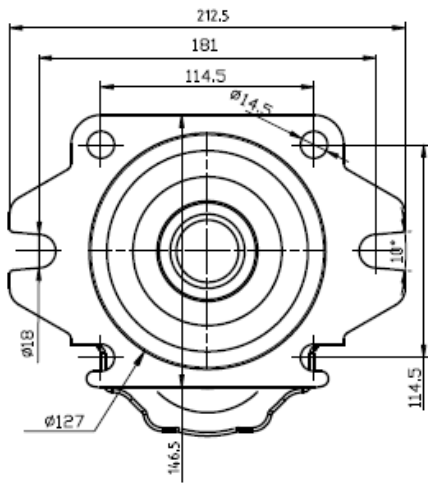
泵体尺寸图



Typo - Type		20	25	30	35	40	45	50	55	60	64	70	80	90	100
A	mm	103	106	110	112	108	110	114	116	105	107	111	116	116	
B	mm	142	145	149	152	156	158	162	165	168	170	174	180	180	

法兰

FLANGES



SAE C

代码 CODE	C	6
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推荐优先选用

代码 CODE	B	3
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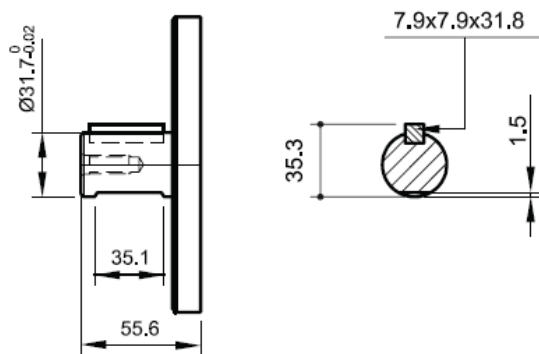
可选用

双向旋转泵或马达的后泄油口
Rear drain for bidirectional pumps or motors. R

泄油口可供：
3/8"BSPP
or
9/16"-18UNF-2B

GAS和有公制螺纹口选择：G3/8
O型圈和方型法兰口选择：9/16"-18UNF-2B

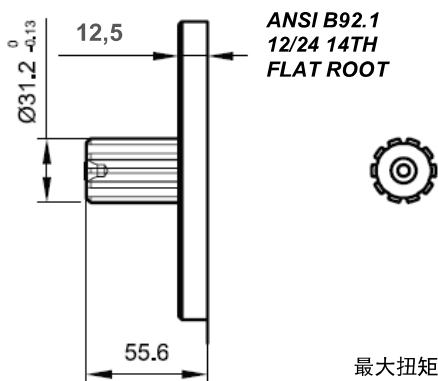
泵轴
SHAFTS



最大扭矩 600 Nm
Max torque 600 Nm

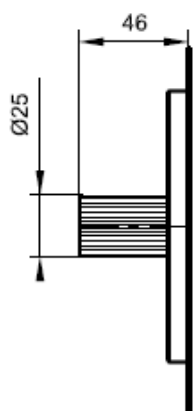
代码 CODE	P	
配法兰 / FOR FLANGE	C	6

推荐优先选用，规格不限



最大扭矩 600 Nm
Max torque 600 Nm

代码 / CODE	K	
配法兰 / FOR FLANGE	C	6



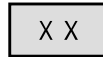
ANSI B92.1
16/32 15TH
FLAT ROOT

最大扭矩 400 Nm
Max torque 400 Nm

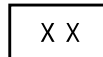
代码 / CODE	S	
配法兰 / FOR FLANGE	B	3

进出油口

INLET AND OUTLET PORTS



标准



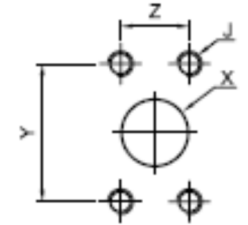
按要求



不可选

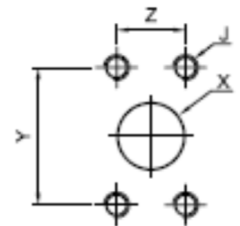
	X	Y	Z	J
A	12.5	40.49	18.24	M8
B	19	50.8	23.8	M10
C	25.4	57.15	27.76	M12
D	30.5	66.68	31.75	M14
E	39.3	79.38	36.5	M16
F	51	96.82	44.45	M20

		OUT					
IN		A	B	C	D	E	F
	A	01					
	B	02	03				
	C		04	05			
	D			06	07		
	E				08	09	
	F					010	011



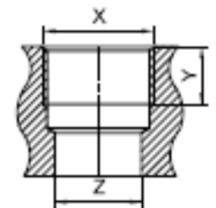
	X	Y	Z	J
A	12.5	40.49	18.24	5/16-18 UNC
B	19	50.8	23.8	3/8-16 UNC
C	25.4	57.15	27.76	7/16-14 UNC
D	30.5	66.68	31.75	1/2-13 UNC
E	39.3	79.38	36.5	5/8-11 UNC
F	51	96.82	44.45	3/4-10 UNC

		OUT					
IN		A	B	C	D	E	F
	A	012					
	B	013	014				
	C		015	016			
	D			017	018		
	E				019	020	
	F					021	022



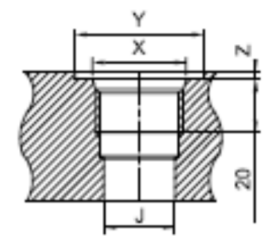
	X	Y	Z	DIMENSIONE NOMINALE
A	1" G	22	27	1
B	1" 1/4 G	22	33	1-1/4
C	1" 1/2 G	24	38	1-1/2

		OUT		
IN		A	B	C
	A	64		
	B	65	66	
	C		67	68



	DIMENSIONE NOMINALE	X	Y	Z	J
A	3/4"	1-1/16-12UN-2B	42	0.5	24.5
B	1"	1-5/16-12UN-2B	49	0.5	30.5
C	1"-1/4	15/8-12UN-2B	58	0.5	39
D	1"-1/2	1-7/8-12UN-2B	65	0.5	45

		OUT			
IN		A	B	C	D
	A	69			
	B	70	71		
	C		72	73	
	D			74	75



进出油口尺寸

INLET AND OUTLET PORTS

对应各排量标准油口代码

STANDARD PORT CODES AVAILABLE IN RELATION TO CAPACITY

86														
85														
84														
83														
82														
81														
80														
79														
78														
77														
76														
75														
74														
73														
72														
71														
70														
69														
68														
67														
66														
65														
64														
63														
62														
61														
60														
59														
58														
57														
56														
55														
54														
53														
	20	25	30	35	40	45	50	55	60	64	70	80	90	100

AP3 系列订货说明

HOW TO ORDER AP3 SINGLE UNIT

1 2 3 4 5 6 7 8

03 0 AP	M	A	55	C	0	48	S	B
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1	类型 / UNIT TYPE	代码 / CODE
	泵 / PUMP	P
	马达 / MOTOR	M

6	油口 / PORTS	代码 / CODE
	VEDI TABELLA PAG. 12 / SEE TABLE AT PAGE 12	

2 - 5	法兰 / FLANGE (PAG. 9)	代码 / CODE
	AMERICAN SAE C	C - 6
	AMERICAN SAE B	B - 3

7	旋向 / ROTATION	代码 / CODE
	DESTRO / RIGHT	D
	SINISTRO / LEFT	S
	BIDIRECTIONAL WITH INTERNAL DRAIN	Y
	BIDIRECTIONAL WITH EXTERNAL DRAIN	R

3	排量 / CAPACITY cm³	代码 / CODE
	20,6	20
	25,1	25
	30,5	30
	35,1	35
	40,4	40
	45	45
	49,6	50
	54,9	55
	60,3	60
	64,8	65
	70,2	70
	79,3	80
	90	90
	100	100

8	轴封 / SHAFT SEAL (见P9)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD VITON	V
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR VITON	RV
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL VITON	V2
	25BAR丁橡胶真空成型密封 / 25 BAR VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR VITON	BV
	70 BAR 丁橡胶 / 70 BAR NBR	A
	70 BAR 氟橡胶 / 70 BAR VITON	AV

4	泵轴 / SHAFT (PAG. 10)	代码 / CODE
	圆轴 / STRAIGHT Ø31.7	P
	ANSI B92.1 14TH 12/24 DP	K
	ANSI B92.1 15TH 16/32 DP	S

需要双联齿轮泵请咨询上海华歌实业有限公司.



中国总代理：上海华歌实业有限公司



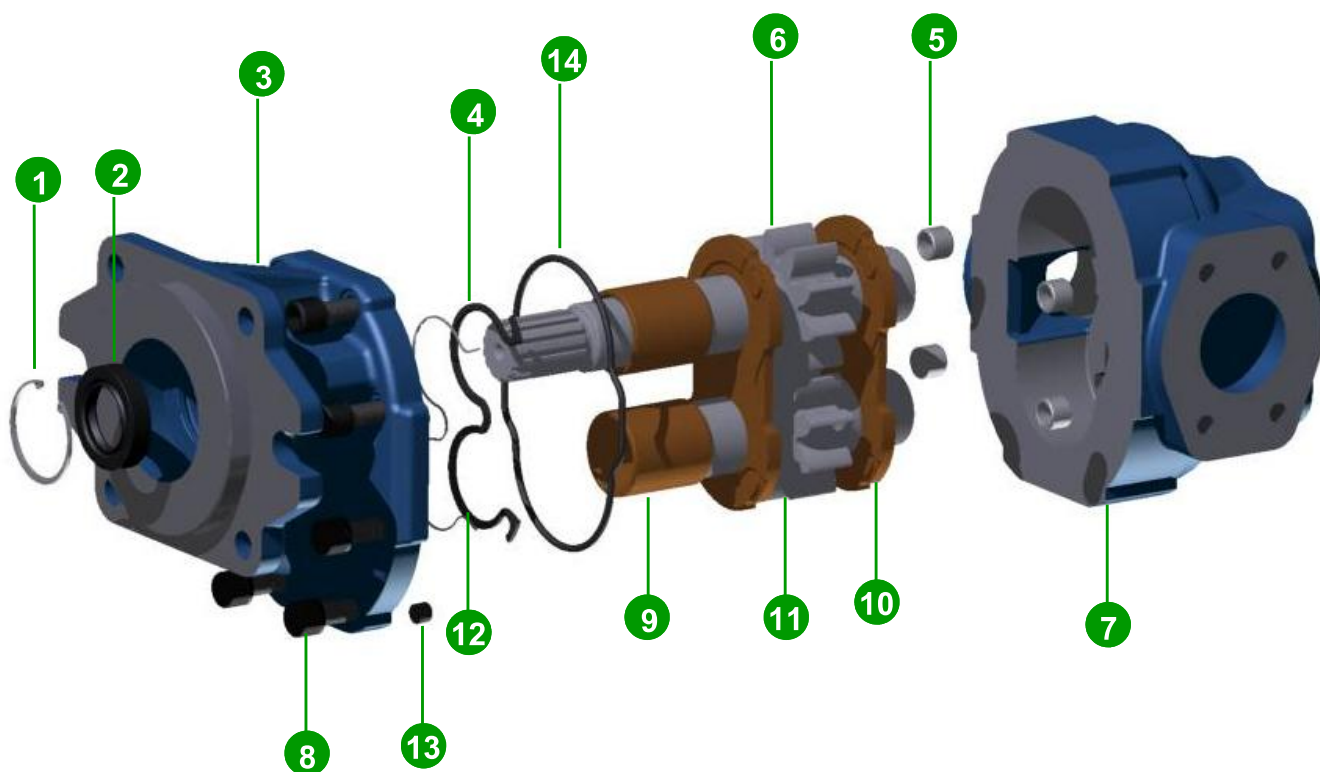
AP4 系列超高压齿轮泵/齿轮马达
HIGH PRESSURE GEAR PUMPS & MOTORS **AP4**

意大利制造
MADE IN ITALY



AP4 系列部件

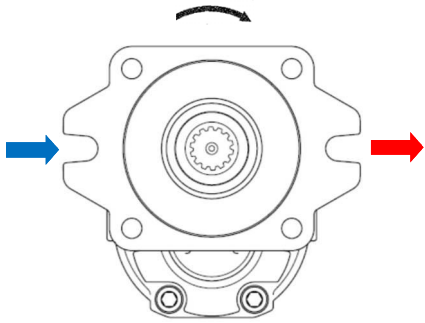
PARTS



Rif.	Descrizione	Description	Qt.
1	卡环	Snap ring	1
2	轴封环	Rotary shaft seal	1
3	法兰	Flange	1
4	补偿垫圈	Compensation seal	2
5	圆柱销	Pin	4
6	主动齿轮	Drive gear	1
7	泵体	Housing	1
8	螺栓	Bolt	8
9	轴衬	Bushing	4
10	轴衬座	Thrust plate	2
11	从动齿轮	Idle gear	1
12	防挤压密封条	B-K seals	2
13	G" 1/8埋头螺钉	Grub screw 1/8"G	1
14	泵盖下封条	Under cover seal	1

转向

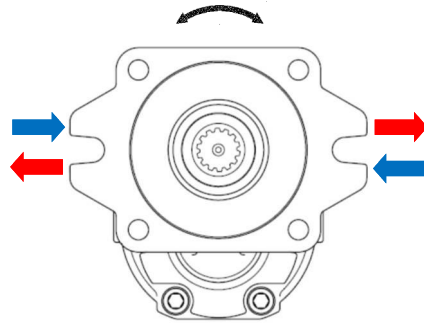
ROTATION



顺时针旋转
Clockwise rotation

代码
Code

D



双向旋转带外泄油口
Bidirectional rotation with external drain

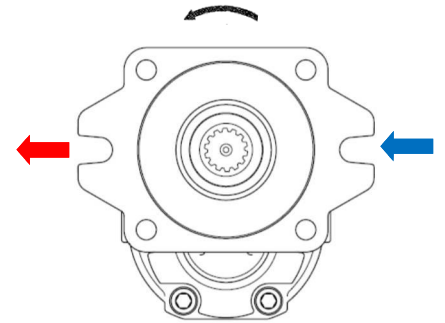
代码
Code

R

双向旋转带内泄油口
Bidirectional rotation with internal drain

代码
Code

Y



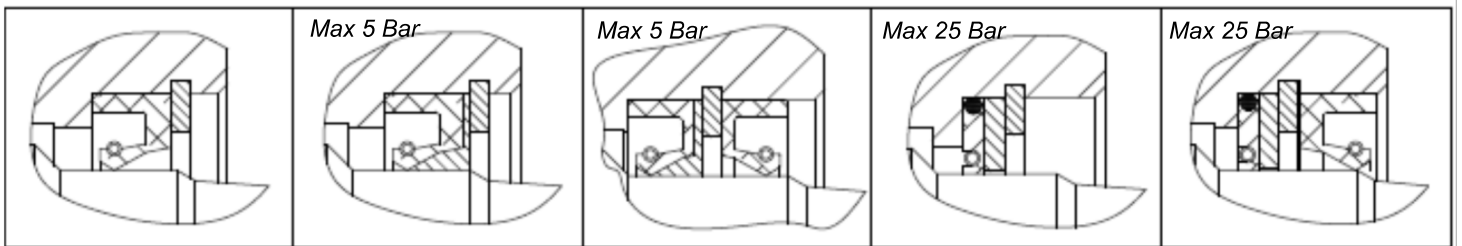
逆时针旋转
Anti-Clockwise rotation

代码
Code

S

轴封

SHAFT SEAL



代码 Code	N	NBR
	V	FKM
	H	HNBR

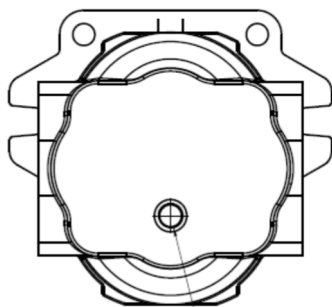
代码 Code	R	NBR
	RV	FKM
	RH	HNBR

代码 Code	N2	NBR
	V2	FKM

代码 Code	B	NBR
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代码 Code	BN	NBR
	BV	FKM

GAS和有公制螺纹口选择: G3/8
O型圈和方型法兰口选择: 9/16-18UNF-2B
G 3/8" FOR GAS AND METRIC PORTS.
9/16-18UNF-2B FOR O-RING BOSS AND SPLIT PORTS.

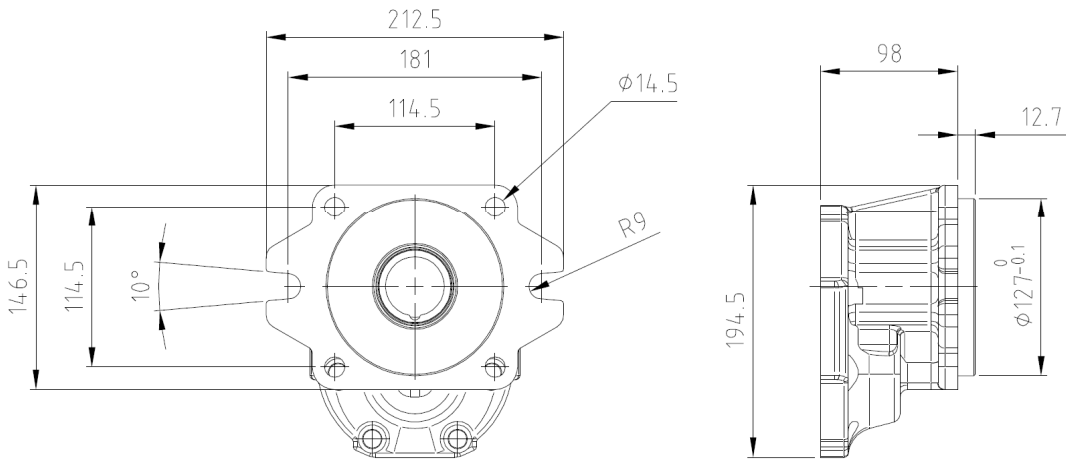


G 3/8" - 9/16-18UNF-2B

配双向旋转泵或马达的后泄油口
Rear drain for bidirectional pumps or motors

R

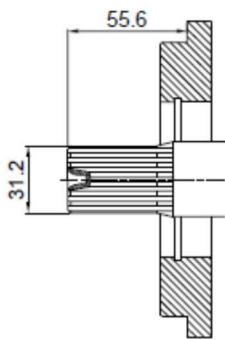
法兰
FLANGES



代码 CODE	C 6
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NOTA: Materiale Ghisa
NOTE: Material Cast iron

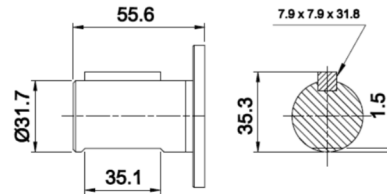
泵轴
SHAFTS



ANSI B92.1
SAE C 14 teeth
12/24 DP
Flat root

最大扭矩 900Nm
MAX TORQUE 900Nm

代码/ CODE	K
配法兰/ FOR FLANGE	C 6



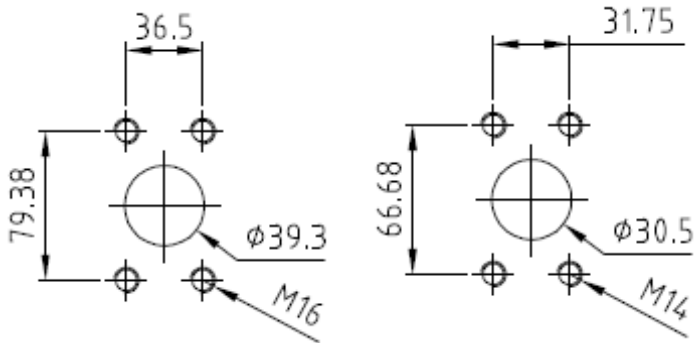
最大扭矩 600Nm
MAX TORQUE 600Nm

代码/ CODE	P
配法兰/ FOR FLANGE	C 6

进出油口

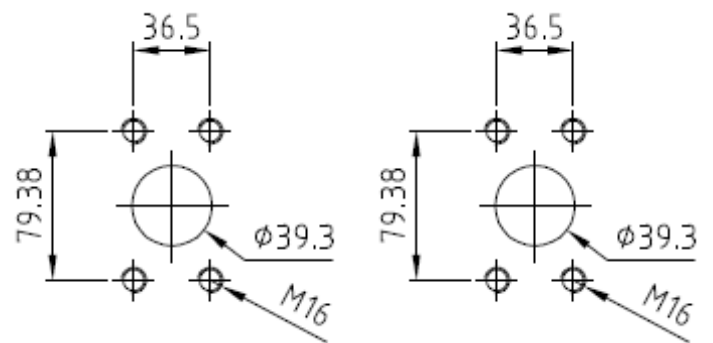
SIDE INLET AND OUTLET PORTS

进口 INLET	出口 OUTLET
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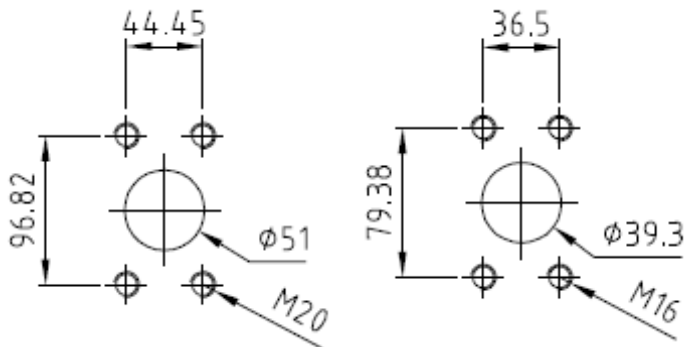


代码 CODE	40
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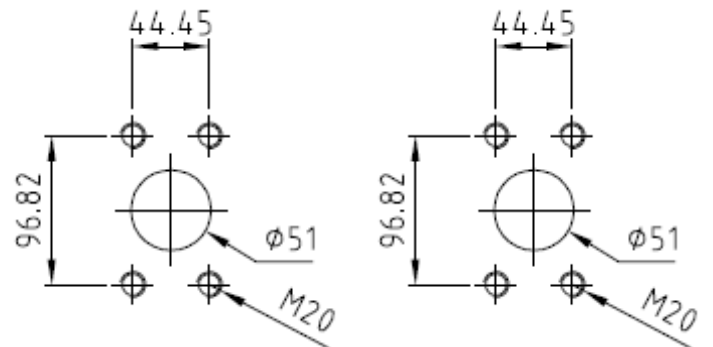
进口 INLET	出口 OUTLET
-------------	--------------



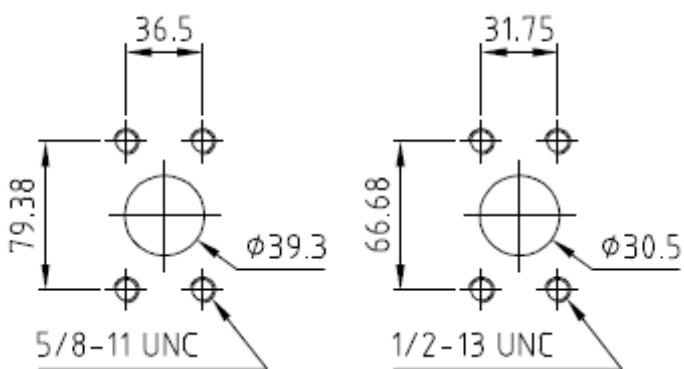
代码 CODE	41
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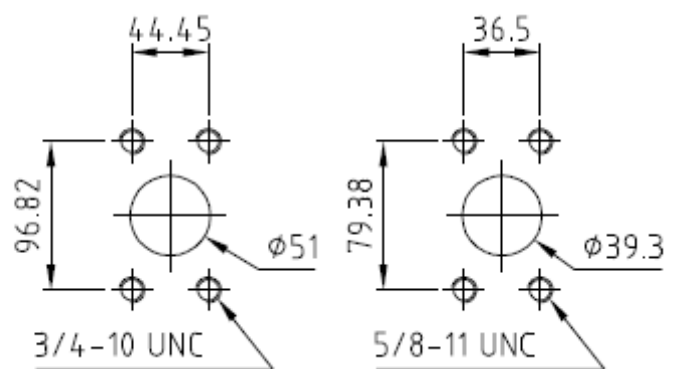
代码 CODE	42
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代码 CODE	43
------------	----



代码 CODE	50
------------	----



代码 CODE	52
------------	----

对应各排量标准油口代码

STANDARD PORT CODES AVAILABLE IN RELATION TO CAPACITY

52						
51						
50						
43						
42						
41						
40						
35						
	75	90	110	130	150	190

AP4 系列订货说明

HOW TO ORDER AP4 SINGLE UNIT

	1	2	3	4	5	6	7	8
04 0 AP	M	A	75	C	6	50	S	N

1	类型 / UNIT TYPE	代码 / CODE
	泵 / PUMP	P
	马达 / MOTOR	M

2 - 5	法兰 / FLANGE (PAG. 9)	代码 / CODE
	AMERICAN SAE C	C - 6

3	排量 / CAPACITY cm ³	代码 / CODE
	75.1	75
	89.6	90
	109.8	110
	130	130
	150.2	150
	199.4	200

4	泵轴 / SHAFT (PAG. 11)	代码 / CODE
	ANSI B92.1 SAE C 14TH 12/24 FLAT ROOT	K
	圆轴 / STRAIGHT Ø31.7	P

需要双联齿轮泵请咨询上海华歌实业有限公司.

6	油口 / PORTS	代码 / CODE
	VEDI TABELLA PAG. 11 / SEE TABLE AT PAGE 11	

7	旋向 / ROTATION	代码 / CODE
	右 / RIGHT	D
	左 / LEFT	S
	BIDIRECTIONAL WITH INTERNAL DRAIN	Y
	BIDIRECTIONAL WITH EXTERNAL DRAIN	R

8	轴封 / SHAFT SEAL (PAG. 7)	代码 / CODE
	标准 / STANDARD	N
	标准氟橡胶 / STANDARD FKM	V
	标准丁腈橡胶 / STANDARD HNBR	H
	5 BAR 丁橡胶 / 5 BAR NBR	R
	5 BAR 氟橡胶 / 5 BAR FKM	RV
	5 BAR 丁腈橡胶 / 5 BAR HNBR	RH
	双层丁橡胶密封 / DOUBLE SEAL NBR	N2
	双层氟橡胶密封 / DOUBLE SEAL FKM	V2
	丁橡胶真空成型密封 / VARISEAL NBR	B
	25 BAR 丁橡胶 / 25 BAR NBR	BN
	25 BAR 氟橡胶 / 25 BAR FKM	BV

Ronzio其他系列产品概述

齿轮同步马达



铝合金体和铸铁体齿轮流量同步分流马达

铝合金体同步精度为 1.5%–2.5% ， 铸铁体同步精度为 2.5%–3.5%

意大利: RONZIO



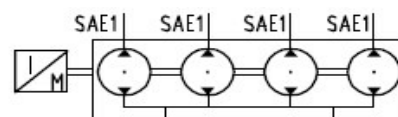
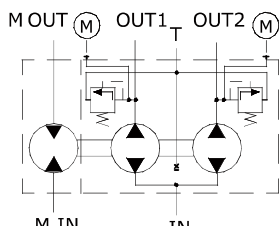
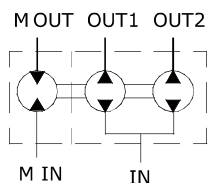
铸铁体分流器，介质是水乙二醇等低粘度介质时，工作压力可到160bar，这是其他品牌难以做到的。

型号	每片排量 (cc/rev)	每片最小排量 (l/min)	每片最大排量 (l/min)	高噪声下每片峰值流量 (l/min)	额定压力 (bar)	峰值压力 (bar)	片间峰值压差 (bar)
铝合金体							
**FDRA05-..-17	0.17	0.2	1.0	1.5	210	230	200
**FDRA05-..-33	0.4	0.4	1.3	1.6	250	270	200
FDRA05-..-05	0.49	0.6	2	2.5	250	270	200
FDRA05-..-10	0.99	0.8	3	4	210	250	200
FDRA05-..-15	1.53	1	4	5.5	180	230	200
FDRA05-..-19	1.99	1.2	4.8	6.3	150	170	200
FDRA1-..-37	3.68	1.5	9	11	220	250	200
FDRA1-..-42	4.2	1.6	9	10	220	250	200
FDRA1-..-48	4.79	2	12	14	220	230	200
**FDRA1-..-55	5.5	2.2	12	14	200	230	200
FDRA1-..-62	6.2	3	16	17.5	160	200	180
FDRA2-..-06	6.28	3.5	16	18	280	300	200
FDRA2-..-08	8.16	3.5	19	20	280	300	200
FDRA2-..-11	11.3	5.5	25	27	280	300	200
FDRA2-..-14	14.45	6.0	32	39	260	290	200
FDRA2-..-17	16.95	8.5	34	37	260	290	200
FDRA2-..-25	25.75	12	48	53	220	260	150
FDRA2-..-31	31.4	14	60	65	190	220	150
铸铁体							
FDRC2-..-08	8.16	4.8	20	22	280	300	200
FDRC2-..-15	15.4	4.8	38	36	260	280	190
FDRC2-..-25	26.4	12	48	53	200	220	150
FDRC3-..-25	24.9	12	66	70	270	290	200
FDRC3-..-35	34.3	18	74	83	270	290	200
FDRC3-..-55	54.5	24	108	108	250	270	200
FDRC3-..-80	78.7	50	135	142	230	250	200
FDRC4-..-110	105.4	60	160	200	260	280	200
FDRC4-..-150	149.7	80	200	250	210	240	200
FDRC4-..-250	250	160	330	400	190	220	200

特别提示:

- 一. Ronzio公司可以提供差分同步分流马达: 差分比是同系列马达之间排量比值,例如: FDRA01037 2NV+ 01062 2NV (差分比大约为: 1: 1.70)
- 二. Ronzio公司可以提供: 同步分流马达 + 齿轮马达类产品, 但同步分流马达与齿轮马达需要是同一系列产品。

见液压原理图:



示例: FDRA010374WVR+01xxM (xx可以是: 3.7; 4.2; 4.8; 5.5; 6.2 ml/rev)

*在选择这些规格前, 请咨询上海华歌实业有限公司

上海华歌实业有限公司代理的其他品牌及产品简介











螺杆泵



Seim 三螺杆泵 双螺杆泵 流量计 安全阀

- SEIM公司位于意大利米兰，有35年以上的螺杆泵生产历史，是世界上最主要的螺杆泵生产商，每年生产50000台以上。
- 广泛应用于：电力工业，石油化工，造纸，钢铁，润滑，液压系统等，同时根据用户要求可以提供符合API676和各种船舶证书标准的螺杆泵，产品100%出厂检测。

一般工业应用:

型号	输出流量 (L/min)	输出压力 (bar)	介质粘度 (cst)	吸入压力 (bar)	内置安全阀	推荐行业	泵体材料	安装形式	外观
YPQJ 泵	3 ~ 38	~ 10	10 ~ 400	-0.2 ~ +1.0	默认带阀, 可按要求不带	润滑、动力、循环	铝合金	水平/竖直安装	
YPDA 泵	21 ~ 160	~ 10	20 ~ 400 ④	-0.4 ~ +2.0	带阀	润滑、循环	铝合金	水平/竖直安装	
YPDK 泵	80 ~ 460	~ 16	20 ~ 400 ④	-0.4 ~ +2.0	带阀	润滑、循环	铝合金	水平/竖直安装	
HPA 泵	10 ~ 850	~ 50(最高75)	10 ~ 400 ④	①	不带阀	润滑、动力、循环	铝合金	只能浸油安装	
YPA 泵	10 ~ 850	~50 (最高75)	10 ~ 400	①	不带阀	润滑、动力、循环	铝合金	只能浸油安装	
YPXF 泵	27 ~ 4000	~30 (最高40bar) ②	10 ~ 400 ④	-0.5 ~ +10.0	默认不带阀, 可按要求带	润滑、动力、循环、燃油输送	铸铁/可提供铸钢	水平/竖直安装和 PTO 联接	
YPZ 泵	50 ~ 5400	~ 16	10 ~ 400 ④	-0.5 ~ +10.0	默认带阀, 可按要求不带	润滑、动力、循环、燃油输送	铸铁	水平/竖直安装和 PTO 联接	
YPWKS YPZKS 泵	5~9000	~ 150	1~32	0~10	按要求提供安全阀	煤油、燃油输送 航空液压油	铝合金 铸铁	水平/竖直安装	
YPOF/ YPWOP 泵	20 ~ 1500	~ 120	10 ~ 400	-0.5 ~ +10.0	不带阀	动力、燃油输送	铝合金泵体 +铸铁法兰	水平/竖直安装	
YVPMI/YVV P 安全阀	20 ~ 10000	2 ~ 320	10 ~ 500			润滑、动力、循环、燃油输送	铸铁	法兰/管式安装	
YMPVB 流量计	0.9 ~ 900	~ 400	1 ~ 5000			润滑、动力、循环、燃油输送	碳钢	管式安装	
YPB/ YPWO 泵	0~1500	~ 150	1~32	0~10	按要求提供安全阀	机床乳化液、冷却油等	铸铁	水平/竖直安装	

备注:

- 更详细的产品参数请查阅产品样本。对于超出图表样本的数据，可联系上海华歌实业有限公司销售部。
- SEIM公司能按客户要求提供超出产品样本数据的螺杆泵，如有需要请联系上海华歌实业有限公司销售部。
- 标记①只能浸油安装；标记②YPXF032~YPXF072最高压力30bar，特殊要求可到40bar，YPXF083~YPXF156压力可到16bar。标记③使用介质粘度为(10~5000) cSt时，输出压力~8bar。标记④按要求可适用粘度(1.2~5000) cSt。
- YVPMI 适应介质粘度 < 400cst, 对于≥400cst介质，请选用YVMP阀

上海华歌实业有限公司代理的其他品牌及产品简介 螺杆泵



Seim 三螺杆泵 双螺杆泵 流量计 安全阀

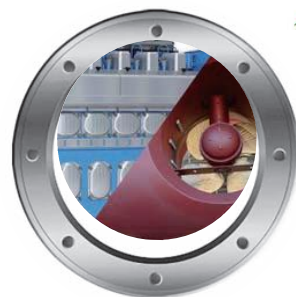
SEIM 在船舶行业的应用



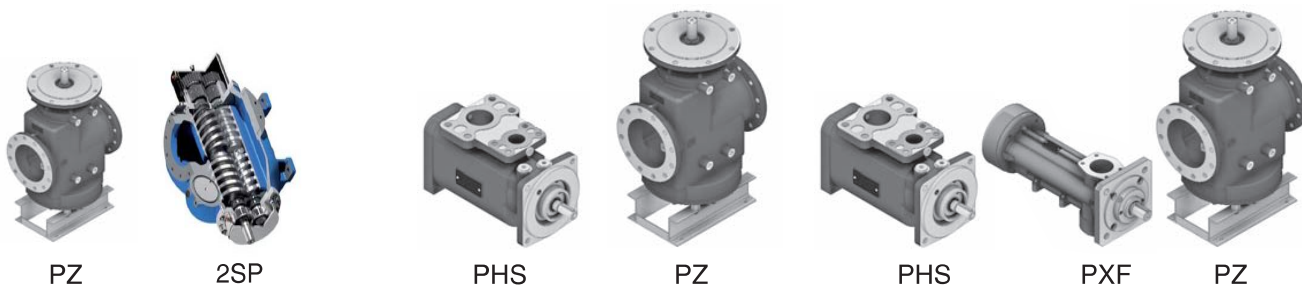
货油、运输



动力室：增压、分离



润滑：引擎、推进器和齿轮箱



锅炉/焚烧炉



液压系统



带载，不带载和扫仓



PO/PWO



POF/PWOF



2SP/2SP-LS

机床行业的应用

中心主轴高压出水冷却 高压断削 深孔冷却 高压磨削



摆动油缸



螺旋式液压摆动缸（马达）

MOVECO 公司1988年成立于意大利工业中心米兰，经过20多年的发展，目前公司已成为螺旋式摆动油缸的世界主要供应商之一，产品覆盖全球各个地区，不同领域，如：高空平台类机械、路面机械、矿山隧道类机械、环卫机械、建筑机械、加工中心、农林机械、海事工业、阀门控制以及其它需要一定角度旋转的机械中。

MOVECO 液压摆动缸（执行器）设计和制造的概念很简单：把活塞直线运动转换为旋转轴转动输出，活塞外表面带有一组螺旋齿与缸体内表面的螺旋齿匹配，加工在活塞内表面的螺旋齿与输出轴上的螺旋齿啮合。



ARC/ARP/ARM/ARR 系列摆动缸



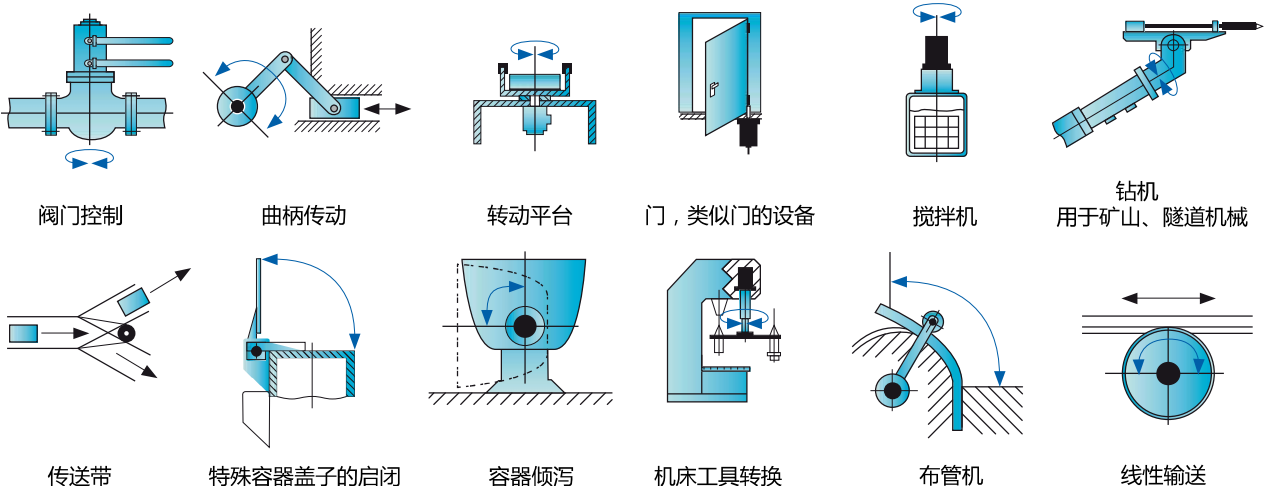
- 最大扭矩120,000Nm，标准摆角90° /180° /270° /360°，可定制特殊摆角。
- 最大工作压力250bar，可承受最大200,000N的轴向负载。

ARL/ARS 液动阀门执行器



- 应用：球阀和蝶阀的自动液控装置
- 技术范围：最小工作压力30bar，最大工作压力210bar
- 摆角：90 ± 1°
- 工作温度：-20~80℃
- 执行：双作用，单作用
- 连接标准：ISO 5211

应用示意图



上海华歌实业有限公司代理的其他品牌及产品简介



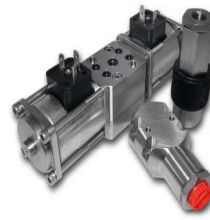
液压阀/手动泵
意大利



水压泵



水压马达



水压阀



水压泵/阀/马达/连接件



水压比例阀



水压同步分流器



反渗透能量回收装置



压力/流量/液位/温度
(开关-传感器)
德国



压力/流量/液位/温度
(开关-传感器)
德国



防脉动消声器
意大利



全面的液压产品/液压附件/电子产品/冷却与润滑泵

 <p>齿轮泵/马达/同步分流器 超高压齿轮泵/马达 静音斜齿轮泵/马达</p>	 <p>柱塞分流马达/叶片摆动马达</p>	 <p>螺线摆动缸/阀门执行器</p>
 <p>螺杆泵/机床高压冷却泵/流量计</p>	 <p>机床高压冷却装置</p>	 <p>变量叶片泵</p>
 <p>液压阀/手动泵</p>	 <p>水压泵/马达/阀 反渗透节能单元</p>	 <p>防脉动消声器</p>
 <p>速大扭矩液压马达</p>	 <p>测低压接头/测压软管</p>	 <p>液控阀门 液控阀门执行器动力单元</p>
 <p>润滑/输送/计量齿轮泵</p>	 <p>压力开关/传感器</p>	 <p>全面液压产品</p>

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