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威克斯液压

VICKS HYDRAULIC

叶片泵 · 伺服系统

Vane Pumps Servo system





工厂实景/Factory Live-action



关于我们

宁波威克斯液压有限公司创始于2007年，是一家拥有多项发明专利的国家高新技术企业，拥有6条世界领先的叶片泵生产检测流水线。年产叶片泵8万多台、节能伺服系统1万多套。

公司是叶片泵行业标准修订主持单位。荣获中国液气密行业技术进步奖、区长质量奖和国家创新基金项目支持。

公司通过长期与国外知名液压企业OEM合作，拥有T6、T7、V、VQ、V10、V20、SQP、PV2R叶片泵及M3B、M4C、M4D、M4E、25M、35M、45M、50M叶片马达的核心技术。首创ABT系列伺服叶片泵和35Mpa超高压叶片泵。产品通过挪威DNV、美国ABS、法国BV、英国LR、中国CCS等世界五大权威船级社认证，批量应用于军工行业。

公司是台湾台达、奥地利KEBA产品行业总渠道商。是非仕、韵升伺服电机及海天驱动日本住友泵的战略合作伙伴。

公司坚持引进、创新、超越的发展之路和优质、高效、低耗、安全的经营理念，打造世界著名的液压泵制造商及伺服节能成套解决方案专家。

公司以学习、和谐、坚持、专业为企业文化，倡导至真、至善、至美的价值观和开明开拓、和谐和乐的精神。

ABOUT US

Ningbo Vicks Hydraulic Co.,Ltd. was founded in 2007, is a national high-tech enterprise with several invention patents. There are 6 world leading production and testing lines for vane pump. With an annual output of more than 80,000 pcs vane pump and 10,000 sets energy-saving servo system.

Our company is the presiding unit of vane pump industry standard revision. And we won the 2016 China Hydraulics Pneumatics & Seals Industry progress award and the 2017 Fenghua District Government Quality Award, and National Innovation Fund Project Support.

Our company has been working with famous hydraulic enterprises abroad for long time, have T6、T7、V、VQ、V10、V20、SQP、PV2R series vane pumps and the core technology of M3B、M4C、M4D、M4E、25M、35M、45M、50M vane motor. We Pioneered ABT series servo vane pumps and 35Mpa ultra high pressure vane pump. Our products have passed the Chinese CCS、Norway DNV、American ABS、French BV and British LR classification society certification, and batch applied to the military industry.

Our company is the general channel business of Taiwan Delta, Austria KEBA product industry. It's the strategic partner of Phase servo motor, Yunshen servo motor, Haitian drive and Sumitomo pump.

Ningbo Vicks adhering to the development path of introduction, innovation and transcendence, and the business philosophy of high quality, high efficiency, low consumption, safety. Our company has become a world-renowned hydraulic pump manufacturer and one-stop solution expert of servo energy saving.

Our company takes learning, harmony, persistence and professionalism as its corporation culture, and advocates the values of truth, goodness and beauty as well as the open-minded, harmonious and happy spirit .



办公区/Office



科研中心/Scientific Research Centre



生活区/Staff Living Area



活动中心/Activity Center

叶片泵 · 伺服系统

Vane Pumps Servo system

MVICKS®



 台湾台达	 奥地利科霸	 菲仕电机	 韵升股份
 意大利杰佛伦	 日本住友	 以色列ACS	 美国艾伯特(ABT)流体动力

战略合作
Strategic Cooperative

 China Shipbuilding 中船重工	 中联重科	 美国卡特彼勒	 法因股份
 HAITIAN Drive Systems	 力勁集團 L.K. GROUP	 Golden Eagle Stock 金鹰股份	 三申
 BORCHE 博创 博创智能装备	 KAI MING 佳明机器	 宝捷精机 Powerjet	 博纳机械 BONA MACHINERY
 LS	 LVA 涌华	 GST 康思达	 Delhi 德力士
 Huade 华德液压	 捷迅机械设备 CHIT SHUN	 HJYYOY 晋江火炬油压机械	 TIENKANG 台湾天岗精机

Honorary Certificate

荣誉证书

科研合作高校 / Cooperation of colleges



Zhejiang University



Zhejiang University of Technology



National high and new technology enterprise



The mayor quality award



The municipal scientific research center



The national ministry of science and technology innovation fund support



Progress prize in national industry



Innovative companies



China famous brand product



Quality management system certification



Association of high and new technology enterprises



National fluid laboratory testing certificate



National center for plastics machinery testing certificate



Association of hydraulic industry



HPSA membership certificate



Association of high and new technology enterprises

船级社认证 / Classification society certification



挪威 / Norwegian DNV



美国 / American ABS



法国 / French BV



中国 / China CCS

Production Testing Equipment

生产检测设备



数控曲线、槽磨床生产线 / CNC Machines, groove grinding machine production line



美国海克斯康三坐标测量仪
Hexagon 3D Coordinate Instrument



日本马扎克机床 / Japanes Mazak CNC



韩国AM公司双端面磨床
Korean AM Paralled Surface Grinding Machine



伺服泵全自动测试平台 / Servo pump automatic test platform



电机功率250KW 转速3000r/min 超大功率叶片泵全自动测试平台
Full automatic testing platform for vane pump with motor power of 250KW speed of 3000r/min



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T6, T7 系列柱销式叶片泵 Series pin Vane Pumps

适用于塑胶机械、压铸机械、冶金机械、炼油机械、压力机械、工程机械及船舶机械等的高压高性能柱销式叶片泵。

High pressure and high performance dowel pin type vane pumps are widely used for plastic machinery, casting machinery, metallurgy machinery, pressing machinery, refining machinery, construction machinery, marine-Machinery.

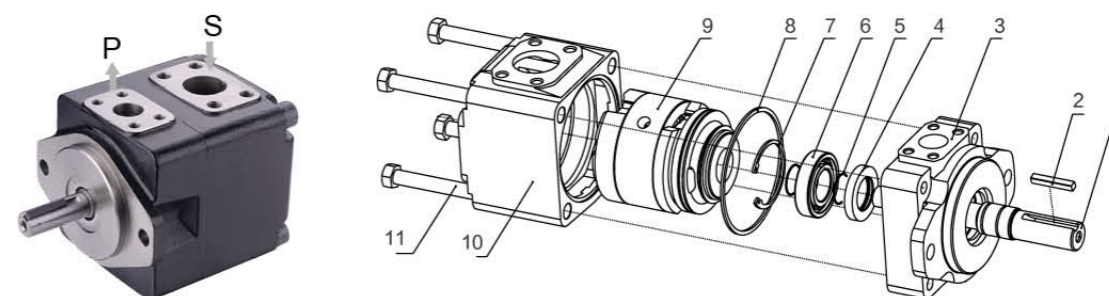
主要特点为:

- 1、采用柱销式叶片结构，其工作压力更高，噪声更低，寿命更长。
- 2、适应液压介质的粘度范围大，能在低温下启动和高温下运行。
- 3、采用双层结构的叶片，抗污染能力强，转速范围宽。

Features

1. With dowel pin vane structure, it can work in high pressure, low noise and long lifetime.
2. This vane pump can fit wide viscosity hydraulic medium, and be started at low temperature and work at high temperature.
3. As the vane pump adopts bilabial structure vane, it has high oil pollution resistance and wide speed scope.

T6, T7 系列单泵 Series single pumps



序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty
1	轴 shaft	1	5	轴用钢丝挡圈 cir clip for shaft	2	9	泵芯 cartridge kit	1
2	平键 straight key	1	6	滚动轴承 ball bearing	1	10	后盖 rear cover	1
3	前盖 front cover	1	7	孔用弹性挡圈 cir clip for hole	1	11	外六角头螺栓 Hexagon head bolt	4
4	油封 shaft seal	1	8	矩形密封圈 rectangle seal ring	1			

型号说明/Model Designation

T7B	S	-B10	-1	R	00	-A	1	01
系列号 Series	类别代号 Type Code	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出油口位置 Outlet positions	设计号 Design number	密封等级 Sealing Level	油口尺寸 Port dimensions
T7B	无 No: ISO 3019 安装法兰 Installation Flange	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	见轴伸尺寸 See of shaft	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	A	1-S1, 丁腈橡胶 NBR Nitrile rubber	00、01, 见安装 连接尺寸 See installation dimensions
T7D	S: SAE J744 安装法兰 installation flange	B14, B17, B20, B22, B24, B28, B31, B35, B38, B42						无此选项
T7E	无: 工业用型 M: 车用型 P: 双重油封 车用型 NO: industrial type M: truck type P: truck type double seal kits	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						042, 045, 050, 052, 054, 057, 062, 066, 072, 085
T6C	无: 工业用型 M: 车用型 P: 双重油封 车用型 NO: industrial type M: truck type P: truck type double seal kits	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	042, 045, 050, 052, 057, 062, 066, 072, 085	无此选项				
T6D								
T6E								

003/B03 排量代号中0表示单转向型配流侧板结构，B表示双转向型配流侧板结构
In displacement code, 0 means single steering valve plate structure, B means the two steering valve plate structure.

技术参数/Technical Data

系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displace- ment mL/r	最高压力/Max.pressure Mpa						最高转速/Max.speed r/min		最低转速 Min. speed r/min
			抗磨液压油 Antiwear hydraulic oil		普通液压油和磷酸酯液 General hydraulic oil or phosphate ester fluid		水乙二醇和油包水乳化液 Water glycol fluid or water-oil emulsions		普通液压油和 抗磨液压油 General hydraulic oil or antiwear hydraulic oil	水乙二醇、磷酸酯 液和油包水乳化液 Water glycol fluid or phosphate ester fluid or water-oil emulsions	
			间歇	连续	间歇	连续	间歇	连续			
			Instant	Continuous	Instant	Continuous	Instant	Continuous			
T7B T7BS	B02	5.8	35	32	24	21	17.5	14	3600	1800	600
	B03	9.8									
	B04	12.8									
	B05	15.9									
	B06	19.8									
	B07	22.5									
	B08	24.9									
	B10	31.8									
	B12	41.0									
	B15	50.0									
T7D T7DS	B14	44.0	30	25	24	21	17.5	14	3000	1800	600
	B17	55.0									
	B20	66.0									
	B22	70.3									
	B24	81.1									
	B28	90.0									
	B31	99.2									
	B35	113.4									
	B38	120.6									
	B42	137.5									
T7E T7ES	042	132.3	24	21	21	17.5	17.5	14	2200	1800	600
	045	142.4									
	050	158.5									
	052	164.8									
	054	171.0									
	057	183.3									
	062	196.7									
	066	213.3									
	072	227.1									
	085	268.7									

技术参数/Technical Data

系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displace- ment mL/r	最高压力/Max.pressure Mpa						最高转速/Max.speed r/min		最低转速 Min. speed r/min
			抗磨液压油 Antiwear hydraulic oil		普通液压油和磷酸酯液 General hydraulic oil or phosphate ester fluid		水乙二醇和油包水乳化液 Water glycol fluid or water-oil emulsions		普通液压油和 抗磨液压油 General hydraulic oil or antiwear hydraulic oil	水乙二醇、磷酸酯 液和油包水乳化液 Water glycol fluid or phosphate ester fluid or water-oil emulsions	
			间歇	连续	间歇	连续	间歇	连续			
			Instant	Continuous	Instant	Continuous	Instant	Continuous			
T6C	003/B03	10.8	28	24	21	17.5	17.5	14	2800	1800	600
	005/B05	17.2									
	006/B06	21.3									
	008/B08	26.4									
	010/B10	34.1									
	012/B12	37.1									
	014/B14	46.0									
	017/B17	58.3									
	020/B20	63.8									
	022/B22	70.3									
	025/B25	79.3									
	028/B28	88.8									
	031/B31	100.0									
	T6D	014/B14									
017/B17		58.2									
020/B20		66.0									
024/B24		79.5									
028/B28		89.7									
031/B31		98.3									
035/B35		111.0									
038/B38		120.3									
042/B42		136.0									
045/B45		145.7									
050/B50		158.0									
061		190.5									
042		132.3									
045		142.4									
T6E	050	158.5	25	21	21	17.5	17.5	14	2200	1800	600
	052	164.8									
	057	179.8									
	062	196.7									
	066	213.3									
	072	227.1									
	085	269.0									

003/B03 排量代号中0表示单转向型配流侧板结构，B表示双转向型配流侧板结构
In displacement code, 0 means single steering valve plate structure, B means the two steering valve plate structure.

工作性能/Operation Performance

使用抗磨液压油，油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)							输入功率 /Input Power (KW)						
			P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa	P=32 MPa	P=0.7 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa	P=32 MPa
			L/min	L/min	L/min	L/min	L/min	L/min	L/min	KW	KW	KW	KW	KW	KW	KW
T7B(S)-B02	5.8	1000	5.8	4.9	4.2	3.3	-	-	-	0.2	0.9	1.7	2.5	-	-	-
		1200	7.0	6.1	5.4	4.5	4.0	-	-	0.4	1.3	2.2	3.2	3.6	-	-
		1500	8.7	7.8	7.1	6.2	5.7	5.2	4.7	0.6	1.7	2.8	4.0	4.5	5.2	5.9
		1800	10.4	9.5	8.8	7.9	7.4	6.9	6.4	0.7	2.0	3.4	5.0	5.6	6.4	7.2
T7B(S)-B03	9.8	1000	9.8	8.9	8.2	7.3	6.8	6.3	5.8	0.2	1.3	2.6	3.9	4.5	5.2	6.0
		1200	11.8	10.9	10.2	9.3	8.8	8.3	7.8	0.4	1.8	3.3	4.9	5.5	6.4	7.3
		1500	14.7	13.8	13.1	12.2	11.7	11.2	10.7	0.7	2.4	4.2	6.1	6.9	8.0	9.1
		1800	17.6	16.7	16.0	15.1	14.6	14.1	13.6	0.8	2.8	5.1	7.5	8.5	9.7	11.0
T7B(S)-B04	12.8	1000	12.8	11.9	11.2	10.3	9.8	9.3	8.8	0.2	1.7	3.3	5.0	5.7	6.6	7.6
		1200	15.4	14.5	13.8	12.9	12.4	11.9	11.4	0.5	2.2	4.2	6.1	6.9	8.1	9.2
		1500	19.2	18.3	17.6	16.7	16.2	15.7	15.2	0.7	2.9	5.3	7.7	8.7	10.1	11.5
		1800	23.0	22.1	21.4	20.5	20.0	19.5	19.0	0.9	3.4	6.4	9.4	10.6	12.3	13.9
T7B(S)-B05	15.9	1000	15.9	15.0	14.3	13.4	12.9	12.4	11.9	0.3	2.1	4.1	6.0	6.9	8.1	9.2
		1200	19.1	18.2	17.5	16.6	16.1	15.6	15.1	0.5	2.7	5.0	7.4	8.4	9.8	11.2
		1500	23.9	23.0	22.3	21.4	20.9	20.4	19.9	0.8	3.4	6.4	9.3	10.6	12.3	14.0
		1800	28.6	27.7	27.0	26.1	25.6	25.1	24.6	0.9	4.1	7.7	11.3	12.8	14.9	16.9
T7B(S)-B06	19.8	1000	19.8	18.9	18.2	17.3	16.8	16.3	15.8	0.3	2.5	5.0	7.4	8.5	9.9	11.3
		1200	23.8	22.9	22.2	21.3	20.8	20.3	19.8	0.6	3.2	6.1	9.1	10.3	12.0	13.7
		1500	29.7	28.8	28.1	27.2	26.7	26.2	25.7	0.8	4.1	7.7	11.4	12.9	15.0	17.1
		1800	35.6	34.7	34.0	33.1	32.6	32.1	31.6	1.0	4.9	9.3	13.8	15.7	18.1	20.6
T7B(S)-B07	22.5	1000	22.5	21.6	20.9	20.0	19.5	19.0	18.5	0.4	2.8	5.6	8.3	9.6	11.2	12.8
		1200	27.0	26.1	25.4	24.5	24.0	23.5	23.0	0.6	3.6	6.9	10.2	11.6	13.5	15.4
		1500	33.8	32.9	32.2	31.3	30.8	30.3	29.8	0.9	4.6	8.7	12.8	14.6	16.9	19.3
		1800	40.5	39.6	38.9	38.0	37.5	37.0	36.5	1.1	5.5	10.5	15.5	17.6	20.4	23.2
T7B(S)-B08	24.9	1000	24.9	24.0	23.3	22.4	21.9	21.4	20.9	0.4	3.1	6.2	9.2	10.5	12.3	14.0
		1200	29.9	29.0	28.3	27.4	26.9	26.4	25.9	0.6	3.9	7.6	11.2	12.8	14.8	16.9
		1500	37.4	36.5	35.8	34.9	34.4	33.9	33.4	0.9	5.0	9.5	14.1	16.0	18.6	21.2
		1800	44.8	43.9	43.2	42.3	41.8	41.3	40.8	1.1	6.0	11.5	17.0	19.3	22.4	25.5
T7B(S)-B10	31.8	1000	31.8	30.9	30.2	29.3	28.8	28.3	27.8	0.5	3.9	7.8	11.6	13.3	15.5	17.7
		1200	38.2	37.3	36.6	35.7	35.2	34.7	34.2	0.7	4.9	9.5	14.1	16.1	18.7	21.4
		1500	47.7	46.8	46.1	45.2	44.7	44.2	43.7	1.1	6.2	11.9	17.7	20.1	23.4	26.7
		1800	57.2	56.3	55.6	54.7	54.2	53.7	53.2	1.3	7.4	14.4	21.3	24.3	28.2	32.1
T7B(S)-B12	41.0	1000	41.0	40.1	39.4	38.5	38.0	37.5	-	0.6	5.0	9.9	14.8	17.0	19.8	-
		1200	49.2	48.3	47.6	46.7	46.2	45.7	-	0.9	6.2	12.1	18.0	20.5	23.9	-
		1500	61.5	60.6	59.9	59.0	58.5	58.0	-	1.2	7.8	15.2	22.5	25.7	29.9	-
		1800	73.8	72.9	72.2	71.3	70.8	70.3	-	1.5	9.4	18.2	27.1	30.9	35.9	-
T7B(S)-B15	50.0	1000	50.0	49.1	48.4	47.5	47.0	46.5	-	0.7	6.0	12.0	18.0	20.6	24.0	-
		1200	60.0	59.1	58.4	57.5	57	56.5	-	1.0	7.4	14.6	21.7	24.8	28.9	-
		1500	75.0	74.1	73.4	72.5	72.0	71.5	-	1.4	9.4	18.3	27.2	31.1	36.2	-
		1800	90.0	89.1	88.4	87.5	87.0	86.5	-	1.7	11.3	22.0	32.8	37.4	43.5	-

工作性能/Operation Performance

使用抗磨液压油，油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)			输入功率 /Input Power (KW)		
			P=0 MPa	P=14 MPa	P=30 MPa	P=0.7 MPa	P=14 MPa	P=30 MPa
			L/min	L/min	L/min	KW	KW	KW
T7D(S)-B14	44.0	1000	44.0	37.4	29.9	-	-	-
		1200	52.8	46.2	38.7	-	-	-
		1500	66.0	59.4	51.9	-	-	-
		1800	79.2	72.6	65.1	-	-	-
T7D(S)-B17	55.0	1000	55.0	48.4	40.9	-	-	-
		1200	66.0	59.4	51.9	-	-	-
		1500	82.5	75.9	68.4	-	-	-
		1800	99.0	92.4	84.9	-	-	-
T7D(S)-B20	66.0	1000	66.0	59.4	51.9	-	-	-
		1200	79.2	72.6	65.1	-	-	-
		1500	99.0	92.4	84.9	-	-	-
		1800	118.8	112.2	104.7	-	-	-
T7D(S)-B22	70.3	1000	70.3	63.7	56.2	-	-	-
		1200	84.4	77.8	70.3	-	-	-
		1500	105.5	98.8	91.4	-	-	-
		1800	126.5	119.9	112.4	-	-	-
T7D(S)-B24	81.1	1000	81.1	74.5	67	-	-	-
		1200	97.3	90.7	83.2	-	-	-
		1500	121.7	115.1	107.6	-	-	-
		1800	146.0	139.4	131.9	-	-	-
T7D(S)-B28	90.0	1000	90.0	83.4	75.9	-	-	-
		1200	108.0	101.4	93.9	-	-	-
		1500	135.0	128.4	120.9	-	-	-
		1800	162.0	155.4	147.9	-	-	-
T7D(S)-B31	99.2	1000	99.2	92.6	85.1	-	-	-
		1200	119.8	113.2	105.7	-	-	-
		1500	148.8	142.2	134.7	-	-	-
		1800	178.6	172.0	164.5	-	-	-
T7D(S)-B35	113.4	1000	113.4	106.8	-	-	-	
		1200	136.1	129.5	-	-	-	
		1500	170.1	163.5	-	-	-	
		1800	204.1	197.5	-	-	-	
T7D(S)-B38	120.6	1000	120.6	114.0	-	-	-	
		1200	144.7	138.1	-	-	-	
		1500	180.9	174.3	-	-	-	
		1800	217.1	210.5	-	-	-	
T7D(S)-B42	137.5	1000	137.5	130.9	-	-	-	
		1200	165.0	158.4	-	-	-	
		1500	206.3	199.7	-	-	-	
		1800	247.5	240.9	-	-	-	

工作性能/Operation Performance

使用抗磨液压油, 油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)		
			P=0 MPa	P=14 MPa	P=24 MPa
			L/min	L/min	L/min
T7E(S)-042	132.3	1000	132.3	122.3	115.2
		1200	158.8	150.8	143.7
		1500	198.5	188.5	181.4
T7E(S)-045	142.4	1000	142.4	132.4	125.3
		1200	170.9	160.9	153.8
		1500	213.6	203.6	196.5
T7E(S)-050	158.5	1000	158.5	158.5	141.4
		1200	190.2	180.2	173.1
		1500	237.7	227.7	220.6
T7E(S)-052	164.8	1000	164.8	154.8	147.7
		1200	197.8	187.8	180.7
		1500	247.2	237.2	230.1
T7E(S)-054	171.0	1000	171.0	161.0	153.9
		1200	205.2	195.2	188.1
		1500	256.5	246.5	239.4
T7E(S)-057	183.3	1000	183.3	173.3	166.2
		1200	220.0	210.0	202.9
		1500	275.0	265.0	257.9
T7E(S)-062	196.7	1000	196.7	186.7	179.6
		1200	236.0	226.0	218.9
		1500	295.0	285.0	277.9
T7E(S)-066	213.3	1000	213.3	203.3	196.2
		1200	256.0	246.0	238.9
		1500	319.9	309.0	302.8
T7E(S)-072	227.1	1000	227.1	217.1	210.0
		1200	272.5	262.5	255.4
		1500	340.6	330.6	323.5
T7E(S)-085*	268.7	1000	268.7	-	-
		1200	322.4	-	-
		1500	403.0	-	-
1800	483.7	-	-		

系列 Series	输入功率 /Input Power (KW)		
	P=0.7 MPa	P=14 MPa	P=24 MPa
	KW	KW	KW
T7E(S)-042	5.2	49.4	82.6
T7E(S)-045	5.4	52.9	88.7
T7E(S)-050	5.7	58.5	50.7
T7E(S)-052	5.8	60.8	102.1
T7E(S)-054	5.9	63.0	105.8
T7E(S)-057	6.1	67.3	113.2
T7E(S)-062	6.4	71.9	121.3
T7E(S)-066	6.7	77.7	131.2
T7E(S)-072	6.9	82.6	139.5
T7E(S)-085	9.1	-	-

085* 最大转速2000r/min, 最大间歇压力9MPa
The max rotation speed is 2000r/min, and the max intermittent pressure is 9MPa.

工作性能/Operation Performance

使用抗磨液压油, 油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)						输入功率 /Input Power (KW)					
			P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa	P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa
			L/min	L/min	L/min	L/min	L/min	L/min	KW	KW	KW	KW	KW	KW
T6C-003 T6C-B03	10.8	1000	10.8	8.3	5.8	-	-	-	0.9	2.2	3.7	-	-	-
		1200	13.0	10.5	8.0	-	-	-	1.1	2.6	4.4	-	-	-
		1500	16.2	13.7	11.2	8.7	8.2	-	1.3	3.3	5.4	7.6	8.5	-
T6C-005 T6C-B05	17.2	1000	17.2	14.7	12.2	9.7	9.2	-	1.0	3.0	5.2	7.4	8.4	-
		1200	20.6	18.1	15.6	13.1	12.6	11.5	1.1	3.5	6.2	8.8	10.0	11.5
		1500	25.8	23.3	20.8	18.3	17.8	16.7	1.4	4.4	7.7	10.9	12.3	14.1
T6C-006 T6C-B06	21.3	1000	21.3	18.8	16.3	13.8	13.3	12.2	1.0	3.4	6.1	8.9	10.0	11.5
		1200	25.6	23.1	20.6	18.1	17.6	16.5	1.2	4.1	7.3	10.5	11.9	13.8
		1500	32.0	29.5	27.0	24.5	24.0	22.9	1.5	5.1	9.1	13.1	14.8	17.0
T6C-008 T6C-B08	26.4	1000	26.4	23.9	21.4	18.9	18.4	17.3	1.1	4.0	7.3	10.6	12.0	13.9
		1200	31.7	29.2	26.7	24.2	23.7	22.6	1.3	4.8	8.7	12.7	14.4	16.6
		1500	39.6	37.1	34.6	32.1	31.6	30.5	1.6	6.0	10.9	15.8	17.8	20.6
T6C-010 T6C-B10	34.1	1000	34.1	31.6	29.1	26.6	26.1	25.0	1.2	4.9	9.1	13.3	15.1	17.5
		1200	40.9	38.4	35.9	33.4	32.9	31.8	1.4	5.9	10.9	15.9	18.1	20.9
		1500	51.2	48.7	46.2	43.7	43.2	42.1	1.7	7.3	13.6	19.8	22.5	26.0
T6C-012 T6C-B12	37.1	1000	37.1	34.6	32.1	29.6	29.1	28.0	1.2	5.3	9.8	14.4	16.3	18.9
		1200	44.5	42.0	39.5	37.0	36.5	35.4	1.4	6.3	11.7	17.2	19.5	22.6
		1500	55.7	53.2	50.7	48.2	47.7	46.6	1.7	7.9	14.6	21.4	24.3	28.1
T6C-014 T6C-B14	46.0	1000	46.0	43.5	41.0	38.5	38.0	36.9	1.3	6.3	11.9	17.5	19.9	23.1
		1200	55.2	52.7	50.2	47.7	47.2	46.1	1.5	7.6	14.2	20.9	23.8	27.6
		1500	69.0	66.5	64.0	61.5	61.0	59.9	1.9	9.4	17.7	26.1	29.6	34.3
1800	82.8	80.3	77.8	75.3	74.8	73.7	2.5	11.4	21.2	31.1	35.4	41.0		

工作性能/Operation Performance

使用抗磨液压油, 油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)						输入功率 /Input Power (KW)					
			P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa	P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=28 MPa
			L/min	L/min	L/min	L/min	L/min	L/min	KW	KW	KW	KW	KW	KW
T6C-017 T6C-B17	58.3	1000	58.3	55.8	53.3	50.8	50.3	49.2	1.5	7.8	14.8	21.8	24.8	28.8
		1200	70.0	67.5	65.0	62.5	62.0	60.9	1.7	9.3	17.7	26.1	29.7	34.5
		1500	87.5	85.0	82.5	80.0	79.5	78.4	2.1	11.6	22.0	32.5	37.0	42.9
		1800	104.9	102.4	99.9	97.4	96.9	95.8	2.7	13.9	26.4	38.9	44.2	51.4
T6C-020 T6C-B20	63.8	1000	63.8	61.3	58.8	56.3	55.8	54.7	1.5	8.4	16.0	23.7	27.0	31.4
		1200	76.6	74.1	71.6	69.1	68.6	67.5	1.8	10.0	19.2	28.4	32.3	37.6
		1500	95.7	93.2	90.7	88.2	87.7	86.6	2.2	12.5	24.0	35.4	40.3	46.8
		1800	114.8	112.3	109.8	107.3	106.8	105.7	2.8	15.1	28.7	42.3	48.2	56.0
T6C-022 T6C-B22	70.3	1000	70.3	67.8	65.3	62.8	62.3	61.2	1.6	9.2	17.6	26.0	29.6	34.4
		1200	84.4	81.9	79.4	76.9	76.4	75.3	1.9	11.0	21.0	31.1	35.5	41.2
		1500	105.5	103.0	100.5	98.0	97.5	96.4	2.3	13.7	26.2	38.8	44.2	51.3
		1800	126.5	124.0	121.5	119.0	118.5	117.4	3.0	16.5	31.4	46.4	52.9	61.5
T6C-025 T6C-B25	79.3	1000	79.3	76.8	74.3	71.8	71.3	70.2	1.7	10.2	19.7	29.2	33.2	38.6
		1200	95.2	92.7	90.2	87.7	87.2	86.1	2.0	12.2	23.6	34.9	39.8	46.3
		1500	119.0	116.5	114.0	111.5	111.0	109.9	2.5	15.2	29.4	43.5	49.6	57.6
		1800	142.7	140.2	137.7	135.2	134.7	133.6	3.2	18.4	35.2	52.1	59.3	69.0
T6C-028* T6C-B28	88.8	1000	88.8	86.3	83.8	81.3	-	-	1.8	11.3	21.9	32.5	-	-
		1200	106.6	104.1	101.6	99.1	-	-	2.1	13.5	26.2	38.9	-	-
		1500	133.2	130.7	128.2	125.7	-	-	2.7	16.9	32.7	48.5	-	-
		1800	159.8	157.3	154.8	152.3	-	-	3.4	20.3	39.2	58.1	-	-
T6C-031* T6C-B31	100.0	1000	100.0	97.5	95.0	92.5	-	-	2.0	12.6	24.5	36.4	-	-
		1200	120.0	117.5	115.0	112.5	-	-	2.3	15.1	29.4	43.6	-	-
		1500	150.0	147.5	145.0	142.5	-	-	2.9	18.9	36.6	54.4	-	-
		1800	180.0	177.5	175.0	172.5	-	-	3.6	22.7	43.9	65.1	-	-

028* / 031* 最大间歇压力21MPa。 - 因为内泄大于理论值的50%，故没有应用。
The max intermittent pressure is 21MPa. - AS the inner leakage is over 50% of theoretical valuc, so it is not used

工作性能/Operation Performance

使用抗磨液压油, 油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displaceme-nt mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)					输入功率 /Input Power (KW)				
			P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa
			L/min	L/min	L/min	L/min	L/min	KW	KW	KW	KW	KW
T6D-014 T6D-B14	47.6	1000	47.6	43.6	38.6	34.6	32.6	1.6	6.8	12.5	18.3	20.7
		1200	57.1	53.1	48.1	44.1	42.1	1.8	8.0	14.9	21.8	24.8
		1500	71.4	67.4	62.4	58.4	56.4	2.3	10.0	18.5	27.0	30.7
		1800	85.7	81.7	76.7	72.7	70.7	2.9	12.1	22.3	32.5	36.9
T6D-017 T6D-B17	58.2	1000	58.2	54.2	49.2	45.2	43.2	1.7	8.0	15.0	22.0	25.0
		1200	69.8	65.8	60.8	56.8	54.8	1.9	9.5	17.9	26.3	29.9
		1500	87.3	83.3	78.3	74.3	72.3	2.5	11.8	22.2	32.6	37.0
T6D-020 T6D-B20	66.0	1000	66.0	62.0	57.0	53.0	51.0	1.8	8.9	16.8	24.7	28.1
		1200	79.2	75.2	70.2	66.2	64.2	2.1	10.6	20.1	29.6	33.6
		1500	99.0	95.0	90.0	86.0	84.0	2.7	13.2	24.9	36.7	41.7
		1800	118.8	114.8	109.8	105.8	103.8	3.3	16.0	30.1	44.1	50.1
T6D-024 T6D-B24	79.5	1000	79.5	75.5	70.5	66.5	64.5	1.9	10.5	20.0	29.4	33.5
		1200	95.4	91.4	86.4	82.4	80.4	2.2	12.5	23.9	35.2	40.1
		1500	119.3	115.3	110.3	106.3	104.3	2.9	15.6	29.7	43.7	49.8
T6D-028 T6D-B28	89.7	1000	89.7	85.7	80.7	76.7	74.7	2.0	11.7	22.3	33.0	37.5
		1200	107.6	103.6	98.6	94.6	92.6	2.4	13.9	26.7	39.5	45.0
		1500	134.6	130.6	125.6	121.6	119.6	3.1	17.4	33.2	49.1	55.9
		1800	161.5	157.5	152.5	148.5	146.5	3.8	21.0	40.0	59.0	67.2
T6D-031 T6D-B31	98.3	1000	98.3	94.3	89.3	85.3	83.3	2.1	12.7	24.3	36.0	41.0
		1200	118.0	114.0	109.0	105.0	103.0	2.5	15.1	29.1	43.1	49.1
		1500	147.5	143.5	138.5	134.5	132.5	3.2	18.9	36.2	53.6	61.1
		1800	176.9	172.9	167.9	163.9	161.9	4.0	22.8	43.6	64.5	73.4
T6D-035 T6D-B35	111.0	1000	111.0	107.0	102.0	98.0	96.0	2.3	14.2	27.3	40.5	46.1
		1200	133.2	129.2	124.2	120.2	118.2	2.7	16.9	32.7	48.5	55.2
		1500	166.5	162.5	157.5	153.5	151.5	3.4	21.1	40.7	60.3	68.7
T6D-038 T6D-B38	120.3	1000	120.3	116.3	111.3	107.3	105.3	2.4	15.2	29.5	43.7	49.8
		1200	144.4	140.4	135.4	131.4	129.4	2.8	18.2	35.3	52.4	59.7
		1500	180.5	176.5	171.5	167.5	165.5	3.6	22.7	43.9	65.2	74.3
		1800	216.5	212.5	207.5	203.5	201.5	4.4	27.4	52.9	78.3	89.2
T6D-042 T6D-B42	136.0	1000	136.0	132.0	127.0	123.0	121.0	2.6	17.1	33.1	49.2	56.1
		1200	163.2	159.2	154.2	150.2	148.2	3.0	20.4	39.7	59.0	67.2
		1500	204.0	200.0	195.0	191.0	189.0	3.9	25.5	49.4	73.4	83.7
T6D-045 T6D-B045	145.7	1000	145.7	141.7	136.7	132.7	130.7	2.7	18.2	35.4	52.6	59.9
		1200	174.8	170.8	165.8	161.8	159.8	3.2	21.7	42.4	63.0	71.9
		1500	218.6	214.6	209.6	205.6	203.6	4.0	27.2	52.8	78.5	89.5
		1800	262.3	258.3	253.3	249.3	247.3	5.0	32.7	63.5	94.3	107.5
T6D-050* T6D-B50	158.0	1000	158.0	154.0	149.0	145.0	-	2.8	19.6	38.3	56.9	-
		1200	189.6	185.6	180.6	176.6	-	3.3	23.5	45.8	68.2	-
		1500	237.0	233.0	228.0	224.0	-	4.3	29.3	57.1	85.0	-
		1800	284.4	280.4	275.4	271.4	-	5.2	35.3	68.7	102.1	-

050* 最大间歇压力21MPa
The max intermittent pressure is 21MPa

工作性能/Operation Performance

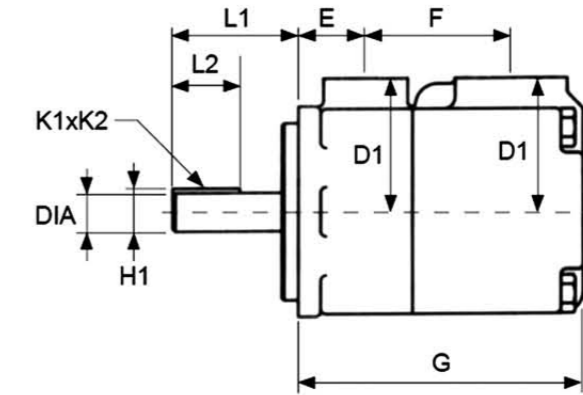
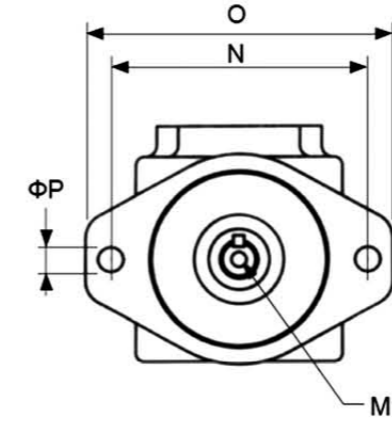
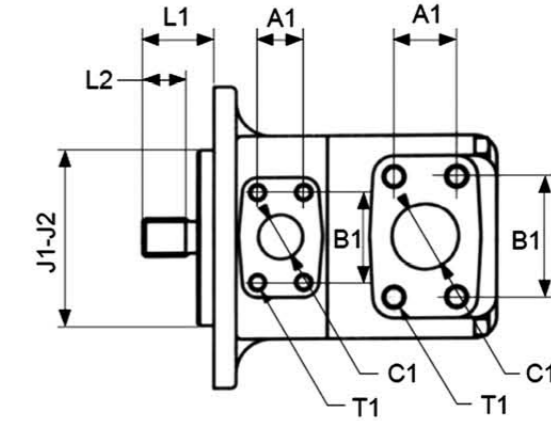
使用抗磨液压油, 油液粘度24cst时。Using the anti-wear hydraulic oil, the oil viscosity 24cst.

系列 Series	理论排量 Geological Displacement mL/rev	转速 Rotation speed r/min	流量/Flow (L/min)					输入功率 /Input Power (KW)				
			P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa	P=0 MPa	P=7 MPa	P=14 MPa	P=21 MPa	P=24 MPa
			L/min	L/min	L/min	L/min	L/min	KW	KW	KW	KW	KW
T6E-042	132.3	1000	132.3	127.3	122.3	117.3	115.3	3.3	17.4	33.0	48.5	55.2
		1200	158.8	153.8	148.8	143.8	141.8	4.0	20.8	39.5	58.3	66.3
		1500	198.5	193.5	188.5	183.5	181.5	5.2	26.2	49.4	72.7	82.7
		1800	238.1	233.1	228.1	223.1	221.1	6.4	31.5	59.4	87.3	99.4
T6E-045	142.4	1000	142.4	137.4	132.4	127.4	125.4	3.5	18.6	35.3	52.1	59.3
		1200	170.9	165.9	160.9	155.9	153.9	4.1	22.2	42.4	62.5	71.2
		1500	213.6	208.6	203.6	198.6	196.6	5.4	27.9	52.9	78.0	88.8
		1800	256.3	251.3	246.3	241.3	239.3	6.6	33.6	63.7	93.7	106.6
T6E-050	158.5	1000	158.5	153.5	148.5	143.5	141.5	3.6	20.4	39.1	57.7	65.7
		1200	190.2	185.2	180.2	175.2	173.2	4.3	24.5	46.9	69.3	78.9
		1500	237.8	232.8	227.8	222.8	220.8	5.7	30.7	58.6	86.5	98.4
		1800	285.3	280.3	275.3	270.3	268.3	6.9	37.0	70.4	103.9	118.2
T6E-052	164.8	1000	164.8	159.8	154.8	149.8	147.8	3.7	21.2	40.6	59.9	68.2
		1200	197.8	192.8	187.8	182.8	180.8	4.4	25.4	48.6	71.9	81.9
		1500	247.2	242.2	237.2	232.2	230.2	5.8	31.8	60.8	89.8	102.2
		1800	296.6	291.6	286.6	281.6	279.6	7.1	38.3	73.1	107.8	122.8
T6E-057	179.8	1000	179.8	174.8	169.8	164.8	162.8	3.9	22.9	44.1	65.2	74.2
		1200	215.8	210.8	205.8	200.8	198.8	4.6	27.5	52.8	78.2	89.1
		1500	269.7	264.7	259.7	254.7	252.7	6.0	34.5	66.0	97.6	111.2
		1800	323.6	318.6	313.6	308.6	306.6	7.4	41.5	79.4	117.3	133.6
T6E-062	196.7	1000	196.7	191.7	186.7	181.7	179.7	4.1	24.9	48.0	71.1	81.0
		1200	236.0	231.0	226.0	221.0	219.0	4.9	29.8	57.6	85.3	97.2
		1500	295.1	290.1	285.1	280.1	278.1	6.3	37.4	71.9	106.5	121.3
		1800	354.1	349.1	344.1	339.1	337.1	7.7	45.0	86.5	127.9	145.7
T6E-066	213.3	1000	213.3	208.3	203.3	198.3	196.3	4.3	26.8	51.9	76.9	87.6
		1200	256.0	251.0	246.0	241.0	239.0	5.1	32.2	62.2	92.3	105.2
		1500	320.0	315.0	310.0	305.0	303.0	6.6	40.3	77.8	115.2	131.3
		1800	383.9	378.9	373.9	368.9	366.9	8.1	48.5	93.4	138.4	157.7
T6E-072	227.1	1000	227.1	222.1	217.1	212.1	210.1	4.4	28.4	55.1	81.7	93.1
		1200	272.5	267.5	262.5	257.5	255.5	5.3	34.1	66.1	98.1	111.8
		1500	340.7	335.7	330.7	325.7	323.7	6.9	42.7	82.6	122.5	139.6
		1800	408.8	403.8	398.8	393.8	391.8	8.4	51.4	99.2	147.1	167.6
T6E-085*	269	1000	269.0	264.0	-	-	-	4.9	33.3	-	-	-
		1200	322.8	317.8	-	-	-	5.9	40.0	-	-	-
		1500	403.5	398.5	-	-	-	7.6	50.1	-	-	-
		1800	484.2	479.2	-	-	-	9.2	60.2	-	-	-

085 * 最大转速2000r/min, 最大间歇压力9MPa
The max rotation speed is 2000r/min, and the max intermittent pressure is 9MPa

安装连接尺寸/Installation Dimensions

T7B、T7BS
T7D、T7DS
T7E、T7ES
T6C、T6D
T6E



	T7B	T7BS	T7D	T7DS	T7E	T7ES	T6C	T6D	T6E
E	38.10	38.10	38.10	38.10	52.30	52.30	38.10	38.10	52.30
F	82.30	82.30	87.40	87.40	110.00	110.00	82.30	87.40	110.00
G	168.50	168.50	184.90	184.90	225.30	225.30	161.60	184.90	225.30
J1	100.00	101.60	125.00	127.00	125.00	127.00	101.60	127.00	127.00
J2	99.967	101.550	124.937	126.950	124.937	126.950	101.550	126.950	126.950
N	140.00	146.00	180.00	181.00	180.00	181.00	146.10	181.00	181.00
O	174.50	174.50	212.40	212.40	213.00	213.00	174.50	212.40	213.00
ΦP	14.00	14.30	18.00	17.50	18.00	17.50	14.30	17.50	17.50

安装连接尺寸/Installation Dimensions

轴伸 Shaft extension

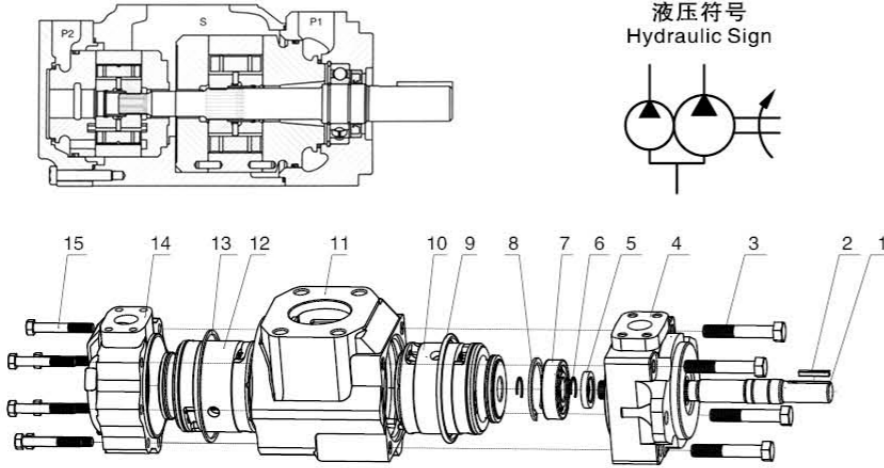
型号 Model	轴伸代号 Shaft code	最大扭矩 Max torque (N.m)	L1	L2	DIA	K1xK2	H1	M1
T7B	2	●	70.0	40.0	25.0065/24.9935	8.00x7.00	28.22	-
T7BS	1	●	71.4	38.1	22.225/22.200	6.35x6.30	24.95	M8x16
	3	●	40.7	24.5	SAE J498b 1级, 径节16/32, 13牙			-
	4	●	45.5	24.5	SAE J498b 1级, 径节16/32, 15牙			-
T7D	5	●	87.4	50.0	32.018/32.002	10.00x8.00	36.3	M10x20
T7DS	1	●	83.6	49.3	31.750/31.700	7.94x7.89	35.27	M10x20
	2	●	73.2	38.1	31.750/31.700	7.94x7.89	35.27	
	3	●	55.2	38.0	SAE J498b 1级, 径节12/24, 14牙			-
	4	●	77.7	48.0	SAE J498b 1级, 径节12/24, 14牙			-
T7E	5	●	90.0	60.0	38.018/38.002	10.00x8.00	41.3	M10x20
T7ES	1	●	90.9	50.8	38.100/38.050	9.52x9.47	42.36	M10x20
	2	●	61.9	38.1	31.750/31.700	7.94x7.89	35.27	-
	3	●	55.2	38.0	SAE J498b 1级, 径节12/24, 14牙			-
	4	●	62.2	31.5	SAE J498b 1级, 径节12/24, 17牙			-
T6C	1	275	71.4	38.1	22.225/22.200	6.35x6.30	24.95	M8x16
	2	238	58.2	31.7	22.225/22.200	4.76x4.71	24.53	-
	3	343	40.7	24.5	SAE J498b 1级, 径节16/32, 13牙			-
	4	●	45.5	24.5	SAE J498b 1级, 径节16/32, 15牙			-
T6D	1	●	83.6	49.3	31.750/31.700	7.94x7.89	35.27	M10x20
	2	577	73.2	38.1	31.750/31.700	7.94x7.89	35.27	-
	3	●	55.2	38.0	SAE J498b 1级, 径节12/24, 14牙			-
	4	●	77.7	48.0	SAE J498b 1级, 径节12/24, 14牙			-
T6E	1	●	90.9	50.8	38.100/38.050	9.52x9.47	42.36	M10x20
	2	577	61.9	38.1	31.750/31.700	7.94x7.89	35.27	-
	3	●	55.2	38.0	SAE J498b 1级, 径节12/24, 14牙			-
	4	●	62.2	31.5	SAE J498b 1级, 径节12/24, 17牙			-

● 能在最大流量, 最高压力下工作。
Work at maximum flow and pressure.

安装连接尺寸/Installation Dimensions

油口/Oil port			法兰 Flange	安装尺寸/Install Dimensions(mm)				
				A1	B1	ΦC1	D1	T1口螺纹Thread
T7B, T7BS	P	01: 3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0
	P	00: 1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0
	S	1-1/2"	F12	35.7	69.9	38.1	76.2	1/2"-13UNCx22.4
T7D, mT7DS	P	1-1/4"	F10	30.2	58.7	31.8	76.2	7/16"-14UNCx22.3
	S	2"	F16	42.9	77.8	50.8	82.6	1/2"-13UNCx23.9
T7E, T7ES	P	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
	S	3"	F24	61.9	106.4	76.2	98.6	1/2"-13UNCx22.4
T6C	P	1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0
	S	1-1/2"	F12	35.7	69.9	38.1	76.2	1/2"-13UNCx22.4
T6D	P	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	S	2"	F16	42.9	77.8	50.8	82.6	1/2"-13UNCx23.9
T6E	P	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
	S	3"	F24	61.9	106.4	76.2	98.6	5/8"-11UNCx24.0

T6, T67, T7 系列双联泵 Series Double pumps



序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty
1	轴 shaft	1	6	轴用钢丝挡圈 cir clip for shaft	2	11	中泵体middle body	1
2	平键 straight key	1	7	滚动轴承 ball bearing	1	12	后泵芯 rear cartridge	1
3	外六角螺栓 Hexagon head bolt	4	8	孔用弹性挡圈 cir clip for hole	1	13	矩形密封圈 rectangle seal ring	1
4	前盖 front cover	1	9	矩形密封圈 rectangle seal ring	1	14	后盖 rear cover	1
5	油封 shaft seal	1	10	前泵芯 front cartridge	1	15	外六角螺栓 Hexagon head bolt	4

油口位置(从泵的轴端看)/Port positions(Viewed from shaft end of pump)

T7BB(S)								
T7DB(S)								
T7EB(S)								
T67CB								
T6CC								
T67DB								
T6DC								
T67EB								
T67EC								
T6EC								
T7DD(S)								
T7ED(S)								
T7EE(S)								
T7ED								
T6ED								
T6EE								

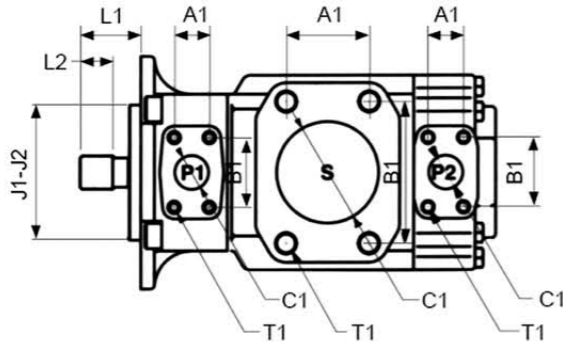
型号说明/Model Designation

T6CC	S	W	-025	-017	-1	R	02	-C	1	10
系列号 Series	类别代号 Type Code	辅助类别代号 Vice Type Code	轴端泵排量代号 Flow-shaft end Pump	盖端泵排量代号 Flow-cover end pump	轴伸形式 Shaft type	旋转方向 Rotation	油口位置 Port positions	设计号 Design number	密封等级 Sealing Level	油口尺寸 Port dimensions
T7BB	无: 采用 ISO 3019 安装法兰	无此项 NO	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	从泵的轴端看 Viewed from shaft end of pump	R-顺时针 旋转 right hand for clockwise	见下图 see picture below	C	1-S1, 丁腈橡胶 NBR Nitrile rubber	00, 01, M0, M1 见安装连接尺寸 See installation dimensions
T7DB	NO: USE ISO 3019 Installation Flange		B14, B17, B20, B22, B24, B28, B31, B35, B38, B42	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						00, 01, M0, M1 见安装连接尺寸 See installation dimensions
T7DD	S: 采用 SAE C J744 安装法兰		B14, B17, B20, B22, B24, B28, B31, B35, B38, B42	B14, B17, B20, B22, B24, B28, B31, B35, B38, B42						无此选项 No
T7EB	S: USE SAE C J744 installation flange		042, 045, 050, 052, 054, 057, 062, 066, 072, 085	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						
T7ED			042, 045, 050, 052, 054, 057, 062, 066, 072, 085	B14, B17, B20, B22, B24, B28, B31, B35, B38, B42						
T7EE			042, 045, 050, 052, 054, 057, 062, 066, 072, 085	042, 045, 050, 052, 054, 057, 062, 066, 072, 085						
T67CB				003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						B02, B03, B04, B05, B06, B07, B08, B10, B12, B15
T6CC			003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31	见轴伸尺寸 See size of shaft	L-逆时针 旋转 left hand for counter- clockwise		5-S5, 氟橡胶 Fluororubber	00, 01, M0, M1 见安装连接尺寸 See installation dimensions	
T67DB	无: 工业用型	W: 重型轴 Heavy str keyed shaft	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						
T67DC	M: 车用型		B14, B17, B20, B22, B24, B28, B31, B35, B38, B42	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						
T6DC	P: 车用型		014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						
T67EB	双重油封		042, 045, 050, 052, 057, 062, 066, 072, 085	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						
T6EC	NO: industrial type		042, 045, 050, 052, 057, 062, 066, 072, 085	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						
T67EC	M: truck type		042, 045, 050, 052, 057, 062, 066, 072, 085	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						
T6EE	P: truck type double seal kits		042, 045, 050, 052, 057, 062, 066, 072, 085	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						
T6ED			014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	042, 045, 050, 052, 057, 062, 066, 072, 085						
T6EE			042, 045, 050, 052, 057, 062, 066, 072, 085	042, 045, 050, 052, 057, 062, 066, 072, 085						

003/B03 排量代号中0表示单转向型配流侧板结构, B表示双转向型配流侧板结构;与相应系列、规格的T6单泵性能参数一致, 详见T6系列单泵的性能参数 In displacement code, 0 means single steering valve plate structure, B means the two steering valve plate structure. The data of relevant series ,model are unanimous.Please see T6 series-single pumps data

安装连接尺寸/Installation Dimensions

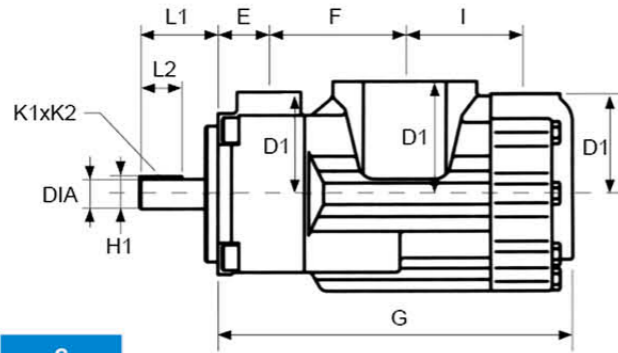
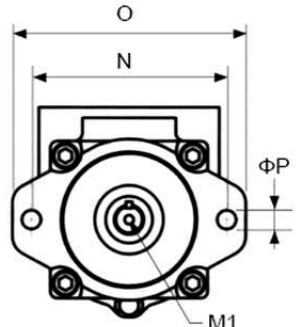
T6CC
T6DC
T6EC
T6ED



	T6CC	T6DC
E	38.1	38.1
F	101.6	114.3
G	265.6	286.0
I	88.2	109.5
J1	101.60	127.00
J2	101.55	126.95
N	146.0	181.0
O	174.5	212.4
ΦP	14.3	17.5

	T6EC	T6ED
E	52.3	52.3
F	118.5	133.5
G	331.6	361.0
I	136.7	148.2
J1	127.00	127.00
J2	126.95	126.95
N	181.0	181.0
O	213.0	213.0
ΦP	17.5	17.5

	T6EE	T6EES
E	42.9	42.9
F	167.3	167.3
G	406.8	406.8
I	157.9	157.9
J1	250.00	165.10
J2	249.93	165.05
N	224.5x224.5	224.5x224.5
O	273x273	273x273
ΦP	20.6	20.6

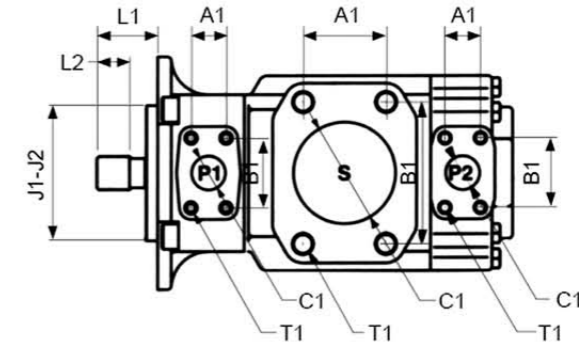


	代号/Code	P1	P2	S
T6CC	00(0M)	1"	1"	3"
	01(W0)	1"	3/4"	3"
	10(1M)	1"	1"	2-1/2"
	11(W1)	1"	3/4"	2-1/2"
T6DC T7DB(S)	00(M0)	1-1/4"	1"	3"
	01(M1)	1-1/4"	3/4"	3"

油口/Oil port	法兰 Flange	安装尺寸/Install Dimensions(mm)						
		A1	B1	ΦC1	D1	T1口螺纹Thread		
T6CC	P1	1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0 (M10x19)
		3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0(M10x19)
	P2	1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0(M10x19)
		3"	F24	61.9	106.4	76.2	84.1	5/8"-11UNCx28.4(M12x28)
T6DC	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3(M12x22)
		3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0(M10x19)
	S	3"	F24	61.9	106.4	76.2	88.9	5/8"-11UNCx28.4(M16x28.4)
T6EC	P1	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
		1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
	S	3-1/2"	F28	69.9	120.7	88.9	102.4	5/8"-11UNCx29.5
T6ED	P1	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
		1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx24.0
	S	4"	F32	77.8	130.2	101.6	102.4	5/8"-11UNCx30.0
T6EE(S)	P1	1-1/2"	F12	35.7	69.9	38.1	139.7	1/2"-13UNCx30
		1-1/2"	F12	35.7	69.9	37.1	98.6	1/2"-13UNCx23.4
	S	4"	F32	77.8	130.2	101.6	115	5/8"-11UNCx30

安装连接尺寸/Installation Dimensions

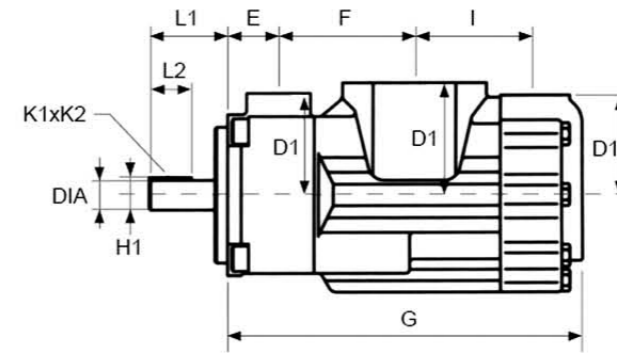
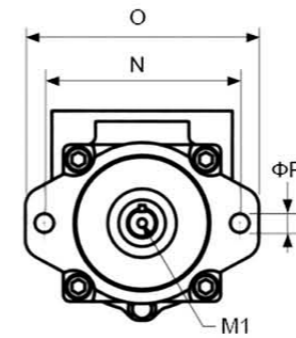
T7BB、T7BBS
T7DB、T7DBS
T7EB、T7EBS
T67CB
T67DB
T67EB



	T7BB	T7BBS	T67CB
E	38.1	38.1	38.1
F	101.6	101.6	101.6
G	262.2	262.2	265.6
I	98.6	98.6	88.2
J1	100.00	101.60	101.60
J2	99.97	101.55	101.55
N	140.0	146.0	146.0
O	174.5	174.5	174.5
ΦP	14.0	14.3	14.3

	T7DB	T7DBS	T67DB
E	38.1	38.1	38.1
F	114.3	114.3	114.3
G	286.0	286.0	286.0
I	109.5	109.5	109.5
J1	125.00	127.00	127.00
J2	124.94	126.95	126.95
N	180.0	181.0	181.0
O	212.4	212.4	212.4
ΦP	18.0	17.5	17.5

	T7EB	T7EBS	T67EB
E	52.3	52.3	52.3
F	118.5	118.5	118.5
G	331.6	331.6	331.6
I	136.7	136.7	136.7
J1	125.00	127.00	127.00
J2	124.94	126.95	126.95
N	180.0	181.0	181.0
O	213.0	213.0	213.0
ΦP	18.0	17.5	17.5

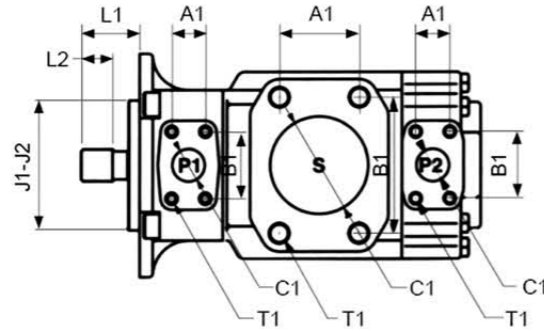


	代号/Code	P1	P2	S
T7BB(S)	00(0M)	1"	3/4"	2-1/2"
	01(M1)	3/4"	3/4"	2-1/2"

油口/Oil port	法兰 Flange	安装尺寸/Install Dimensions(mm)						
		A1	B1	ΦC1	D1	T1口螺纹Thread		
T7BB(S)	P1	1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0 (M10x19)
		3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0(M10x19)
	P2	3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0(M10x19)
		3"	F24	61.9	106.4	76.2	88.9	5/8"-11UNCx29(M16x29)
T7DB(S)	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3(M12x22)
		3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0(M10x19)
	S	3"	F24	61.9	106.4	76.2	88.9	5/8"-11UNCx29(M16x29)
T67CB	P1	1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0
		3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0
	S	2-1/2"	F20	50.8	88.9	63.5	84.1	1/2"-13UNCx23.9
T67DB	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
		3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0
	S	3"	F24	61.9	106.4	76.2	88.9	1/2"-13UNCx23.9
T67EB	P1	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
		3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0
	S	3-1/2"	F28	69.9	120.7	88.9	102.4	5/8"-11UNCx24.0
T7EB(S)	P1	1-1/2"	F12	35.7	69.9	38.1	98.6	1/2"-13UNCx23.4
		3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	S	3-1/2"	F28	69.9	120.7	88.9	102.4	5/8"-11UNCx29.5

安装连接尺寸/Installation Dimensions

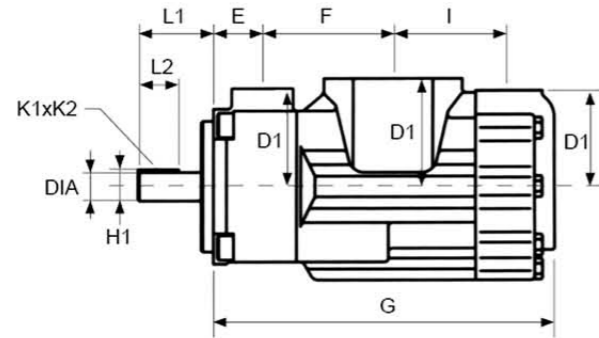
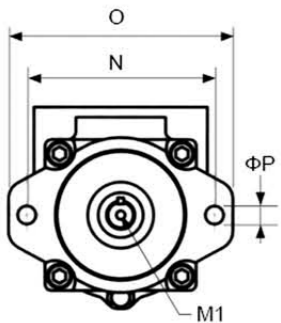
T7DD(S)
T7ED(S)
T7EE(S)
T67DC
T67EC



	T7DD	T7DDS	T67DC
E	38.3	38.3	38.1
F	148.3	148.3	114.3
G	347.7	347.7	286.0
I	134.2	134.2	109.5
J1	125.000	127.00	127.00
J2	124.937	126.95	126.95
N	180.0	181.0	181.0
O	213.0	213.0	212.4
ΦP	14.0	14.3	17.5

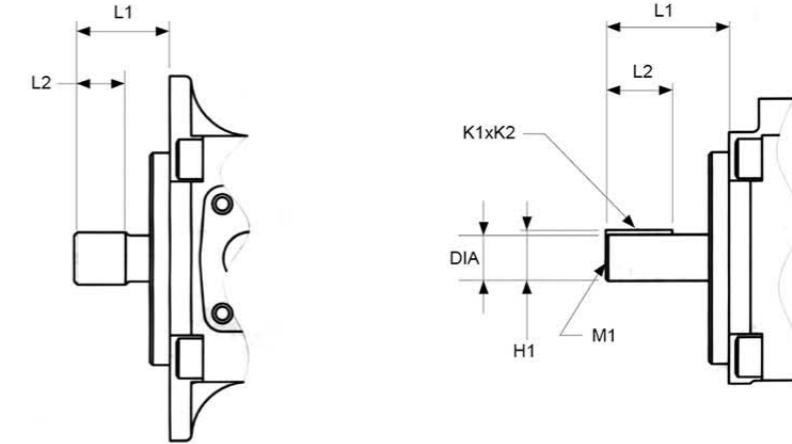
	T7ED	T7EDS	T67EC
E	52.3	52.3	52.3
F	133.5	133.5	118.5
G	361.0	361.0	331.6
I	148.2	148.2	136.7
J1	125.00	127.00	127.00
J2	124.94	126.95	126.95
N	180.0	181.0	181.0
O	213.0	213.0	213.0
ΦP	18.0	17.5	17.5

	T7EE	T7EES
E	42.9	42.9
F	167.3	167.3
G	406.8	406.8
I	157.9	157.9
J1	250.00	165.10
J2	249.93	165.05
N	224.5x224.5	224.5x224.5
O	273x273	273x273
ΦP	20.6	20.6



油口/Oil port			法兰 Flange	安装尺寸/Install Dimensions(mm)				
				A1	B1	ΦC1	D1	T1口螺纹 Thread
T7DD(S)	P1	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx22.3
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24
	S	4"	F32	77.8	130.2	101.6	114.9	5/8"-11UNCx30
T7ED(S)	P1	1-1/2"	F12	35.7	69.9	37.1	98.6	1/2"-13UNCx23.4
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24
	S	4"	F32	77.8	130.2	101.6	102.4	5/8"-11UNCx30
T7EE(S)	P1	1-1/2"	F12	35.7	69.9	38.1	139.7	1/2"-13UNCx30
	P2	1-1/2"	F12	35.7	69.9	37.1	98.6	1/2"-13UNCx23.4
	S	4"	F32	77.8	130.2	101.6	115	5/8"-11UNCx30
T67DC	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	P2	1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
	S	3"	F24	61.9	106.4	76.2	88.9	5/8"-11UNCx28.5
T67EC	P1	1-1/2"	F12	35.7	69.9	37.1	98.6	1/2"-13UNCx23.4
	P2	1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
	S	3-1/2"	F28	69.9	120.7	88.9	102.4	5/8"-11UNCx29.5

安装连接尺寸/Installation Dimensions

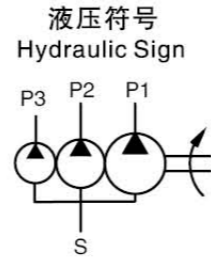
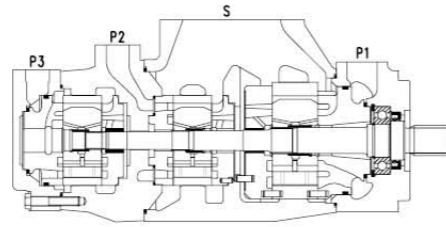


轴伸/Shaft extension

型号 Model	轴伸尺寸 Shaft code	最大扭矩 Max torque (N.m)	L1	L2	DIA	K1xK2	H1	M1
T7BB	5	●	70.0	40.0	25.006/24.993	8.00x7.00	28.22	-
T7BBS	1	●	58.2	31.7	22.225/22.200	4.76x4.71	24.53	-
	2	●	357	71.4	25.400/25.370	6.35x6.30	28.22	M8x16
	3	●	40.7	24.5	SAE J498b class1, Diametral pitch 16/32, 13T			-
	4	●	45.5	24.5	SAE J498b class1, Diametral pitch 16/32, 15T			-
T7DB	5	●	87.9	50.0	32.018/32.002	10.00x8.00	35.0	M10x20
T7DBS	1	●	83.6	49.3	31.75/31.70	7.94x7.89	35.27	M10x20
	2	●	73.2	38.1	31.75/31.70	7.94x7.89	35.27	-
	3	●	55.2	38.0	SAE J498b class1, Diametral pitch 12/24, 14T			-
	4	●	77.7	48.02	SAE J498b class1, Diametral pitch 12/24, 14T			-
T7DD	5	●	68.0	50.0	31.018/32.002	10.00x8.00	35.0	M10x20
T7DDS	1	●	84.0	49.3	31.75/31.70	7.94x7.89	35.27	M10x20
	2	●	91.0	50.8	38.10/38.05	9.52x9.47	40.36	M10x20
	3	●	56.0	38.0	SAE J498b class1, Diametral pitch 12/24, 14T			-
	4	●	46.0	24.5	SAE J498b class1, Diametral pitch 16/32, 15T			-
T7EB, T7ED	5	●	90.0	50.0	38.018/38.002	10.00x8.00	41.3	M10x20
T7EBS, T7EDS	1	●	90.9	50.8	38.10/38.05	9.52x9.47	42.36	M10x20
	2	●	61.9	38.1	31.75/31.70	7.94x7.89	35.27	-
	3	●	55.9	38.1	SAE J498b class1, Diametral pitch 12/24, 14T			-
	4	●	62.2	31.5	SAE J498b class1, Diametral pitch 12/24, 17T			-
T7EE	2	●	92.0	63.0	45.000/44.975	14.00x9.00	48.5	M12x24
T7EES	1	●	90.9	63.5	38.100/38.075	9.52x9.47	42.36	M10x20
	3	●	62.2	31.5	SAE J498b class1, Diametral pitch 12/24, 17T			-
	4	●	75.0	48.8	SAE J498b class1, Diametral pitch 8/16, 13T			-
	5	●	343	40.7	SAE J498b class1, Diametral pitch 16/32, 13T			-
T67CB, T6CC	1	●	238	58.2	22.225/22.200	4.76x4.71	24.53	-
	2	●	357	71.4	25.400/25.370	6.35x6.30	28.22	M8x16
	3	●	545	45.5	SAE J498b class1, Diametral pitch 16/32, 15T			-
	5	●	343	40.7	SAE J498b class1, Diametral pitch 16/32, 13T			-
T67DB, T67DC, T6DC	1	●	721	83.6	31.750/31.700	7.94x7.89	35.27	M10x20
	2	●	577	73.2	31.750/31.700	7.94x7.89	35.27	-
	3	●	55.2	38.0	SAE J498bclass1, Diametral pitch 12/24, 14T			-
	4	●	77.7	48.0	SAE J498b class1, Diametral pitch 12/24, 14T			-
	5	●	83.4	60.0	34.900/34.875	7.94x7.89	38.42	M8x16
T67EB, T67EC, T6EC, T6ED	1	●	90.9	50.8	38.100/38.050	9.52x9.47	42.36	M10x20
	2	●	577	61.9	31.750/31.700	7.94x7.89	35.27	-
	3	●	55.7	38.0	SAE J498b class1, Diametral pitch 12/24, 14T			-
	4	●	62.2	31.5	SAE J498bclass1, Diametral pitch 12/24, 17T			-

● 能在最大流量, 最高压力下工作
Work at maximum flow and pressure.

T6, T67, T7 系列三联泵 Series Treble pumps



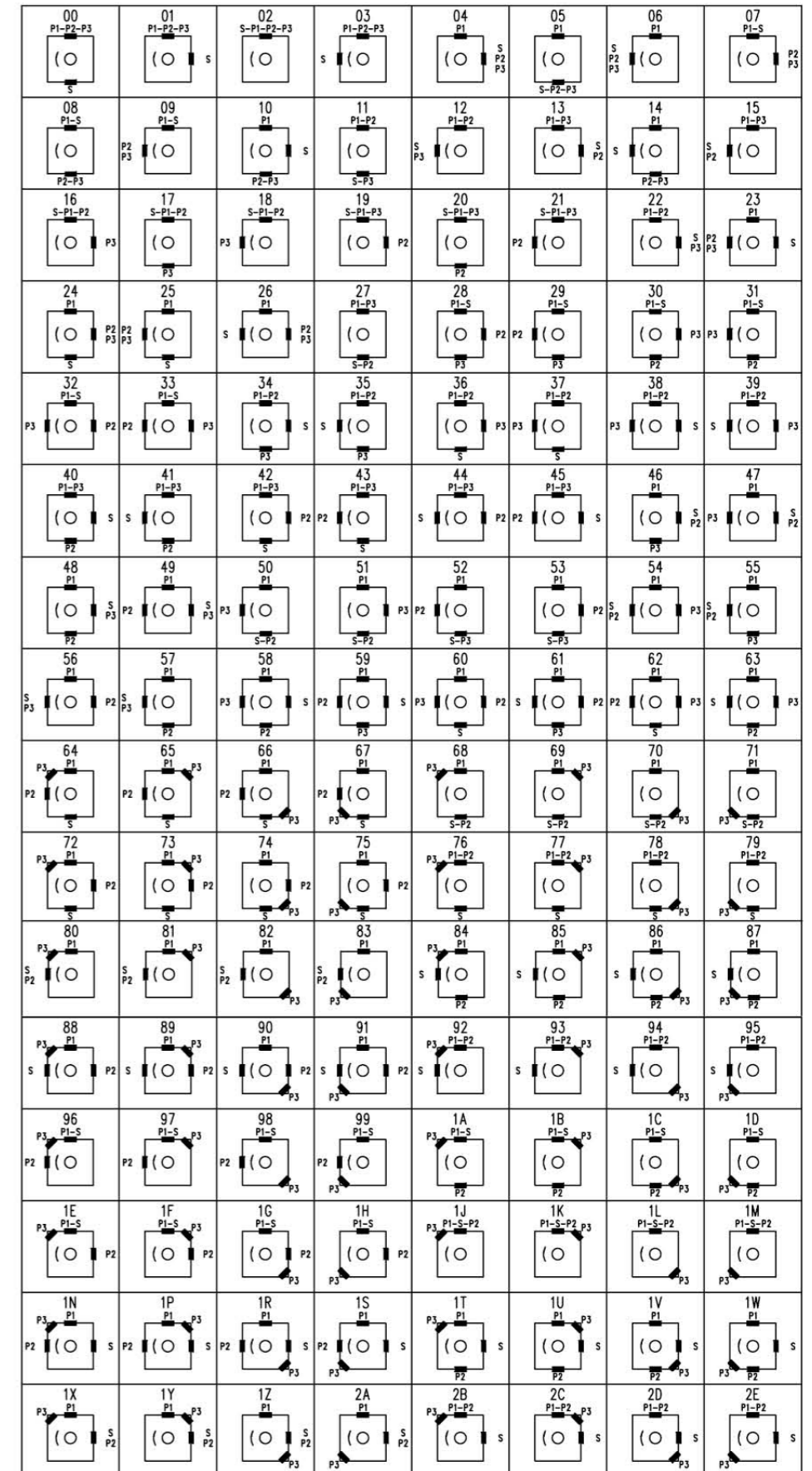
型号说明/Model Designation

T6DCC	(M)	-042	-017	-010	-1	R	02	-A	1	01
系列号 Series	类别代号 Type Code	轴端泵排量代号 Flow-shaft end Pump	中间泵排量代号 Flow-mid pump	盖端泵排量代号 Flow-cover end pump	轴伸形式 Shaft type	旋转方向 Rotation	油口位置 Port positions	设计号 Design number	密封等级 Sealing Level	油口尺寸 Port dimensions
T67DBB (S)		014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						无此选项 NO
T67DCB (S)	无: 工业用型	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15		从泵的 轴端看				无此选项 NO
T6DCC	M: 车用型 S: 车用型 采用SAE J744c 安装法兰	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31		R-顺时针 旋转 L-逆时针 旋转				00、01, 见安装连接 尺寸 See installation dimensions
T67DDBS	NO: industrial type	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	见轴伸 尺寸 See size of shaft	Viewed from shaft end of pump	见下图 see picture below	A	1-S1, 丁腈橡胶 NBR Nitrile rubber 5-S5, 氟橡胶 Fluororubber	无此选项 NO
T6DDC	M: truck type S: truck type use SAE SAE C J744 installation flange	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31		R- right hand for clockwise L- left hand for counter- clockwise				00、01, 见安装连接 尺寸 See installation dimensions
T6EDB (S)		042, 045, 050, 052, 057, 062, 066, 072, 085	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						无此选项 NO
T6EDC		042, 045, 050, 052, 057, 062, 066, 072, 085	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31						00、01, 见安装连接 尺寸 See installation dimensions

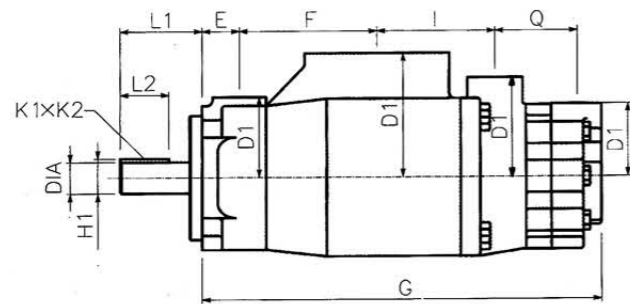
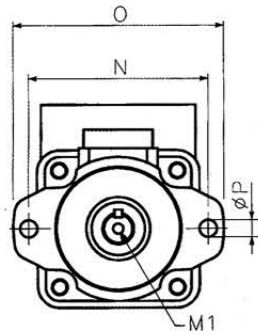
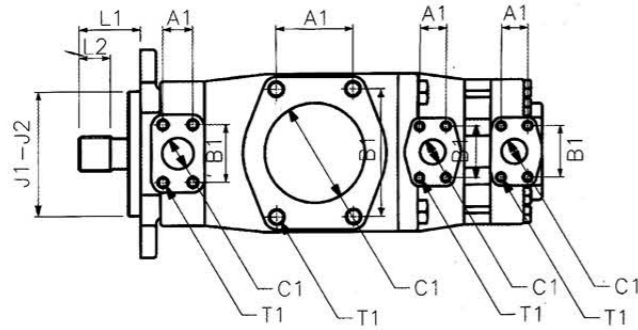
003/B03 排量代号中0表示单转向型配流侧板结构, B表示双转向型配流侧板结构; 与相应系列、规格的T6单泵性能参数一致, 详见T6系列单泵的性能参数
In displacement code, 0 means single steering valve plate structure, B means the two steering valve plate structure.
The data of relevant series ,model are unanimous.Please see T6 series-single pumps data

油口位置(从泵的轴端看)/Port positions(Viewed from shaft end of pump)

- T67DBB(S)
- T67DCB(S)
- T6DCC
- T67DDBS
- T6DDC
- T6EDB(S)
- T6EDC



安装连接尺寸/Installation Dimensions



T6DCC T67DCB(S) T67DBB(S)	
E	38.1
F	138.0
G	404.0
I	119.3
J1	127.00
J2	126.95
N	181.0
O	212.4
ΦP	17.5
Q	84.4

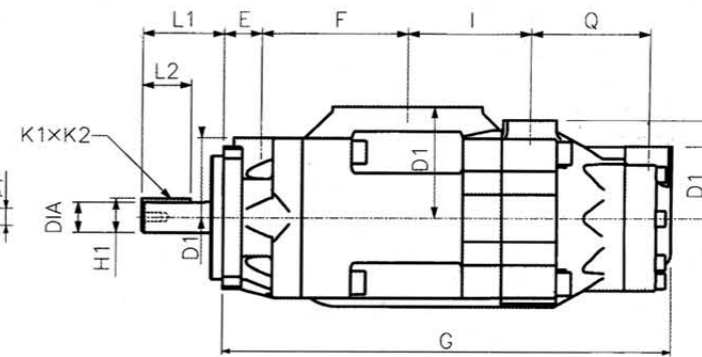
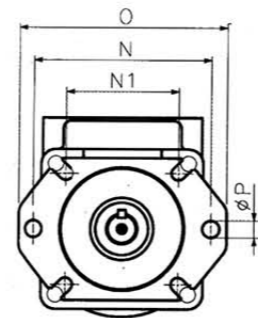
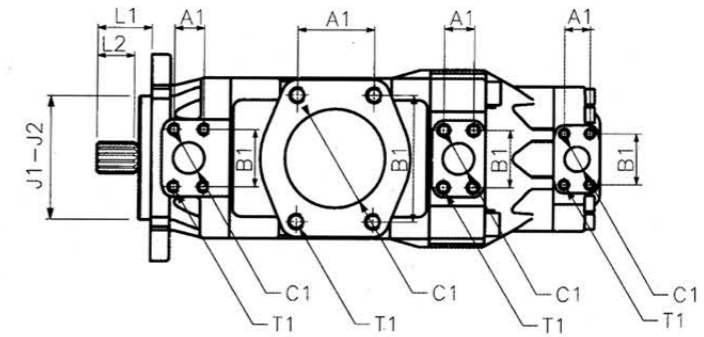
轴伸/Shaft extension

型号 Model	轴伸代号 Shaft code	最大扭矩 Max torque (N.m)	L1	L2	DIA	K1xK2	H1	M1
T67DBB(S) T67DCB(S) T6DCC	1	721	83.6	49.3	31.750/31.700	6.35x6.30	34.6	-
	2	1108	89.7	50.8	38.100/38.075	9.52x9.47	42.4	-
	3	●	55.2	38.0	SAE J498b 1级class, 径节Diametral pitch12/24, 14T			-
	4	●	61.0	31.5	SAE J498b 1级class, 径节Diametral pitch12/24, 17T			-
T6DCC	5	●	76.0	48.0	SAE J498b 1级class, 径节Diametral pitch12/24, 14T			-

● 能在最大流量, 最高压力下工作。
work at maximum flow and pressure.

油口/Oil port	法兰 Flange	安装尺寸/Install Dimensions(mm)						
		A1	B1	ΦC1	D1	T1口螺纹Thread		
T67DBB T67DCB	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	P2	1"	F08	26.2	52.4	25.4	101.6	3/8"-16UNCx19.0
	P3	3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	S	4"	F32	77.8	130.2	101.6	127	5/8"-11UNCx30.0
T6DCC	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	P2	1"	F08	26.2	52.4	25.4	101.6	3/8"-16UNCx19.0
	P3	01: 3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	P3	00: 1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
	S	4"	F32	77.8	130.2	101.6	127	5/8"-11UNCx30.0

安装连接尺寸/Installation Dimensions



T6DDCS T67DBS	
E	38.1
F	148.5
G	455.0
I	125.0
J1	127.00
J2	126.95
N	181.0
O	213.0
ΦP	17.5
Q	120.0

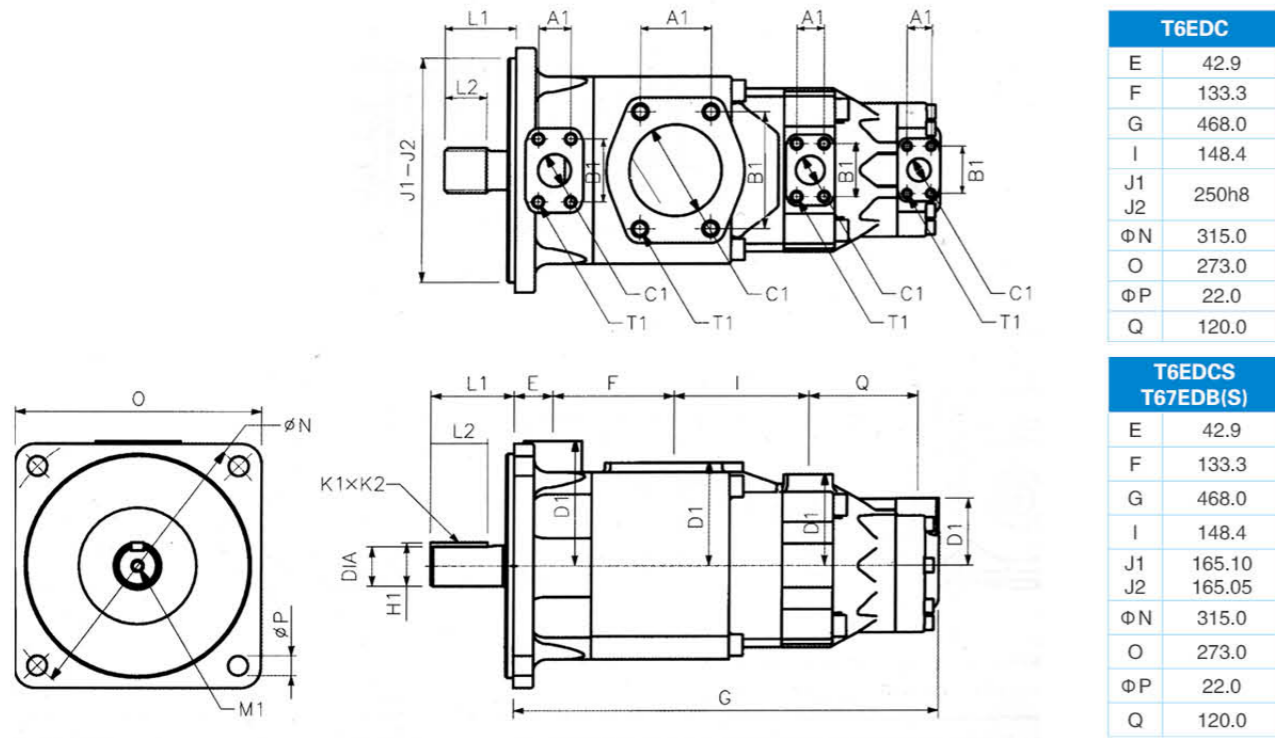
轴伸/Shaft extension

型号 Model	轴伸代号 Shaft code	最大扭矩 Max torque (N.m)	L1	L2	DIA	K1xK2	H1	M1
T67DBS T6DDCS	1	686	84.0	49.3	31.750/31.700	7.94x7.89	35.27	M10x20
	2	1148	91.0	50.8	38.100/38.075	9.52x9.47	42.36	M10x20
	5	883	84.0	60.0	34.900/34.850	7.94x7.89	38.42	M10x20
	3	971	56.0	38.0	SAE J498b 1级class, 径节Diametral pitch 12/24, 14T			-
	4	●	62.0	31.5	SAE J498b 1级class, 径节Diametral pitch 12/24, 17T			-

● 能在最大流量, 最高压力下工作。
work at maximum flow and pressure.

油口/Oil port	法兰 Flange	安装尺寸/Install Dimensions(mm)						
		A1	B1	ΦC1	D1	T1口螺纹Thread		
T67DBS	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24.0
	P3	3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	S	4"	F32	77.8	130.2	101.6	115.0	5/8"-11UNCx30.0
T6DDCS	P1	1-1/4"	F10	30.2	58.7	31.8	82.6	7/16"-14UNCx22.3
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24.0
	P3	01: 3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	P3	00: 1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
	S	4"	F32	77.8	130.2	101.6	115.0	5/8"-11UNCx30.0

安装连接尺寸/Installation Dimensions



轴伸 Shaft extension

型号Model	轴伸代号 Shaft code	最大扭矩 Max torque (N.m)	L1	L2	DIA	K1xK2	H1	M1
T67EDB, T6EDC T6EDCS	1	●	92.0	63.0	45h7	14h7x9	48.5	M12x24
T6EDCS	2	●	100.0	63.5	44.45/44.40	11.11x11.06	49.3	1/2-UNCx24
	3	●	75.0	48.8	SAE J498b 1级 class, 径节Diametral pitch8/16, 13T			-

● 能在最大流量，最高压力下工作。
work at maximum flow and pressure.

油口/Oil port	法兰 Flange	安装尺寸/Install Dimensions(mm)						
		A1	B1	φC1	D1	T1口螺纹Thread		
T67EDB	P1	1-1/2"	F12	35.7	69.9	37.1	139.7	1/2"-13UNCx30.0
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24.0
	P3	3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	S	4"	F32	77.8	130.2	101.6	115.0	5/8"-11UNCx30.0
T6EDC T6EDCS	P1	1-1/2"	F12	35.7	69.9	37.1	139.7	1/2"-13UNCx30.0
	P2	1-1/4"	F10	30.2	58.7	31.8	101.6	7/16"-14UNCx24.0
	P3	01: 3/4"	F06	22.2	47.6	19.0	74.7	3/8"-16UNCx19.0
	P3	00: 1"	F08	26.2	52.4	25.4	74.7	3/8"-16UNCx19.0
S	4"	F32	77.8	130.2	101.6	115.0	5/8"-11UNCx30.0	

T6GC, T7GB, T6GCC, T67GCB, T7GBB 系列柱销式叶片泵 Series pin Vane Pumps

适用于工程机械特别是行走机械的高压高性能柱销式叶片泵。

主要特点为：

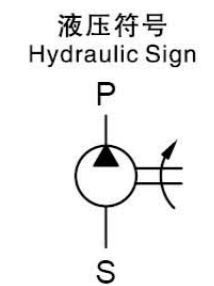
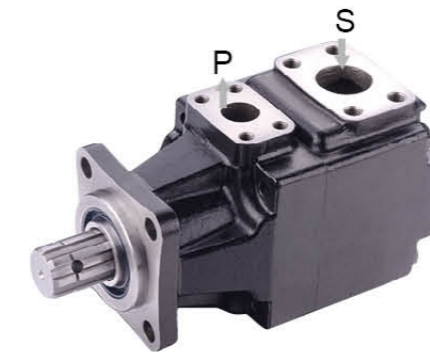
- 1、改进的轴承结构及矩形花键轴设计，可以由发动机或变速箱直接驱动。
- 2、双油封结构，适应行走机械的恶劣环境。
- 3、采用插装式结构，泵芯与T6C及T7B叶片泵泵芯完全互换，维修方便。

The high pressure and high performance pin type vane pump is applicable to engineering machinery, especially to mobile machinery.

The main features:

- 1.The improved bearing structure and rectangle spline shaft design can be driven by motor or gearbox directly.
- 2.Double shaft seal structure, is fit for bad situations of mobile machinery.
- 3.Adopt insert structure, the cartridge kit of T6C and T7B can be interchangeable completely, very convenient for repair.

T6GC, T7GB 系列单泵 Series single pumps



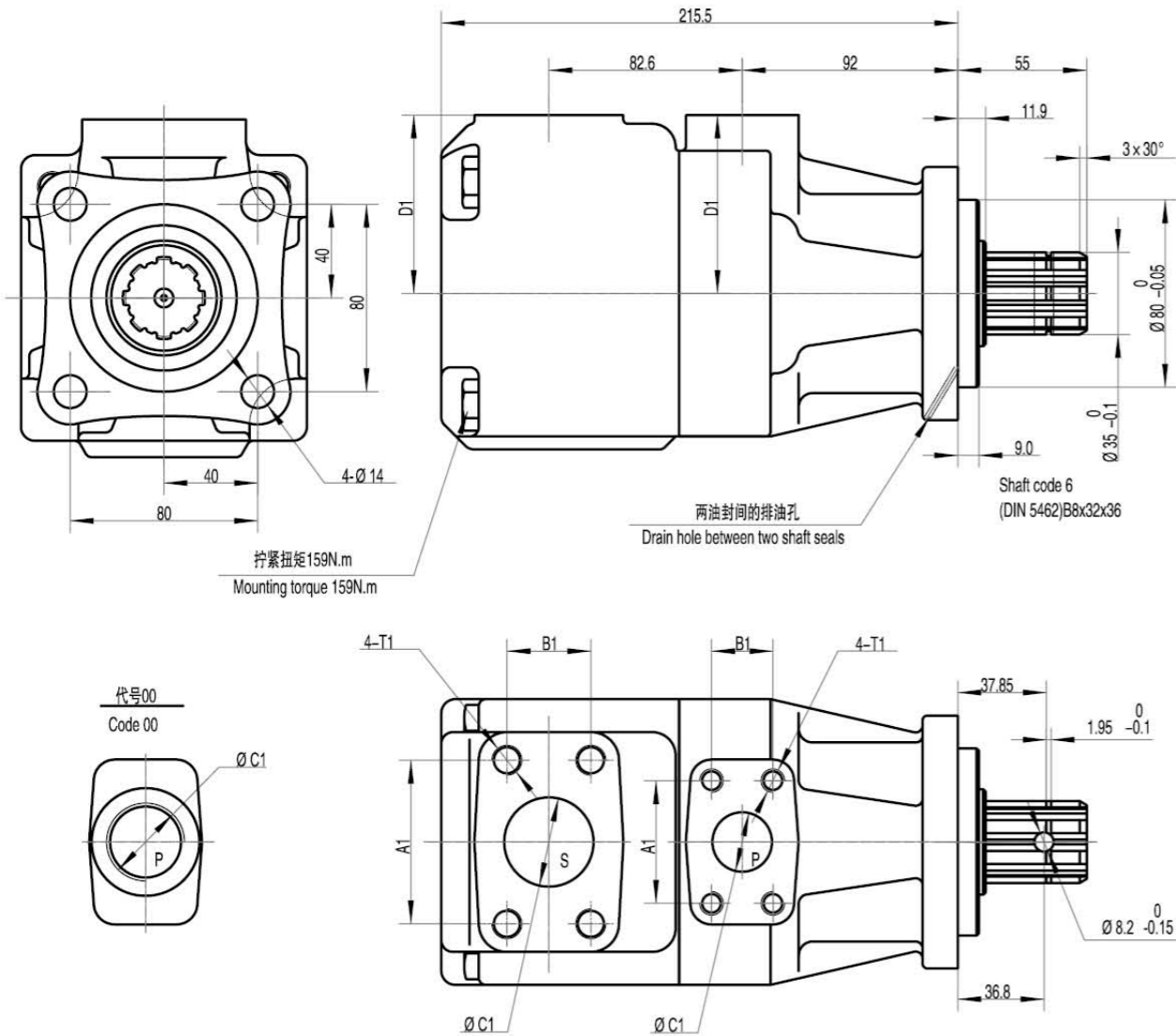
型号说明/Model Designation

T6GC	-B10	-6	R	00	-A	1	01
系列号 Series	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出口位置 Outlet Positions	设计号 Design number	密封等级 Sealing Level	油口尺寸 Port dimensions
T6GC	B03, B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31	见轴伸尺寸 See size of shaft	从泵的轴端看 Viewed from shaft end of pump R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	A	1-S1, 丁腈橡胶 NBR Nitrile rubber 5-S5, 氟橡胶 Fluororubber	00: 法兰螺纹 Flange 1"BSPP 01: SAE法兰四螺孔 Flange SAE 4 bolts(UNC) 见安装连接尺寸 See installation dimensions
T7GB	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						

B03 排量代号中B表示双向型配流板结构；与相应系列、规格的T6单泵性能参数一致，详见T6系列单泵的性能参数
B means the two steering valve plate structure.
The data of relevant series, model are unanimous. Please see T6 series-single pumps data.

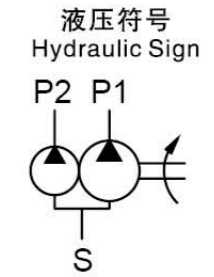
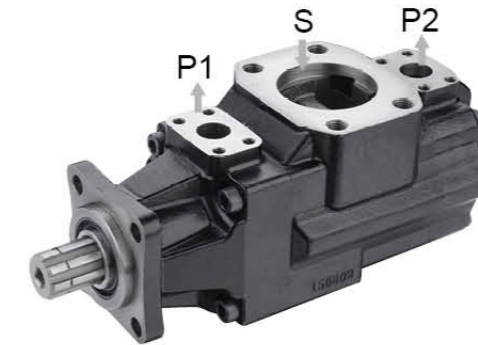
安装连接尺寸/Installation Dimensions

T6GC、T7GB



油口/Oil port		法兰 Flange	安装尺寸/Install Dimensions(mm)					
			A1	B1	ΦC1	D1	T1口螺纹Thread	
T6GC T7GB	P	01: 1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0
		00: 1"BSPP	-	-	-	1"BSPP	79.5	-
	S	1-1/2"	F12	35.7	69.9	38.1	76.2	1/2"-13UNCx22.4

T6GCC, T67GCB, T7GBB 系列双联泵 Series Double Pumps



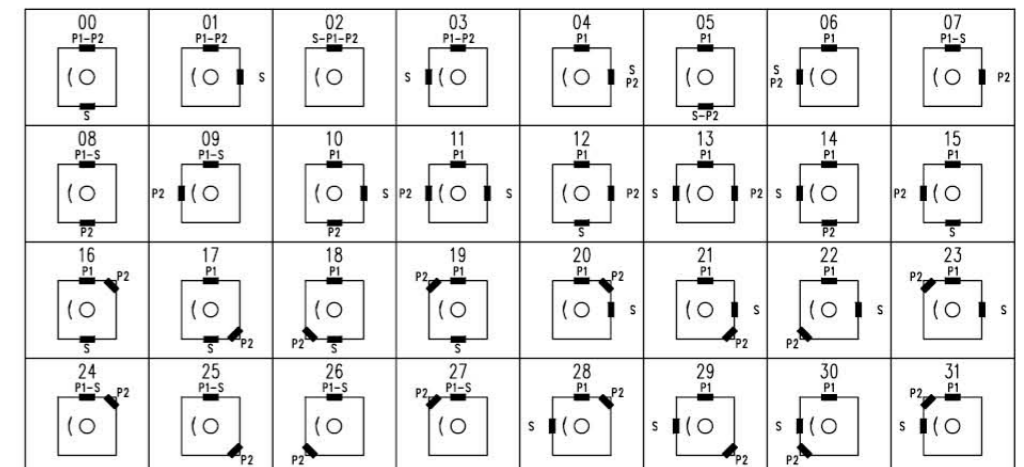
型号说明/Model Designation

T6GCC	-B25	-B17	-6	R	02	-B	1	10
系列号 Series	轴端泵排量代号 Flow-shaft end Pump	盖端泵排量代号 Flow-cover end Pump	轴伸形式 Shaft type	旋转方向 Rotation	油口位置 Port Positions	设计号 Design number	密封等级 Sealing Level	油口尺寸 Port dimensions
T6GCC	B03, B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31	B03, B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31	见轴伸尺寸 See size of shaft	从泵的轴端看 Viewed from shaft end of pump R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise	见下图 see below	B	1-S1, 丁腈橡胶 NBR Nitrile rubber 5-S5, 氟橡胶 Fluororubber	00, 01, 10, 11 见安装连接尺寸 See installation dimensions
T67GCB	B03, B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						
T7GBB	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15						

B03 排量代号中B表示双转向型配流侧板结构; 与相应系列、规格的T6单泵性能参数一致, 详见T6系列单泵的性能参数
B means the two steering valve plate structure.
The data of relevant series, model are unanimous. Please see T6 series-single pumps data.

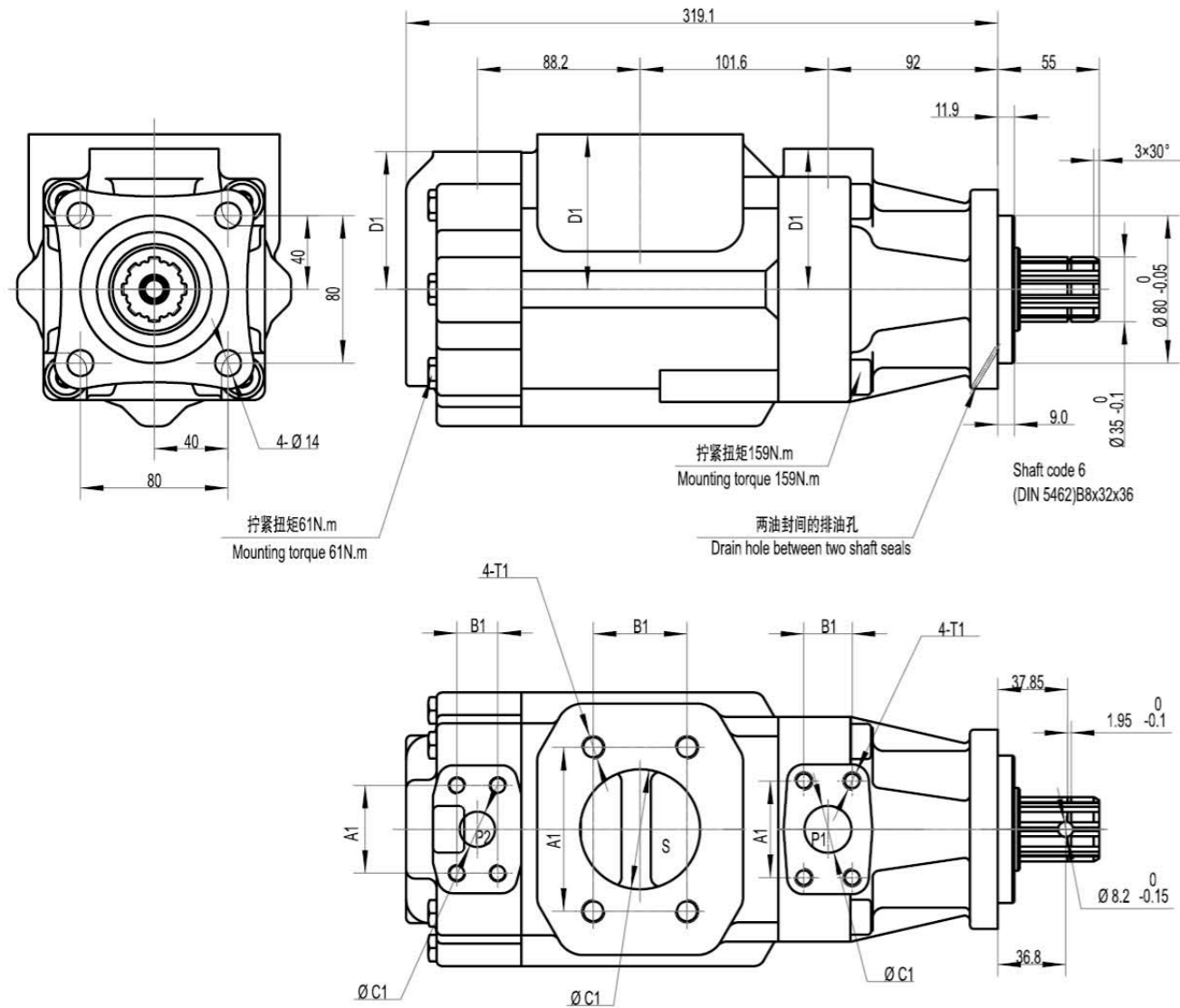
油口位置(从泵的轴端看)/Port positions(Viewed from shaft end of pump)

T6GCC
T7GBB
T67GCB



安装连接尺寸/Installation Dimensions

T6GCC、T67GCB、T7GBB



油口/Oil port		法兰 Flange	安装尺寸/Install Dimensions(mm)					
			A1	B1	ΦC1	D1	T1口螺纹Thread	
T6GCC T67GCB T7GBB	P1	1"	F08	26.2	52.4	25.4	76.2	3/8"-16UNCx19.0
	P2	01-11: 3/4"	F06	22.2	47.6	19.0	76.2	3/8"-16UNCx19.0
		00-10: 1"	F08	26.2	52.4	25.4	74.7	
	S	10-11: 2-1/2"	F20	50.8	88.9	63.5	84.1	1/2"-13UNCx23.9
00-01: 3"		F24	61.9	106.4	76.2	84.1	5/8"-11UNCx28.4	

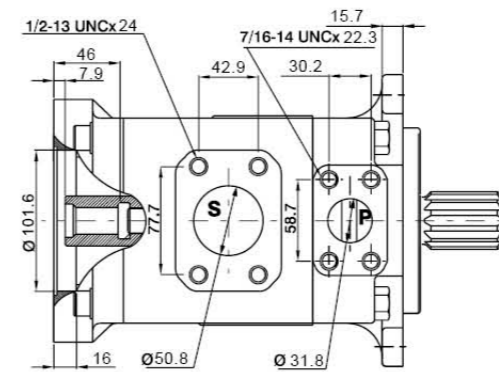
T6DR 系列通轴式叶片泵
Series Vane Pumps



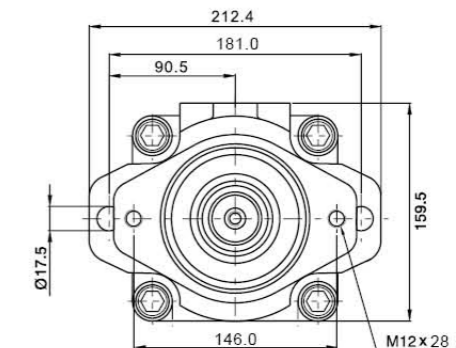
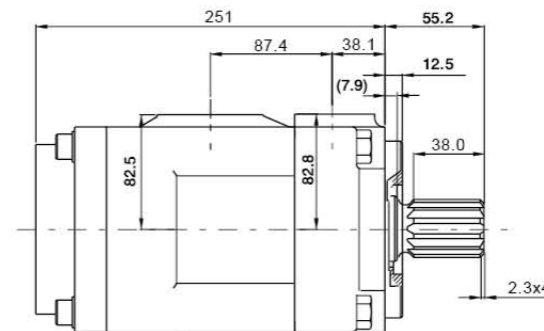
型号说明/Model Designation

T6DR	-014	-3	R	00	B20	-A	1
系列号 Series	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出油口位置 Outlet positions	转接口位置 Porting adaptor	设计号 Design number	密封等级 Sealing Level
T6DR	014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061	3花键轴 Splined (SAE C)	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	B20 P B21 P	A	1-S1, 丁腈橡胶 NBR Nitrile rubber 5-S5, 氟橡胶 Fluororubber

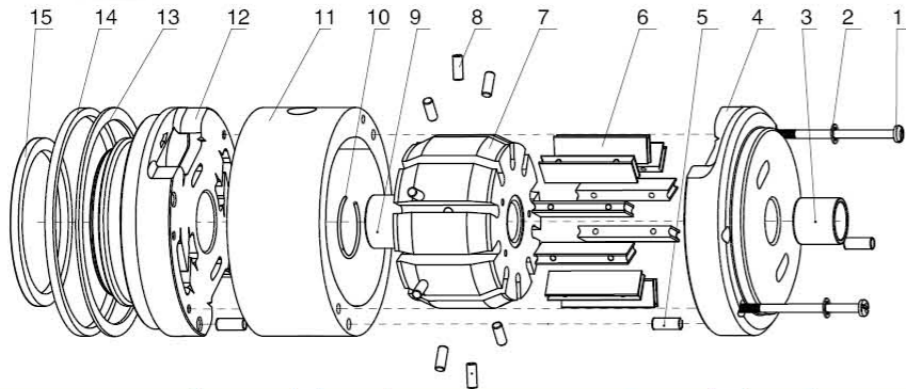
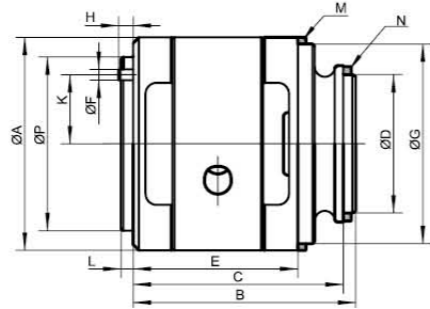
安装连接尺寸/Installation Dimensions



Shaft code 3
SAE C SPLINED SHAFT
CLASS 1-J498 b
12/24 d.p. - 14 TEETH
30° PRESSURE ANGLE
FLAT ROOT SIDE FIT



T6, T7 系列泵芯 Series cartridge

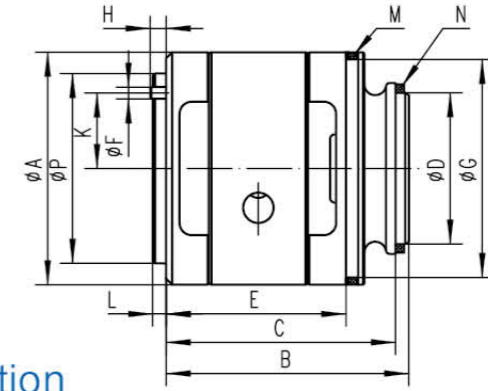


序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty	序号 NO.	名称 Part	数量 Qty
1	一字槽盘头螺钉 slotted pan head screw	2	6	叶片 kit vane	10 or 12	11	定子 cam ring	1
2	内齿锁紧垫圈 internal tooth seal kit	2	7	转子 rotor	1	12	压力侧板 outlet support plate	1
3	滑动轴承 sliding bearing	1	8	柱销 Pins	10 or 12	13	挡圈 retainer	1
4	侧板 inlet support plate	1	9	密封套 Seal bush	1	14	矩形密封圈 rectangle seal kit	1
5	销 Pin	3	10	孔用钢丝挡圈 Roundwire snap rings for hole	1	15	矩形密封圈 rectangle seal kit	1

型号说明/Model Designation

前泵芯 Cartridge name	T6DC 系列号 Series	-045 排量代号 Flow code	R 旋转方向 Rotation	1 密封等级 Sealing Level
单泵芯 前泵芯 (双联泵或三联泵轴端泵芯)	T7B(S), T7BB(S), T67CB, T67DB, T67EB, T67DBB, T67DCB, T67DDBS, T67EDB	B02, B03, B04, B05, B06, B07, B08, B10, B12, B15	从泵的轴端看 Viewed from shaft end of pump R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	1-S1, 丁腈橡胶 NBR Nitrile rubber 5-S5, 氟橡胶 Fluororubber
中泵芯 (三联泵中间泵芯)	T7D(S), T7DB(S), T7ED(S), T67DC, T67ED	B14, B17, B20, B22, B24, B28, B31, B35, B38, B42		
后泵芯 (双联泵或三联泵盖端泵芯)	T7E(S), T7EE(S), T7ED(S)	042, 045, 050, 052, 054, 057, 062, 066, 072, 085		
	T6C, T6CC, T67CB, T6DC, T6EC, T6DCC, T67DCB, T6DDCS, T6EDC(S)	003/B03, 005/B05, 006/B06, 008/B08, 010/B10, 012/B12, 014/B14, 017/B17, 020/B20, 022/B22, 025/B25, 028/B28, 031/B31		
	T6D, T6DC, T67DB, T6ED, T6DCC, T67DBB, T67DCB, T6DDCS, T67DDBS, T6EDC(S), T67EDB	014/B14, 017/B17, 020/B20, 024/B24, 028/B28, 031/B31, 035/B35, 038/B38, 042/B42, 045/B45, 050/B50, 061		
	T6E, T6EC, T67EB, T6ED, T6EDC(S), T67EDB	042, 045, 050, 052, 057, 062, 066, 072, 085		

003/B03 排量代号中0表示单转向型配流侧板结构, B表示双转向型配流侧板结构; 与相应系列、规格的T6单泵性能参数一致, 详见T6系列单泵的性能参数。
In displacement code, 0 means single steering valve plate structure, B means the two steering valve plate structure. The data of relevant series ,model are unanimous.Please see T6 series-single pumps data.

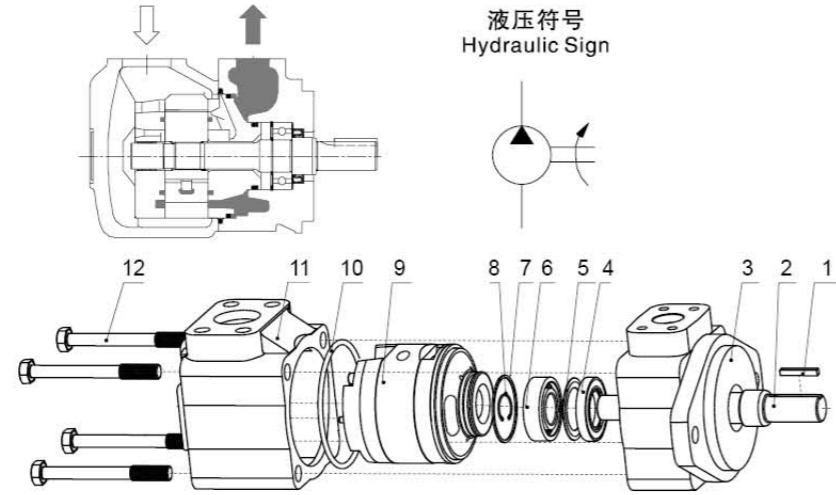


型号说明/Model Designation

泵芯名称 Cartridge name	滑动轴承内径 Sliding bearing diameter	ØA	B	C	ØD	E	ØF	ØG	H	K	M(橡胶平垫圈 Rubber washer)	N(橡胶平垫圈 Rubber washer)	ØP	L
单泵芯T6C, T7B(S)	Ø15.90													
前泵芯T6CC, T67CB, T7BB(S)	无滑动轴承													
后泵芯T6CC, T7BB(S), T67CB, T6DCC, T67DBB, T67DCB, T6DDCS, T67DDBS, T6EDC(S), T67EDB	Ø19.05	95.25	99.4	93.9	61.9	72.1	4.8	89.1	4.8	43.7	88.5×3.53	60×3.53	77.7	5.5
后泵芯T6DC, T7DB(S), T7EB(S), T67DB, T67DC, T6EC, T67EC, T67EB	Ø22.225													
中泵芯T6DCC, T67DBB, T67DCB	无滑动轴承	95.25	83.4	77.3	52.6	-	4.8	-	4.8	43.7	89x2.4	52x2.4	77.7	5.5
单泵芯T6D, T7D(S), 前泵芯T6DCC, T67DBB, T67DCB	Ø22.225													
前泵芯T6DC, T67DB, T7DB(S), T7DD(S), T67DC, T6DDCS, T67DDBS	无滑动轴承	123.0	132.4	125.8	71.9	102.2	6.4	108.1	8.0	41.2	107.5×3.53	69.5×3.53		无此台阶
后泵芯T6ED, T7DD(S) 中泵芯T6EDC(S), T67EDB	Ø28.6													
中泵芯T6DDCS, T67DDBS 后泵芯T7DD(S)	Ø22.225													
单泵芯T6E, T7E(S)	Ø28.6													
前泵芯T6ED, T6EC, T67EB, T7EB(S), T7ED(S), T7EE(S), T6EDC(S), T67EDB, T67EC	无滑动轴承	143.08	150.3	142.5	88.0	113.0	8.0	137.0	8.0	49.2	136.1×3.53	85.3×3.53		

泵芯名称 Cartridge name	转子内花键齿廓参数 Inside spline tooth outline parameter of rotor				
	齿数 Number of teeth	径节 Pitch	压力角 Pressure angle	大径 Major diameter	小径 Minor diameter
前泵芯T6CC, T7BB(S), T67CB 中泵芯T6DCC, T67DBB, T67DCB	32	40/80	45°	21.41	19.9
单泵芯T6C, T7B(S) 后泵芯T6CC, T7BB(S), T7DB(S), T7DD(S), T7EB(S), T67CB, T6DC, T67DB, T6EC, T67EB, T67DC, T67EC, T6DCC, T67DBB, T67DCB, T6DDCS, T67DDBS, T6EDC(S), T67EDB	28	40/80	45°	18.87	17.4
单泵芯T6D 前泵芯T6DC, T67DB, T6DCC, T67DBB, T67DCB, T6DDCS, T67DDBS, 中泵芯T6EDC(S), T67EDB 后泵芯T6ED, T7ED(S), T7EE(S)	25	24/48	45°	28.19	25.8
中泵芯T6DDCS, T6DDBS	20	24/48	45°	22.89	20.5
单泵芯T6E, T7E(S) 前泵芯T6EC, T67EB, T6ED, T6EDC(S), T67EDB	34	24/48	45°	37.72	35.4

V 系列单泵 Series single pumps



序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty
1	平键straight key	1	5	垫片gasket	1	9	泵芯 cartridge	1
2	轴shaft	1	6	滚动轴承Ball bearing	1	10	O型圈O ring	1
3	前盖Front cover	1	7	叠形挡圈pile type retainer	1	11	后盖Rear cover	1
4	油封shaft seal	1	8	轴用弹性挡圈cir clip for shaft	1	12	六角头螺栓hexagon headed bolt	4

适用于塑胶机械、鞋革机械、机床、压铸及冶金设备的高性能子母叶片泵。

主要特点为:

- 1、采用子母叶片及施压平衡的结构，减少了叶片对定子的压力，其性能更稳定，寿命更长。
- 2、12叶片制减小了流量脉动的振幅，系统噪声特性低。
- 3、多排量、多轴伸及进出油口四种不同的相对位置，使用户使用更灵活。
- 4、泵芯的插装式结构，现场维修更方便。

High Performance Intravane Pumps for plastic injection machinery, Shoe machinery, Tool machinery, Die casting machinery and Metal I urge equipment.

Features

1. Intravane pumps with hydraulic balancing structure provide more stable performance and longer life since less pressure from vane on stator.
2. Twelve vane system provide low amplitude flow pulsation resulting in low system noise characteristics.
3. Verious displacement and shafts with 4 different outlet opposite position make operation more flexible.
4. The cartridge is independent of the drive shaft, allowing for easy servicing without remore the pump from its mounting.

型号说明/Model Designation

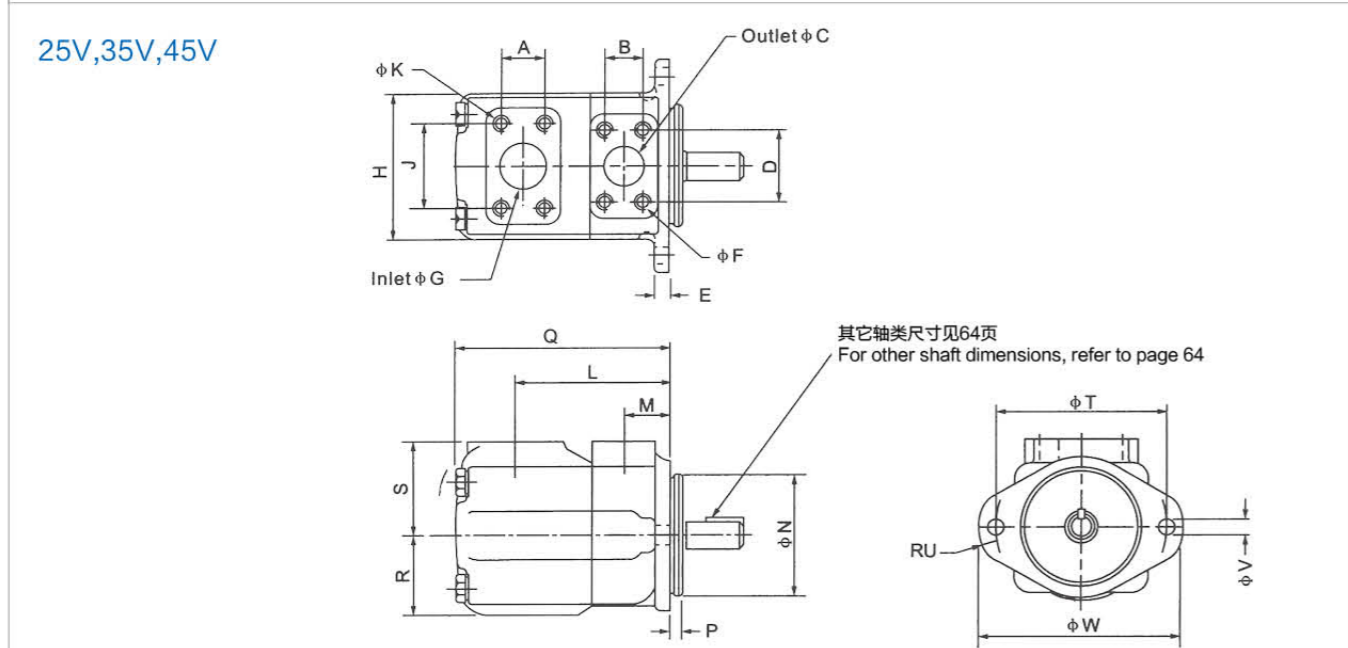
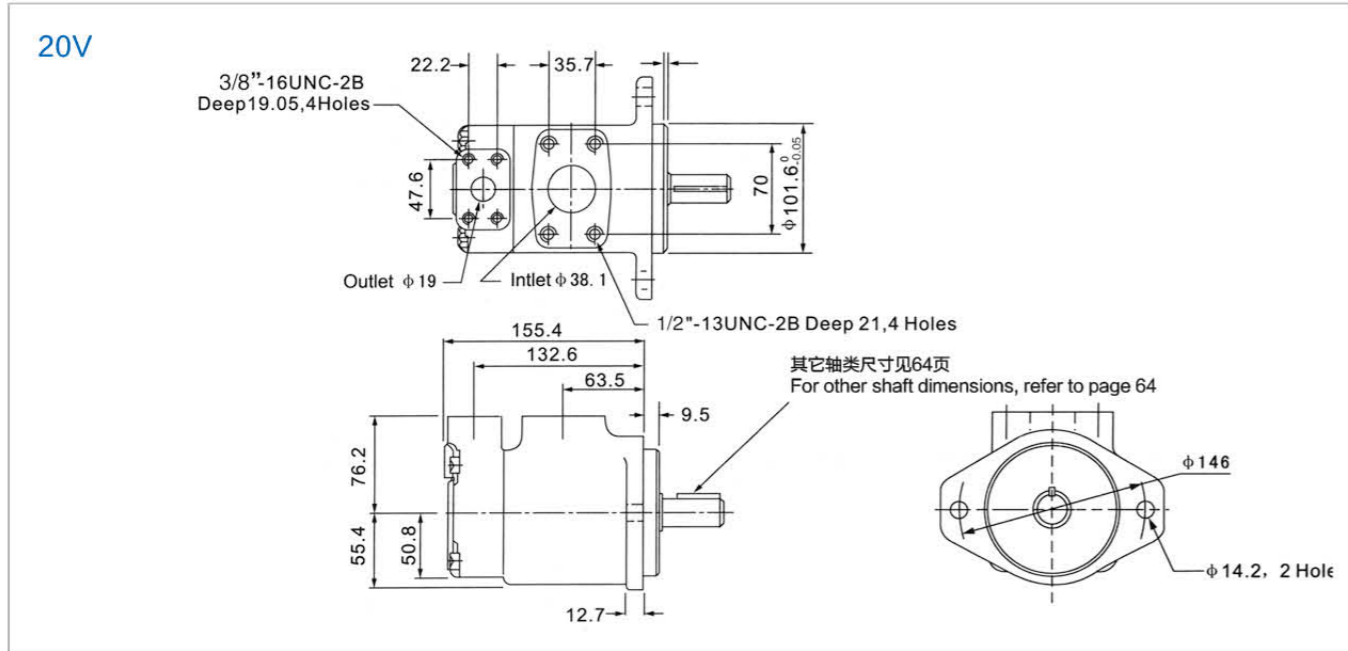
(F3-)	25V	19	A	-1	A	22	R
前注 Note	系列号 Series	▲排量代号 Flow code	油口连接 Port connections	轴伸形式 Shaft type	出口口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无标记 No-marking: 石油系油 Petroleum series oil 乳化液 emulsification fluid 水-乙二醇 water glycol-fluid F3: 磷酸酯液 phosphate ester fluid	20V	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	A-SAE 4螺栓法兰 4-bolt flange	1-平键轴 Str key 151-花键轴 Spline	(从泵的盖端看) (Viewed from cover end of pump) A-进油口对面 Opposite inlet B-从进油口逆时针90° 90° CCW from inlet C-进油口同侧 Inline with inlet D-从进油口顺时针90° 90° CW from inlet	22	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise
	25V	10, 12, 14, 15, 17, 19, 21, 25		1-平键轴 Str key 86-重型平键轴 HD Str key 11-花键轴 Spline			
	35V	21, 25, 30, 32, 35, 38, 45					
	45V	42, 45, 50, 57, 60, 66, 75					

▲ 在1200r/min 和0.69MPa(100psi)下的额定排量
USgpm Flow(USgpm) at 1200r/min and 0.69MPa

技术参数/Technical Data

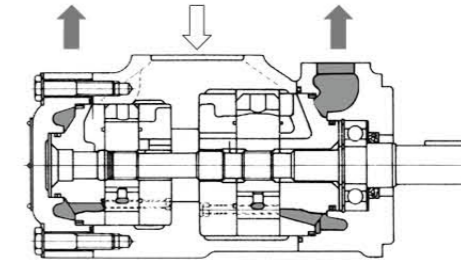
系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displacement mL/r(in ³ /r)	使用抗磨液压油或磷酸酯 With antiwear hydraulic oil ri phosphate ester fluid		使用水-乙二醇 With water glycol fluid		使用油包水乳化液 With water-oil emulsions		最低转速 Min. speed	
			最高使用压力 Max.operating pressure MPa	最高转速 Max.speed r/min	最高使用压力 Max.operating pressure MPa	最高转速 Max.speed r/min	最高使用压力 Max.operating pressure MPa	最高转速 Max.speed r/min		
20V	2	7.5(0.46)	13.8	1800	13.8	1500	6.9	1200	600	
	3	10(0.61)								
	4	13(0.79)								
	5	16.5(1.01)								
	6	19(1.16)								
	7	23(1.40)								
	8	27(1.67)								
	9	30(1.85)								
	10	32(1.95)								
	11	36(2.20)								
	12	40(2.44)	15.9	13.8	1500	6.9	1200	600		
	14	45(2.78)								
	25V	10	32.5(1.98)	17.2	1800	15.9	1500	6.9	1500	600
		12	39(2.38)							
14		45(2.78)								
15		47(2.89)								
17		55(3.36)								
19		60(3.66)								
21		67(4.13)								
25		81(4.94)								
35V	21	67(4.13)	17.2	1800	15.9	1500	6.9	1500	600	
	25	81(4.94)								
	30	97(5.91)								
	32	101(6.16)								
	35	112(6.83)								
	38	121(7.37)								
	45	147(8.95)								13.8
45V	42	138(8.41)	17.2	1800	15.9	1500	6.9	1500	600	
	45	147(8.95)								
	50	162(9.85)								
	57	181(11.05)								
	60	193(11.75)								
	66	212(12.93)								
	75	237(14.46)								13.8

安装连接尺寸 Installation Dimensions



型号 Model	A	B	ØC	D	E	ØG	H	J	L	M	N	P	Q	R
25V	35.7	26.2	25.4	52.4	12.7	38.1	118	69.9	121	38.1	101.60/101.55	9.53	162.1	63.5
35V	42.9	30.2	31.8	58.7	16	50.8	140	77.8	125.5	38.1	127.00/126.95	9.53	185	69.9
45V	61.9	35.7	38.1	69.9	16	76.2	159	106.4	153	43	127.00/126.95	12.7	216	82.6
型号 Model	S	T	RU	ØV	W	ØX	ØFX螺纹深度,4孔 ØFx full thread depth,4 holes		ØKX螺纹深度,4孔 ØKx full thread depth,4 holes					
25V	76.2	146	14	14.2	175	121	3/8-16UNC-2BX19.1		1/2-13UNC-2BX23.8					
35V	82.6	181	16	17.5	213	148	7/16-14UNC-2BX22.3		1/2-13UNC-2BX22.3					
45V	93.7	181	16	17.5	213	148	1/2-13UNC-2BX23.8		5/8-11UNC-2BX25.4					

V 系列双联泵
Series Double pumps



型号说明/Model Designation

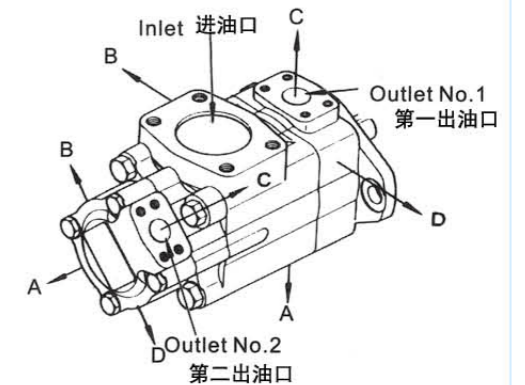
(F3-)	3525V	38	A	17	-1	AB	22	R
前注 Note	系列号 Series	▲轴端泵排量代号 Flow-Shaft end code	油口连接 Port connections	▲盖端泵排量代号 Flow-Cover end code	轴伸形式 Shaft type	出油口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无标记 No-marking:	2520V	10, 12, 14, 15, 17, 19, 21, 25	A-SAE 4螺栓法兰 4-bolt flange	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	1-平键轴 Str key 86-重型平键轴 HD Str key 11-花键轴 Spline	见下表 See below	22	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise
石油系油 Petroleum series oil	3520V	21, 25, 30, 32, 35, 38, 45		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14				
乳化液 emulsification fluid	3525V	21, 25, 30, 32, 35, 38, 45		10, 12, 14, 15, 17, 19, 21, 25				
水-乙二醇 water glycol-fluid	4520V	42, 45, 50, 57, 60, 66, 75		2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14				
F3: 磷酸酯液 phosphate ester fluid	4525V	42, 45, 50, 57, 60, 66, 75		10, 12, 14, 15, 17, 19, 21, 25				
	4535V	42, 45, 50, 57, 60, 66, 75		21, 25, 30, 32, 35, 38, 45				

▲ 在1200r/min和0.69MPa(100psi)下的额定排量
USgpm Flow(USgpm) at 1200r/min and 0.69MPa

出油口位置 (从泵的盖端看)

Outlet Positions (Viewed from cover end of pump)

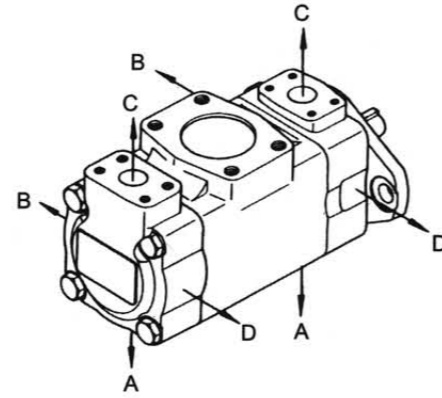
出油口位置 Outlet positions	除4535V外的所有系列 All series except 4535V	4535V
第一出油口 在进油口对面 No.1 outlet opposite inlet	AA 第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	AB 第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	AC 第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	AD 第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口 从进油口 逆时针转90° No.1 outlet 90° CCW from inlet	BA 第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	BB 第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	BC 第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	BD 第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet



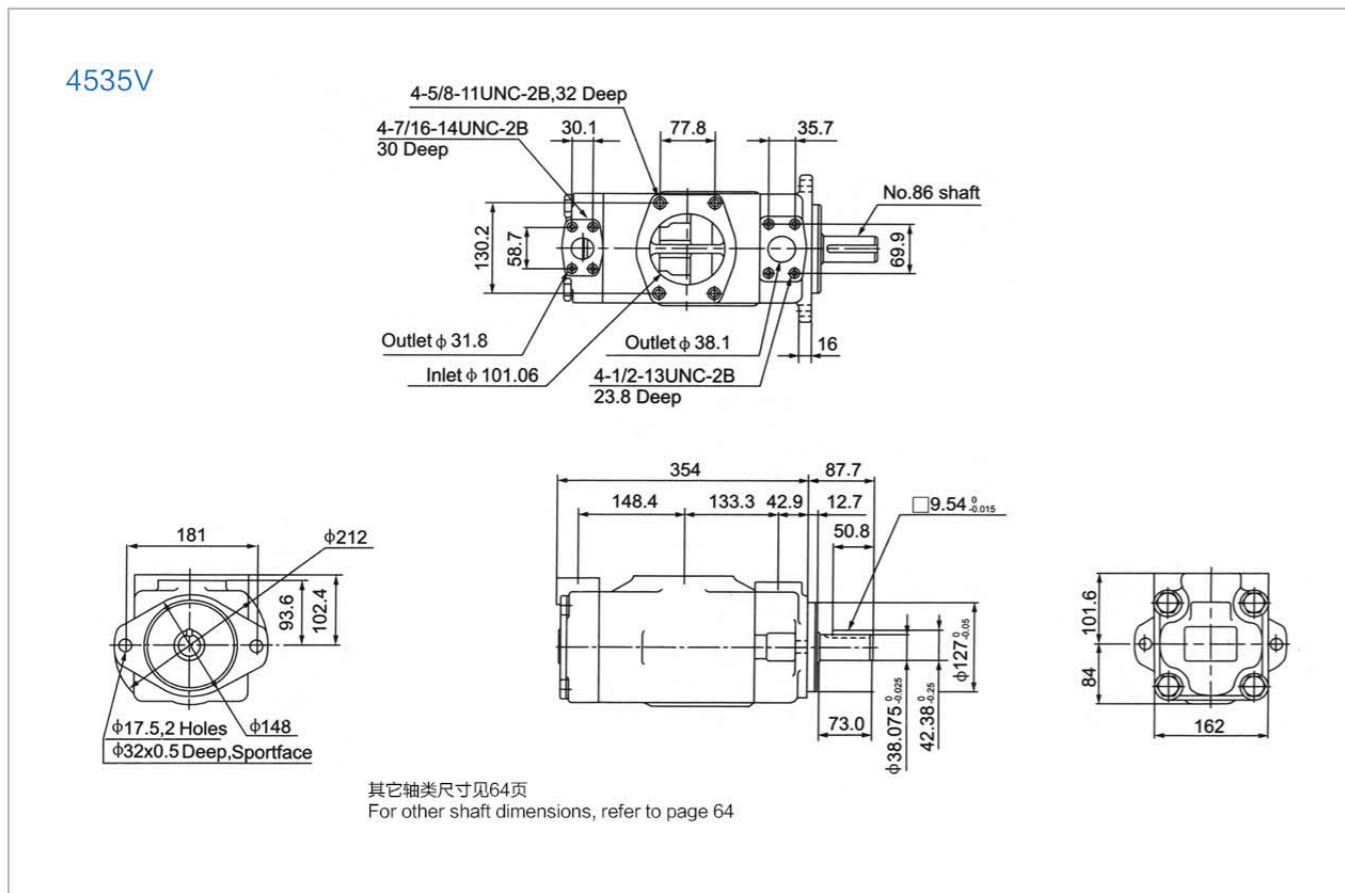
出油口位置 (从泵的盖端看)

Outlet Positions (Viewed from cover end of pump)

出油口位置 Outlet positions	除 4535V 外的所有系列 All series except 4535V	4535V
第一出油口 在进油口同侧 No.1 outlet inline with inlet	CA 第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	CB 第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	CC 第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	CD 第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口 从进油口 顺时针转90° No.1 outlet 90° CW from inlet	DA 第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	DB 第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	DC 第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	DD 第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet

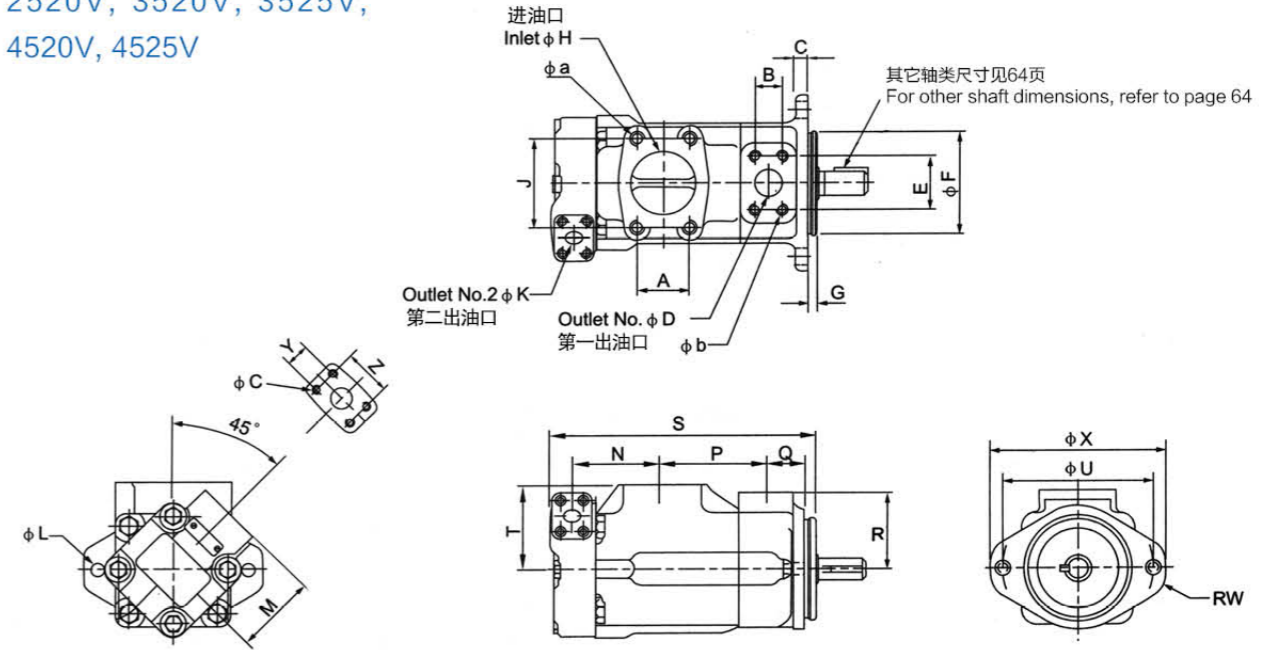


安装连接尺寸/Installation Dimensions



安装连接尺寸/Installation Dimensions

2520V, 3520V, 3525V,
4520V, 4525V

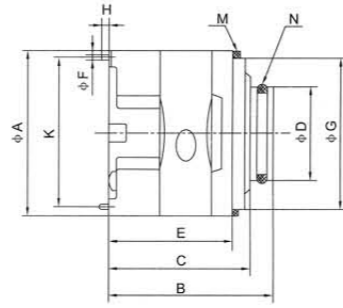


型号 Model	Øa x 螺纹深度、4孔 Øa x full thread depth, 4 holes	Øb x 螺纹深度、4孔 Øb x full thread depth, 4 holes	Øc x 螺纹深度、4孔 Øc x full thread depth, 4 holes
2520V	1/2-13UNC-2Bx23.8	3/8-16UNC-2Bx19.1	3/8-16UNC-2Bx19.1
3520V	5/8-11UNC-2Bx30.0	7/16-14UNC-2Bx22.3	3/8-16UNC-2Bx19.1
3525V	5/8-11UNC-2Bx30.0	7/16-14UNC-2Bx22.3	3/8-16UNC-2Bx19.1
4520V	5/8-11UNC-2Bx30.0	1/2-13UNC-2Bx23.8	3/8-16UNC-2Bx19.1
4525V	5/8-11UNC-2Bx30.0	1/2-13UNC-2Bx23.8	3/8-16UNC-2Bx19.1

型号Model	A	B	C	ØD	E	ØF	G	ØH	J	ØK	ØL	M
2520V	50.8	26.2	12.7	25.4	52.4	101.60/101.55	9.53	63.5	88.9	19.1	14.2	76.2
3520V	62	30.1	15.9	31.7	58.7	127.00/126.95	9.53	76.2	106.3	19.1	17.5	76.2
3525V	62	30.1	15.9	31.7	58.7	127.00/126.95	9.53	76.2	106.3	25.4	17.5	74.7
4520V	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	19.1	17.5	76.2
4525V	69.9	35.7	15.9	38.1	69.9	127.00/126.95	12.7	88.9	120.6	25.4	17.5	74.7

型号Model	N	P	Q	R	S	T	ØU	ØV	RW	ØX	Y	Z
2520V	88.1	101.6	38.1	76.2	250	85.3	146.1	120.7	14	174.7	22.2	47.6
3520V	99.6	114.3	38.1	82.6	273.3	88.9	181	148	16	213	22.2	47.6
3525V	109.5	114.3	38.1	82.6	287.3	88.9	181	148	16	213	26.2	52.4
4520V	120	119.4	42.9	93.7	303.5	102.4	181	148	16	213	22.2	47.6
4525V	136	119.4	42.9	93.7	325	102.4	181	148	16	213	26.2	52.4

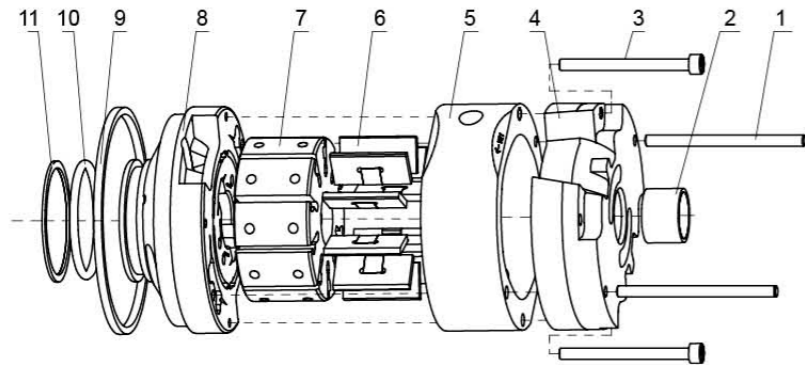
V 系列泵芯 Series cartridge



型号说明/Model Designation

(F3-)	PC-	25V	19	R	10
前注 Note	泵芯标志 Cartridge mark	系列号 Series	▲排量代号 Flow code	旋转方向 Rotation	设计号 Design number
无标记 No-marking: 石油系油 Petroleum series oil 乳化液 emulsification fluid 水-乙二醇 water glycol-fluid F3: 磷酸酯液 phosphate ester fluid	PC-单泵泵芯 双联泵轴端泵芯	20V	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	(从泵的轴端看) (Viewed from shaft end of pump) L-逆时针旋转 Left hand for counter clockwise R-顺时针旋转 Right hand for clockwise	10
	Cartridge kit of single pump double pump shaft end	25V	10, 12, 14, 15, 17, 19, 21, 25		
	PCT-双联泵盖端泵芯 Cartridge kit of double pump cover end	35V	21, 25, 30, 32, 35, 38, 45		
		45V	42, 45, 50, 57, 60, 66, 75		

▲ 在1200r/min和0.69MPa(100psi)下的额定排量; 与相应系列、规格的油泵性能参数一致, 详见V系列单泵的性能参数。
USgpm Flow(USgpm) at 1200r/min and 0.69MPa.
The data of relevant series, model are unanimous. Please see V series-single pump data.



序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty
1	销 Pin	2	5	定子 cam ring	1	9	挡圈 Retainer	1
2	滑动轴承 sliding bearing	1	6	叶片 vane kit	12	10	O型圈 O ring	1
3	十字槽盘头螺钉 cross pan head bolts	2	7	转子 Rotor	1	11	挡圈 Retainer	1
4	侧板 inlet support plate	1	8	压力侧板 outlet support plate	1			

系列号 Series	ØA	B	C	ØD	E	ØF	ØG	H	K	M (挡圈 Gasket)	M (O形圈 O-Ring)
20V	82.55	81.5	70.1	47	61.5	4.8	76.2	7	73.6	82.76x76.26x3.5	40x3.55
25V	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97x91x3.5	44x3.53
35V	114.3	117.7	105	72.2	90.3	6.4	108	8	103.94	114.5x108.5x3.5	63.09x3.53
45V	133.35	141.1	129.6	80.2	105.5	6.4	127	8	123.8	133.6x127.6x3.5	71x3.55

系列号 Series	转子内花键齿廓参数 Inside spline tooth outline parameter of rotor				
	齿数 Number of teeth	径节 Pitch	压力角 Pressure angle	大径 Major Diameter	小径 Minor Diameter
20V	30	48/96	45°	16.617	15.56
25V	40	48/96	45°	21.9	20.86
35V	37	40/80	45°	24.38	23.10
45V	14	12/24	30°	32.59	27.6

VQ 系列叶片泵 Series vane Pumps

产品简介/Product Introduction

适用于工程机械的高压高性能子母叶片泵。

主要特点为:

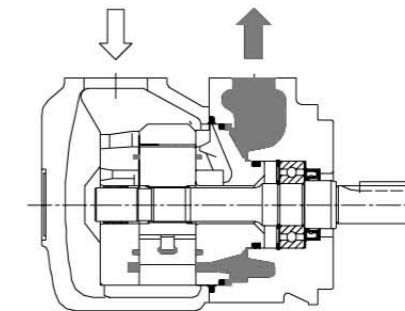
- 1、采用液压平衡的子母叶片结构及10叶片制的设计, 压力更高, 最高达到21MPa。
- 2、采用浮动侧根结构, 可自动补偿端面间隙, 使泵在高压下能保持高的容积效率。
- 3、侧极采用双金属材料, 提高了抗胶合性能, 使泵的使用寿命更长。

The high-pressure and high-performance Intra-vane pumps for Mobile Equipment.

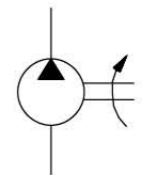
Features:

1. To adopt balanced hydraulic for the struction of Intra-vane and ten-Vane design, higher Pressure, top to 21 MPa.
2. To adopt floating structure for side plate, it will do a compensation for end-face clearance by automatic, so that even the pump under high pressure it can maintain a high volumetric efficiency.
3. The side plate is made of dual-metal material, it improved the seizure resistance. and so that the life of pump will be longer

VQ 系列单泵 Series Single pumps



液压符号
Hydraulic Sign



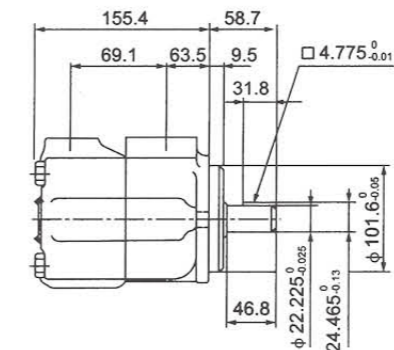
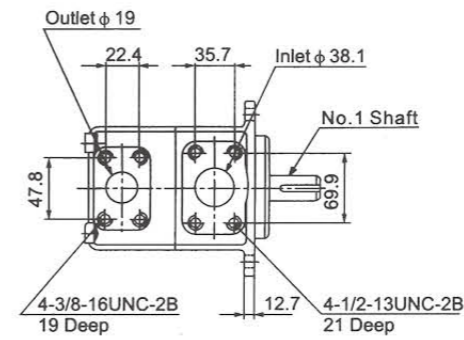
(F3-)	25VQ	19	A	(F)	-1	A	30	R
前注 Note	系列号 Series	▲排量代号 Flow code	油口连接 Port connections	安装形式 Installation type	轴伸形式 Shaft type	出口口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无标记 No-marking 石油系油 Petroleum series oil 乳化液 emulsification fluid 水-乙二醇 water glycol-fluid F3: 磷酸酯液 phosphate ester fluid	20VQ	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	A-SAE 4 螺栓法兰 A-SAE 4 bolt flange	无标记 No-marking -法兰安装型 Flange Mounting F-脚座安装型 F-Foot Mounition	1平键轴/Str key 151花键轴/Spline	(从泵的盖端看) (Viewed from cover end of pump) A-进油口对面 Opposite inlet port B-从进油口逆时针90° 90° CCW from inlet C-进油口同侧 Inline with inlet D-从进油口顺时针90° 90° CW from inlet	30	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise
	25VQ	10, 12, 14, 15, 17, 19, 21, 25			1平键轴/Str key 86重型平键轴 HD str key 11花键轴/Spline	20		
	35VQ	21, 25, 30, 32, 35, 38, 45						
	45VQ	42, 45, 50, 57, 60, 66, 75						

▲ 在1200r/min 和0.69MPa(100psi)下的额定排量
USgpm Flow(USgpm) at 1200r/min and 0.69MPa

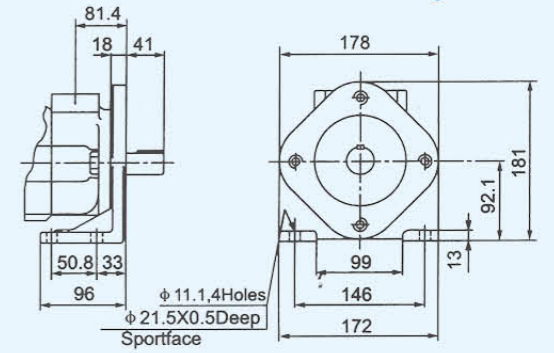
技术参数/Technical Data

系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displace- ment mL/r	最高使用压力 Max.operating pressure Mpa	最高转速 Max.speed r/min	最低转速 Min. speed r/min				
20VQ	2	7(0.43)	21	2700	600				
	3	10(0.61)							
	4	13(0.79)							
	5	16.5(1.01)							
	6	19(1.16)							
	7	22(1.40)							
	8	27(1.67)							
	9	30(1.85)							
	10	31.5(1.92)							
	11	35(2.14)							
	12	40(2.44)	16						
	14	45(2.78)				14			
	25VQ	10	32(1.95)	21	2700				600
		12	38(2.32)						
14		43.5(2.65)							
15		47(2.89)	2500						
17		54(3.30)							
19		60(3.66)							
21		67(4.13)							
25	79.2(4.83)	21	2500	600					
21	67(4.13)								
25	81(4.94)								
30	95(5.80)								
32	101(6.16)								
35	109(6.65)								
35VQ	38	119(7.26)	14	2400	600				
	45	143(8.72)							
	45VQ	42				134(8.17)	17.5	2400	600
		45				143(8.72)			
		50				159(9.70)			
57		181(11.05)	2200						
60		189(11.53)							
66		210(12.81)							
75		237(14.46)		14					

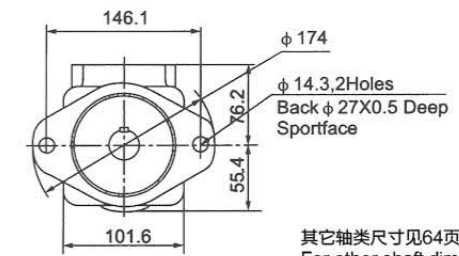
20VQ 法兰安装尺寸
Flange Mounting



20VQ 脚座安装尺寸
Foot Mounting

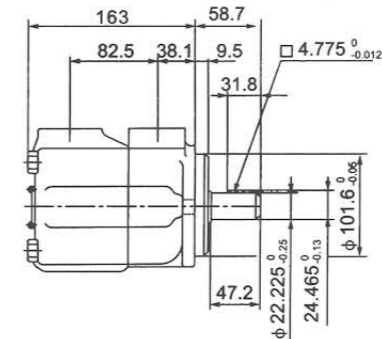
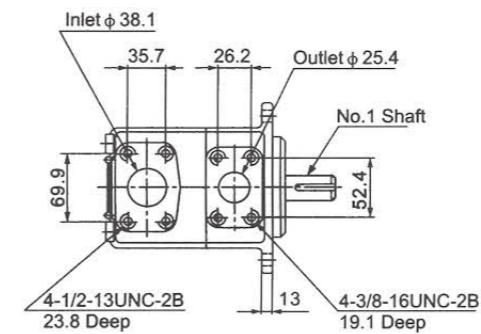


For other dimensions, refer to "Flange Mounting" type.

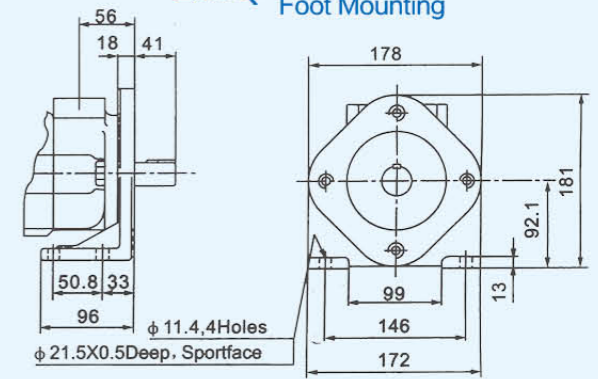


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

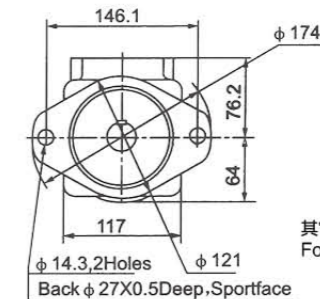
25VQ 法兰安装尺寸
Flange Mounting



25VQ 脚座安装尺寸
Foot Mounting

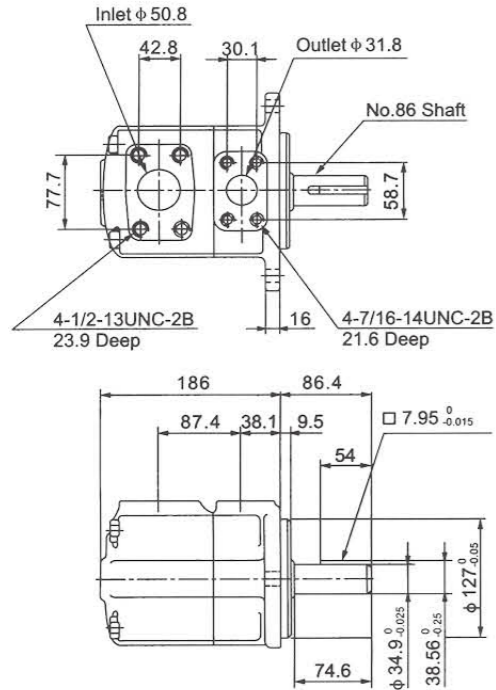


For other dimensions, refer to "Flange Mounting" type.

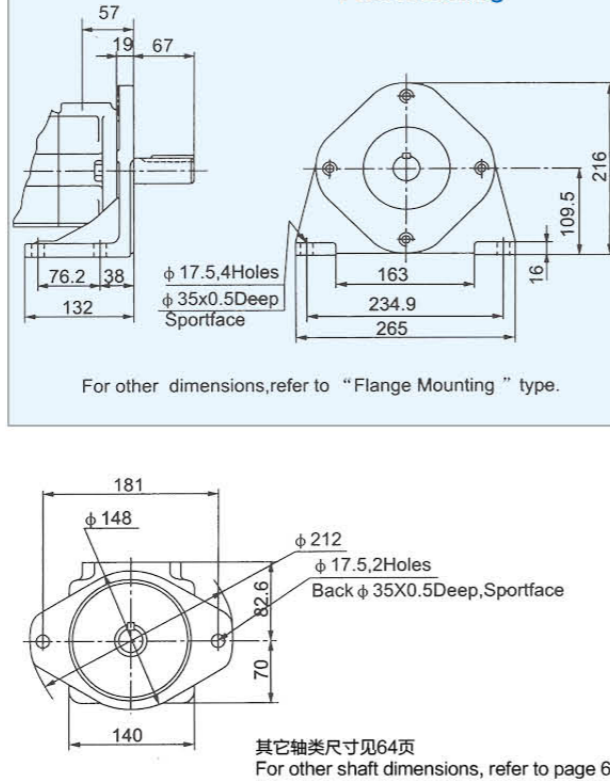


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

35VQ 法兰安装尺寸
Flange Mounting



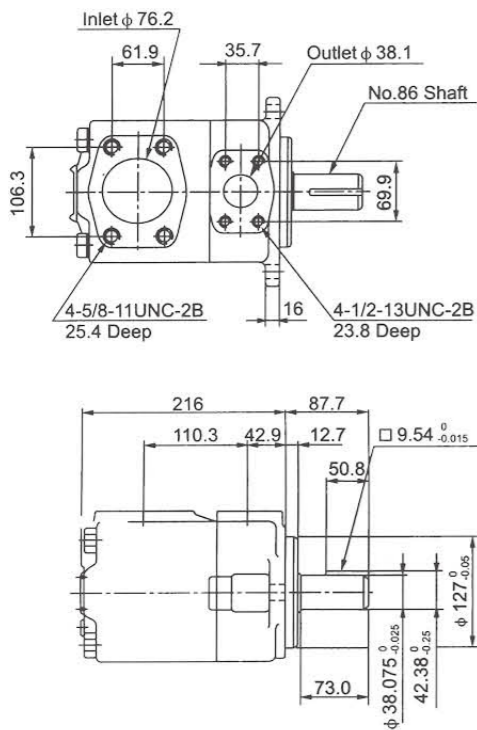
35VQ 脚座安装尺寸
Foot Mounting



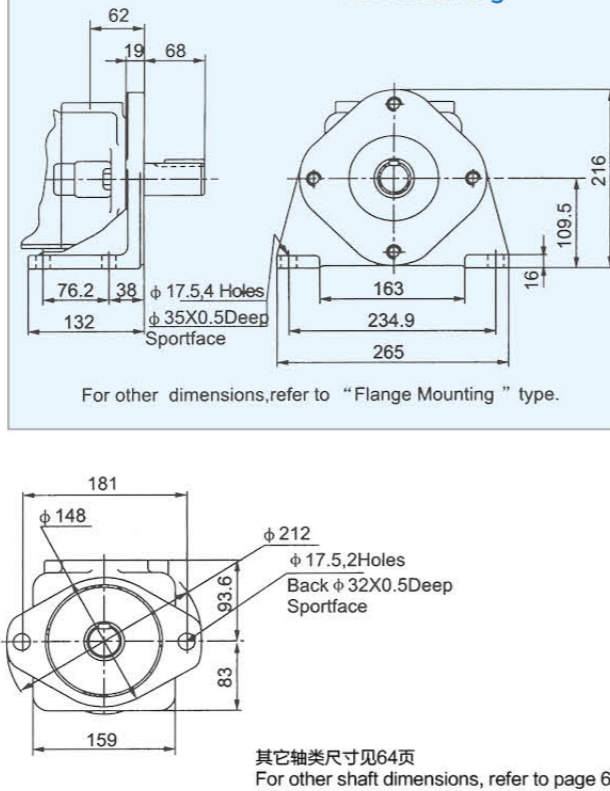
For other dimensions, refer to "Flange Mounting" type.

其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

45VQ 法兰安装尺寸
Flange Mounting



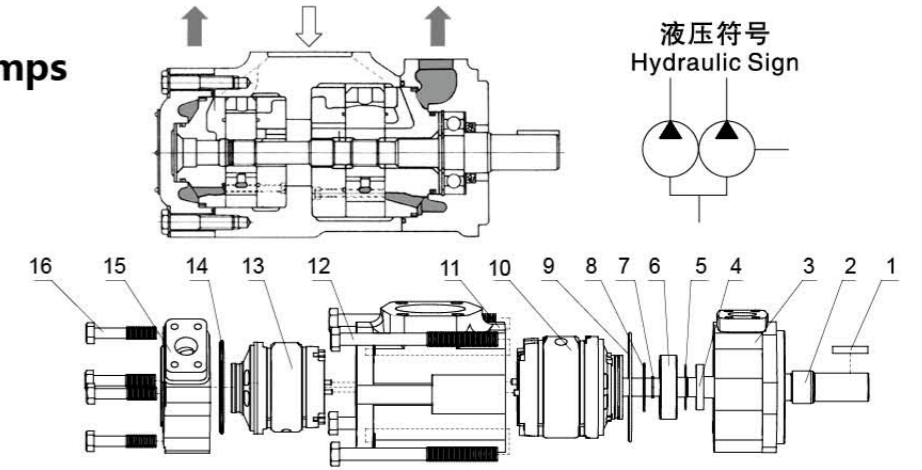
45VQ 脚座安装尺寸
Foot Mounting



For other dimensions, refer to "Flange Mounting" type.

其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

VQ 系列双联泵
Series Double pumps



序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty
1	平键 straight key	1	7	轴用弹性挡圈 cir clip for shaft	1	13	后泵芯 rear cartridge	1
2	轴 shaft	1	8	叠形挡圈 pile type retainer	1	14	O型圈 O ring	1
3	前盖 front cover	1	9	O型圈 O ring	1	15	后盖 rear cartridge	1
4	油封 shaft seal	1	10	前泵芯 front cartridge	1	16	六角头螺栓 hexagon headed bolt	4
5	垫片 gasket	1	11	泵体 body	1			
6	滚动轴承 ball bearing	1	12	六角头螺栓 hexagon headed bolt	4			

型号说明/Model Designation

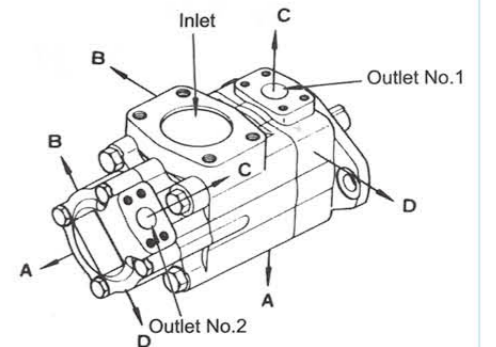
(F3-)	3525VQ	38	A	17	(F)	-1	AB	22	R
前注 Note	系列号 Series	▲轴端泵排量代号 Flow-Shaft end code	油口连接 Port connections	▲盖端泵排量代号 Flow-Cover end code	安装形式 Installation type	轴伸形式 Shaft type	出口口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无标记 No-marking: 石油系油 Petroleum series oil 乳化液 emulsification fluid 水-乙二醇 water glycol- fluid F3: 磷酸酯液 phosphate ester fluid	2520VQ 3520VQ 3525VQ 4520VQ 4525VQ 4535VQ	10, 12, 14, 15, 17, 19, 21, 25 21, 25, 30, 32, 35, 38, 45 21, 25, 30, 32, 35, 38, 45 42, 45, 50, 57, 60, 66, 75 42, 45, 50, 57, 60, 66, 75 42, 45, 50, 57, 60, 66, 75	A-SAE 4螺栓法兰 4-bolt flange	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 10, 12, 14, 15, 17, 19, 21, 25 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14 10, 12, 14, 15, 17, 19, 21, 25 21, 25, 30, 32, 35, 38, 45	无标记 No-marking: 法兰安装型 Flange Mounting F-脚座安装型 F-Foot Mountion	1-平键轴 Str key 86-重型平键轴 HD Str key 11-花键轴 Spline	见下表 See below	20	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise

▲ 在1200r/min 和0.69MPa(100psi)下的额定排量
USgpm Flow(USgpm) at 1200r/min and 0.69MPa

出油口位置 (从泵的盖端看)

Outlet Porsitions (Viewed from cover end of pump)

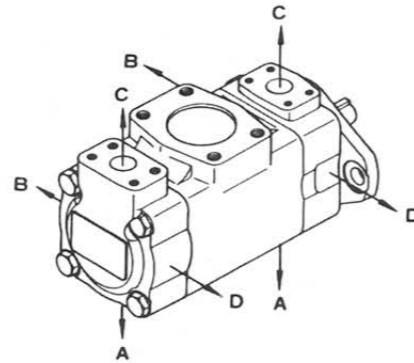
出油口位置 Outlet positions	除 4535VQ 外的所有系列 All series except 4535VQ	4535VQ
第一出油口在进油口 对面 NO.1 outlet opposite inlet	AA 第二出油口在进油口逆时针转135° NO.2 outlet 135° CCW from inlet	第二出油口在进油口对面 NO.2 outlet opposite inlet
	AB 第二出油口在进油口逆时针转45° NO.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° NO.2 outlet 90° CCW from inlet
	AC 第二出油口在进油口顺时针转45° NO.2 outlet 45° CW from inlet	第二出油口在进油口同侧 NO.2 outlet inline with inlet
	AD 第二出油口在进油口顺时针转135° NO.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° NO.2 outlet 90° CW from inlet
第一出油口从进油口 逆时针转90° NO.1 outlet 90° CCW from inlet	BA 第二出油口在进油口逆时针转135° NO.2 outlet 135° CCW from inlet	第二出油口在进油口对面 NO.2 outlet opposite inlet
	BB 第二出油口在进油口逆时针转45° NO.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° NO.2 outlet 90° CCW from inlet
	BC 第二出油口在进油口顺时针转45° NO.2 outlet 45° CW from inlet	第二出油口在进油口同侧 NO.2 outlet inline with inlet
	BD 第二出油口在进油口顺时针转135° NO.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° NO.2 outlet 90° CW from inlet



出油口位置 (从泵的盖端看)

Outlet Positions (Viewed from cover end of pump)

出油口位置 Outlet positions		除 4535VQ 外的所有系列 All series except 4535VQ	4535VQ
第一出油口在进油口同侧 NO.1 outlet inline with inlet	CA	第二出油口在进油口逆时针转135° NO.2 outlet 135° CCW from inlet	第二出油口在进油口对面 NO.2 outlet opposite inlet
	CB	第二出油口在进油口逆时针转45° NO.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° NO.2 outlet 90° CCW from inlet
	CC	第二出油口在进油口顺时针转45° NO.2 outlet 45° CW from inlet	第二出油口在进油口同侧 NO.2 outlet inline with inlet
	CD	第二出油口在进油口顺时针转135° NO.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° NO.2 outlet 90° CW from inlet
第一出油口从进油口顺时针转90° NO.1 outlet 90° CW from inlet	DA	第二出油口在进油口逆时针转135° NO.2 outlet 135° CCW from inlet	第二出油口在进油口对面 NO.2 outlet opposite inlet
	DB	第二出油口在进油口逆时针转45° NO.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° NO.2 outlet 90° CCW from inlet
	DC	第二出油口在进油口顺时针转45° NO.2 outlet 45° CW from inlet	第二出油口在进油口同侧 NO.2 outlet inline with inlet
	DD	第二出油口在进油口顺时针转135° NO.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° NO.2 outlet 90° CW from inlet

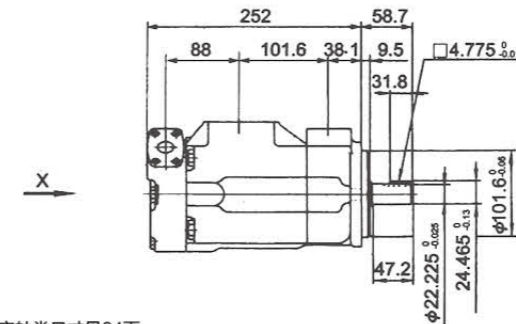
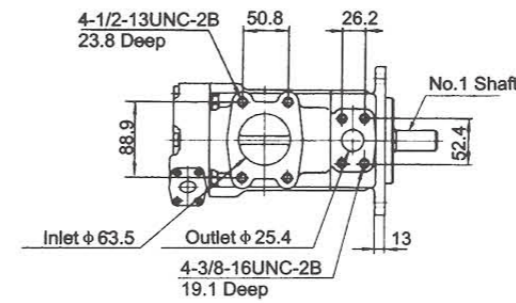


产品重量/Product Weight

产品名称 Product name	型号 Series	重量 Weight Kg	产品名称 Product name	型号 Series	重量 Weight Kg	产品名称 Product name	型号 Series	重量 Weight Kg
泵芯 Cartridge	20V, 20VQ, SQP1	3.0	单泵 Single pump	20V, 20VQ	13.0	单泵 Single pump	SQP1	16.7
	25V, 25VQ, SQP2	4.0		25V, 25VQ	15.0		SQP2	28.0
	35V, 35VQ, SQP3	7.0		35V, 35VQ	24.0		SQP3	38.0
	45V, 45VQ, SQP4	11.0		45V, 45VQ	37.0		SQP4	65.0
	T6C, T6CC	4.1		T6C	15.7		PV2R1	9.0
	T6D	8.3		T6D	24.0		PV2R2	17.0
	T6E	12.8		T6E	43.0		PV2R3	33.0

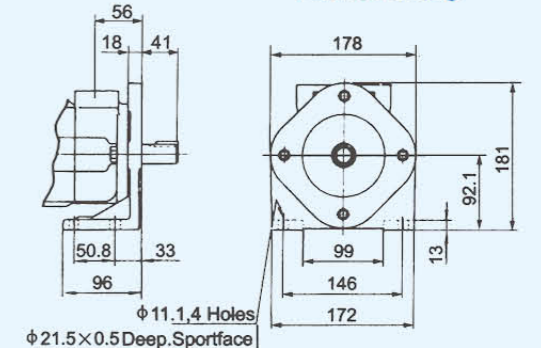
产品名称 Product name	型号 Series	重量 Weight Kg	产品名称 Product name	型号 Series	重量 Weight Kg	产品名称 Product name	型号 Series	重量 Weight Kg
双联泵 Double pumps	2520V, 2520VQ	23.0	双联泵 Double pumps	SQP21	34.0	双联泵 Double pumps	T6CC	26.0
	3520V, 3520VQ	33.0		SQP31	48.0		T6DC	36.6
	3525V, 3525VQ	35.0		SQP32	50.0		T6EC	55.0
	4520V, 4520VQ	46.0		SQP41	80.0		T6ED	66.0
	4525V, 4525VQ	48.0		SQP42	85.0		PV2R21	23.0
	4535V, 4535VQ	58.0		SQP43	95.0		PV2R31	41.0
				PV2R32	45.0			

2520VQ 法兰安装尺寸
Flange Mounting

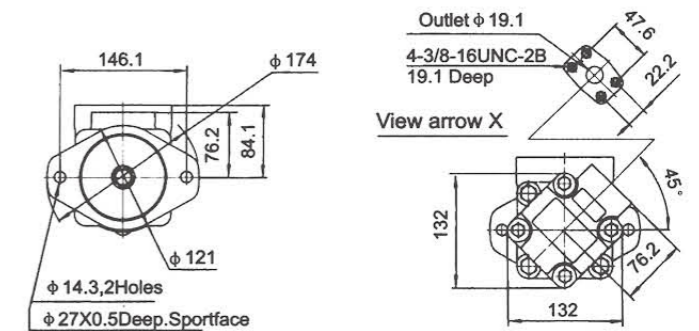


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

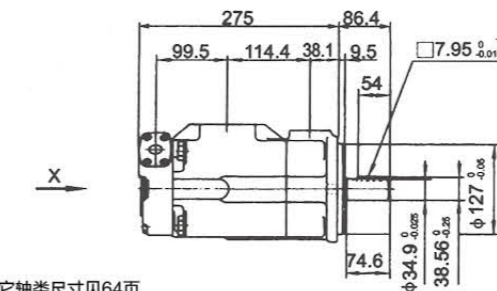
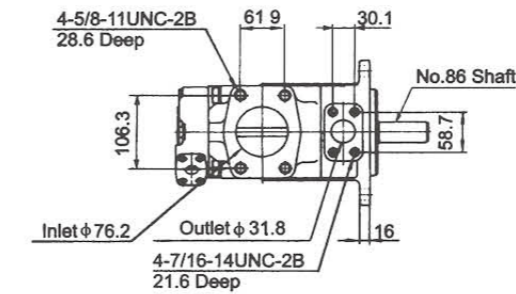
2520VQ 脚座安装尺寸
Foot Mounting



For other dimensions, refer to "Flange Mounting" type.

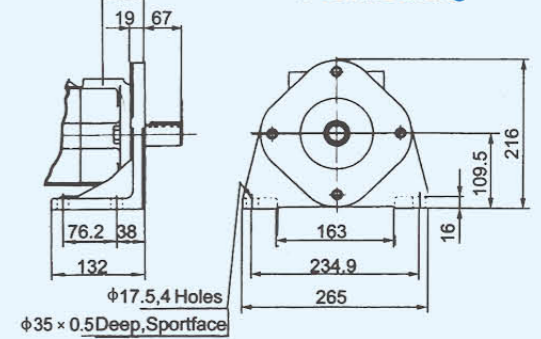


3520VQ 法兰安装尺寸
Flange Mounting

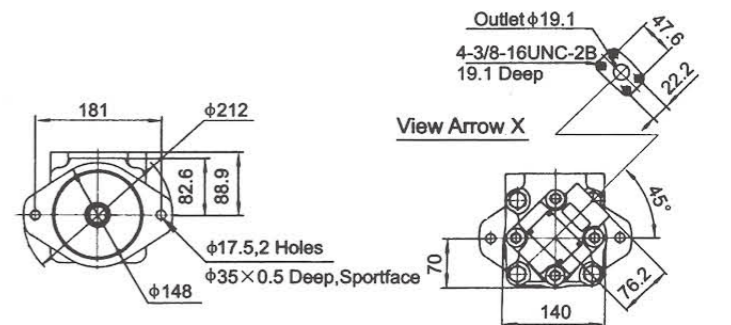


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

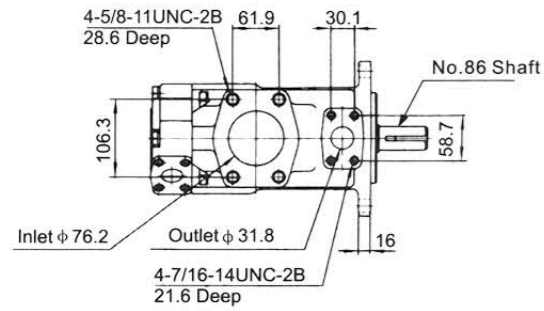
3520VQ 脚座安装尺寸
Foot Mounting



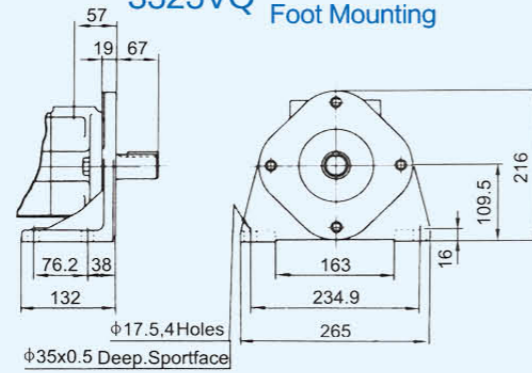
For other dimensions, refer to "Flange Mounting" type.



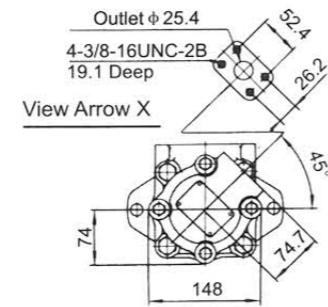
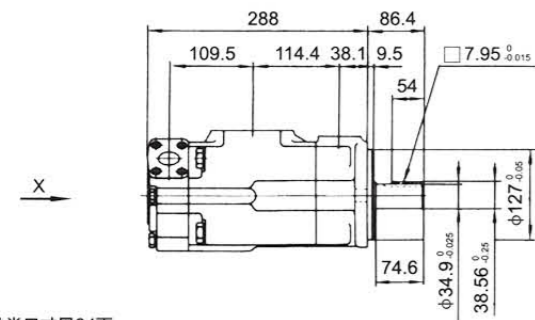
3525VQ 法兰安装尺寸
Flange Mounting



3525VQ 脚座安装尺寸
Foot Mounting

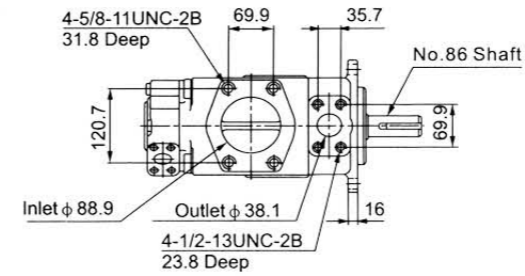


For other dimensions, refer to "Flange Mounting" type.

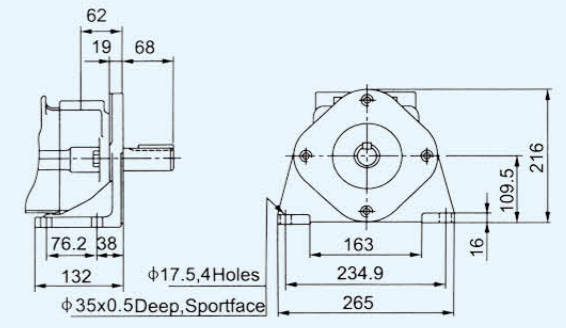


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

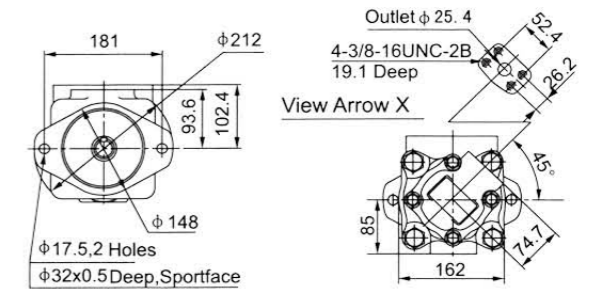
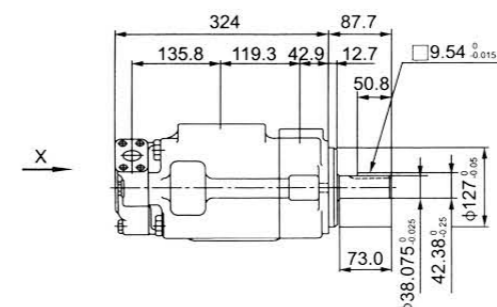
4525VQ 法兰安装尺寸
Flange Mounting



4525VQ 脚座安装尺寸
Foot Mounting

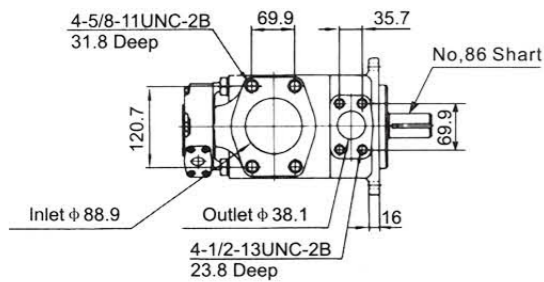


For other dimensions, refer to "Flange Mounting" type.

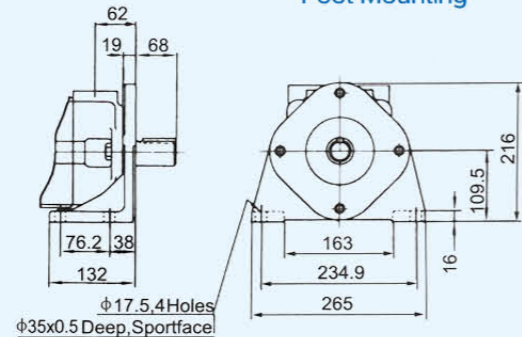


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

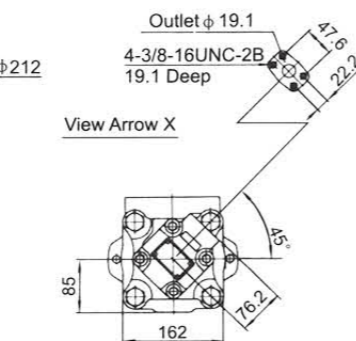
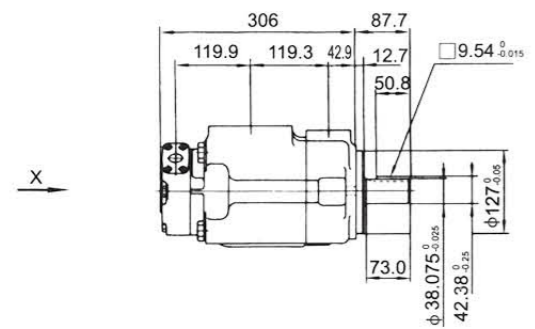
4520VQ 法兰安装尺寸
Flange Mounting



4520VQ 脚座安装尺寸
Foot Mounting

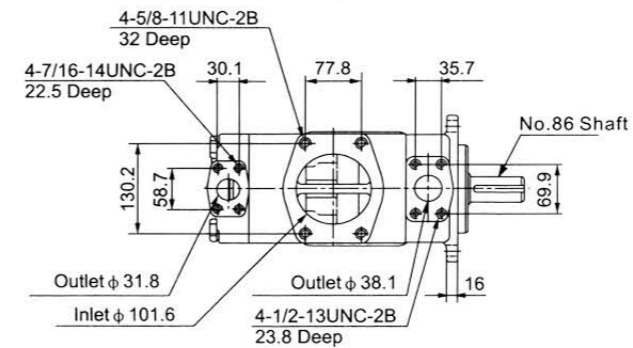


For other dimensions, refer to "Flange Mounting" type.

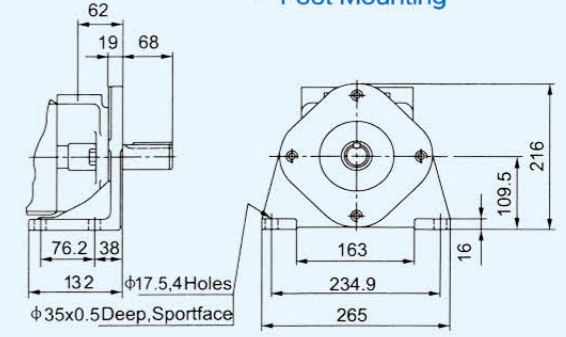


其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

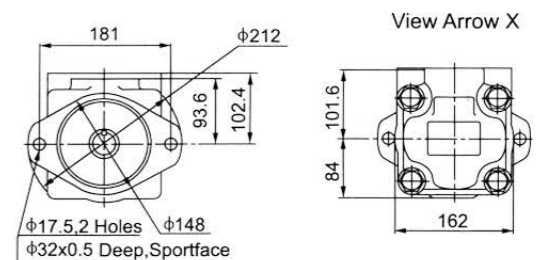
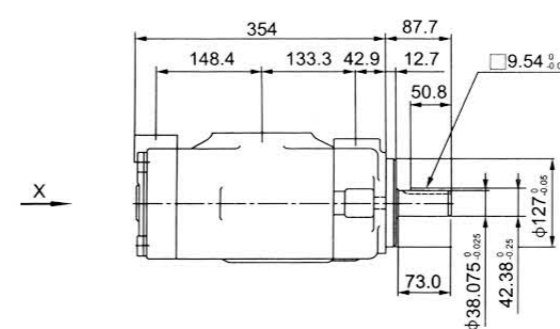
4535VQ 法兰安装尺寸
Flange Mounting



4535VQ 脚座安装尺寸
Foot Mounting



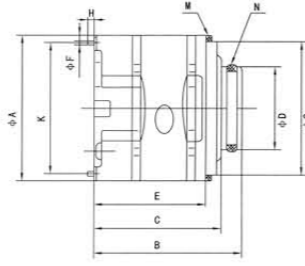
For other dimensions, refer to "Flange Mounting" type.



其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

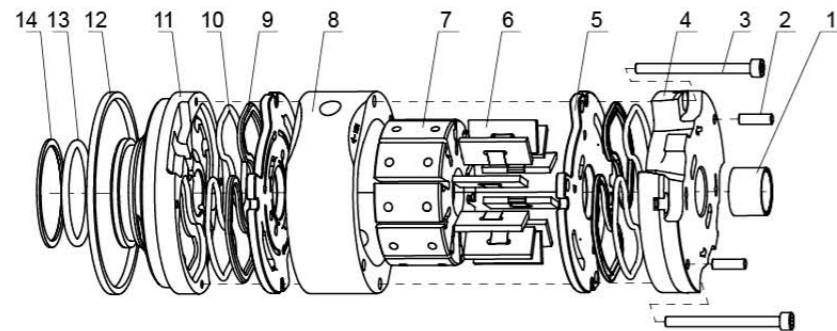
VQ 系列泵芯 Series cartridge

型号说明/Model Designation



(F3-)	PC-	25VQ	19	R	10
前注 Note	泵芯标记 Cartridge mark	系列号 Series	▲排量代号 Displacement	旋转方向 Rotation	设计号 Design number
无标记 No-marking: 石油系油 Petroleum series oil 乳化液 emulsification fluid 水-乙二醇 water glycol-fluid F3: 磷酸酯液 phosphate ester fluid	PC-单泵泵芯、双联泵轴端泵芯 Cartridge kit of single pump double pump shaft end PCT-双联泵盖端泵芯 Cartridge kit of double pump cover end	20VQ	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	10
		25VQ	10, 12, 14, 15, 17, 19, 21, 25		
		35VQ	21, 25, 30, 32, 35, 38, 45		
		45VQ	42, 45, 50, 57, 60, 66, 75		

▲ 在1200r/min和0.69MPa(100psi)下的额定排量;与相应系列、规格的油泵性能参数一致,详见VQ系列单泵的性能参数。
USgpm Flow(USgpm) at 1200r/min and 0.69MPa.
The data of relevant series, model are unanimous. Please see VQ series-single pumps data.



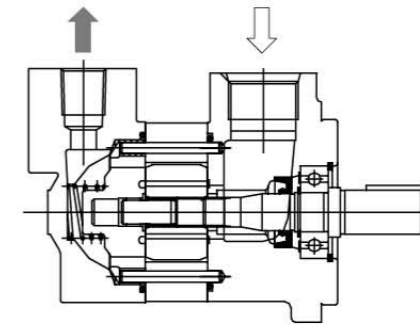
序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty	序号NO.	名称Part	数量Qty
1	滑动轴承 Sliding bearing	1	6	叶片 vane kit	10	11	压力侧板 outlet support plate	1
2	销 Pin	2	7	转子 Rotor	1	12	挡圈 Retainer	1
3	内六角圆柱头螺钉 Hexagon socket head cap screws	2	8	定子 cam ring	1	13	O型圈 O shape retainer	1
4	侧板 inlet support plate	1	9	异形挡圈 irregular shape retainer	4	14	挡圈 Retainer	1
5	配油盘 valve plate	2	10	O型圈 O shape retainer	4			

技术规格/Specifications

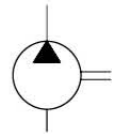
系列号 Series	ΦA	B	C	ΦD	E	ΦF	ΦG	H	K	M(挡圈Gasket)	N(O形圈O-Ring)
20VQ	82.55	81.5	70.1	47.2	61.5	4.8	76.2	7	73.8	82.76×76.26×3.5	40×3.55
25VQ	96.8	98.8	87	52.2	71.2	4.8	90.5	7	88.19	97×91×3.5	44×3.53
35VQ	114.3	117.7	105	72.2	90.3	6.4	108	7	103.94	114.5×108.5×3.5	63.09×3.53
45VQ	133.35	141.1	129.6	80.2	105.5	6.4	127	11	123.8	133.6×127.6×3.5	71×3.55

系列号 Series	转子内花键齿廓参数 Inside spline tooth outline parameter of rotor				
	齿数 Number of teeth	径节 Pitch	压力角 Pressure angle	大径 Major diameter	小径 Minor diameter
20VQ	30	48/96	45°	16.617	15.56
25VQ	40	48/96	45°	21.9	20.86
35VQ	37	40/80	45°	24.38	23.10
45VQ	14	12/24	30°	32.59	27.6

V10, 20 系列叶片泵 Series Vane Pumps



液压符号
Hydraulic Sign



型号说明/Model Designation

(F3-)	V10	-P	7	S	-1	C	20	-L
前注 Note	系列号 Series	进油口连接 Inlet connection	排量代号 Displacement	出油口连接 Outlet connection	轴伸形式 Shaft type	出口口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无要求省略 Omit if not required	V10	P-1"NPT Thread S-1.3125-12 Straight B-G1" Thread	1, 2, 3, 4, 5, 6, 7	P-1/2"NPT Thread S-0.750-16 Str.Thread B-G1/2" Thread	1-平键轴 Str key 11-花键轴 Spline 38-11teeth-3/4" outside spline shaft 62-spline shaft (only for V20)	(从泵的盖端看) (Viewed from cover end of pump) A-进油口对面 Opposite inlet B-从进油口逆时针90° 90° CCW from inlet C-进油口同侧 Inline with inlet D-从进油口顺时针90° 90° CW from inlet	20	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise
F3-: 氟橡胶 Viton seals	V20	P-1-1/4"NPT Thread S-1.625-12 Straight B-G1-1/4" Thread	6, 7, 8, 9, 10, 11, 12, 13	P-3/4"NPT Thread S-1.0625-12 Straight R-1.1875-12 Straight B-G3/4"Thread			10	

技术参数/Technical Data

系列号 series	排量代号 Displacement code	几何排量 Geometric displacement mL/r	使用普通液压油和磷酸酯液 With antiwear hydraulic oil or phosphate ester fluid		使用水乙二醇液 With water glycol fluid		使用油包水乳化液 With water-oil emulsions	
			最高压力 Mpa Max.pressure	最高转速 r/min Max.speed	最高压力 Mpa Max.pressure	最高转速 r/min Max.speed	最高压力 Mpa Max.pressure	最高转速 r/min Max.speed
V10	1	3.3	17.2	4800	12.4	1800	10.3	1800
	2	6.6						
	3	9.8						
	4	13.1						
	5	16.4						
	6	19.5						
V20	7	22.8	17.2	3400	12.4	1800	10.9	1800
	8	26.5						
	9	29.7						
	10	30.0						
	11	36.4						
	12	39						
	13	42.4						

V2010, 2020 系列双联泵 Series Double Pumps



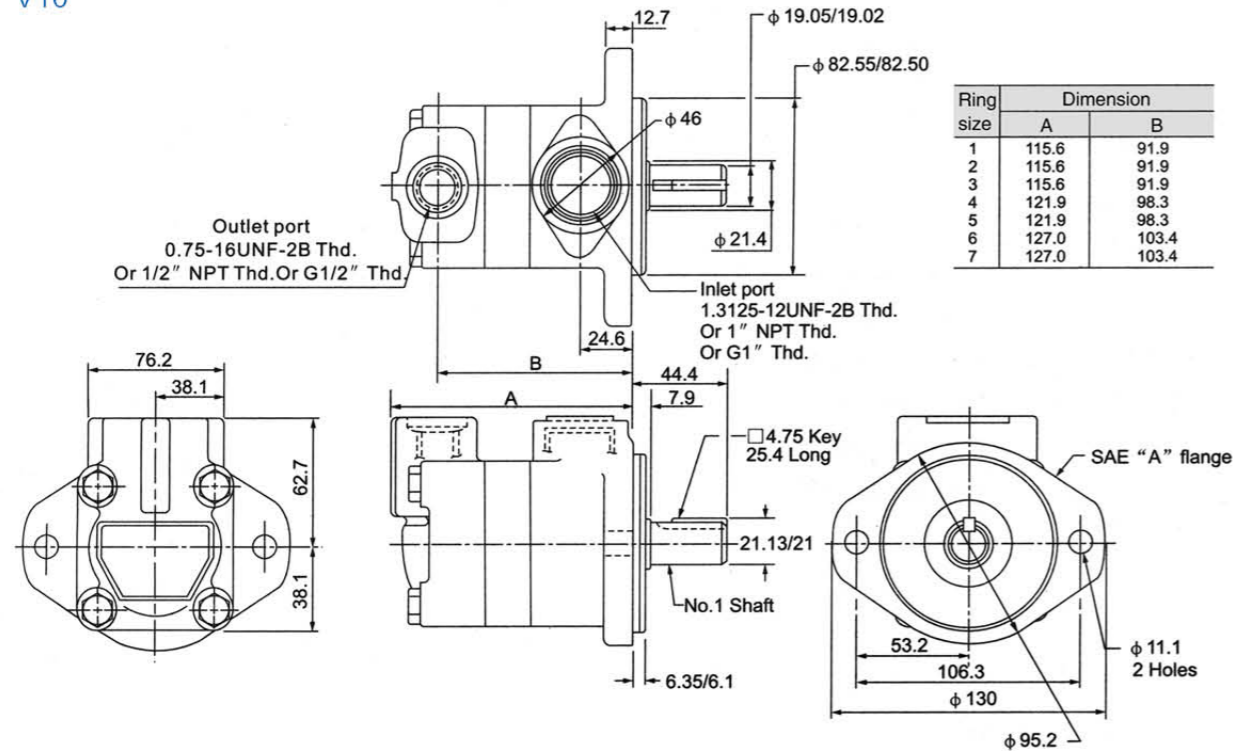
型号说明/Model Designation

(F3-)	V2010	-1	F	13	S	3	S	-1	CC	-12	-R
前注 Note	系列号 Series	安装 Mounting	进油口连接 Inlet port connections	轴端泵排量代号 Flow-Shaft end pump	第一出油口 No. 1 outlet port	盖端泵排量代号 Flow-cover end pump	第二出油口 No. 2 outlet port	轴伸形式 Shaft type	出油口位置 Outlet positions	设计号 Design number	旋转方向 Rotation
无要求 省略 if not required F3-: 氟橡胶 Viton seals	V2010	1- SAE B 2螺栓法兰4" 止口 2 bolt flange 4" rabbet 6- SAE C 2螺栓法兰 3.25" 止口 2 bolt flange 3.25" rabbet	F- 4 螺栓法兰 bolt flange	6, 7, 8, 9, 10, 11, 12, 13	S-1.062- 12UN- 2Bthd	1, 2, 3, 4, 5, 6, 7	S-.750-16 St.Thd.	-1平键轴 Str key -11花键 轴 spline	见下表 see below	-12	(从泵的轴端看) (Viewed from shaft end of pump) -R 顺时针旋转 right hand for clockwise -L 逆时针旋转 left hand for counter- clockwise
	V2020					6, 7, 8, 9, 10, 11, 12, 13	S-1.062- 12 St.Thd.				

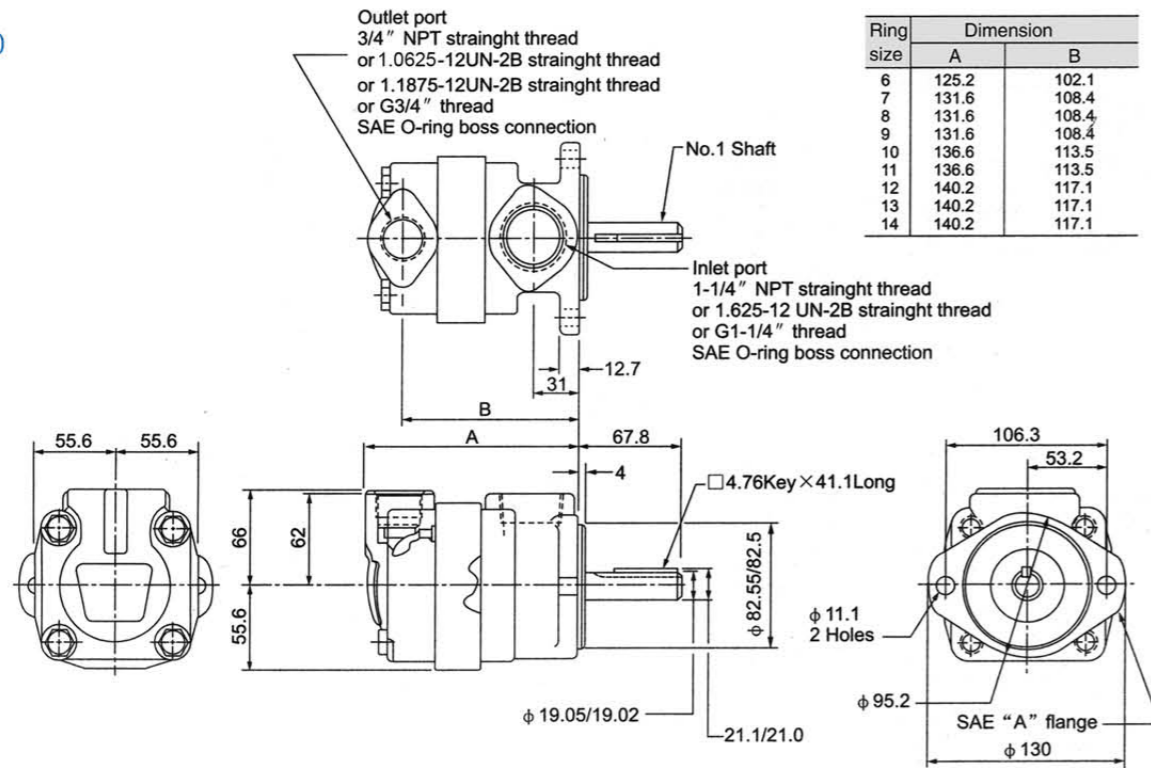
出油口位置 (从泵的盖端看) / Outlet Positions (Viewed from cover end of pump)

出油口位置/Outlet positions	V2010	V2020	
第一出油口在进油口对面 No.1 outlet opposite inlet	AA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	AB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	AC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	AD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口从进油口逆时针转90° No.1 outlet 90° CCW from inlet	BA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	BB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	BC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	BD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口在进油口同侧 No.1 outlet inline with inlet	CA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	CB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	CC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	CD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口从进油口顺时针转90° No.1 outlet 90° CW from inlet	DA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对面 No.2 outlet opposite inlet
	DB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	DC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	DD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet

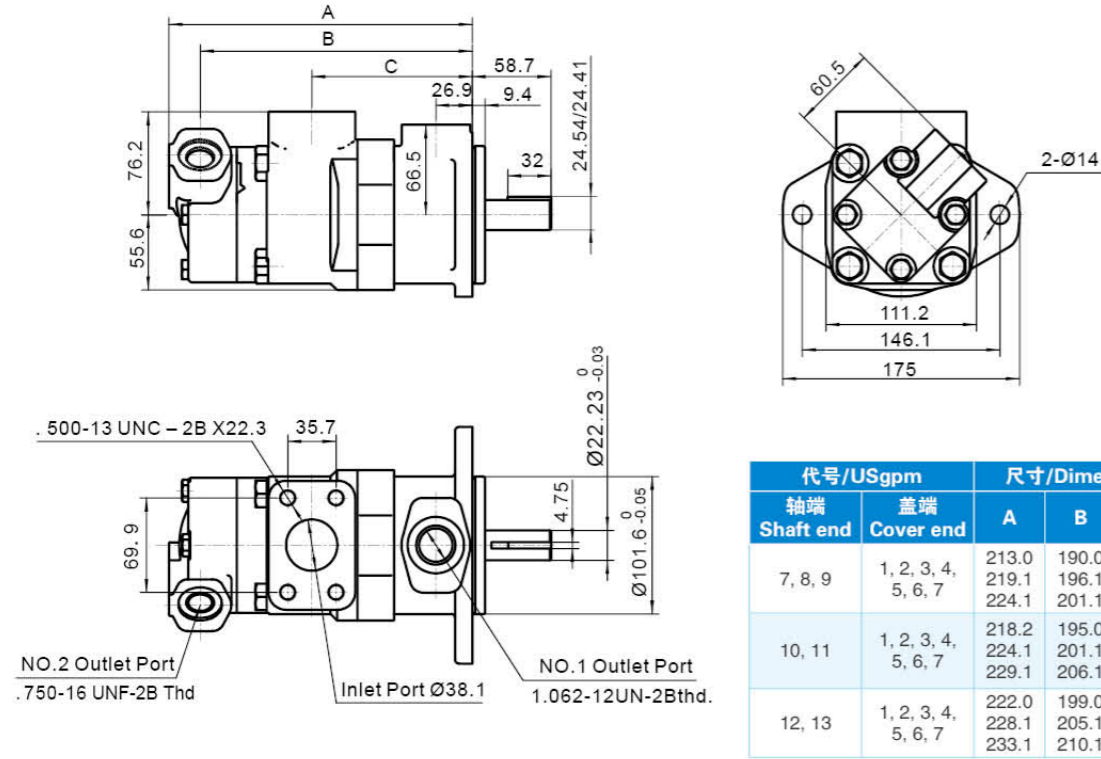
V10



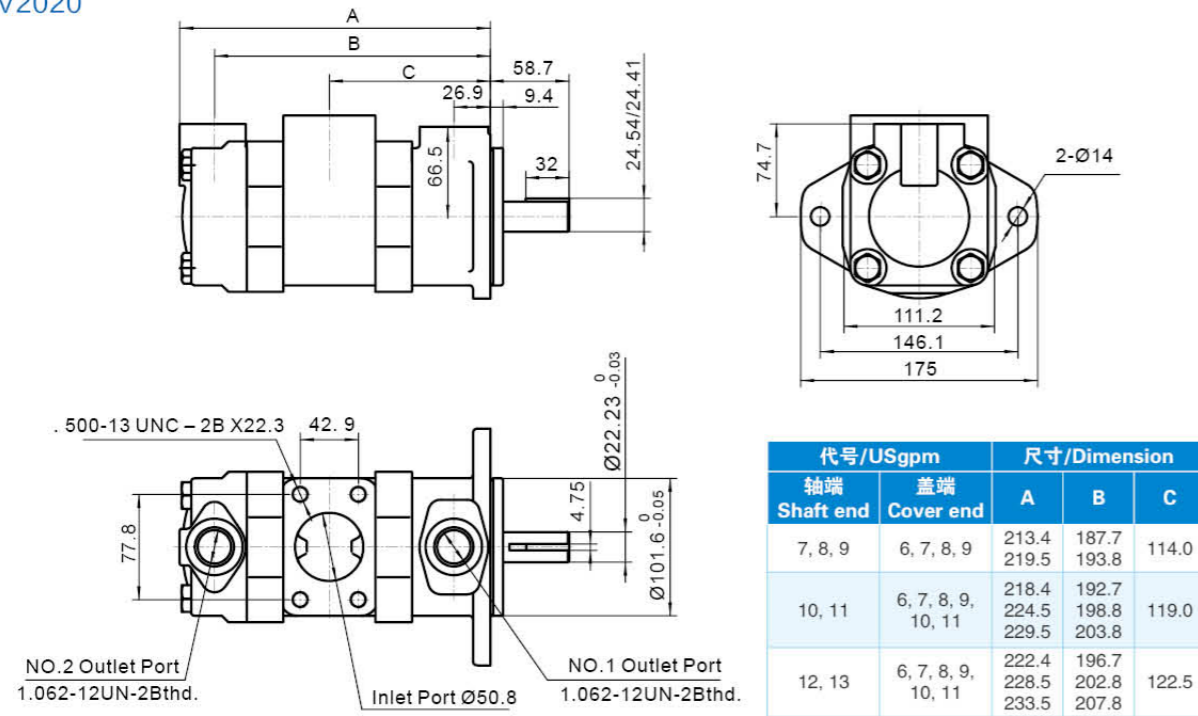
V20



V2010

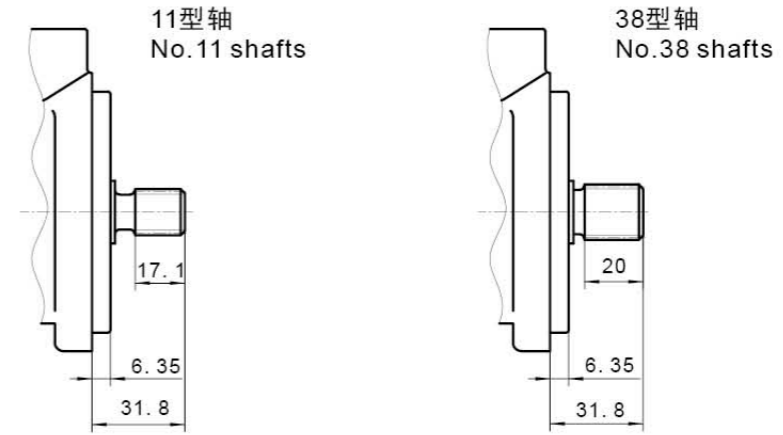


V2020

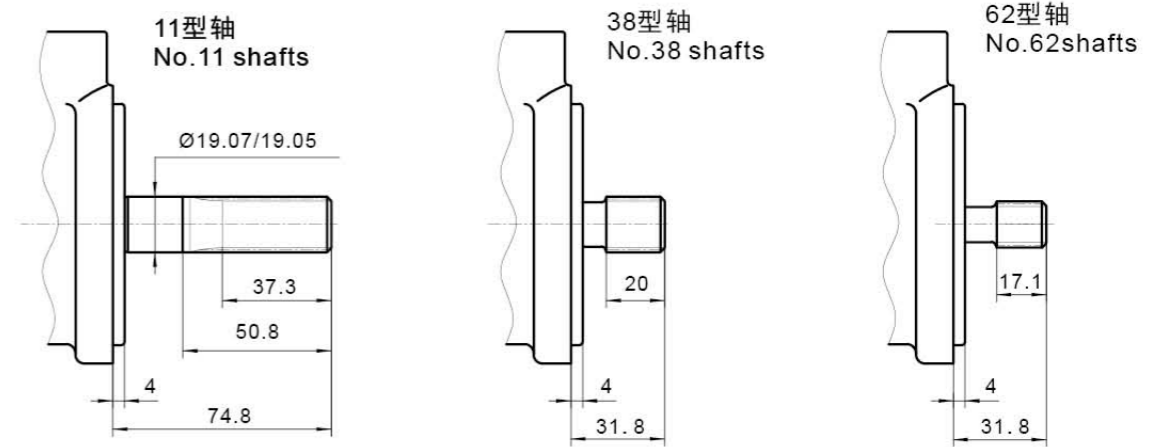


花键轴参数/Splined Shaft Type

V10

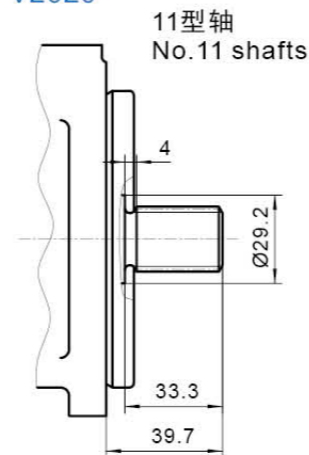


V20



V2010

V2020



渐开线花键参数表/Involute spline data table

型号 Model	轴伸代号 Shaft code	齿数 Number of teeth	径节 Pitch	齿顶圆直径 Major diameter	节圆直径 Pitch diameter	齿根圆直径 Minor diameter	配合形式 Suitable for
V10	11	9	16/32	15.82/15.80	14.29	12.28/12.00	齿顶 Tooth tip
	38	11	16/32	18.63/18.50	17.46	15.24/14.99	齿侧 Side tip
V20	11	11	16/32	19.01/18.93	17.46	15.90/15.62	齿侧 Side tip
	38	11	16/32	18.63/18.50	17.46	15.24/14.99	齿侧 Side tip
V2010 V2020	62	9	16/32	15.82/15.80	14.29	12.28/12.00	齿顶 Tooth tip
	11	13	16/32	22.17/22.15	19.03	18.63/18.35	齿顶 Tooth tip

SQP 系列叶片泵-适合工业应用的更低噪音的字母叶片泵 Series Vane Pumps

-Applicable to industrial applications of the cluster of lower noise vane pump

本系列是专为低噪音工况而开发的高压高性能字母叶片泵。适用于塑料机械, 压铸机械, 机床以及工程机械等要求噪音较低的液压系统中。

其主要特点:

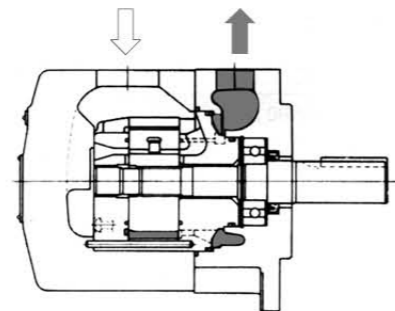
- 1、泵芯使用V系列字母叶片泵泵芯,完全互换,使用更灵活方便。
- 2、增加了脉动衰减结构的设计,极大降低了压力的脉动,使噪音更低,音质更流畅。
- 3、使用加厚的外壳设计,增加了泵的强度和抗振性,同时消音性能更优越。

This series vane pumps are high pressure and high performance intra-vane pumps, which are specially developed for low noise working condition. They are widely applied in hydraulic system for machine-tools, presses, die casting machines, engineering plastic injection moulding and other machineries, which call for lower noise.

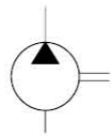
Main Features:

1. Cartridge kits are entirely similar to those of Vickers stable V series pumps which can be interchanged with cartridge kits of SQP series.
2. New configuration design gets an excellent performance in restraining pulsing and noise.
3. Strengthened pump housing design offers a better anti-vibration ability, which effect the remarkable low noise.

SQP 系列单泵 Series Single Pumps



液压符号
Hydraulic Sign



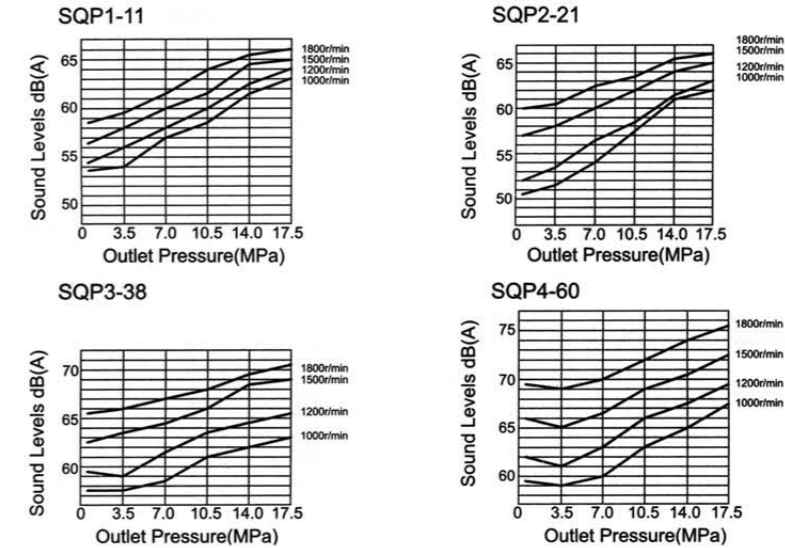
型号说明/Model Designation

(F3-)	SQP2	-21	-1	C	(F)	-(LH)	-18
前注、油液相溶性 Infuse front, oil intermiscibility	系列号 Series	▲排量代号 Displacement code	轴伸形式 Shaft type	出油口位置 Outlet positions	安装形式 Installation type	旋转方向 Rotation	设计号 Design number
无标记- 抗磨液压油、 水-乙二醇液或 油包水乳化液 No-marking: Anti-wear hydraulic oil, Water glycol fluid or water-oil emulsions F3- 磷酸酯液 phosphate ester fluid	SQP1	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	1-带键直轴 Belt key straight shaft	(从泵的盖端看) (Viewed from cover end of pump) A-进油口对面 Opposite inlet B-从进油口逆时针90° 90° CCW from inlet C-进油口同侧 Inline with inlet D-从进油口顺时针90° 90° CW from inlet	无标记 No-marking: 法兰安装型 Flange Mounting F-脚座安装型 F-Foot Mounion	(从泵的轴端看) (Viewed from shaft end of pump) LH-逆时针旋转 Left hand for counter clockwise 无标记-顺时针旋转 No-marking-Rihgt hand for clockwise	15
	SQP2	10, 12, 14, 15, 17, 19, 21, 25	86-重型带键 直轴 Heavy belt key straight shaft				18
	SQP3	21, 25, 30, 32, 35, 38, 45					
	SQP4	42, 45, 50, 57, 60, 66, 75					

▲ 在1200r/min和0.69MPa(100psi)下的额定排量。
USgpm Flow(USgpm) at 1200r/min and 0.69MPa.

噪音数据/Noise Data

测试条件ISO VG32, (50°C), 距离1m Test condition ISO VG32, (50°C), distance 1m

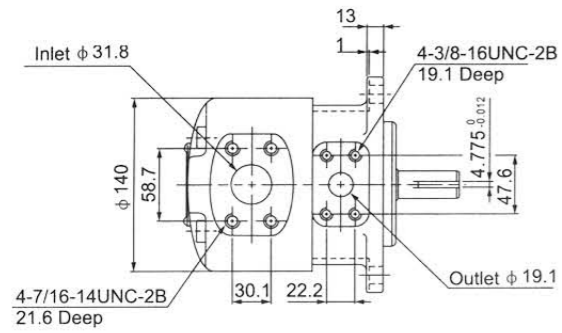


技术参数/Technical Data

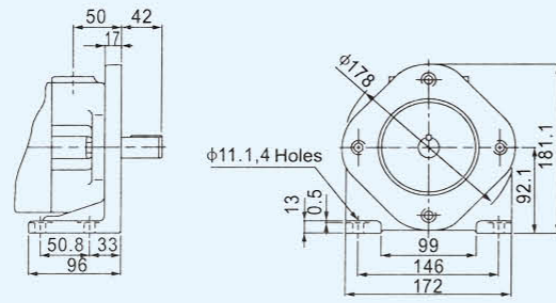
系列号 Series	●排量代号 Displacement code	几何排量 Geometric displacement mL/r	▲使用抗磨液压油或磷酸酯液 With antiwear hydraulic oil or phosphate ester fluid		使用水乙二醇液 With water glycol fluid		使用油包水乳化液 With water-oil emulsions		最低转速 Min. speed r/min	
			最高压力MPa Max. pressure	最高转速r/min Max. speed	最高压力MPa Max. pressure	最高转速r/min Max. speed	最高压力MPa Max. pressure	最高转速r/min Max. speed		
SQP1	2	7.5	13.8	1800	13.8	1200	6.9	1200	600	
	3	10.2								
	4	12.8								
	5	16.7	17.2	1800	15.9	1200	6.9	1200		
	6	19.2								
	7	22.9								
	8	26.2	15.7	1800	13.8	1200	6.9	1200		
	9	28.8								
	10	31.0								
	SQP2	11	35.0	13.8	1800	13.8	1200	6.9		1200
		12	37.9							
		14	44.2							
10		32.5	17.2	1800	15.9	1200	6.9	1200		
12		38.3								
14		43.3								
15		46.7	17.2	1800	15.9	1200	6.9	1200		
17		52.5								
19		59.2								
SQP3		21	65.0	13.8	1800	13.8	1200	6.9	1200	
		25	79.2							
		21	66.7							
	25	79.2	17.2	1800	15.9	1200	6.9	1200		
	30	95.0								
	32	100								
	35	109	13.8	1800	13.8	1200	6.9	1200		
	38	118								
	45	140								
	SQP4	42	134	17.2	1800	15.9	1200	6.9	1200	
		45	140							
		50	156							
57		178	13.8	1800	13.8	1200	6.9	1200		
60		189								
66		207								
75		237	13.8	1800	13.8	1200	6.9	1200		

● 在1200r/min和0.69MPa(100psi)下的额定排量
USgpm Flow(USgpm) at 1200r/min and 0.69MPa ▲ 0.5秒内, 允许超过最高压力10%的瞬时压力。
Permit surpassing the top pressure 10% instantaneous pressure, within 0.5 Second.

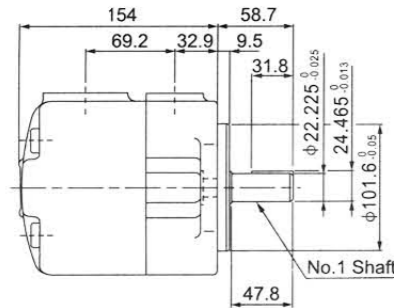
SQP1 法兰安装尺寸
Flange Mounting



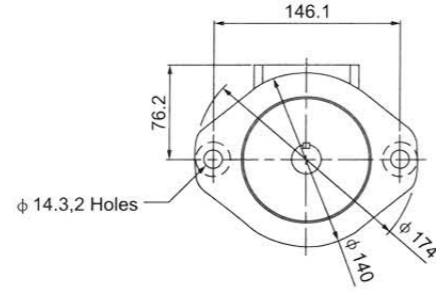
SQP1 脚座安装尺寸
Foot Mounting



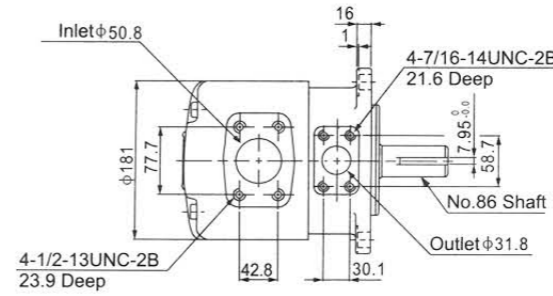
For other dimensions, refer to "Flange Mounting" type



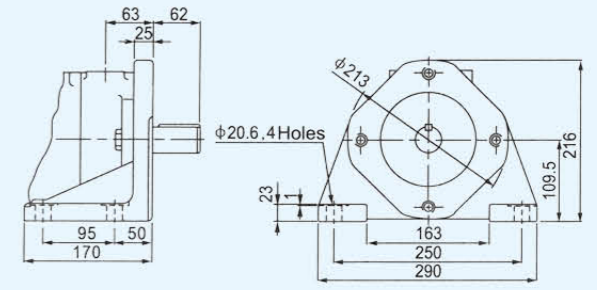
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64



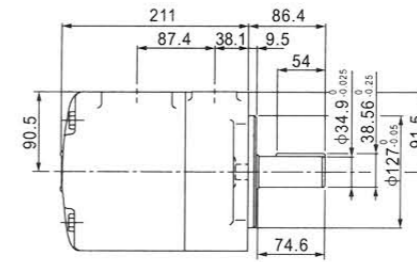
SQP3 法兰安装尺寸
Flange Mounting



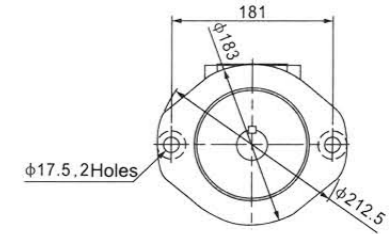
SQP3 脚座安装尺寸
Foot Mounting



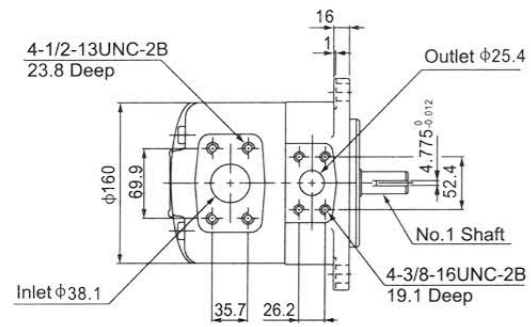
For other dimensions, refer to "Flange Mounting" type



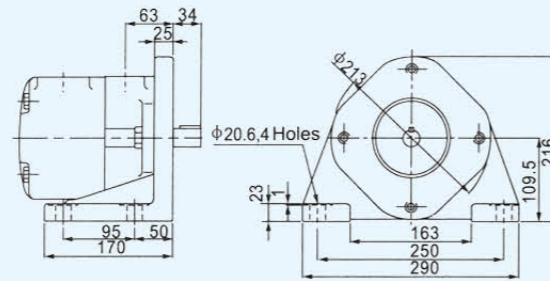
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64



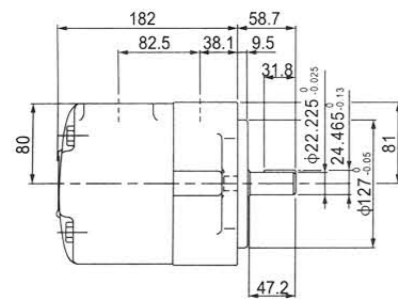
SQP2 法兰安装尺寸
Flange Mounting



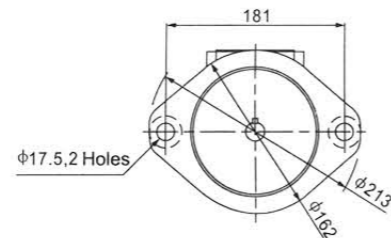
SQP2 脚座安装尺寸
Foot Mounting



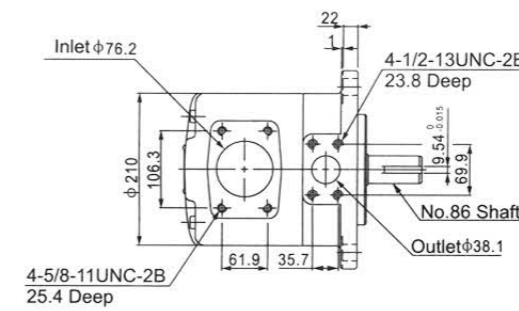
For other dimensions, refer to "Flange Mounting" type



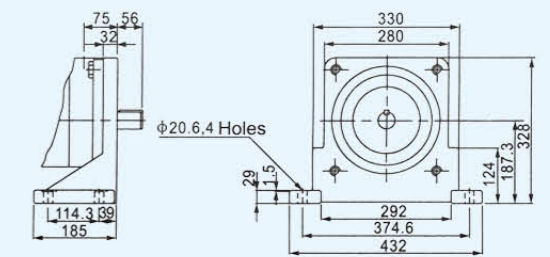
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64



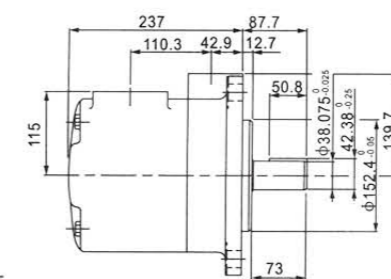
SQP4 法兰安装尺寸
Flange Mounting



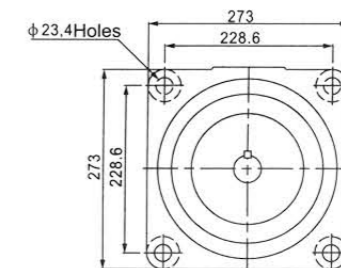
SQP4 脚座安装尺寸
Foot Mounting



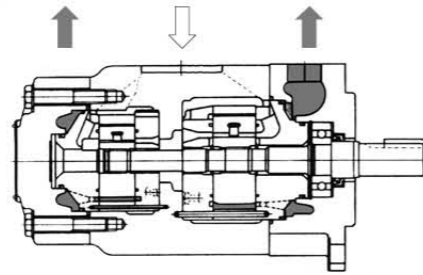
For other dimensions, refer to "Flange Mounting" type



其它轴类尺寸见64页
For other shaft dimensions, refer to page 64



SQP 系列双联泵 Series Double Pumps



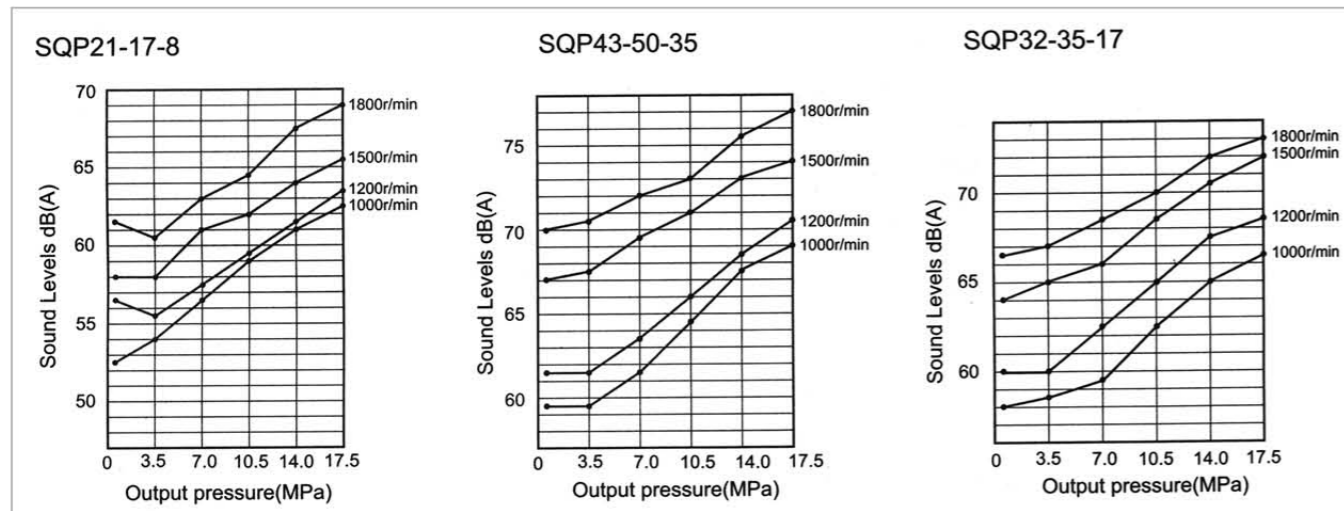
型号说明/Model Designation

(F3-)	SQP32	-35	-17	-86	CD	(F)	-(LH)	-18
前注、油液相溶性 Infuse front, oil intermiscibility	系列号 Series	▲排量代号轴端泵 Displacement code of shaft end pump	▲排量代号盖端泵 Displacement code of cover end pump	轴伸形式 Shaft type	油口位置 Port positions	安装形式 Installation type	旋转方向 Rotation	设计号 Design number
无标记- 抗磨液压油、 水-乙二醇液或 油包水乳化液 No-marking: Anti-wear hydraulic oil, Water glycol fluid or water-oil emulsions F3- 磷酸酯液 phosphate ester fluid	SQP21	10, 12, 14, 15, 17, 19, 21, 25	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14	1-带键直轴 Belt key straight shaft	见下表 See below	无标记 No-marking; 法兰安装型 Flange Mounting	(从泵的轴端看) (Viewed from shaft end of pump) LH-逆时针旋转 Left hand for counter clockwise 无标记-顺时针旋转 No-marking-Right hand for clockwise	18
	SQP31	21, 25, 30, 32, 35, 38, 45	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14					
	SQP32	21, 25, 30, 32, 35, 38, 45	10, 12, 14, 15, 17, 19, 21, 25	86-重型带键直轴 Heavy belt key straight shaft				
	SQP41	42, 45, 50, 57, 60, 66, 75	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14					
	SQP42	42, 45, 50, 57, 60, 66, 75	10, 12, 14, 15, 17, 19, 21, 25	F-脚座安装型 F-Foot Mounition				
	SQP43	42, 45, 50, 57, 60, 66, 75	21, 25, 30, 32, 35, 38, 45					

▲ 在1200r/min 和0.69MPa(100psi)下的额定排量。
USgpm Flow(USgpm) at 1200r/min and 0.69MPa.

噪音数据/Noise Data

测试条件ISO VG32, (50℃), 距离1m Test condition ISO VG32, (50℃), distance 1m



油口位置 (从泵的盖端看) Outlet Positions (Viewed from cover end of pump)

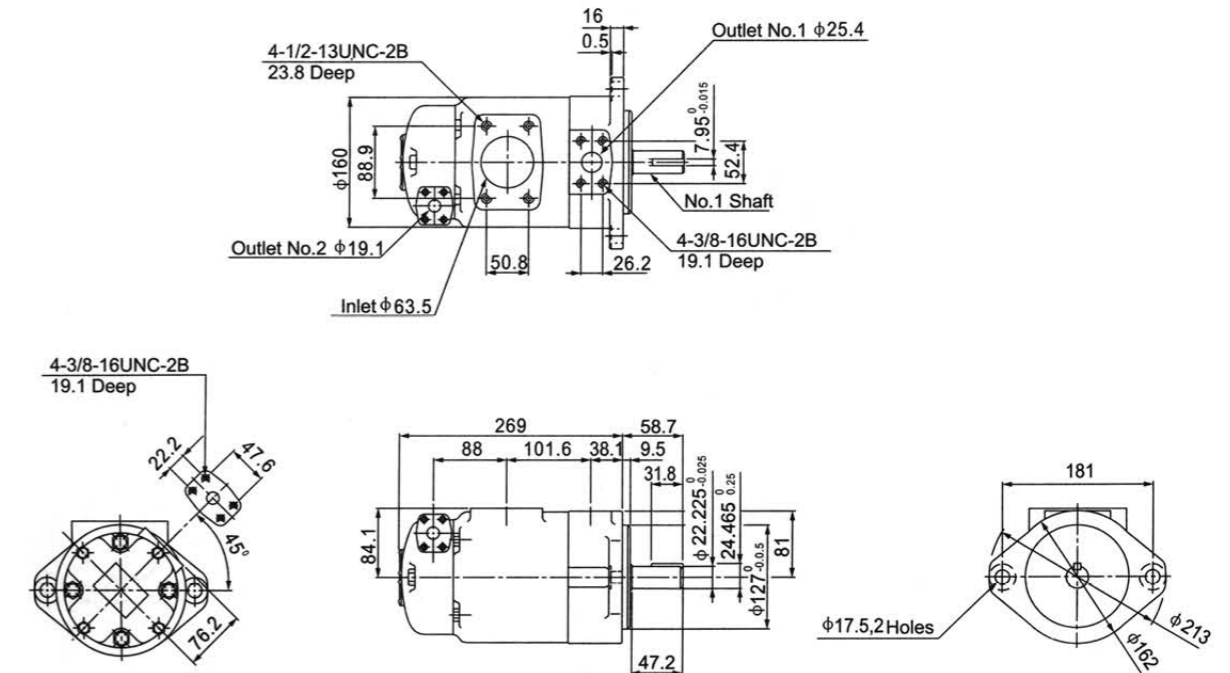
油口位置 Port Connection		第一出油口 Outlet No.1	第二出油口 Outlet No.2
油口位置 Port positions		所有系列 (除SQP43外) All series (except SQP43)	
		SQP43系列 SQP43 series	
第一出油口 在进油口对侧 No.1 outlet opposite inlet	AA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对侧 No.2 outlet opposite inlet
	AB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	AC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	AD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口 从进油口逆时针转90° No.1 outlet 90° CCW from inlet	BA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对侧 No.2 outlet opposite inlet
	BB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	BC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	BD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口 在进油口同侧 No.1 outlet inline with inlet	CA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对侧 No.2 outlet opposite inlet
	CB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	CC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	CD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet
第一出油口 从进油口顺时针转90° No.1 outlet 90° CW from inlet	DA	第二出油口在进油口逆时针转135° No.2 outlet 135° CCW from inlet	第二出油口在进油口对侧 No.2 outlet opposite inlet
	DB	第二出油口在进油口逆时针转45° No.2 outlet 45° CCW from inlet	第二出油口在进油口逆时针转90° No.2 outlet 90° CCW from inlet
	DC	第二出油口在进油口顺时针转45° No.2 outlet 45° CW from inlet	第二出油口在进油口同侧 No.2 outlet inline with inlet
	DD	第二出油口在进油口顺时针转135° No.2 outlet 135° CW from inlet	第二出油口在进油口顺时针转90° No.2 outlet 90° CW from inlet

技术参数/Technical Data

系列号 Series	轴端泵 (第一出油口) Shaft end pump (No.1 outlet)			盖端泵 (第二出油口) Cover end pump (No.2 outlet)			最高转速 r/min Max. speed	最低转速 Min. speed r/min
	●排量代号 Displacement code	几何排量mL/r Geometric displacement	最大压力MPa Max. pressure	●排量代号 Displacement code	几何排量mL/r Geometric displacement	最大压力MPa Max. pressure		
SQP21	10	32.5	▲同SQP2 As SQP2	2	7.5	▲同SQP1 As SQP1	同SQP系列 单泵 As SQP Series single pumps	600
	12	38.3		3	10.2			
	14	43.3		4	12.8			
	15	46.7		5	16.7			
	17	52.5						
	19	59.2						
	21	65.0						
SQP31	25	79.2	▲同SQP3 As SQP3	6	19.2	▲同SQP1 As SQP1	同SQP系列 单泵 As SQP Series single pumps	600
	30	95.0		7	22.9			
	32	100		8	26.2			
	35	109		9	28.8			
	38	118						
	45	140						
SQP41	42	134	▲同SQP4 As SQP4	10	31.0	▲同SQP2 As SQP2	同SQP系列 单泵 As SQP Series single pumps	600
	45	140		11	35.0			
	50	156		12	37.9			
	57	178		14	44.2			
	60	189						
	66	207						
	75	237						
SQP32	21	66.7	▲同SQP3 As SQP3	10	32.5	▲同SQP2 As SQP2	同SQP系列 单泵 As SQP Series single pumps	600
	25	79.2		12	38.3			
	30	95.0		14	43.3			
	32	100		15	46.7			
	35	109						
	38	118						
SQP42	45	140	▲同SQP4 As SQP4	17	52.5	▲同SQP3 As SQP3	同SQP系列 单泵 As SQP Series single pumps	600
	42	134		19	59.2			
	45	140		21	65.0			
	50	156						
	57	178						
	60	189						
	66	207						
SQP43	75	237	▲同SQP4 As SQP4	21	66.7	▲同SQP3 As SQP3	同SQP系列 单泵 As SQP Series single pumps	600
	42	134		25	79.2			
	45	140		30	95.0			
	50	156		32	100			
	57	178		35	109			
	60	189		38	118			
	66	207		45	140			

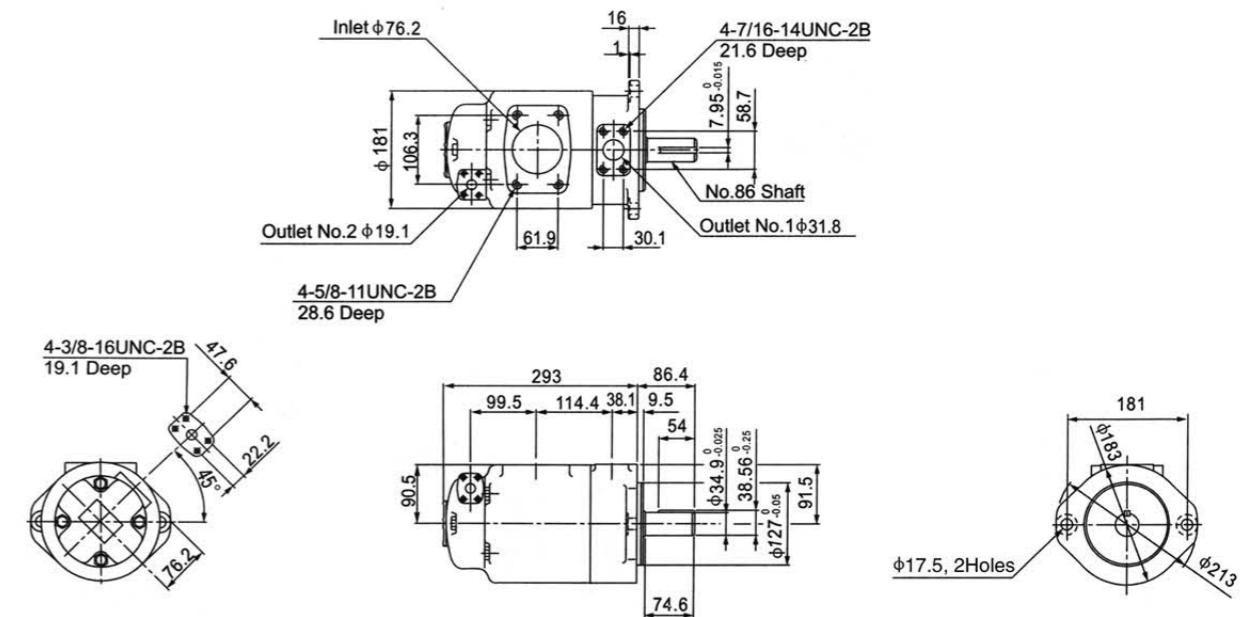
● 在1200r/min 和0.69MPa(100psi)下的额定排量 USgpm Flow(USgpm) at 1200r/min and 0.69MPa ▲ 0.5秒内, 允许超过最高压力10%的瞬时压力。 Permit surpassing the top pressure 10% instantaneous pressure, within 0.5 second.

SQP21 法兰安装尺寸
Flange Mounting



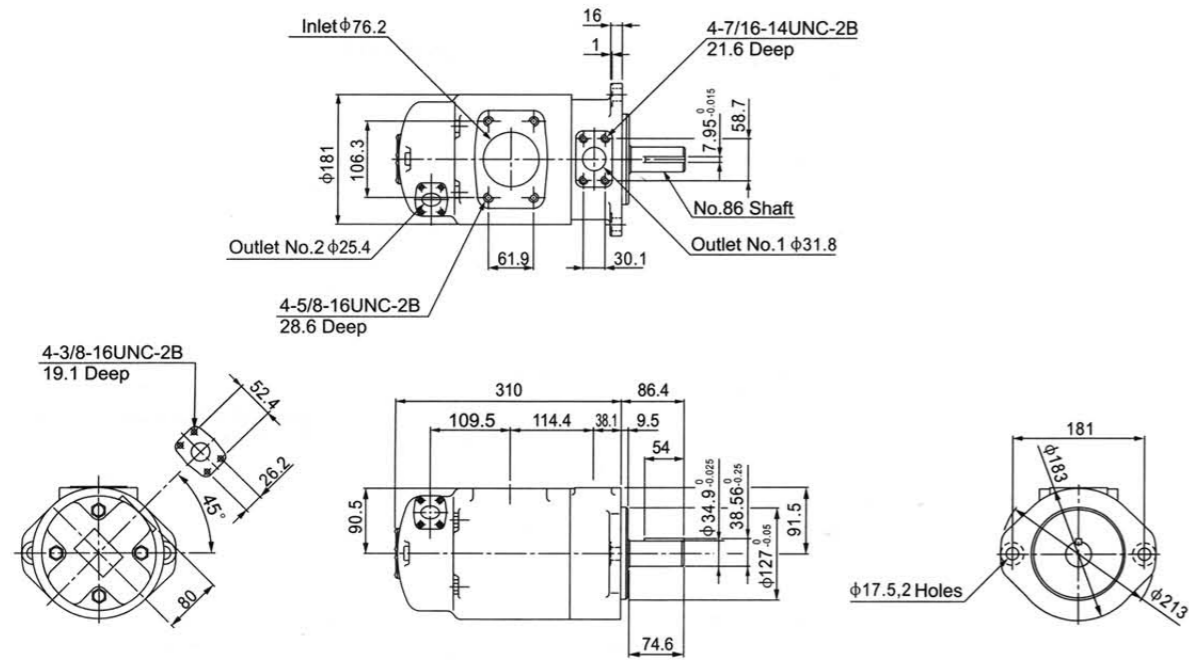
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

SQP31 法兰安装尺寸
Flange Mounting



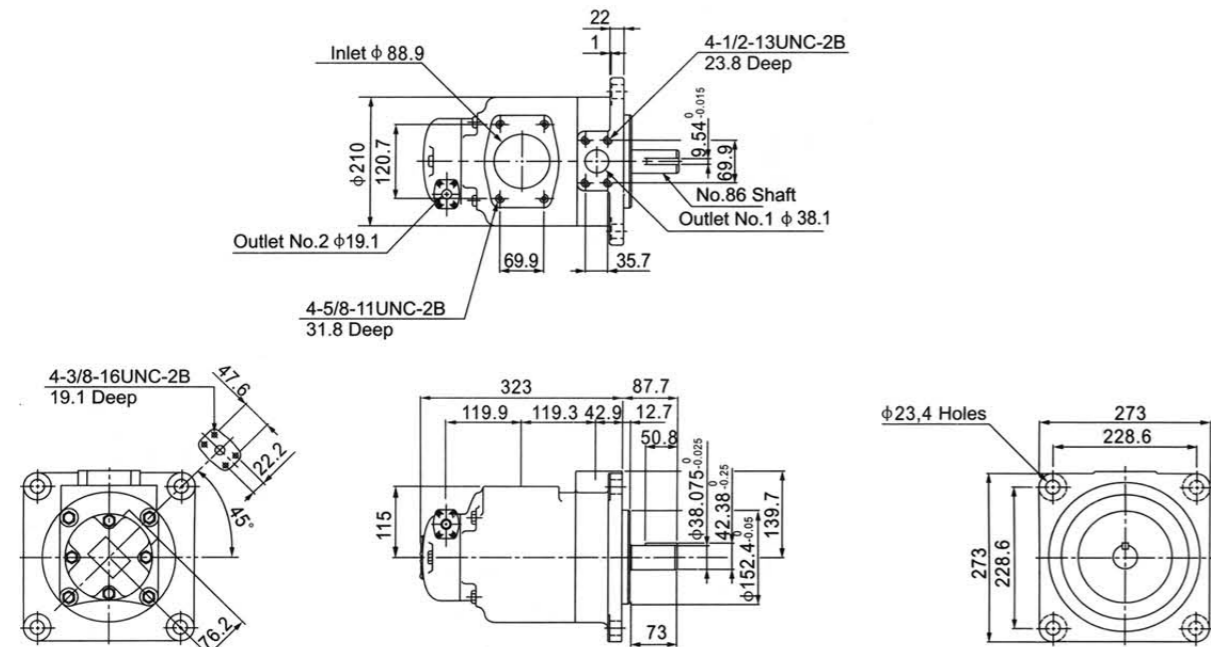
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

SQP32 法兰安装尺寸
Flange Mounting



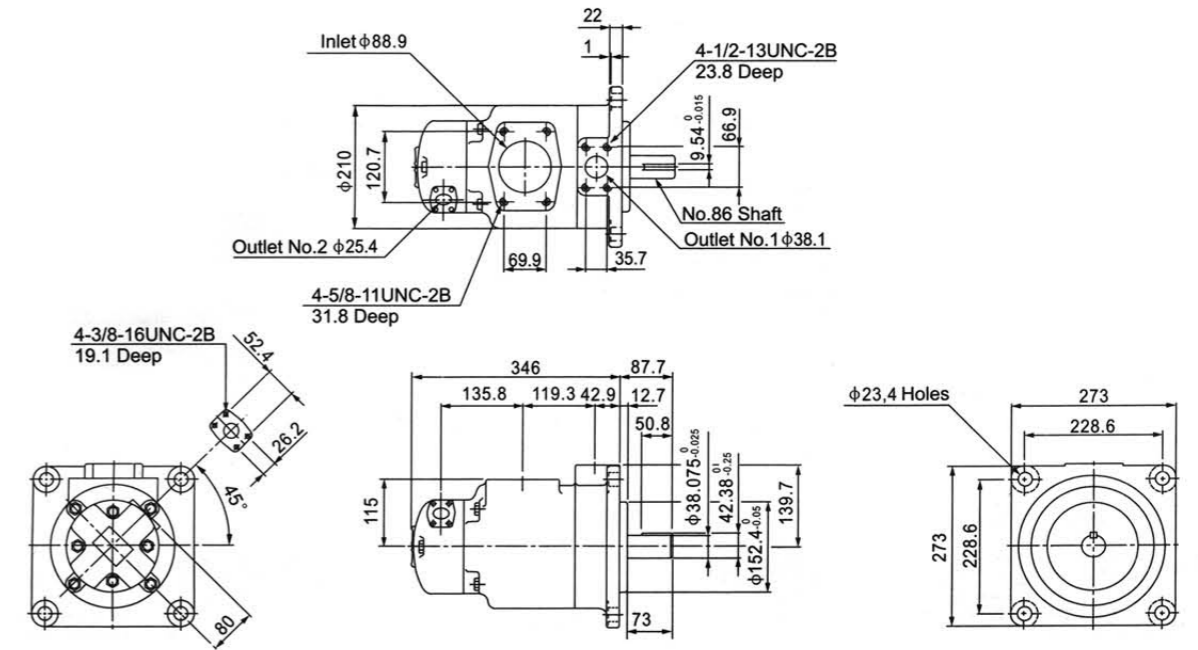
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

SQP41 法兰安装尺寸
Flange Mounting



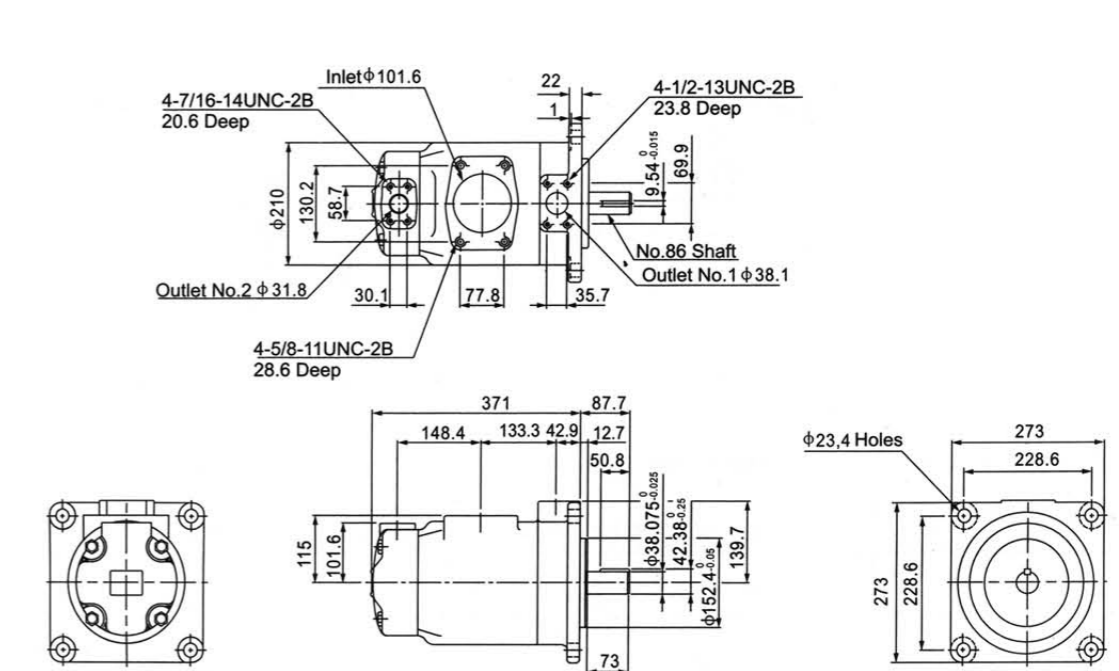
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

SQP42 法兰安装尺寸
Flange Mounting



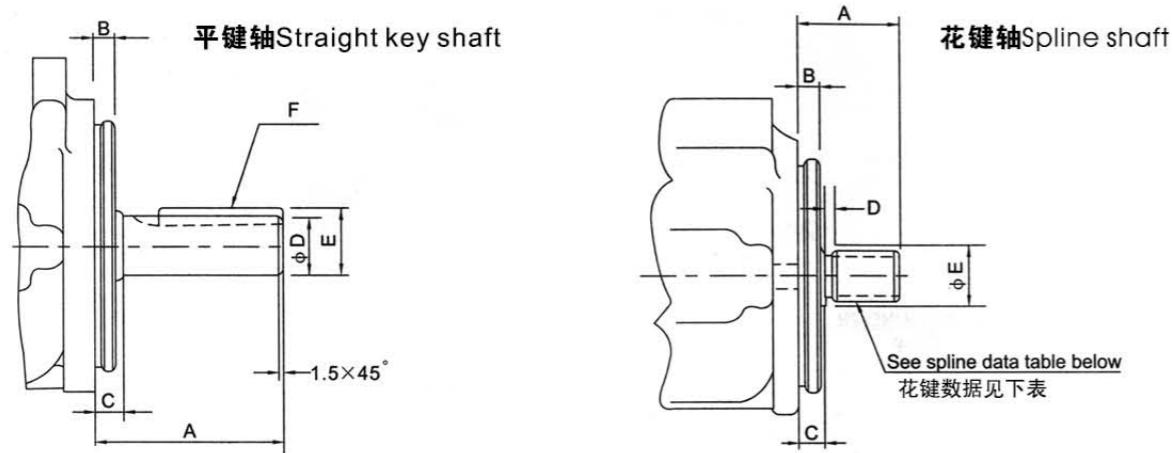
其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

SQP43 法兰安装尺寸
Flange Mounting



其它轴类尺寸见64页
For other shaft dimensions, refer to page 64

轴伸选择/Shaft type



平键轴/Straight Key shaft

型号 Model	轴伸代号 Shaft code	A	B	C	ΦD	E	F键宽*长 F key width x length
20V、20VQ、SQP1	1	59	9.53	12.1	22.23/22.20	24.5/24.4	4.76*32
25V、2520V 25VQ、2520VQ SQP2、SQP21	1	59	9.53	11.1	22.23/22.20	24.5/24.4	4.76*32
	86	78	9.53	11.1	25.37/25.35	28.3/28.1	6.36*50.8
35V、35※V 35VQ、35※VQ SQP3、SQP3※	1	73.2	9.53	11.1	31.75/31.70	35.36/35.10	7.94*38.1
	86	86	9.53	11.1	34.90/34.87	38.6/38.3	7.94*54
45V、45※V 45VQ、45※VQ SQP4、SQP4※	1	62	12.7	14.22	31.75/31.70	35.36/35.10	7.94*28.5
	86	87.4	12.7	14.22	38.07/38.05	42.4/42.1	9.54*50.8

花键轴/Spline shaft

型号 Model	轴伸代号 Shaft code	A	B	C	D	E	花键数据(见下表) Spline data(see below)
20V、20VQ	151	41.1	9.53	11.1	3.9	27.8	A
25V、2520V 25VQ、2520VQ	11	44.5	9.53	11.1	3.9	27.8	A
35V、35※V 35VQ、35※VQ	11	58.7	9.53	11.1	6.35	35.1	C
45V、45※V 45VQ、45※VQ	11	61.9	12.7	14.3	9.7	39.6	C

花键数据表 (渐开线花键) /Spline Data Table(Involute spline)

花键数据标记 Spline Data Reference	齿数 Number of teeth	径节 Pitch	大径 Major Diameter	成形直径 Form Diameter	小径 Minor Diameter	平齿根配合 Minor Diameter
A	13	16/32	22.17/22.15	19.03	18.63/18.35	大径配合 Major diameter fit
C	14	12/24	31.70/31.67	27.2	26.99/26.64	

PV2R 系列叶片泵 Series Vane Pumps

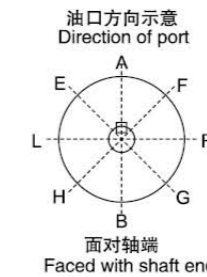


产品简介/Product Introduction

PV2R系列高压低噪声叶片泵是我公司独立研制开发的国产化高性能产品,具有性能先进,结构合理,可靠性好,噪声低,脉动极小,质量稳定的特点。产品精工制造,特别适应高精度低噪声设备的要求,广泛应用于切削机械、塑料机械、皮革机械、锻压机械、工程机械等领域。

PV2R series of vane pumps with high pressure and lower noise are high-performance products, which are developed and domestically produced by our company, featured by advanced performance, reasonable structure, good creditability, lower noise, ultra-low pulse and stable quality and so on. Precisely made, the product can be used in the equipment with high precision and low noise, and is widely used in cutting, plastic, leather, forging and engineering machinery fields, and the like.

油口方向示意图/Direction of port



型号说明/Model Designation

PV2R ※ - ※ - ※ □ □ □

系列叶片泵
Series of vane pumps

子系列代号
Code of subsidiary series
1、2、3、21、31、32

单泵或双泵的轴端泵公称排量
Displacement of single or double shaft end pump mL/r

双泵的盖端泵公称排量
Displacement of cover end pump mL/r

轴径/Shaft diameter
F-小轴 Minor shaft (Omitted)
F₁-大轴 Major shaft

油口位置 (从轴端看)
Port positions (Viewed from shaft end)
进油口: A、B、L、R
Inlet: A、B、L、R
单泵或双泵的轴端泵出油口:A
Outlet of single or double shaft end pump:A
双泵的盖端泵出油口:A、B、E、F、G、H、L、R
Outlet of cover end pump:A、B、E、F、G、H、L、R

旋转方向 (从轴端看)
Direction of rotation (Viewed from shaft end)
R-顺时针 Clockwise
L-逆时针 Counter clockwise

技术规格/Specifications

单泵/Single Pumps

产品型号 Model	理论排量 Displacement (mL/r)	最高压力 Max.pressure(MPa)			允许转速 Speed (r/min)		驱动功率 Input power (kW)
		高压用特定油 Special oil	抗磨液液压油 Antiwear oil	普通液压油 Common oil	最低 Min.	最高 Max.	
PV2R1-4	4.3						2.1
PV2R1-6	6.5						3.2
PV2R1-8	8.5						4.5
PV2R1-10	10.8						5.4
PV2R1-12	12.8						6.1
PV2R1-14	14.5	21	17.5	16	750	1800	6.9
PV2R1-17	16.2						7.9
PV2R1-19	20.1						9.6
PV2R1-23	22.5						10.5
PV2R1-25	25.3						12.5
PV2R1-28	29.6						14.0
PV2R1-31	32.3	16	16				15.5
PV2R2-26	25.3						11.7
PV2R2-33	32.3						15.5
PV2R2-41	39.8						18.9
PV2R2-47	49.8	21	17.5	14	600	1800	23.2
PV2R2-53	51.5						24
PV2R2-59	55.8						24.9
PV2R2-65	63.7						29.4
PV2R2-70	70.3						31.6
PV2R2-79	78.1	16				1200	35.7
PV2R2-85	82.7						37.5
PV2R3-52	51.5						23.2
PV2R3-60	63.7						29.4
PV2R3-66	66.6	21	17.5	14	600	1800	34.2
PV2R3-76	75.5						37.7
PV2R3-94	89.5						41.2
PV2R3-116	118						50
PV2R3-125	122.2	16	16			1200	59.9
PV2R3-136	136						66.7

注: 1. 公称排量“4”、“6”、“8”泵, 压力超过16MPa使用时, 转速应超过1450r/min。
 2. 在高转速下使用大排量单泵及相应的双泵时, 应减少吸入口负压。
 3. 使用合成液压油及含水液压油时, 最高转速限制在1200r/min。
 4. 对于特别要求低噪音的场合, 建议工作转速选用1000r/min。
 5. 噪声值是在P=14MPa、n=1200r/min的工况下。
 6. 驱动功率是在P=16MPa、n=1500r/min的工况下。

Note: 1. When pressure of pumps exceeds 16MPa, with displacement of "4" "6" "8", speeds should be more than 1450r/min.
 2. Reduce the negative pressure of the inlet when the single pumps or double pumps with large displacement at high speed.
 3. In use of synthetic hydraulic fluids and water containing hydraulic fluids, limit the max speed at 1200r/min.
 4. Speed at 1000r/min is suggested on occasions with lower noise strictly required.
 5. Noisiness is available in working conditions of 14MPa and 1200r/min.
 6. Input power is available in working conditions of 16MPa and 1500r/min.

双联泵/Double Pumps

泵系列号 Series	轴端泵排量 Displacement of shaft end pump	盖端泵排量 Displacement of cover end pump
PV2R21	26、33、41、47、53、59、65	4、6、8、10、12、14、17、19、23、25、28、31
PV2R31	52、60、66、76、94、116、125、136	4、6、8、10、12、14、17、19、23、25、28、31
PV2R32	52、60、66、76、94、116、125、136	26、33、41、47、53、59、65

外型尺寸/Installation Dimensions

单泵/Single Pumps

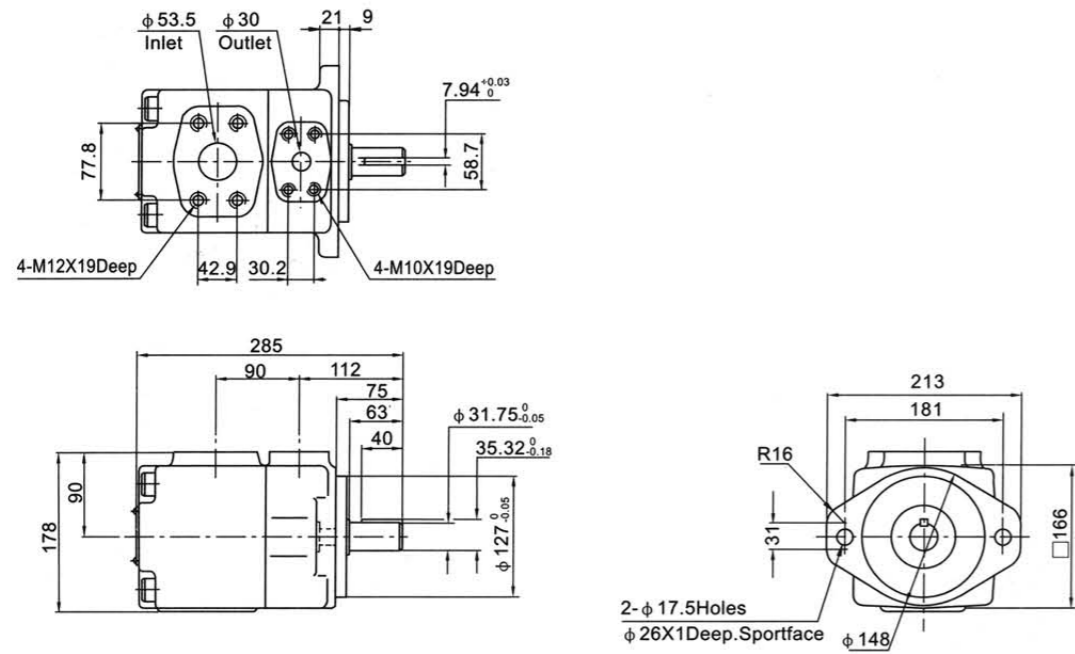
PV2R1

轴伸形式 Shaft type	A	B	C	D	F	G	H
F1	178.5	69.5	44.5	36	19.05	21.24	4.76
F	184	75	50	41	15.88	17.68	3.97

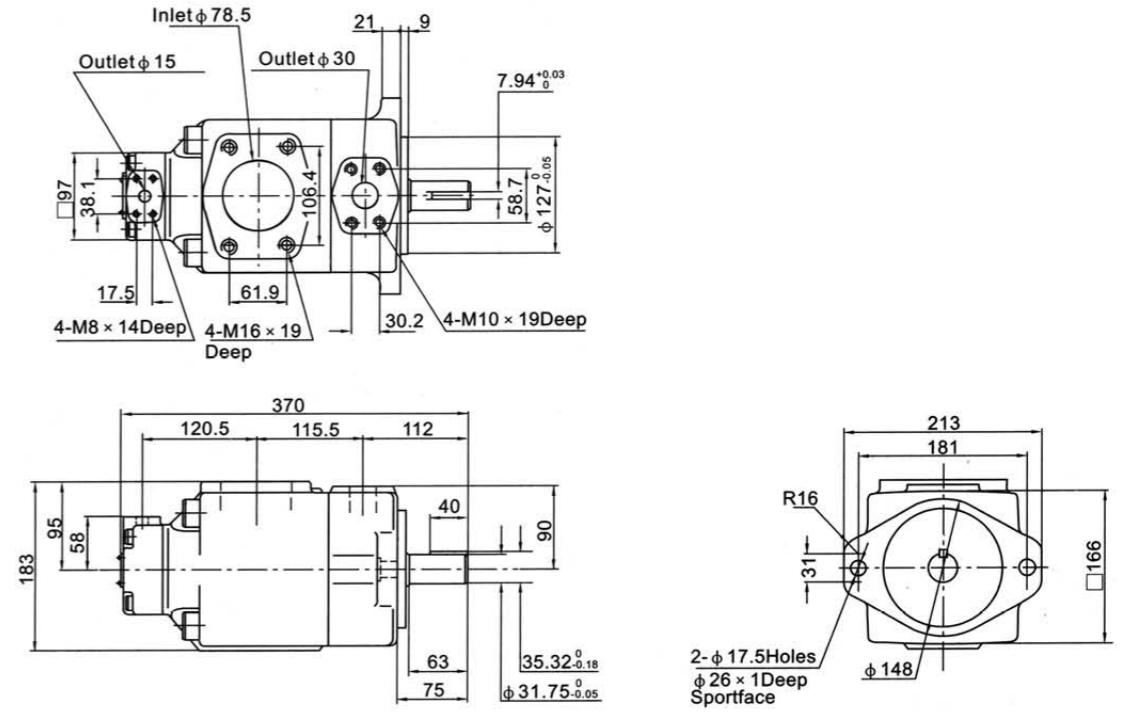
PV2R2

轴伸形式 Shaft type	F	G
F1	25.4	28.18
F	22.23	25.01

PV2R3



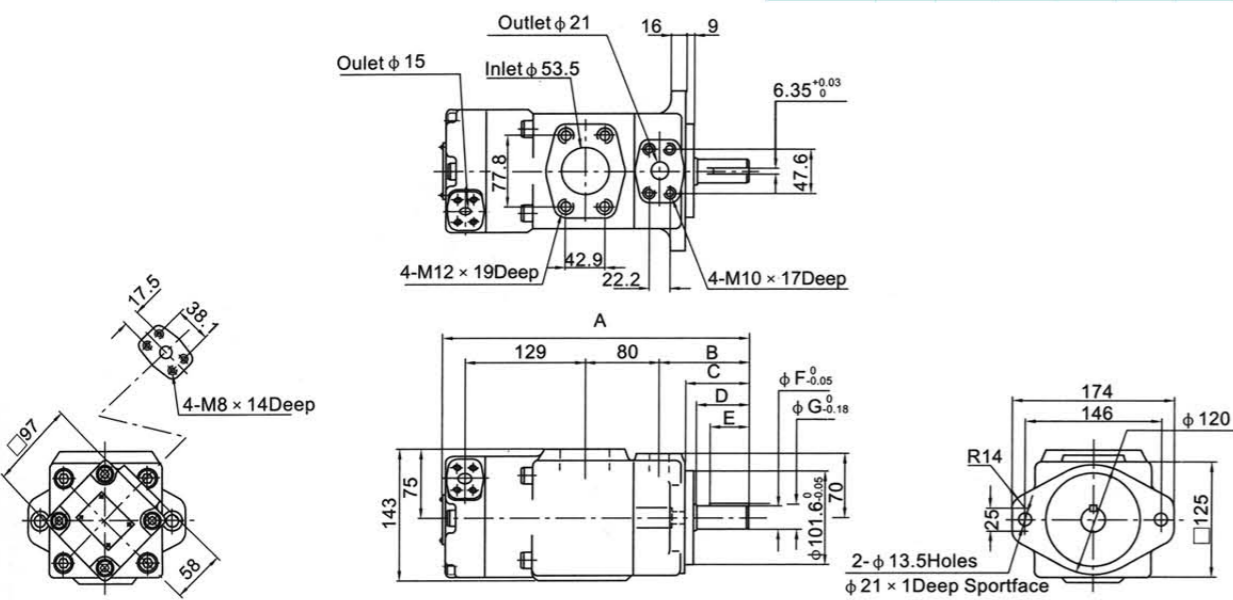
PV2R31



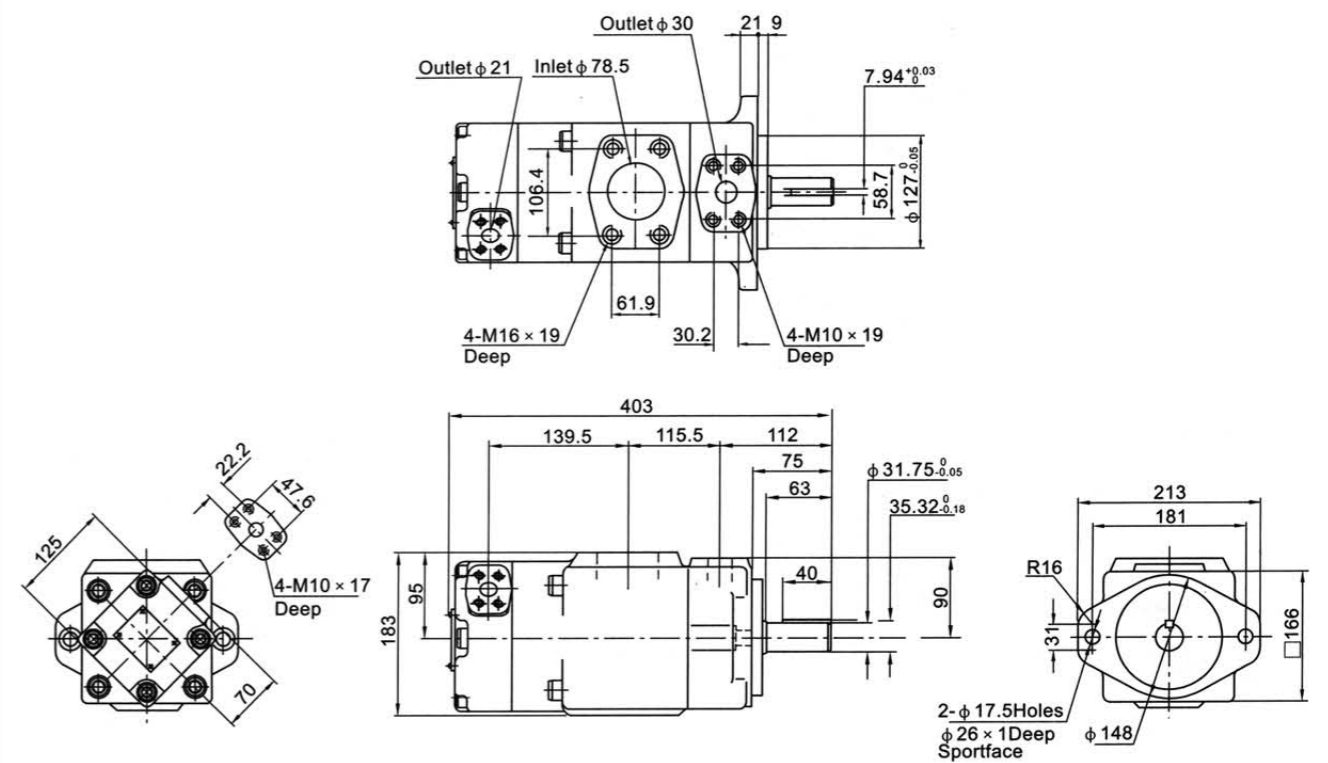
双联泵/Double Pumps

PV2R21

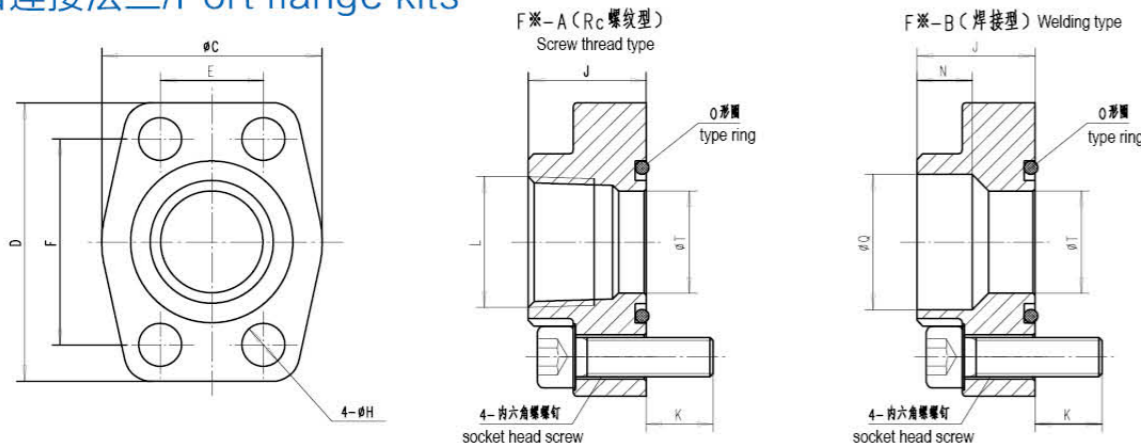
轴伸形式 Shaft type	A	B	C	D	E	F	G
F1	326	95	67	55	40	25.4	28.18
F	318	87	59	47	32	22.23	25.01



PV2R32



油口连接法兰/Port flange kits



法兰型号 Flange model	对应管子规格 Corresponding pipe specifications	尺寸/Dimensions mm										O形圈/ Ring GB3452.1- 2005	PV2R系列/Series		
		C	D	E	F	H	J	L	N	Q	T		内六角螺钉 socket head screw	尺寸 Dimensions K	对应油泵接口 Corresponding oil pump interface
F04-A	1/2"	40	54	17.5	38.1	9.0	27	Rc1/2"	-	-	13	21.2x2.65	M8x30mm	12.5	PVR1出油口/outlet, PV2R21, PV2R31 盖端泵出油口/ outlet of cover end pump
F04-B								-	11	22.5					
F06-A	3/4"	50.5	65.5	22.2	47.6	11.0	28	Rc3/4"	-	-	19	30x3.55	M10x30mm	12.5	PVR2出口/outlet, PV2R21泵端泵出油口/outlet of shaft end pump, PV2R32盖端泵出油口/ outlet of cover end pump
F06-B								-	12	28.5					
F08-A	1"	56	71	26.2	52.4	11.0	30	Rc1"	-	-	26	34.5x3.55	M10x35mm	17.0	PVR1吸油口/inlet port
F08-B								-	14	34.5					
F10-A	1-1/4"	64.5	79.5	30.2	58.7	12.0	32	Rc1-1/4"	-	-	32	40x3.55	M10x40mm	19	PVR2吸油口/inlet port, PV2R3出油口/outlet, PV2R31, PV2R32 轴端泵出油口/outlet of shaft end pump
F10-B								-	16	43.0					
F12-A	1-1/2"	71	94	35.7	69.9	13.8	37	Rc1-1/2"	-	-	38	50x3.55	-	-	-
F12-B								-	18	49.1					
F16-A	2"	87.5	103	42.9	77.8	13.8	38	Rc2"	-	-	51	65x3.55	M12x45mm	17.5	PVR3、PV2R21吸油口/inlet
F16-B								-	20	61.0					
F20-A	2-1/2"	96	115	50.8	88.9	13.8	42	Rc2-1/2"	-	-	63	75x3.55	-	-	-
F20-B								-	22	77.1					
F24-A	3"	123	136	61.9	106.4	17.0	45	Rc3"	-	-	76	85x3.55	M16x45mm	16.5	PVR31、PV2R32吸油口/inlet
F24-B								-	25	90.0					
F28-A	3-1/2"	135	153	69.9	120.7	17.5	46	Rc3-1/2"	-	-	89	100x3.55	-	-	-
F28-B								-	20	102.8					
F32-A	4"	145	162	77.8	130.2	17.0	50	Rc4"	-	-	102	115x3.55	-	-	-
F32-B							40	-	28	115.5					

法兰型号 Flange model	V、VQ、SQP、T6系列/Series		
	内六角螺钉 socket head screw	尺寸K Dimensions	对应油泵接口 Corresponding oil pump interface
F04-A	-	-	-
F04-B	-	-	-
F06-A	3/8"-16UNCx1.5" (38.1mm)	20.6	20V(Q)、SQP1出油口/outlet, 2520V(Q)、3520V(Q)、4520V(Q)、SQP21、SQP31、SQP41、T6CC (油口尺寸01、11/oil port dimensions)、T6DCC(油口尺寸01/oil port dimensions)、T6DDCS(油口尺寸01/oil port dimensions)、T6EDC(S)(油口尺寸01/oil port dimensions)盖端泵出油口/outlet of cover end pump
F06-B			
F08-A	3/8"-16UNCx1.5" (38.1mm)	20.1	25V(Q)、SQP2、T6C出油口/outlet port, 2520V(Q)、SQP21、T6CC轴端泵出油口/outlet of shaft end pump, 3525V(Q)、4525V(Q)、SQP32、SQP42、T6CC(油口尺寸00、10/oil port dimensions)、T6EC、T6DCC (油口尺寸00/oil port dimensions)、T6DDCS (油口尺寸00/oil port dimensions)、T6EDC(S) (油口尺寸00/oil port dimensions) 盖端泵出油口/outlet of cover end pump、T6DCC中间泵出油口/outlet of middle pump
F08-B			
F10-A	7/16"-14UNCx1.575" (40mm)	19.0	SQP1吸油口/inlet, 35V(Q)、SQP3、T6D出油口/outlet, 3520V(Q)、3525V(Q)、SQP31、SQP32、T6DC、T6DCC、T6DDCS轴端泵出油口/outlet of shaft end pump, 4535V(Q)、SQP43、T6ED盖端泵出油口/outlet of cover end pump, T6DDCS、T6EDC(S)中间泵出油口/outlet of middle pump
F10-B			
F12-A	1/2"-13UNCx1.75" (44.5mm)	19.0	20V(Q)、25V(Q)、SQP2、T6C吸油口/inlet, 45V(Q)、SQP4、T6E出油口/outlet, 4535V(Q)、SQP43、T6EC、T6ED、T6EDC(S)轴端泵出油口/outlet of shaft end pump
F12-B			
F16-A	1/2"-13UNCx1.75" (44.5mm)	17.0	35V(Q)、SQP3、T6D吸油口/inlet
F16-B			
F20-A	1/2"-13UNCx1.75" (44.5mm)	16.5	2520V(Q)、SQP21、T6CC(油口尺寸10、11/oil port dimensions)吸油口/inlet
F20-B			
F24-A	5/8"-11UNCx2" (50.8mm)	22.3	45V(Q)、SQP4、T6E吸油口/inlet, 3520V(Q)、3525V(Q)、SQP31、SQP32、T6CC (油口尺寸00、01/oil port dimensions)、T6DC吸油口/inlet
F24-B			
F28-A	5/8"-11UNCx2" (50.8mm)	22.3	4520V(Q)、4525V(Q)、SQP41、SQP42、T6EC吸油口/inlet
F28-B			
F32-A	5/8"-11UNCx2" (50.8mm)	19.3	4535V(Q)、SQP43、T6ED、T6DCC、T6DDCS、T6EDC(S)吸油口/inlet
F32-B	5/8"-11UNCx1.75" (44.5mm)	23.0	

ABT 系列伺服泵
Series Servo Pump

ABT系列伺服泵是我公司与美国艾伯特流体动力传动有限公司、浙江大学机电控制工程研究所三方合作共同研发的高性能伺服液压系统专用油泵。其核心部件从国外进口。

本产品我公司拥有自主知识产权并获得国家创新基金支持，广泛应用于橡塑、压铸、鞋革、锻压、挤压、折弯、剪板机械等伺服液压系统中。

ABT Series Servo Pump is high performance servo hydraulic system special oil pump. It is researched and developed together by three party-Ningbo Vicks Hydraulic Co.,Ltd. American Albert Fluid Power Co.,Ltd. Zhejiang University Mechanical Control Engineering Research Institute. The core components are imported from abroad. We have the proprietary intellectual property rights for this product and we have got the state innovation fund support, the pump have been widely used in servo hydraulic systems of rubber and plastic machines, shoes machines, forging and press machines, bending machines and shearing machines.



其主要特点为/Main Features

- 柱销式叶片结构设计，使油泵在启动时扭矩小，电流小，更节能。
- 采用外泄、泄漏量可调控设计，明显降低油泵温升。根据液压元器件泄漏大小，可灵活调整外泄量，泵在低速高压工况下脉动小，制品精度高。
- 柱销底部通高压油和辅助弹性机构的合理配合，使油泵可以在低速下正常工作，能适应伺服液压系统快慢速、高低压、正反快速切换的工况。
- 双作用及正反转结构设计，使油泵工作更加平稳，伺服液压系统的响应速度更快。
- 高压、高速结构和双刃口叶片设计，转速范围广，抗污能力强，使用寿命长。
- 低噪声结构设计，排量范围广，可根据客户要求灵活定制不同排量。
- 采用插装式结构，维修时只需更换泵芯，维修更便捷、成本更低。
- 双泵油口采用一进两出设计，结构更加紧凑，安装空间小。
- 进油口有四种不同的相对方位，安装灵活。

- Dowel pin type vane kits designation can make the pump with small resistance, low electronic, and with more energy saving.
- Use outside leakage and leakage volume control designation low the oil temperature obviously. Based on the hydraulic components leakage volume, can adjust the oil leakage smartly, the pump pressure pulse is small at high pressure and low speed, the injection finished products will be more higher accuracy.
- With the coordination of high pressure oil and vice spring structure, can make the pump run normally at low speed, can fit low and high speed shift, high and low pressure speed shift, right and left rotation shift etc working status of servo hydraulic system perfectly.
- Double action and right-left rotation structure designation make the pump work more steadily, servo hydraulic system response more quickly.
- High pressure, high speed structure and double cutting edges designation make the speed range more wide, and with more better pollution resistance, and more longer working life.
- Low noise structure designation and wide range of flow, can be customized according to different requirements.
- Use the cartridge kit installation structure, repairing only need change the cartridge kit, more convenient for repairing, and with more lower cost.
- Double pump use one inlet port and two outlet ports, the structure is more compact with small installation space.
- There are four directions each at inlet and outlet port, installation is more flexible.



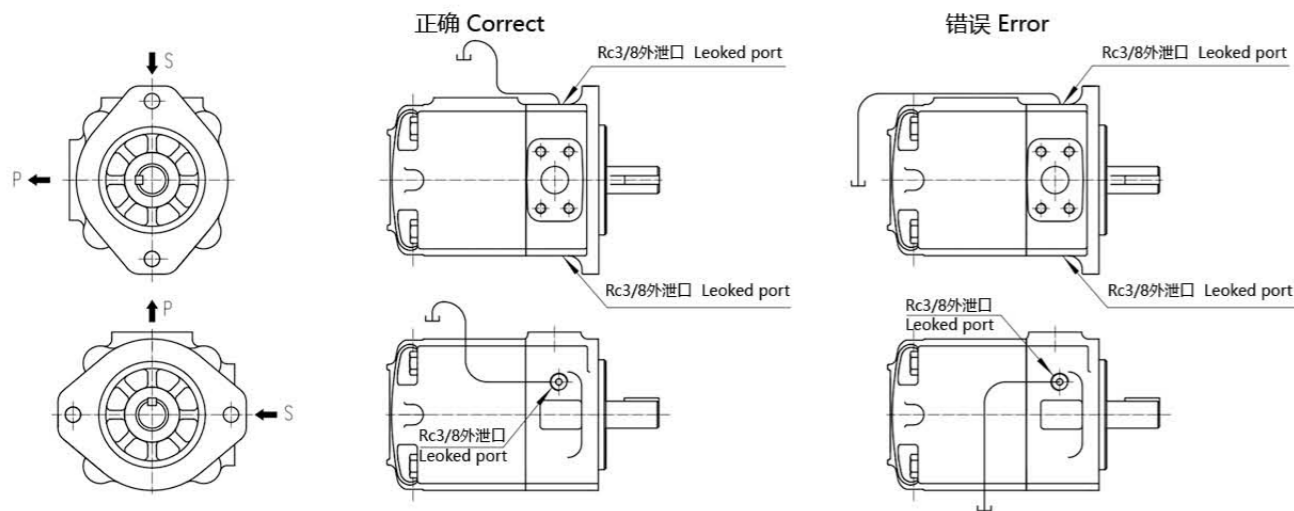
油泵结构设计全球首创，在中国和世界多个国家都申请了专利，仿制必定严究！
Oil pump structure design the world's first. In China and world many countries have applied for a patent. Copy must strictly prosecuted.

注：详细说明请阅读ABT伺服泵说明书
Note: Details please read ABT servo pump Instructions.

外泄油口/ Leaked oil port

泵壳上设计有Rc3/8外泄油口，其泄漏油必须通过此外泄油口流回油箱，不可堵塞，否则会造成油泵过热磨损；如下图所示，外泄油管必须向上方布置，使位于泵轴中心的滑动轴承浸在油液中充分润滑；内置Rc1/16螺堵内为高压油腔，不可拆卸，否则可能会造成安全事故。

The pump body is designed with Rc3/8 leakage oil port, The leak oil must flow back to the through the leaking oil port, which can not be blocked. Otherwise it will cause pump to overheat and wear away. As the next pictures show, the outside leak port must be put upwards, in order to make sure the centerde ball-bearing totally dipped in the oil and lubricated completely. The built-in Rc1/16 screw plug is high pressure oil pocket and cannot be disassembled, otherwise it may cause a safety accident.

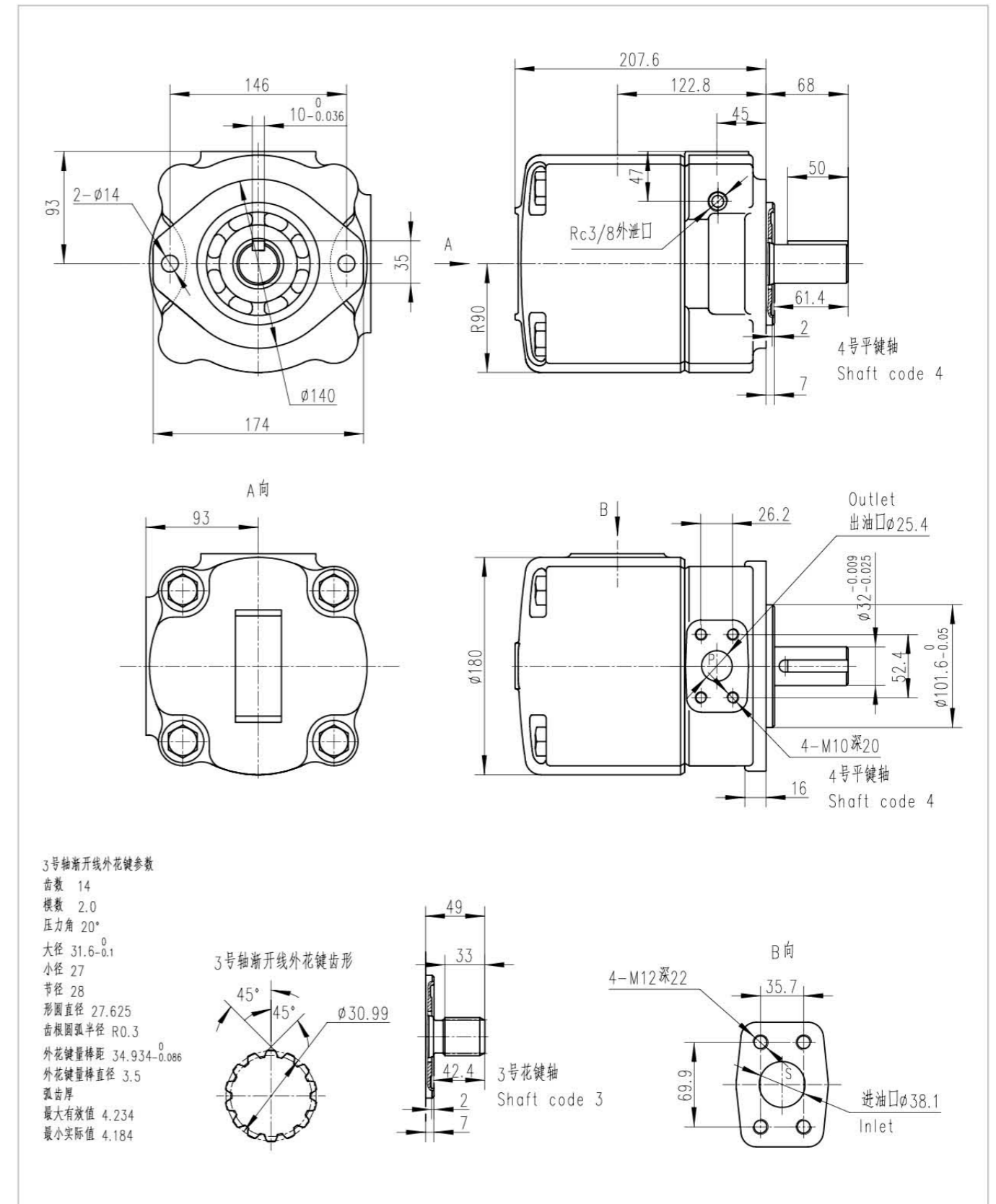


ABT-Z 系列型号说明/Model Designation

ABT2T	-80	-4	R	02	-Z2	1
系列号 Series	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出油口位置 Outlet Positions	设计号 Design number	密封等级 Sealing Level
ABT1T	32, 40	-3 花键轴 14齿 Spline shaft -4 平键轴 $\phi 32$ Keyed shaft	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	Z0	1-S1, 丁腈橡胶 NBR 2-S2, 氢化丁腈 HNBR
ABT1T	50, 64	-3 花键轴 14齿 Spline shaft -4 平键轴 $\phi 40$ Keyed shaft			Z1	
ABT2T	80, 100, 125	-4 花键轴 14齿 Spline shaft -5 平键轴 $\phi 50$ Keyed shaft			Z2	

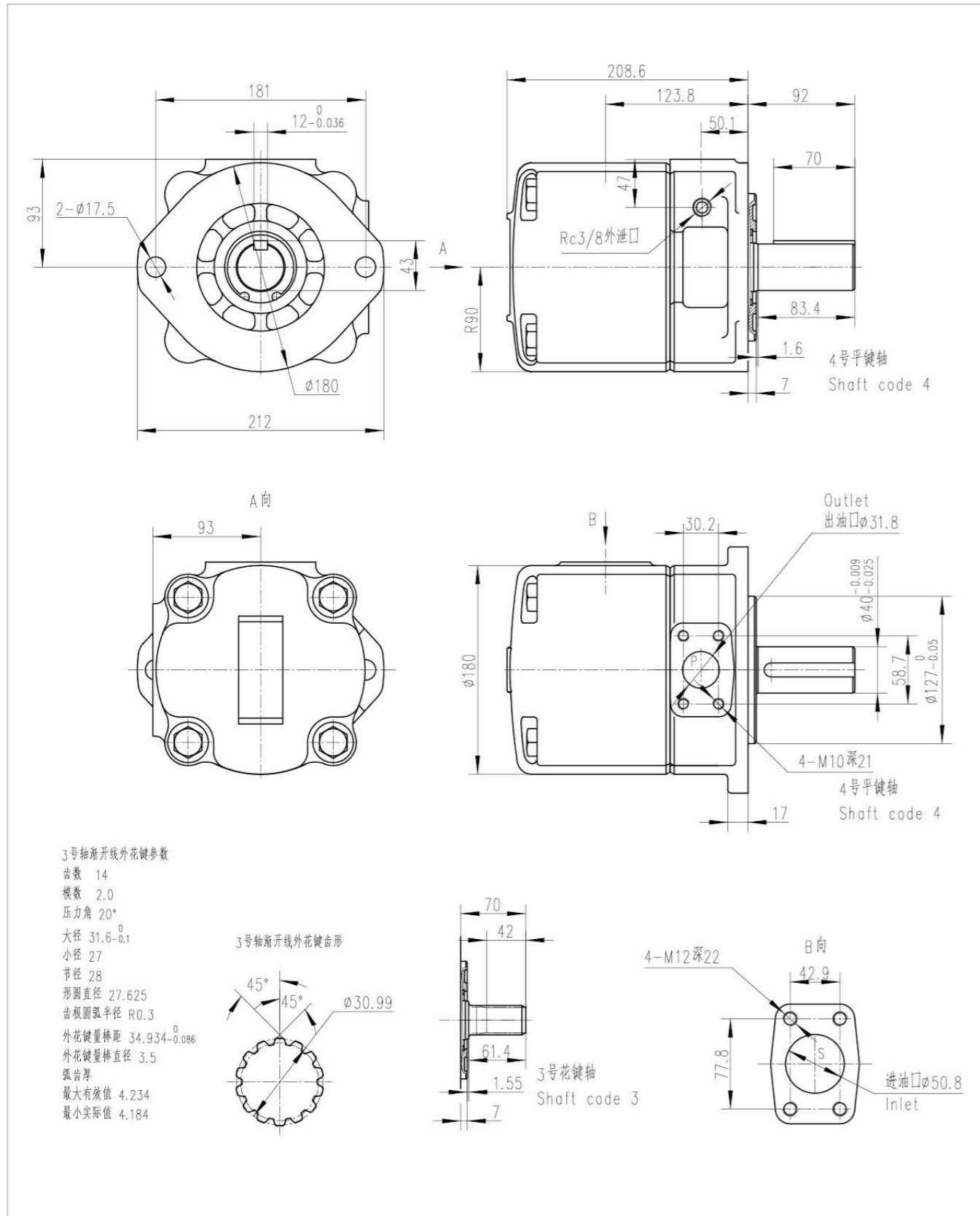
设计号Z0 排量32、40安装连接尺寸

Design number: Z0 Flow: 32、40 Installation dimensions



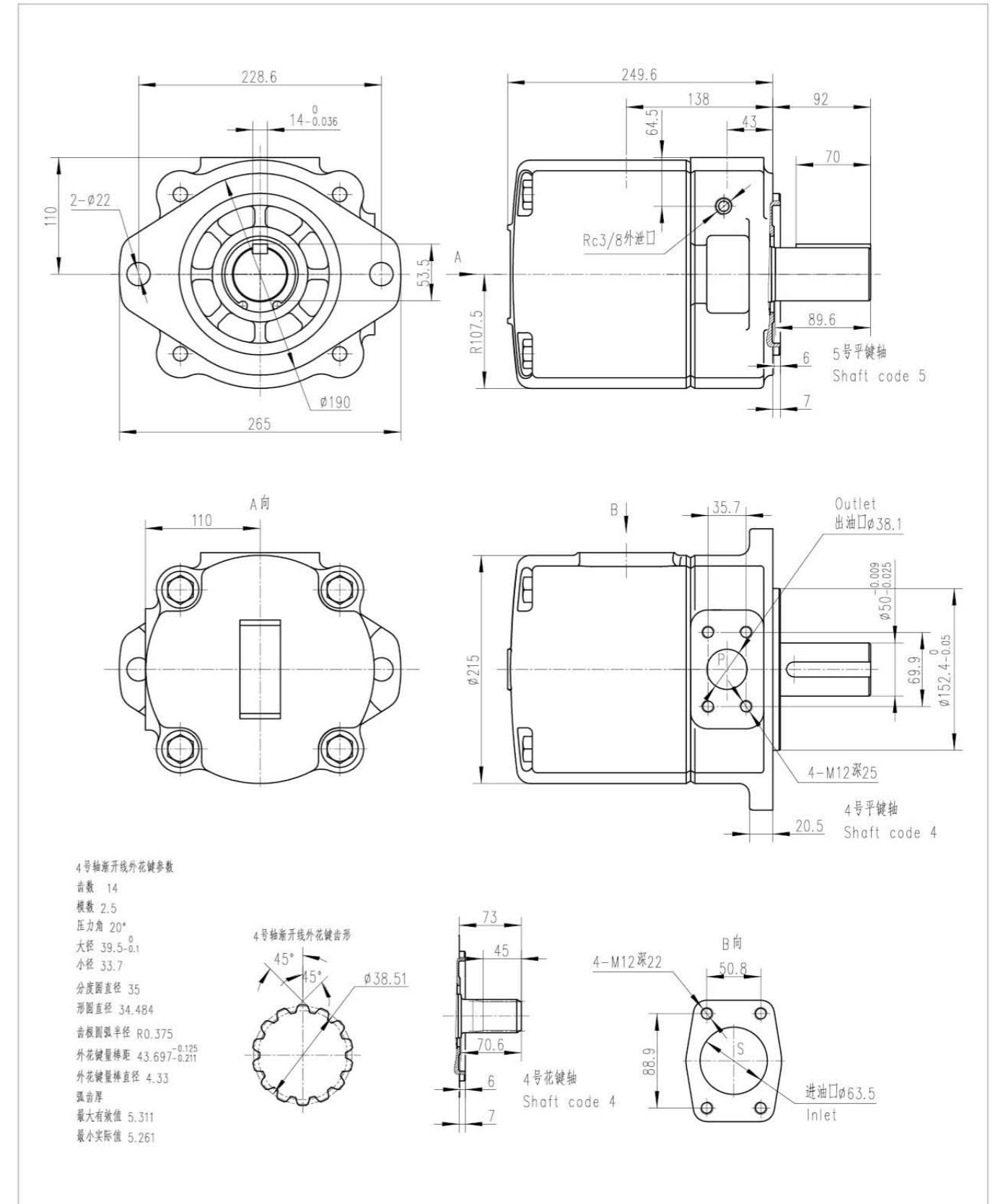
设计号Z1 排量50、64安装连接尺寸

Design number:Z1 Flow: 50、64 Installation dimensions

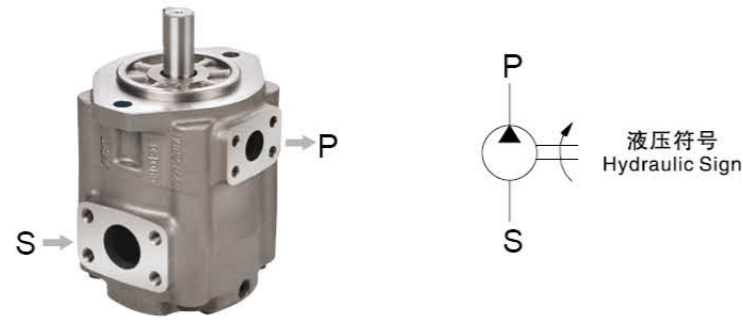


设计号Z2 排量80、100、125安装连接尺寸

Design number:Z2 Flow:80、100、125 Installation dimensions



ABT 系列伺服单泵 Series Servo Single Pump



型号说明/Model Designation

ABT2T	-80	-2	R	02	-C	1
系列号 Series	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出口口位置 Outlet Positions	设计号 Design number	密封等级 Sealing Level
ABT1T	6, 10, 16, 20, 25, 32, 40, 50, 55, 64	-1 平键轴 -2 平键轴 Keyed shaft	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	C	1-S1, 丁腈橡胶 NBR 2-S2, 氢化丁腈 HNBR
ABT2T	64, 80, 100, 110, 125, 140, 160	-2 平键轴 Keyed shaft				
ABT3	160, 180, 190, 200	-1 平键轴 Keyed shaft				

技术参数/Technical Data

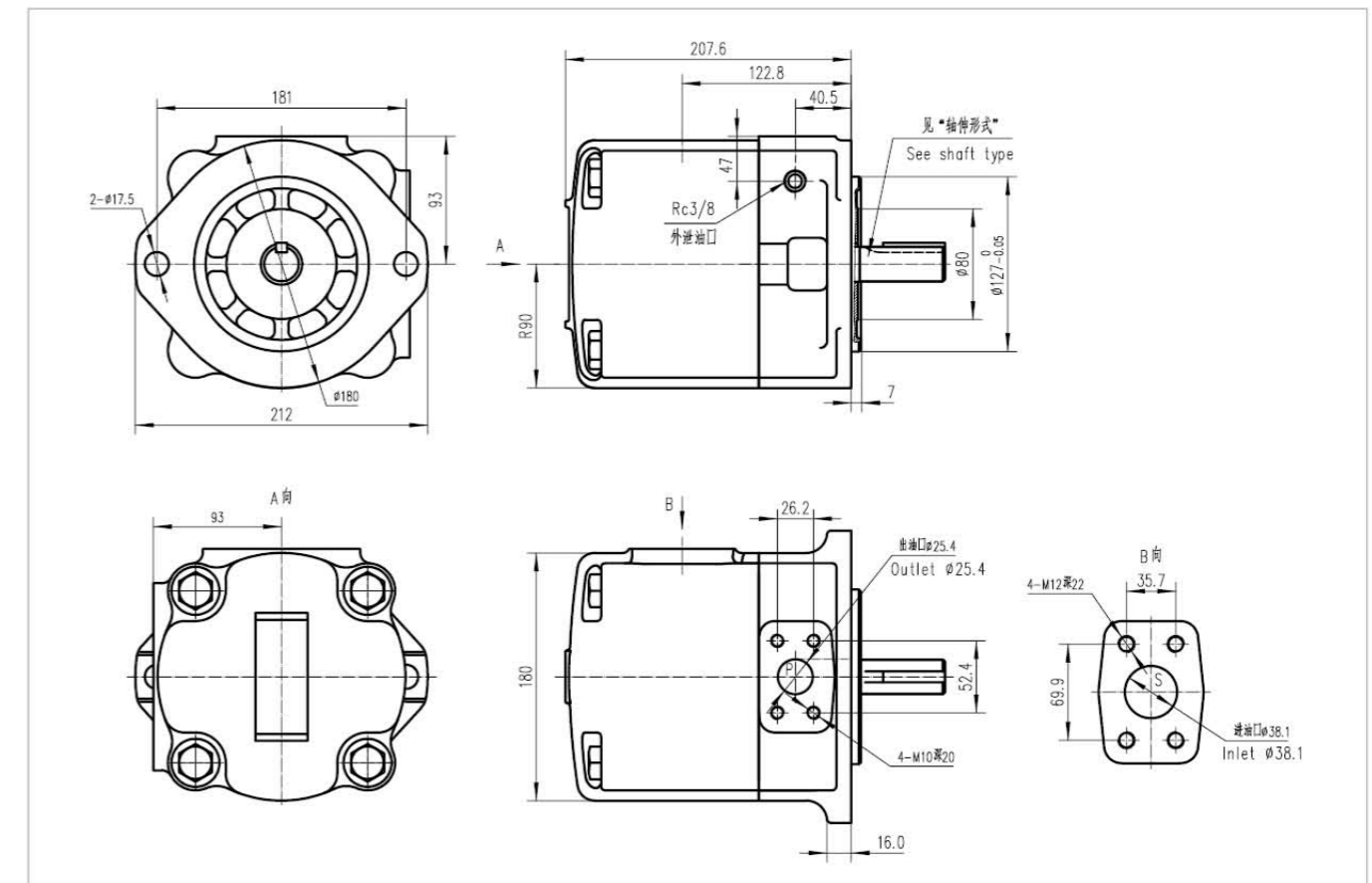
系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displacement mL/r	最高压力/Max.pressure Mpa		最高转速/Max.speed r/min		最低转速 Min. speed r/min
			抗磨液压油 Antiwear hydraulic oil	水乙二醇 Water glycol fluid	抗磨液压油 Antiwear hydraulic oil	水乙二醇 Water glycol fluid	
ABT1T	6	5.8	32	21	3500	2200	50
	10	9.8					
	16	15.9					
	20	19.8					
	25	24.9					
	32	32.1					
	40	40.1					
	50	50.3					
ABT2T	55	55.0	32	17.5	3000	2500	50
	64	63.5					
	80	80.4					
	100	100.5					
	110	110.0					
	125	125.3					
ABT3	140	140.0	17.5	14	2200	2000	50
	160	160.1					
	180	180.0					
	190	190.0					
	200	200.5					

* 排量可定制 / Displacement can be customized

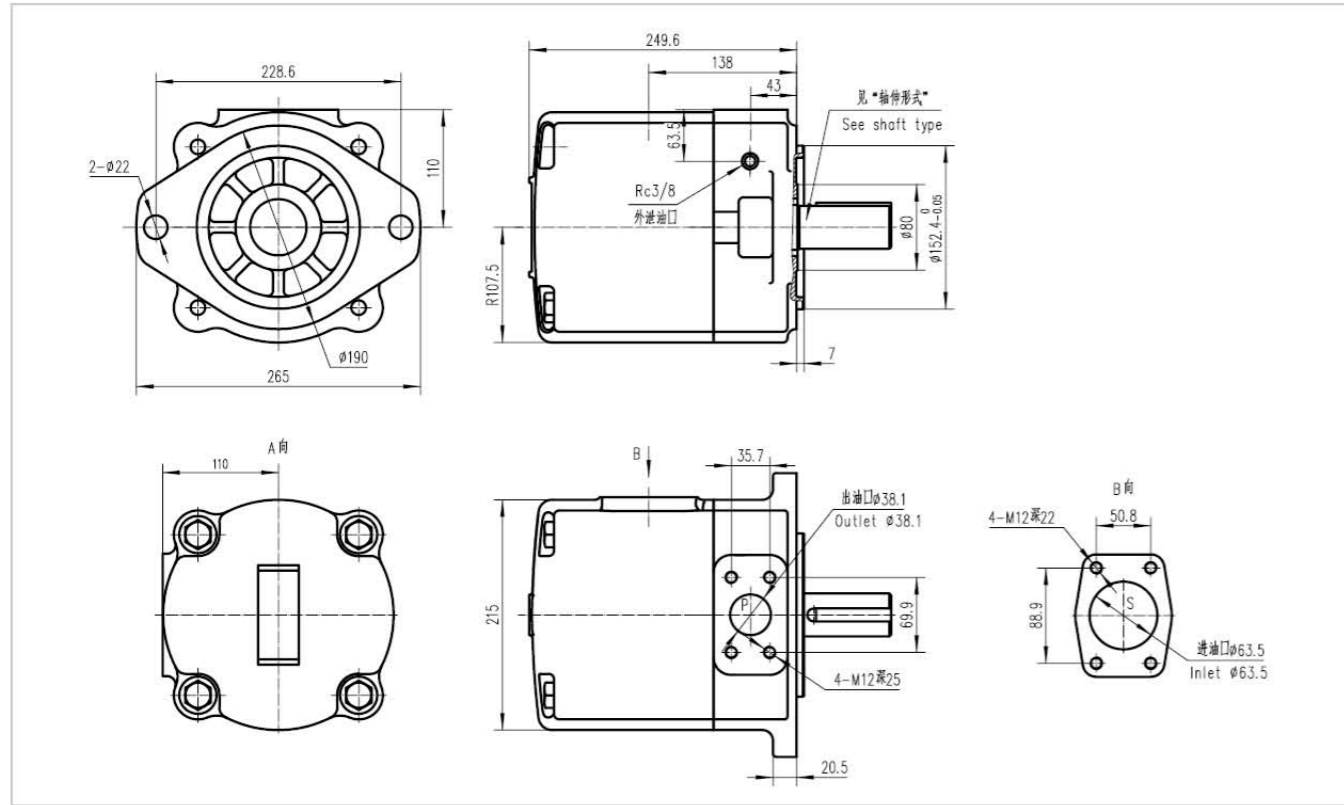
产品性能/Product performance

性能指标 Performance index	性能数据 Performance data
排量范围 mL/r Displacement range mL/r	6~200
最高压力 MPa Max. pressure Mpa	32
最高转速 r/min Max. speed	3500
容积效率% (转速1500r/min, 泵排量40mL/r, 压力16MPa, 油温50°C时) Volume efficiency % (Within rotation speed 1500r/min, pump displacement 40mL/r, pressure 16MPa, oil temperature 50°C)	≥95
最低保压转速 r/min (塑机300克, 泵排量64mL/r, 保压17.5MPa, 油温45°C时) Min. low pressure speed r/min (Within plastic machine 300g, pump displacement 64mL/r, pressure 17.5MPa, oil temperature 45°C)	85
压力振荡 bar (塑机300克, 泵排量64mL/r, 保压17.5MPa, 油温45°C时) Pressure oscillator bar (Within plastic machine 300g, pump displacement 64mL/r, pressure 17.5MPa, oil temperature 45°C)	± 1.0

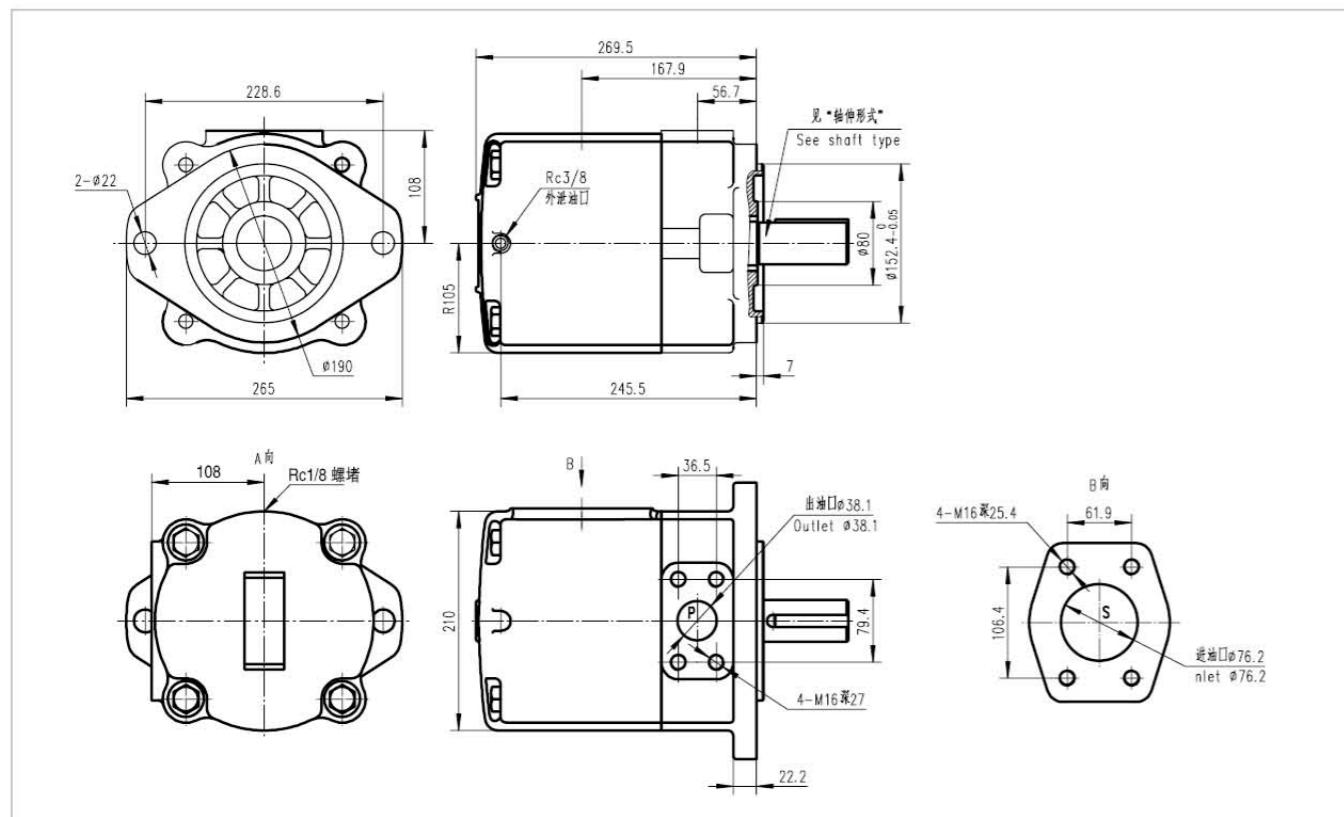
ABT1T安装连接尺寸/ABT1T Installation Dimensions



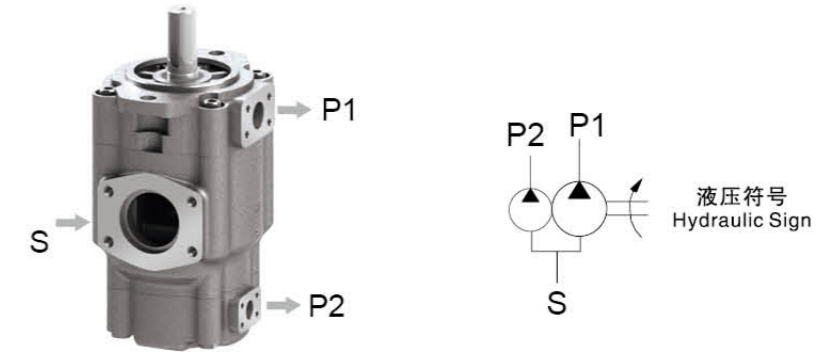
ABT2T安装连接尺寸/ABT2T Installation Dimensions



ABT3安装连接尺寸/ABT3 Installation Dimensions



ABT 系列伺服双联泵 Series Servo Double Pump



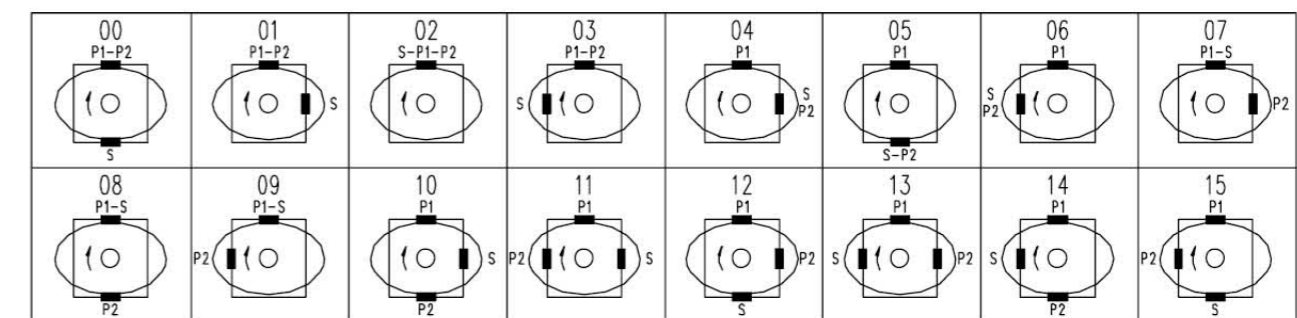
型号说明/Model Designation

ABT21T	-125	-64	-1	R	01	-D	1
系列号 Series	轴端泵排量代号 Flow-shaft end Pump	盖端泵排量代号 Flow-cover end Pump	轴伸形式 Shaft type	旋转方向 Rotation	油口位置 Port Positions	设计号 Design number	密封等级 Sealing Level
ABT11T	6, 10, 16, 20, 25, 32, 40, 50, 55, 64	6, 10, 16, 20, 25, 32, 40, 50, 55, 64	-1	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter- clockwise	见下图 see picture below	C	1-S1, 丁腈橡胶 NBR Nitrile rubber
ABT21T	64, 80, 100, 110, 125, 140, 160	6, 10, 16, 20, 25, 32, 40, 50, 55, 64				D	
ABT22T	64, 80, 100, 110, 125, 140, 160	64, 80, 100, 110, 125, 140, 160				D	2-S2, 氢化丁腈 HNBR

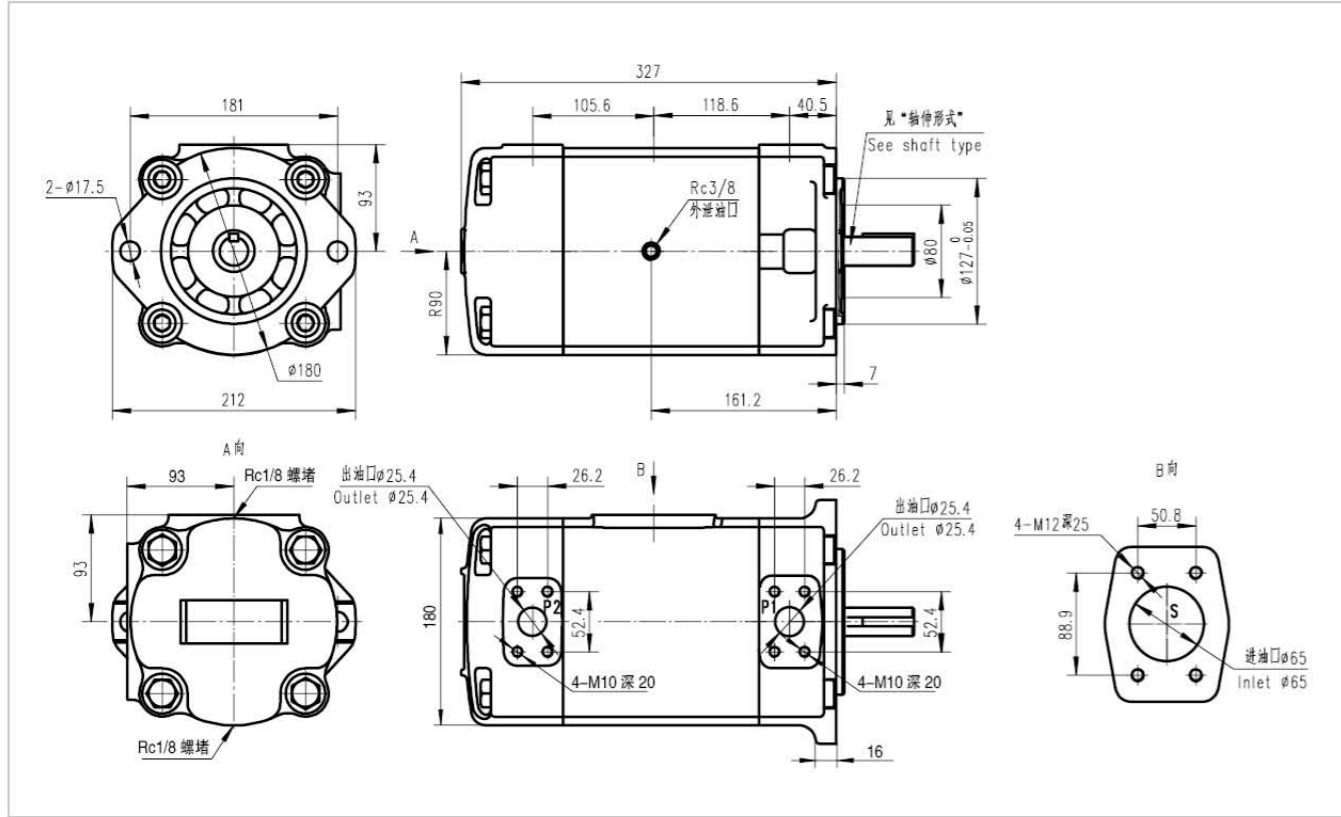
与相应系列、规格的单泵性能参数一致，详见ABT系列单泵的性能参数
The data of relevant series, model are unanimous. Please see ABT series-single pumps data.

油口位置 (从泵的轴端看) Port Positions (Viewed from shaft end of pump)

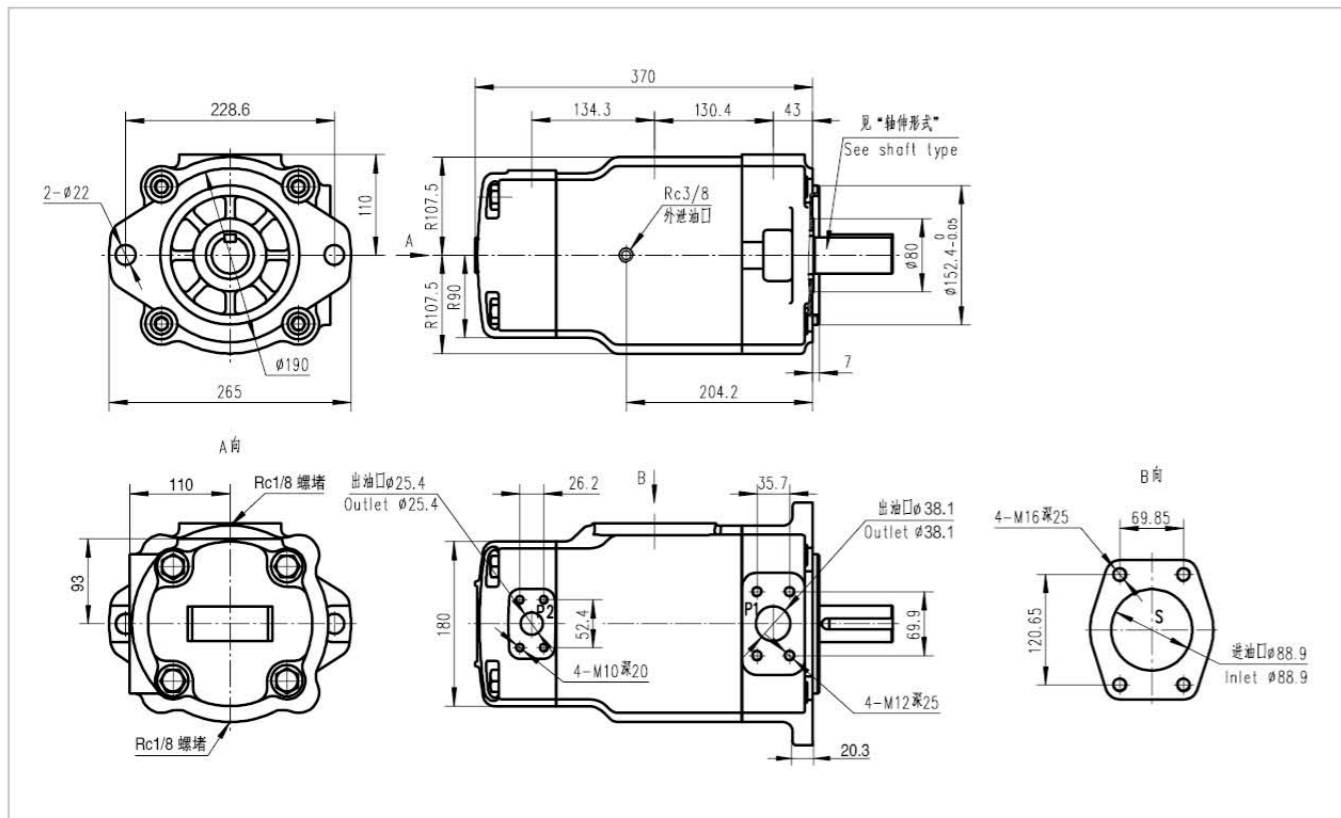
ABT11、ABT21



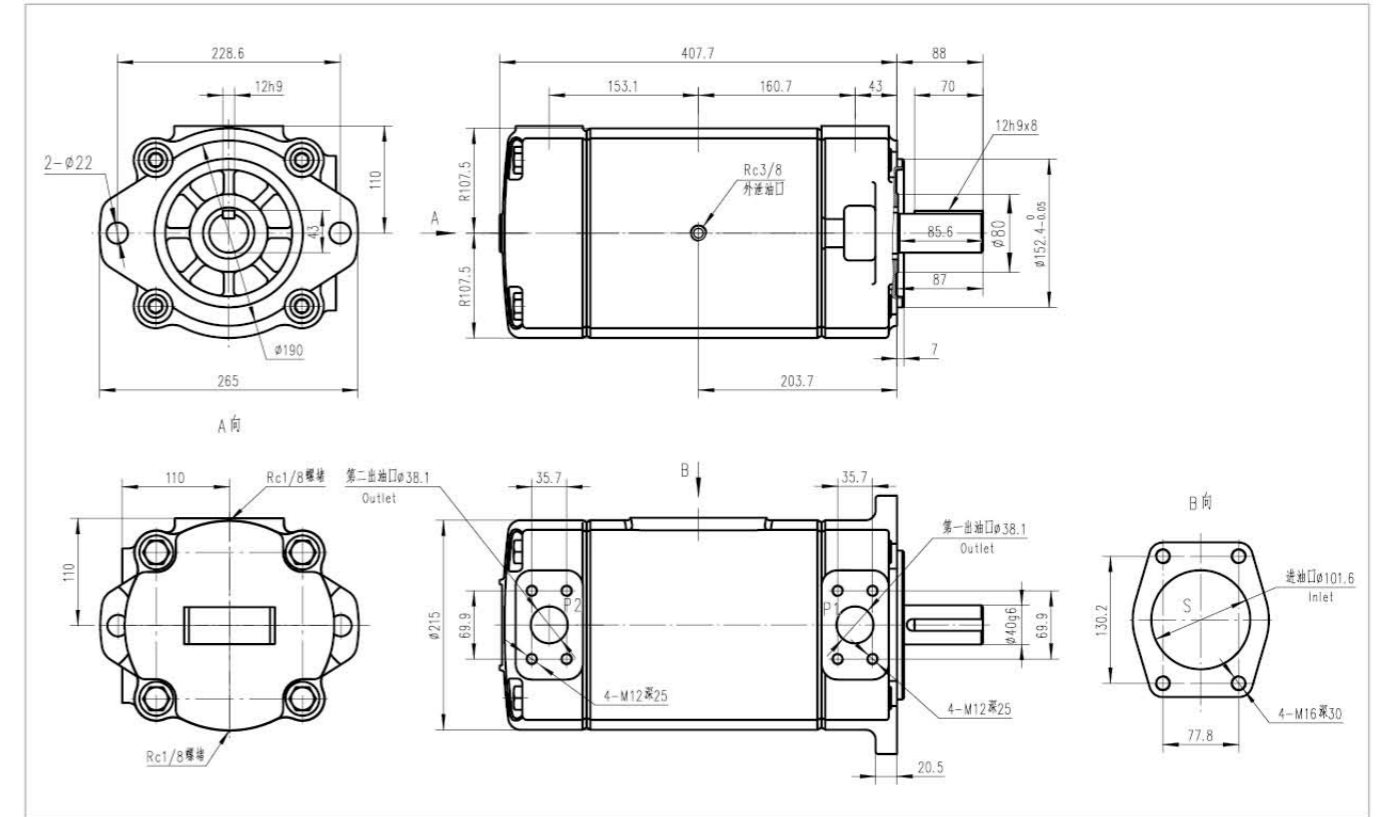
ABT11T安装连接尺寸/ABT11T Installation Dimensions



ABT21T安装连接尺寸/ABT21T Installation Dimensions

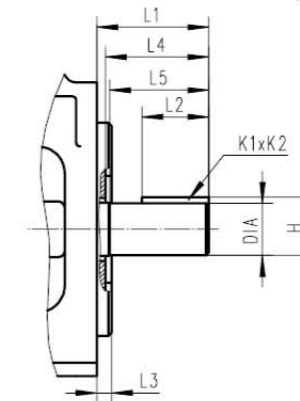


ABT22T安装连接尺寸/ABT22T Installation Dimensions



轴伸形式/Shaft Type

平键轴 Straight key shaft



轴伸尺寸 / Shaft Dimensions

型号 Model	轴伸代号 Shaft code	L1	L2	L3	L4	L5	DIA	K1xK2	H
ABT1T	1	56	32	7.0	51.0	49.6	Φ25g6	8h9x7	28
	2	68	45	7.0	63.0	61.6	Φ25g6	8h9x7	28
ABT2T	2	88	70	7.0	87.0	85.6	Φ40g6	12h9x8	43
ABT3	1	88	70	7.0	87.0	85.6	Φ40g6	12h9x8	43
ABT11T	1	68	45	7.0	63.0	61.6	Φ25g6	8h9x8	28
ABT21T	1	88	70	7.0	87.0	85.6	Φ40g6	12h9x8	43
ABT22T	1	88	70	7.0	87.0	85.6	Φ40g6	12h9x8	43

三作用伺服泵 Three Function Servo Pump

三作用伺服叶片泵，工作旋转一周，每个工作腔完成吸油三次和排油三次。与双作用的吸排油二次相比，在定子相同长短径下，其排量能增加50%。设计增加启动环，来满足伺服变频系统变速需要，达到节能高效的目的。

Three function servo vane pump, work rotation one circle, each working chamber completes three times of oil absorption and three times of oil extraction. Comparing with the dual action pump of oil absorption and oil extraction twice, the displacement of pump can be increased by 50% with the same length and diameter of cam ring. The starting ring is been designed to meet the requirement of variable speed for servo frequency conversion system, and achieve the purpose of energy saving and high efficiency.



其主要特点为/The main features

- 1、三作用结构零件受力更均衡，运转更平稳，输出的流量脉动更小；
- 2、相同排量条件下，泵的体积可以设计的更紧凑，做到“大排量小体积”；
- 3、能在低速下启动，能适应伺服液压系统快慢速、高低压、正反转、快速切换的工况。

1. Three - acting structure parts force more balanced, Running more smoothly, Output flow pulsation is smaller.
2. With the same displacement condition, the volume of the pump can be designed more compact, achieve "large displacement and small volume".
3. It can be started at low speed, suitable for servo hydraulic system - low and high speed shift, high and low pressure shift, right and left rotation shift, fast switching conditions.

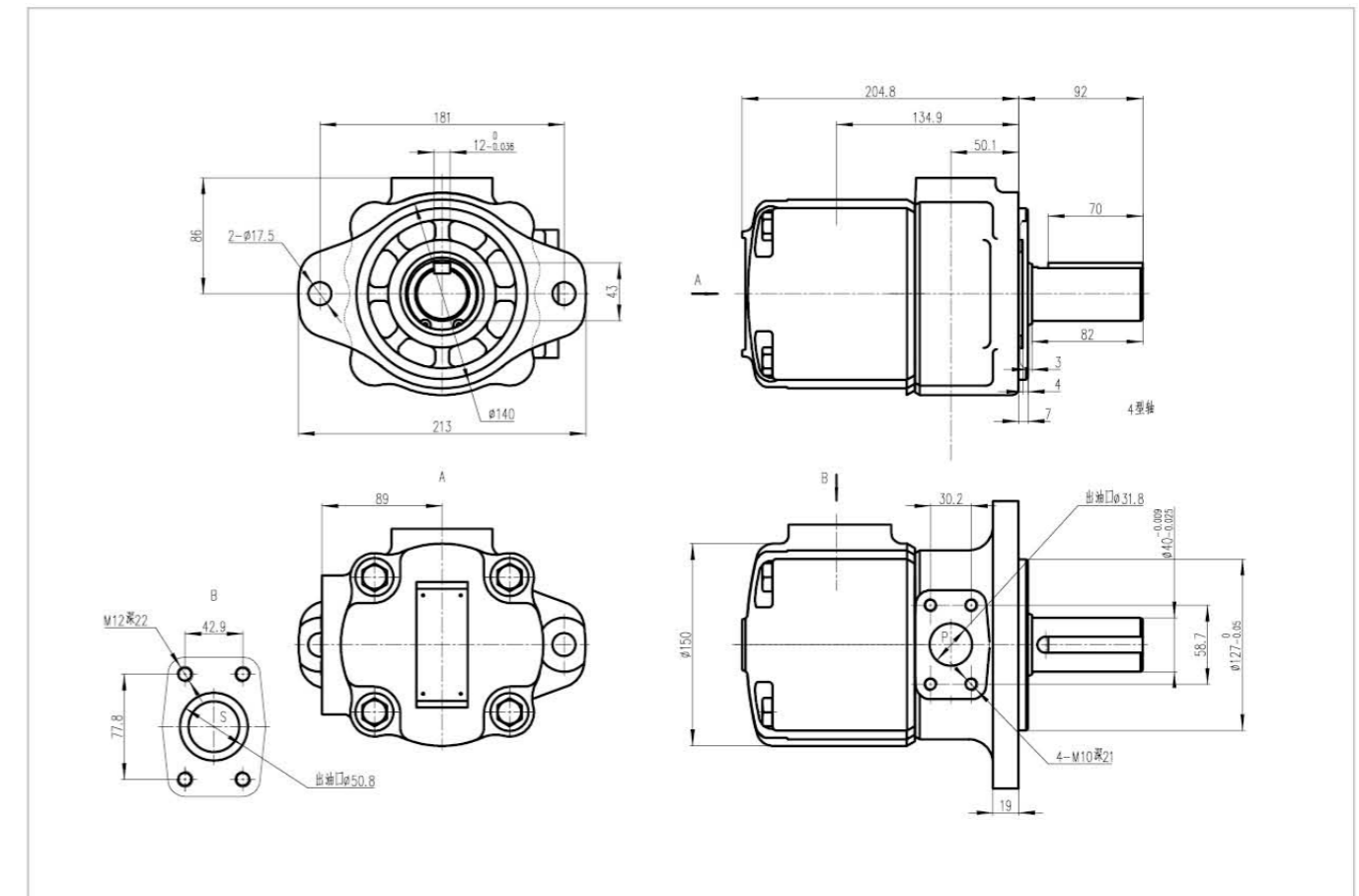
型号说明 / Model Designation

ABT1S	-40	-4	R	-00	-C	1
系列号 Series	排量代号 Flow code	轴伸形式 Shaft type	旋转方向 Rotation	出油口位置 Outlet Positions	设计号 Design number	密封件材料 Sealing Level
ABT1S	16, 20, 25, 32, 40, 50, 55, 64	-4 平键轴 $\phi 40$ Straight Key shaft	(从泵的轴端看) (Viewed from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise	(从泵的轴端看) (Viewed from shaft end of pump) 00-进油口对面 Opposite inlet port 01-进油口同侧 Inline with inlet 02-从进油口逆时针90° 90° CCW from inlet 03-从进油口顺时针90° 90° CW from inlet	-C	1-S1, 丁腈橡胶 NBR
ABT2S	70, 80, 100, 125	-4 平键轴 $\phi 50$ Straight Key shaft				

技术参数/Technical Data

系列号 series	排量代号 Flow code (USgpm)	理论排量 Geometric displacement mL/r	最高压力 Max.pressure Mpa	最高转速 Max.speed r/min	保压转速 Holding speed r/min
ABT1S	16	16.2	17.5	2500	60~120
	20	20.3			
	25	25.1			
	32	32.2			
	40	40.3			
	50	50.0			
	55	55.0			
ABT2S	64	64.2	17.5	2500	60~120
	70	69.8			
	80	80.2			
	100	100.4			
	125	125.5			

外形尺寸/Overall Dimensions



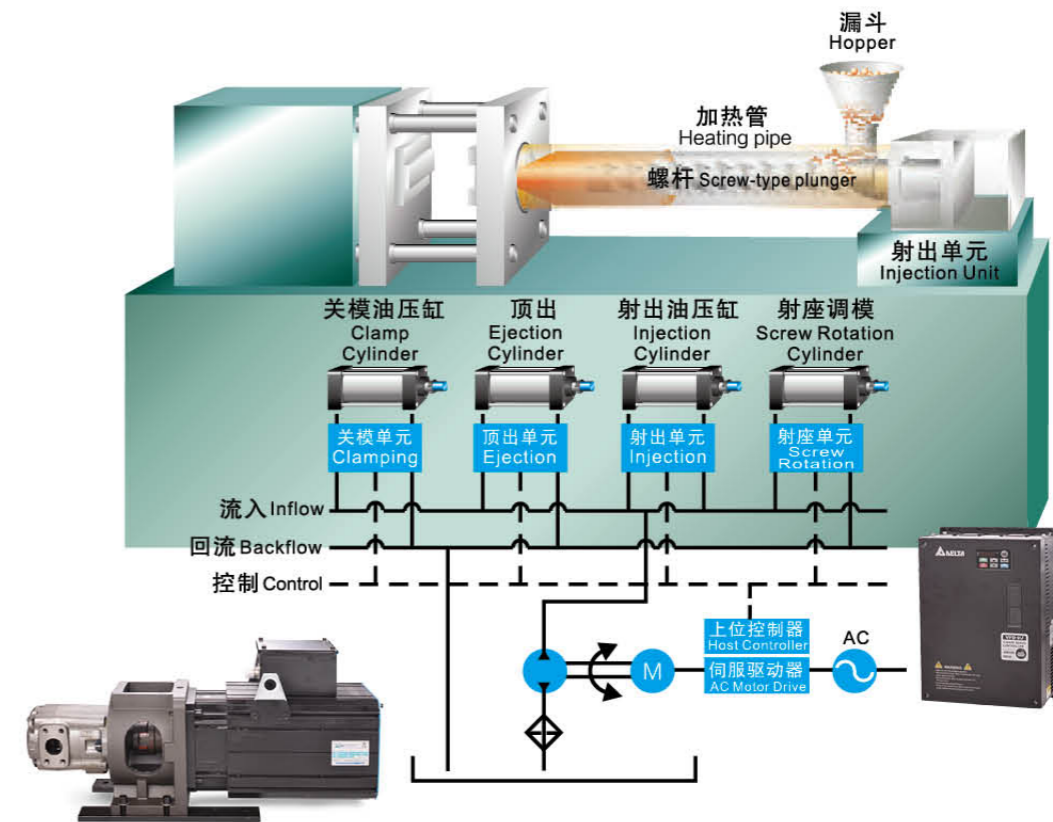
标准配置/Standard Configuration

 <p>△ 菲仕电机 Phase servo motor</p> <p>△ 威克斯伺服专用托架、联轴器 Vicks servo special-purpose stand shaft coupling</p>		 <p>△ 美国艾伯特柱销式伺服泵 China Total Distribution of American ALBERT Pin-type Servo Pump</p>		
		 <p>△ 德国艾可勒内啮合齿轮泵 Eckerle (Internal gear pump with axial and radial gap compensation)</p>		
		 <p>△ 日本住友齿轮泵 Japan Sumitomo gear pump</p>		
 <p>△ 驱动器 Drive</p>	 <p>△ 制动单元 Braking unit</p>	 <p>△ 制动电阻 Braking resistor</p>	 <p>△ 台达PG卡 Delta PG card</p>	
 <p>△ 德国BD压力传感器 Germany BD pressure sensor</p>	 <p>△ 台达编码器连接线 Encoder cable</p>	 <p>△ 滤波磁环 Toroidal core</p>	 <p>△ 信号转换板 Signal-converting board</p>	 <p>△ 合流通讯卡 Confluence communication card</p>

选用配件/Optional Accessories

 <p>△ 电抗器 Electric reactor</p>	 <p>△ 滤波器 Filter</p>	 <p>△ 比例阀盖板 Proportion valve</p>	 <p>△ 油口法兰 Oil port flange</p>
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注塑机油路系统/Injection Molding Machine-Hydraulic System



油电伺服系统架构/Structure of a Hydraulic Servo System

伺服驱动器从注塑机控制器获得压力及流量命令后，与实际压力和转速反馈进行PID演算，计算出最适合的控制量来驱动伺服电机与油泵，因此控制系统响应快、重复精度高。



After getting the pressure and flow command from the injection molding machine, it performs PID calculation with actual pressure and speed feedback to drive the servo motor and hydraulic pump with a fast response time and high repeat accuracy.

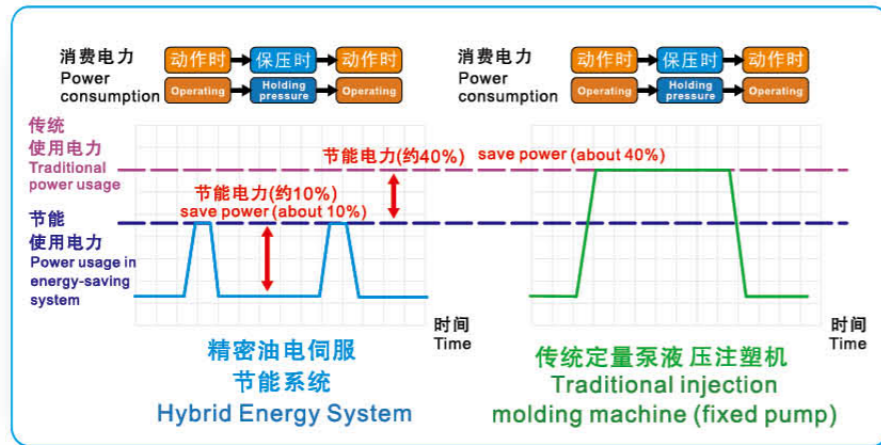
精密油电伺服节能系统特色/Hydraulic Energy System Features

(1) 超省电节能:

比传统定量泵液压注塑机省电60%

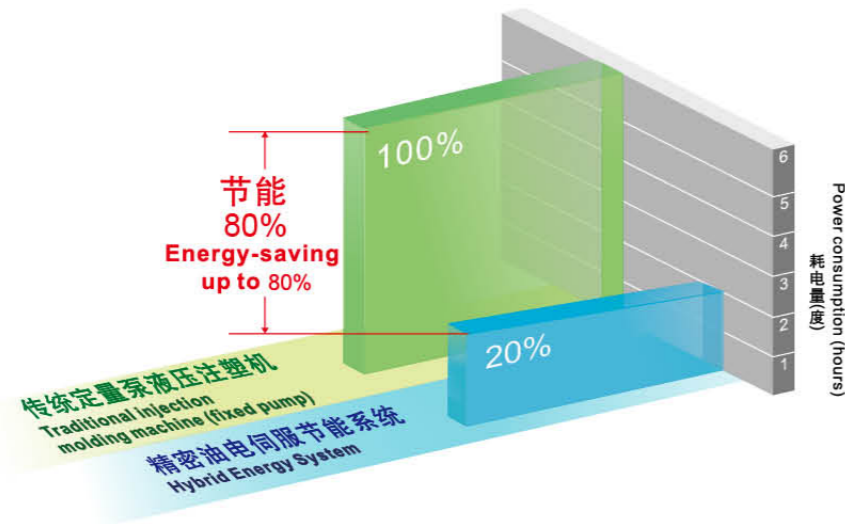
Ultra energy-saving :

Save up to 60% compared traditional injection molding machine (fixed pump)



根据射出条件的不同
最高节能可达80%

Save up to 80% depending on the different injection conditions



(2) 系统油温低: 油温降低5-10度, 减小冷却器规格

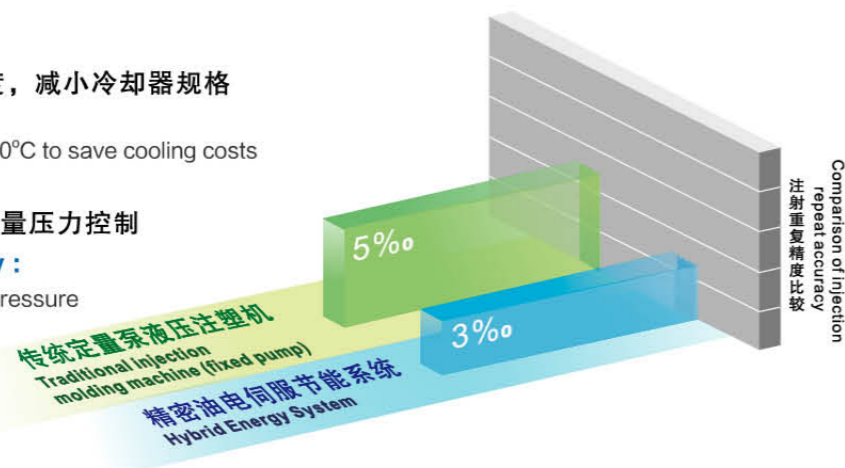
Low system temperature :

decreases system temperature by 5-10°C to save cooling costs

(3) 重复精度高: 实现了精密的流量压力控制

Highly accurate repeatability :

results in accurate control of flow and pressure

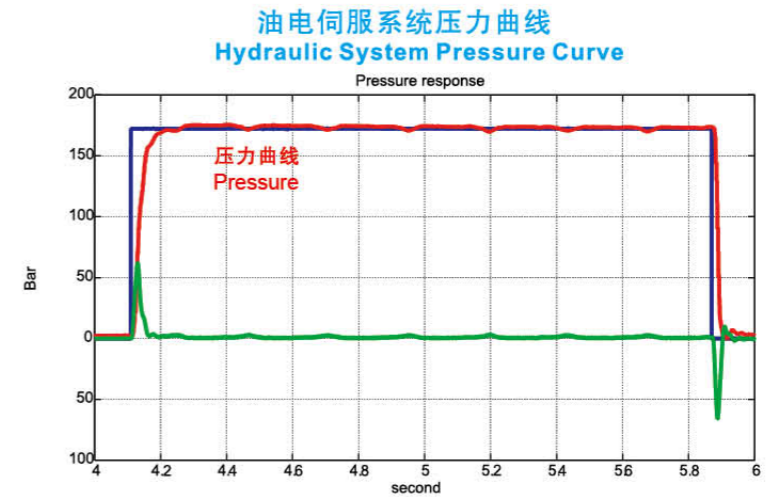
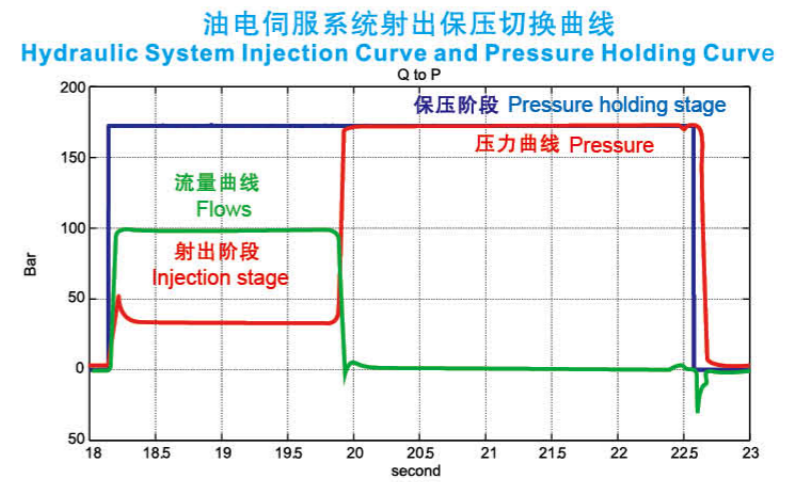
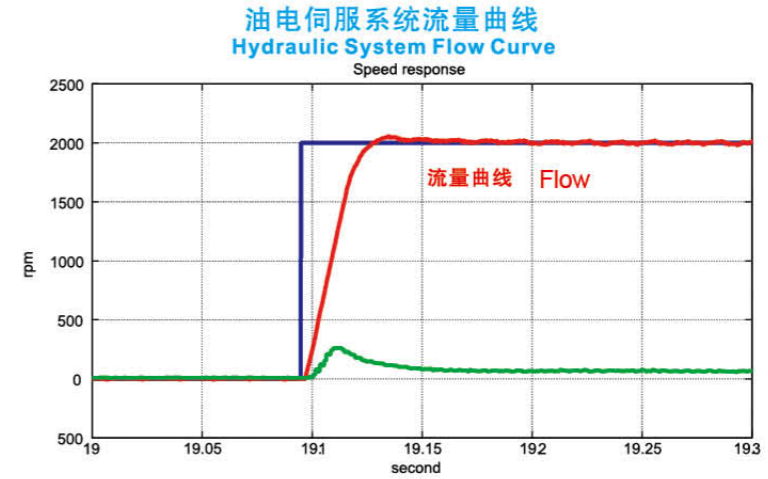


(4) 保压时间长: 对壁厚制品十分有利

Long pressure holding time : benefit to thick product manufacture

(5) 高速应答性: 频率响应可达50ms

Good frequency response rate : up to 50 ms

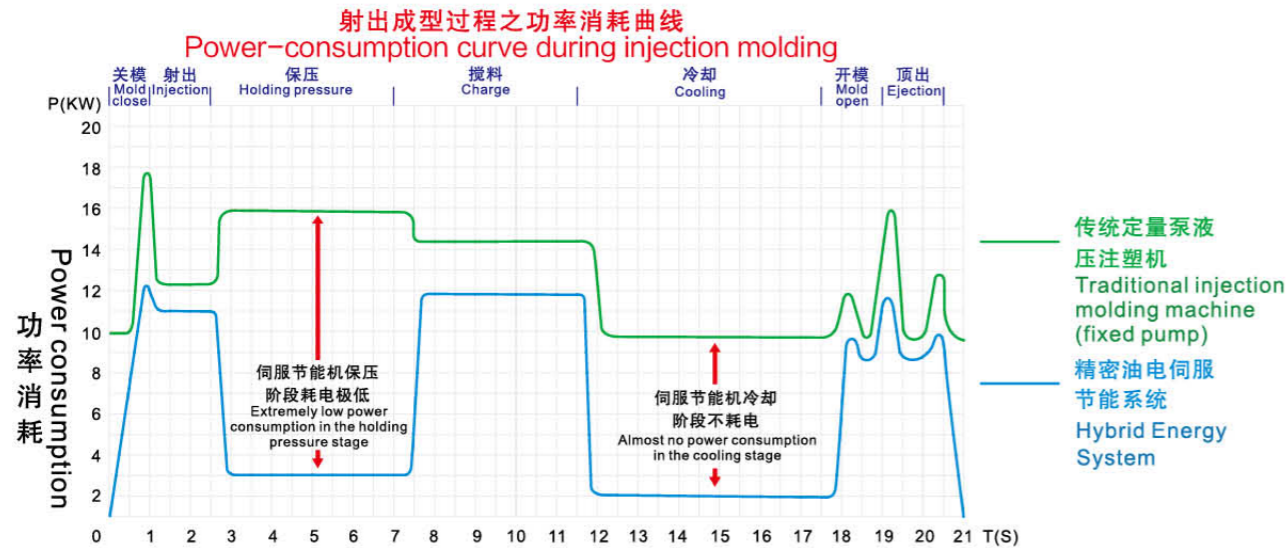


传统注塑机主要的耗能

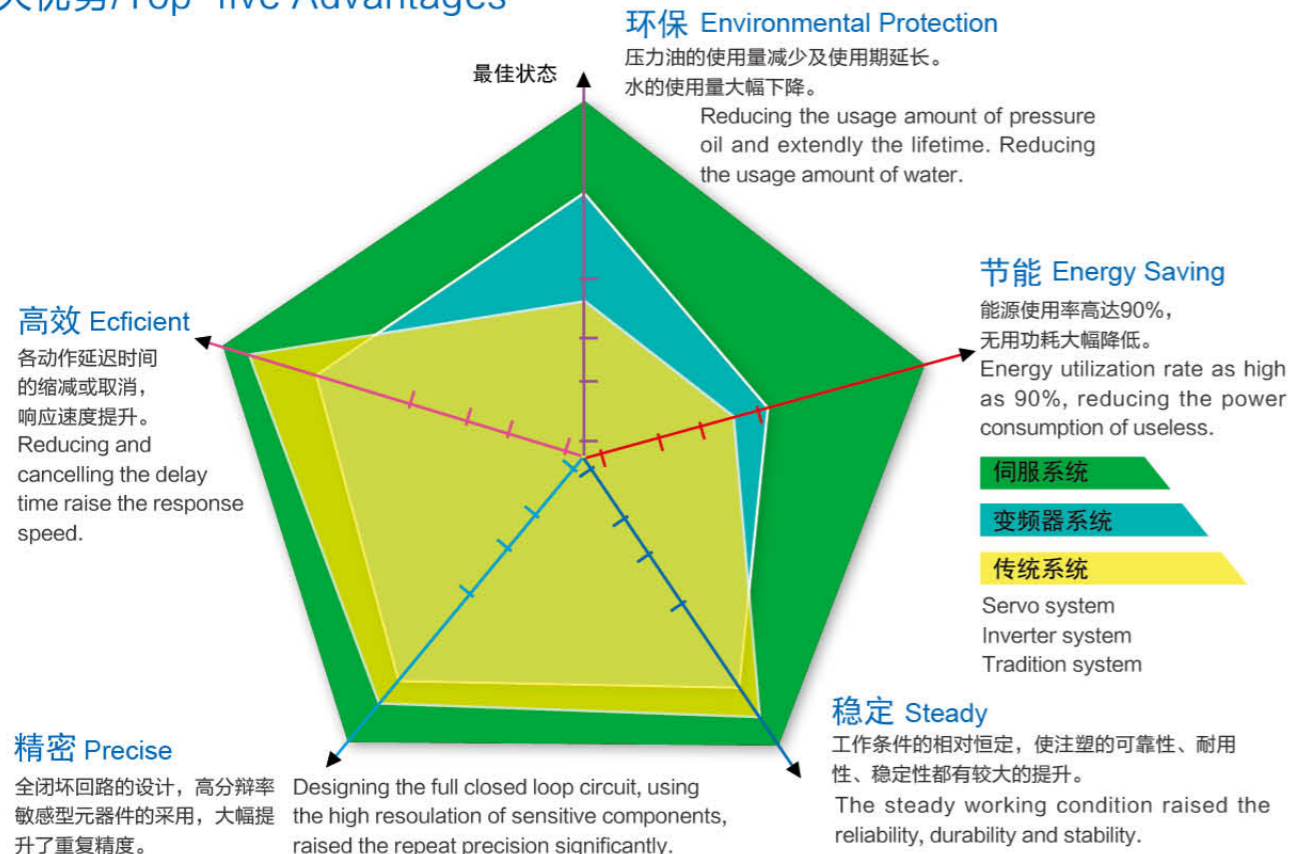
Main power consumption of traditional injection molding machine

传统的注塑机使用液压系统，其用电量占注塑机的75%以上；在注塑机动作中，关模、射出、保压、开模等过程需要不同的压力和流量。当需求超过设定的流量及压力时，会同溢流阀或比例阀来调整压力流量，这个过程称之为高压节流，其所造成的能量损失高达40%~75%。

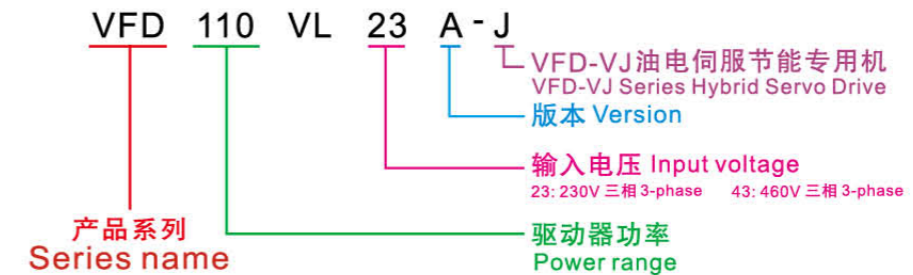
When using a hydraulic system, the power consumption is more than 75% of the whole injection system. Different pressures and flows are required during the process, including mold closing, injection, holding pressure and mold opening. When the flow and pressure requirements exceed the settings, the relief or proportional valve will be adjusted, resulting in a 40%~75% higher power consumption.



五大优势/Top-five Advantages



驱动器型号说明/Model Explanation of Hybrid Servo Drive

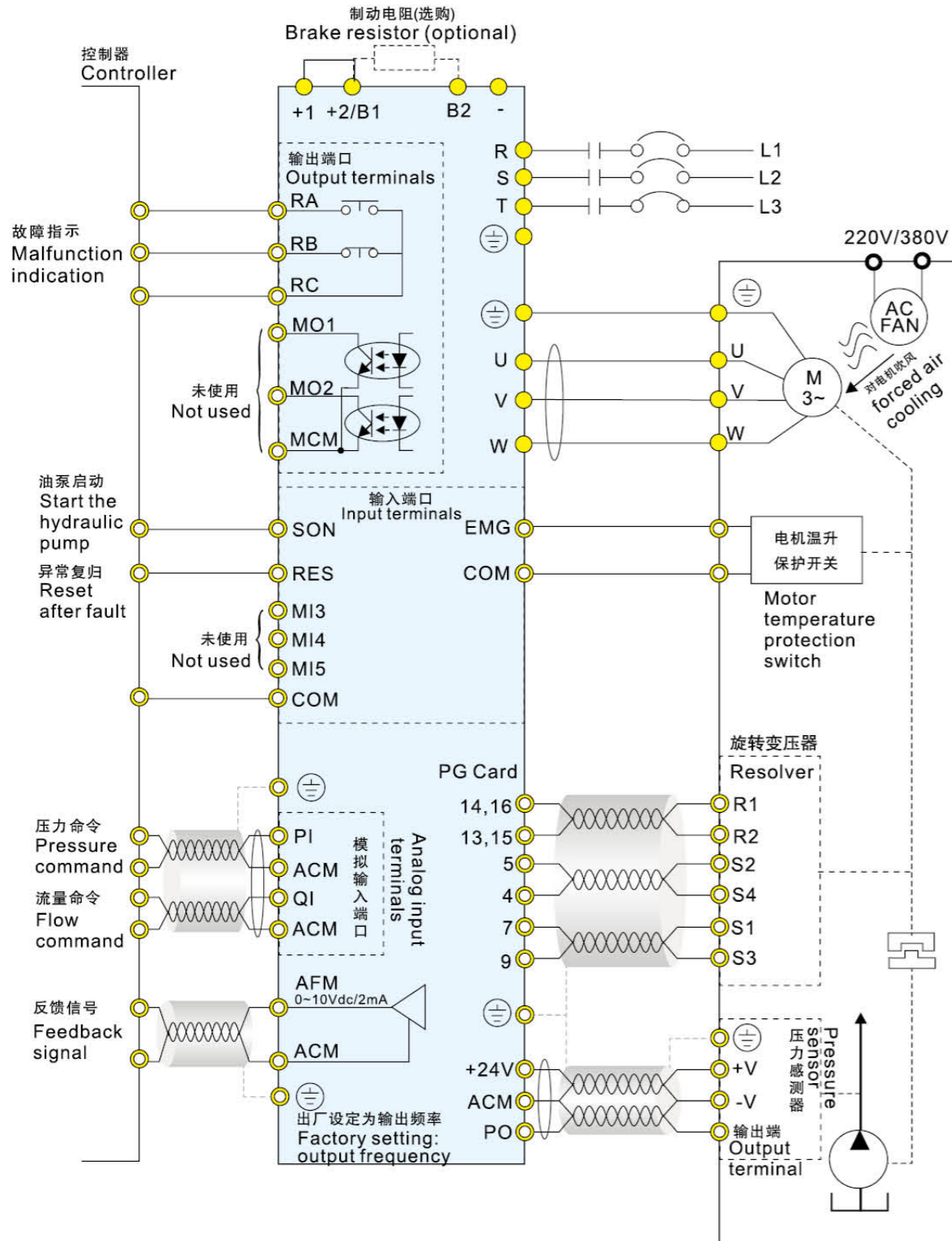


480V	框号 Frame	C	D	E0	E3	E2						
型号 Model Number	VFD-__ VL43__J	055A	075A	110A	150B	185B	220A	300B	370B	450B	550A	750A
功率 Power (kW)		5.5	7.5	11	15	18.5	22	30	37	45	55	75
马力 Horsepower (HP)		7.5	10	15	20	25	30	40	50	60	75	100
输出 Output	运续60秒输出电流 Max. Current (A) (continuous 60 seconds)	21	27	36	46	58	62	102	124	155	187	255
	运续20秒输出电流 Max. Current (A) (continuous 20 seconds)	25	32	42	54	68	78	120	146	182	220	300
电源 Power	输入电流 Input Current (A)	14	18	24	31	39	47	56	67	87	101	122
	容许输入电压变动 Input Voltage Tolerance	三相电源 3-phase 380~480V, 50/60Hz										
	容许电源电压变动 Mains Voltage Tolerance	±10% (342~528V)										
	容许电源频率变动 Mains Frequency Tolerance	±5% (47~63Hz)										
	重量 Weight (kg)	8	10	10	10	10	13	13	28	36	50	50

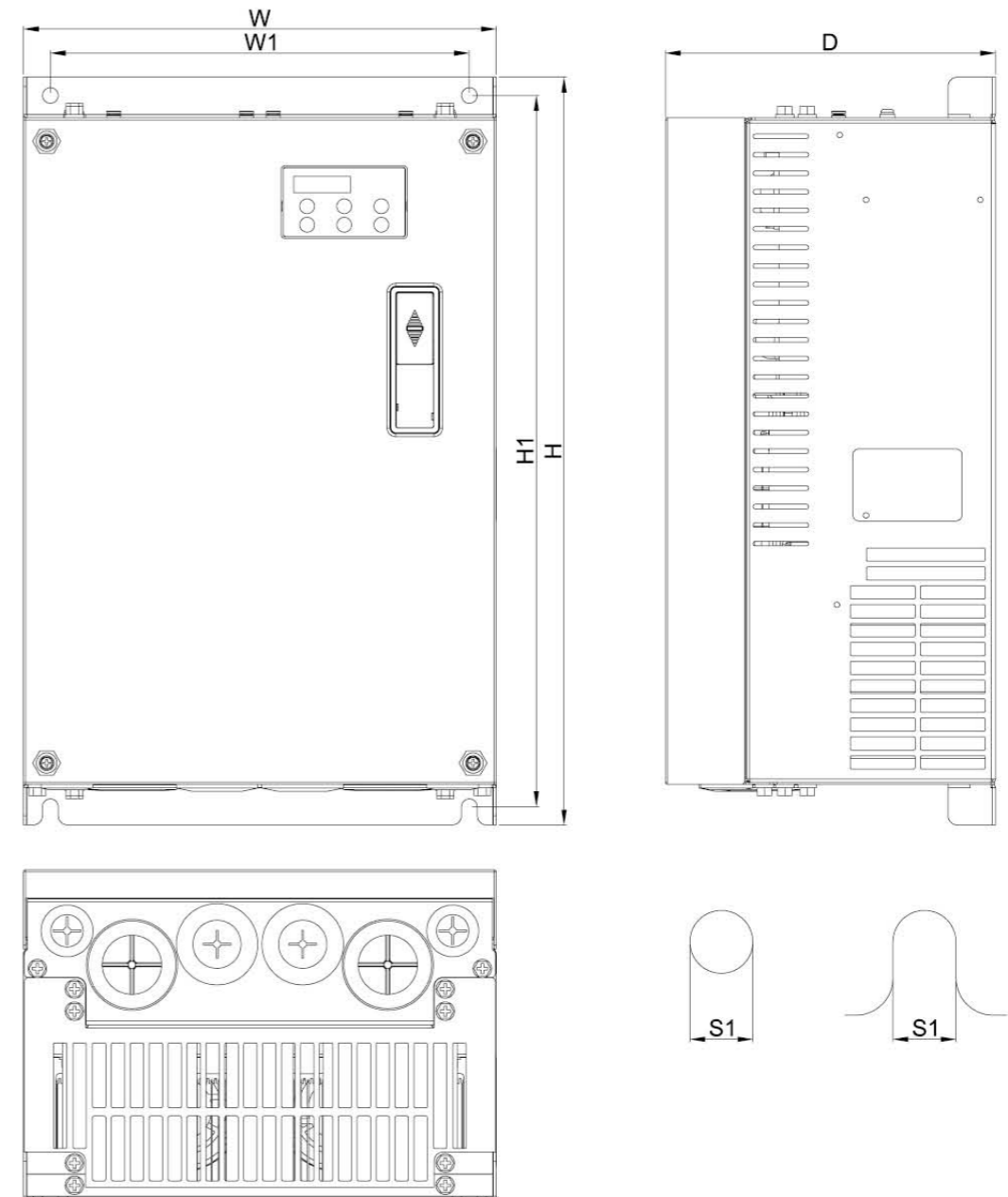
共同特性 General Specifications	控制方式 Control Method	SVPWM
	速度检测器 Speed Detector	Resolver (旋转变压器)
	速度指令输入 Speed Input Command	DC 0~10V, 支持模拟输入三点校正 support 3-point adjustment for analog inputs
	压力指令输入 Pressure Input Command	DC 0~10V 支持模拟输入三点校正 support 3-point adjustment for analog inputs
	压力反馈输入 Pressure Feedback Command	DC 0~10V
	泛用输入信号 General Input Signal	5 ch DC24V 8mA
	泛用输出信号 General Output Signal	2 ch DC24V 50mA, 1 ch Relay output
	模拟输出电压 Analog Output Voltage	1 ch dc 0~10V
周边选配购备 Optional Accessories	速度反馈 PG卡 Speed Feedback PG Card	必配 Necessary (EMVJ-PG01R)
	制动电阻 Brake Resistor	必配 Necessary (refer to appendix A)
	压力传感器 Pressure Sensor	必配 (限使用输出信号 0~10V 之压力传感器, 最大压力值可由参数 00~08 设定) Necessary, only pressure sensors with output signal 0-10V can be used (max. pressure value can be set by Pr.00-08)
	EMI滤波器 EMI Filter	选配 Optional (refer to Appendix A)
保护特性 Protections	电机保护 Motor Protection	电子热继电器保护 Electronic thermal relay protection
	过电流保护 Over-current	过电流保护 300% 额定电流 300% of rated current
	接地漏电流保护 Ground leakage current	漏电流高于驱动器的额定电流50% Higher than 50% rated current
	过载能力 Overload Ability	150% 60秒 seconds; 200% 3秒 seconds
	电压保护 Voltage Protection	过电压准位 Over-voltage Level: Vdc>400/800 V; 低电压准位 Low-voltage Level: Vdc<200/400 V
	输入电源过压保护 Mains Input Over-Voltage	突波吸收器 Varistor (MOV)
	过温保护 Over-temperature	内置温度传感器 Built-in Temperature Sensor
环境 Environment	保护等级 Protection Level	NEMA 1/IP20
	操作温度 Operation Temperature	-10℃~45℃
	储存温度 Storage Temperature	-20℃~60℃
	湿度 Humidity	90% RH 以下 (无结露) (non-condensing)
	振动 Vibration	1.0G 低于 20Hz, 20~60 Hz 时 0.6G <20Hz: 1.0G, 20 to 60Hz: 0.6G
	冷却系统 Cooling System	强制风冷 (RUN 运转, STOP 停止) Force cooling (RUN, STOP)
	安装高度 Installation Location	高度 1,000m 以下 (无腐蚀性气体及液体, 无尘埃) Altitude 1,000m or lower (keep away from corrosive gas, liquid and dust)
	国际认证 Certifications	CE

注: 驱动器 22kW(含)以下内置刹车单元
NOTE: Built-in brake chopper for models 22kW and below

驱动器配线图/Wiring Diagram



驱动器外型尺寸/Dimensions



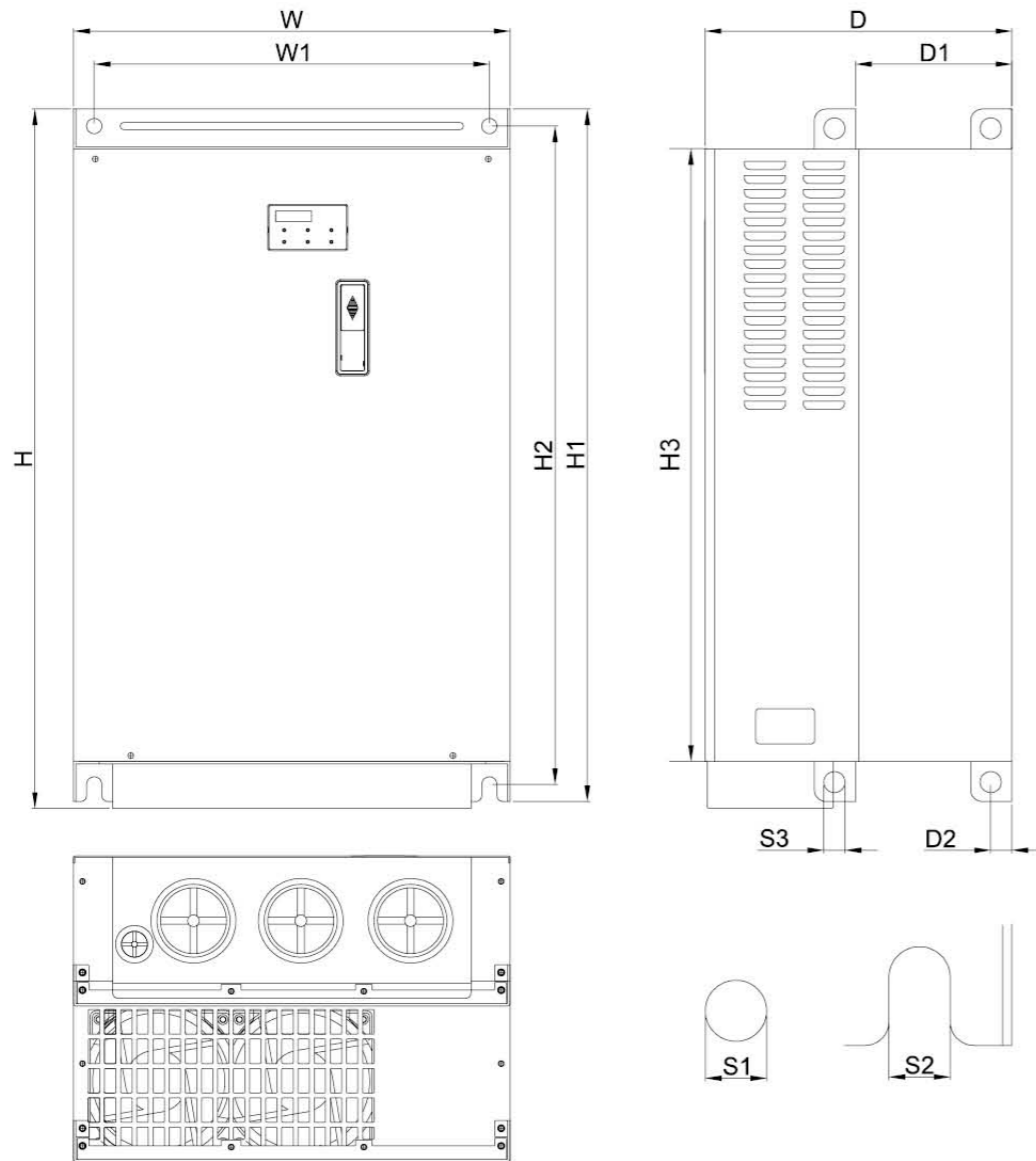
单位 Unit: mm[inch]

框号 Frame	W	W1	H	H1	H2	H3	D	Φ	Φ1	Φ2	Φ3
C	235 [9.25]	204 [8.03]	350 [13.78]	337 [13.27]	320 [12.60]	-	136 [5.35]	6.5 [0.26]	-	34 [1.34]	22 [0.87]
D	255.0 [10.04]	226.0 [8.90]	403.8 [15.90]	384.0 [15.12]	360.0 [14.17]	21.9 [0.86]	168.0 [6.61]	8.5 [0.33]	44 [1.73]	34 [1.34]	22 [0.87]

NOTE

框号 Frame C: VFD110VL43A-J, VFD185VL43B-J
框号 Frame D: VFD220VL43A-J, VFD300VL43B-J

驱动器外型尺寸/Dimensions



单位 Unit: mm[inch]

框号 Frame	W	W1	H	H1	H2	H3	D	D1	D2	S1	S2	S3	Φ1	Φ2	Φ3
E0	280.0 [11.02]	235.0 [9.25]	516.0 [20.31]	500.0 [19.69]	475.0 [18.70]	442.0 [17.40]	251.7 [9.91]	94.2 [3.71]	16.0 [0.63]	11.0 [0.43]	11.0 [0.43]	18.0 [0.71]	62.7 [2.47]	34.0 [1.34]	22.0 [0.87]
E2	330.0 [12.99]	285.0 [11.22]	565.0 [22.24]	540.0 [20.67]	492.0 [19.37]	-	273.4 [10.76]	107.2 [4.22]	16 [0.63]	13.0 [0.51]	13.0 [0.51]	18.0 [0.71]	-	-	-
E3	300.0 [12.99]	285.0 [11.22]	589.0 [23.19]	550.0 [21.65]	525.0 [20.67]	492.0 [19.37]	271.6 [10.69]	107.2 [4.22]	10.6 [0.63]	11.0 [0.43]	11.0 [0.43]	18.0 [0.71]	76.2 [3.00]	34.0 [1.34]	22.0 [0.87]

NOTE

框号 Frame **E0**: VFD370VL43B-J
框号 Frame **E2**: VFD550VL43C-J, VFD750VL43C-J

精密油电伺服系统选用/How to Select the Right Hybrid Energy System

(1) 电机的功率选用 Motor Power Selection

● 所需转矩 (Nm) $T = \frac{q \cdot \Delta P}{2\pi \cdot \eta m}$ ● 输出功率 (kW) $P = \frac{2\pi \cdot T \cdot n}{60,000} = \frac{T \cdot n}{9,550} = \frac{Q \cdot \Delta P}{60 \cdot \eta t}$

q: 排量 cc/rev Displacement (cm ³)	n: 转速 Rotation speed	ΔP: 有效压差 Valid pressure difference (Mpa)
Q: 必要的流量 Required flow L/min	ηm: 泵的机械效率 Pump mechanical efficiency	ηt: 泵的总效率 Pump total efficiency

(2) 讯息干扰的对策 Solution for Signal Interferences

当电机驱动安装于控制盘时，对于讯息干扰的防护措施有：
When the drive is installed at the control panel, protections for the signal interference are:

- 主回路与控制回路的配线要分开 The wirings of main circuit and control circuit must be separated.
- 适当的接地处理 Proper grounding when necessary
- 控制回路需使用隔离线 Use shielding cable for the control circuit
- 主回路配线需使用金属配线管 Use shielded wire for the main circuit wiring

(3) 油电伺服驱动器及电机选择 How to choose a Suitable Hybrid Servo Drive and Motor

实际应用上，因为油路系统的不同，下列为驱动器及电机的选择的参考依据，以下以流量64L/min，最大保压之压力17.5 MPa为例。

In actual applications, the selection of hybrid servo drive and motor will be different due to different oil systems. In the following examples a flow rate of 64L/min and a max. holding pressure of 17.5MPa are used.

- **油泵排量：**由系统最大流量(L/min)得知油泵排量 (cc/rev)
例：系统最大流量为 64L/min，若电机最高转速为 2000rpm 时，可得知 $64/2000 \times 1000 = 32 \text{ cc/rev}$ 。
Displacement of Hydraulic Pumps: get the displacement of hydraulic pump (cc/rev) from max. System flow(L/min)
Example: Assume that max. system flow is 64L/min. and max. motor speed is 2000rpm. The displacement of hydraulic pump will be $64/2000 \times 1000 = 32 \text{ cc/rev}$
- **电机最大扭力：**由最大压力 (MPa) 及油泵排量 (cc/rev) 得知最大扭力。
例：最大压力需 17.5 MPa，油泵排量为 32cc/rev， $\text{Torque} = 17.5 \times 32 \times 1.3 / (2 \times \pi) = 116 \text{ N-m}$ ，其中 1.3 倍是为考虑实际系统总损失(可依实际情况调整为1.2~1.3倍)。
Max. motor torque: get the max. torque from max. pressure and the displacement of hydraulic pump
Example: Assume that the max. pressure is 17.5MPa and the displacement of the hydraulic pump is 32cc/rev. The torque will be $17.5 \times 32 \times 1.3 / (2\pi) = 116 \text{ Nm}$ (the factor 1.3 is for compensation of total system losses and it can be changed to 1.2~1.3 as required)
- **电机额定力矩及额定功率：**保压在最大压力时，所需的扭力应选电机额定扭力的 2 倍或更低 (以电机厂提供数据为主) 因操作在这条件时，电机容易过温。以 2 倍为例，则电机额定扭力为 58 N-m，可选 9.1kW*，额定转速 1500rpm 的电机。
*电机功率算式： $P(W) = T(N-m) \times \omega (\text{rpm} \times 2\pi / 60)$
Rated motor torque and rated motor power: The required torque for the holding pressure at the max. pressure should be double of the rated motor torque or less (use the data provided from the motor plant as the first priority). Because the motor temperature operated under this situation is easily over temperature. Assume that we choose the double of the rated torque, the motor can be 9.1kW* with the rated speed 1500rpm when the rated motor torque is 58N-m.
*Motor Power Formula: $P(W) = T(N-m) \times W(\text{rpm} \times 2\pi / 60)$

- **电机最大电流：**
若查看电机规格内之 kt (Torque/A) 系数，kt = 3.31，则在最大扭力为 116 N-m 时，最大电流约 $116/3.31 = 35 \text{ A}$ 。
Max. Motor Current:
If getting the coefficient kt (Torque/A)=3.31 in the motor specification, max. current is about $116/3.31 = 35 \text{ A}$ when the max. Torque is 116N-m.

- **选择匹配之驱动器：**请依客户需求选择适当之驱动器。若驱动器过载能力为 150% 60 秒，200% 3 秒，保压在最大压力 17.5 Mpa，且搭配 32cc/rev 的油泵时，所需的电机电流约是 35A。

- A. 以 VFD075VL43A-J 为例：额定电流为 15.8A，此时过载约 $35/15.8 \times 100\% = 220\%$ ，约是 1 秒内发生过载。
- B. 以 VFD110VL43A-J 为例：额定电流为 21A，此时过载约 $35/21 \times 100\% = 166\%$ ，约是 40 秒 ~ 50 秒后发生过载。
- C. 以 VFD150VL43A-J 为例：额定电流为 27A，此时过载约 $35/27 \times 100\% = 130\%$ ，约是 1 分钟后发生过载。

Select the Right Drive: Please choose the right drive by the customers' requirement. Assume that the ability of drive's overload is 150% for 60 seconds and 200% for 3 seconds. When the holding pressure is at max. pressure 17.5MPa with 32cc/rev hydraulic pump, the motor current it requires is 35A.

NOTE 若无适合电机规格时，可加大一级电机。
若有需要提供对伺服油电驱动器与贵公司产品进行详细配置等等相关信息之协助，可与我们联系。
If there is no suitable motor, please use the next higher power motor.
Please contact Delta if you have any questions about hybrid servo drive or the integration with your current system.

伺服电机参数表/Servo motor parameter table

电机型号 Motor Model	额定转速 Rated speed	额定扭矩 Rated torque	额定功率 Nominal Power	额定电流 Nominal Current	电压等级 Nominal Voltage	峰值扭矩 Peak Torque	扭矩常数 Torque const	转动惯量 Inertia with brake Opeion	额定频率 Nominal Frequency
单位 Unit	rpm	Nm	kW	A	V	Nm	Nm/A	Kg*cm ⁻²	Hz
1004F15.3	1500	38	6.0	11.6	380	105	3.32	50	100
1004F17.3	1700	38.9	7	15.2	380	105	2.81	50	113
1004F20.3	2000	42	8.8	18.8	380	105	2.37	50	133
1005F15.3	1500	55	8.6	16.6	380	157	3.31	70	100
1005F17.3	1700	57	10	20.4	380	157	2.81	70	113
1005F20.3	2000	58	12	24.3	380	157	2.6	70	133
1007F15.3	1500	74	11.6	23.9	380	210	3.37	90	100
1007F17.3	1700	80	14	28.2	380	210	2.85	90	113
1007F20.3	2000	87	18.2	36.7	380	210	2.53	90	133
1008F15.3	1500	103	16.4	33.2	380	260	3.38	110	100
1008F17.3	1700	96.2	17.6	35.1	380	260	2.98	110	113
1008F20.3	2000	95.6	20.4	40.1	380	260	2.58	110	133
1010F15.3	1500	128	22	41	380	310	3.3	130	100
1010F18.3	1800	122	23	44	380	310	2.87	130	113
1010F20.3	2000	135	28.3	60.5	380	310	2.37	130	133
1013F15.3	1500	186	29	61	380	410	3.26	170	100
1013F17.3	1700	164.2	28.7	55.39	380	410	3.19	170	113
1013F20.3	2000	175	36.7	73.7	380	410	2.53	170	133
1315F15.3	1500	195.6	30.5	71.5	380	450	3.02	317	100
1315F17.3	1700	195.29	35.9	72.9	380	450	2.98	317	113
1315F20.3	2000	191	40	97.8	380	450	2.15	317	133
1320F15.3	1500	210	33	62	380	550	3.43	410	100
1320F17.3	1700	229	39.4	92.6	380	550	2.94	410	113
1320F18.3	1800	232	44	96.46	380	550	2.64	410	120
1320F20.3	2000	269	56.3	120.7	380	550	2.37	410	133
1325F15.3	1500	308	49.6	99.9	380	690	3.43	500	100
1325F17.3	1700	304.5	55.4	111	380	690	3.05	500	113
1325F20.3	2000	291.2	71.9	141.5	380	690	2.29	500	133
1330F15.3	1500	380	60	106	380	830	3.56	593	100
1330F17.3	1700	399	71	155.5	380	830	2.84	593	113
1330F20.3	2000	389	81.4	155.3	380	830	2.67	593	133
1340F15.3	1500	450	70	130	380	1100	3.56	777	100
1340F20.3	2000	511	107	229.7	380	1100	2.37	777	133

注：(1) 最大转速：若不使用驱动器的弱磁控制功能，最大转速一般比额定转速高500rpm；若使用驱动器的弱磁控制功能，最大转速由驱动器来决定。
(2) 电机的极数：以上电机的极数均为8极，即4对极。

Note: 1. Max speed: If you don't use the flux-weakening control function, the max rotational speed will be higher 500rpm than rated speed. If you use the flux-weakening control function, the max rotational speed is decided by the drive.
2. Pole Number: The pole number is of above motor is 8 poles, it's 4pairs of poles.

电机的安装尺寸

电机的转轴主要采用标准轴(光轴或带单键轴)、内花键轴、外花键轴或中空轴；电机接线盒内编码器的信号接线主要采用PCB板，也可选择航空插座；电机的安装可选择法兰安装或底板安装。

Drive installation Size:

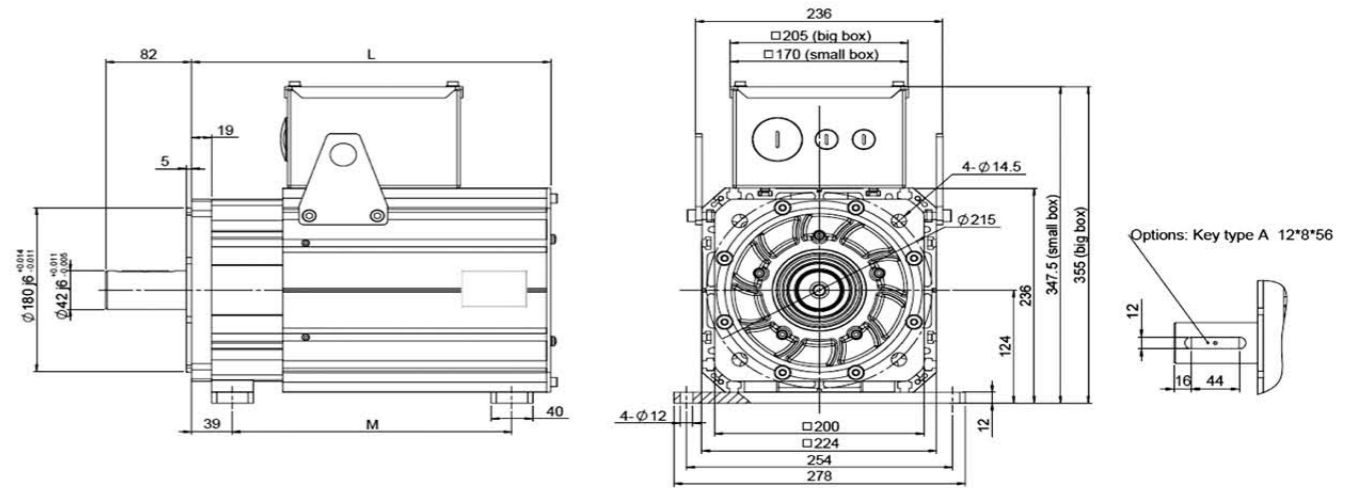
The motor's spindle is the standard shaft coptic axis or with single bond axis. Internal splined shaft outer splined shaft or hollow shaft. The signal of encoder inside of motor's junction box uses PCB board, also can choose aerial socket. The motor installly can choose flange or baseplate.

标准轴电机外型图及安装尺寸

Outline drawing and installation size for standard shaft motor

10F系列标准轴电机尺寸图

10F Series drawing for standard shaft motor



Type	1004F	1005F	1007F	1008F	1010F	1013F
M	267	285	312	354	396	471
L(Resolver R3,R4,etc)	338.5	377.5	413.5	446.5	487.5	554.5
L(Sincos,N3,D2,S5,etc)	350	389	425	458	499	566

注：配件选项 1. 信号航空插座 2. 标准底板

Note: Accessory items 1. Signal aerial soclct 2. Standard baseplate

选择项目说明:

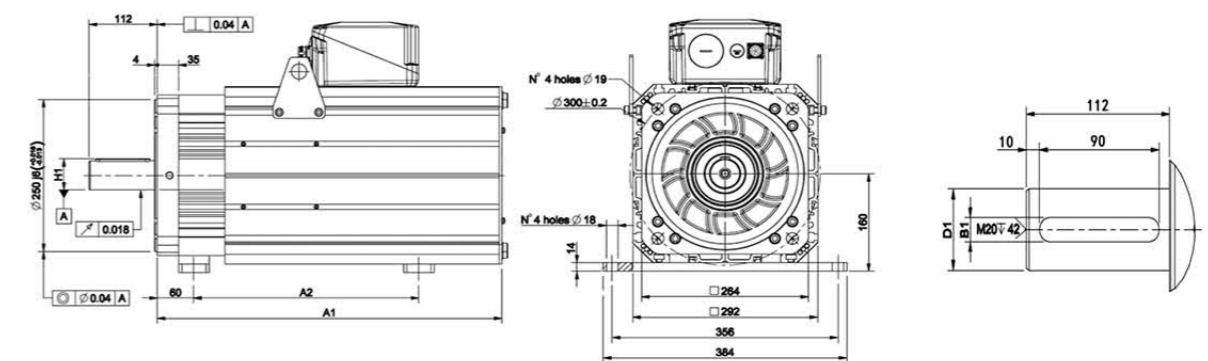
K: 带键槽、标准键 (A型圆头平键12x8x56)
b: 带标准底板

Description for select item
K: With keyway, standard key
(A type 12x8x56)

b: With standard baseplate

13F系列标准轴电机尺寸图

13F Series drawing for standard shaft motor



Motor Type	A1		A2	φD1	B1	H1	KEY
	In ≤ 150A	In > 150A					
1315F	513.5	553.5	360	48j8	14	51.5	14x9x90
1320F	566.5	606.5	370	48j7	14	51.5	14x9x91
1325F	620	660	476	48j8	14	51.5	14x9x92
1330F	673.5	713.5	476	48j9(60m6)	14(18)	51.5(64)	14x9x93(18x11x90)
1340F	780.5	820.5	583	60m6	18	64	18x11x90

注：配件选项 1. 信号航空插座 2. 标准底板

Note: Accessory items 1. Signal aerial soclct 2. Standard baseplate

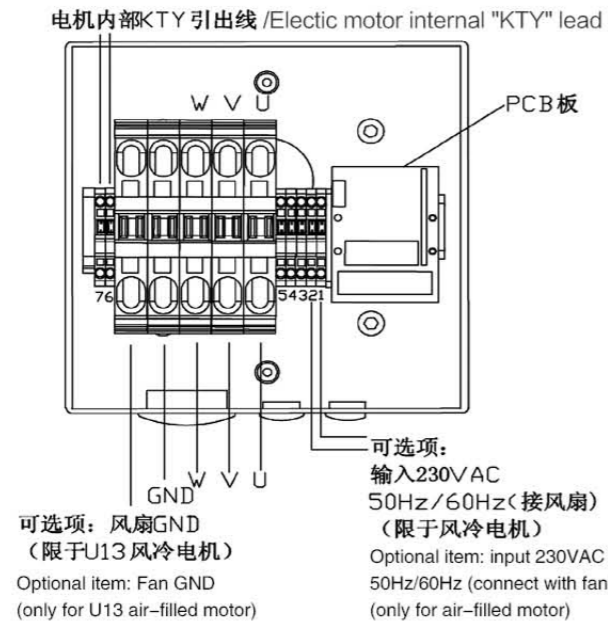
注：1: 可选标准键：A型圆头平键14x9x90；
2: 接线盒大小会根据电机电流大小做调整。

Note: 1. Optional standard key: A type 14x9x90;
2. Adjusting the size of junction box according to the motor current flow.

注塑机专用电机的接线说明

Wiring instructions of special motor for injection molding machine

电源接线说明/ Power wiring instructions



说明/Specification

- (1) 伺服驱动器输出的U相、V相、W相和地线分别接到电机输入的U相、V相、W相和地线;
 - (2) U10F风冷电机: 风扇功率51W/53W, 电流0.29/0.33A, 电压220Vac
 - (3) U13F风冷电机: 风扇功率135W / 200W, 电流0.6 / 0.88A, 电压220Vac
 - (4) 当使用85℃温控开关时, 电机漆包线绕组内部达到85 ± 5℃时, 温控开关闭合, 风扇开始工作;
 - (5) 当不使用温控开关时, 一上电风扇就开始工作。
- 注: 动力及风扇接线端子排以实物为准, 此图片仅供参考。

- (1) Servo driver output of U, V and W phase and ground, respectively, received the motor input U, V, W and ground wire;
 - (2) U10F Ventilazione forzata: Fan power 51W/53W, Current 0.29/0.33A, Voltage 220Vac
 - (3) U13F Ventilazione forzata: Fan power 135W / 200W, Current 0.6 / 0.88A, Voltage 220Vac
 - (4) When using 85℃ temperature controlled switch, internal motor enameled wire winding reaches 85 ± 5℃, the temperature controlled switch will be closed, the fan will work.
 - (5) When not using the temperature controlled switch the fan as above will work.
- Remark: Power and fan terminals is kind prevail, this picture is for reference only.

信号接线说明/ Signal wiring instructions

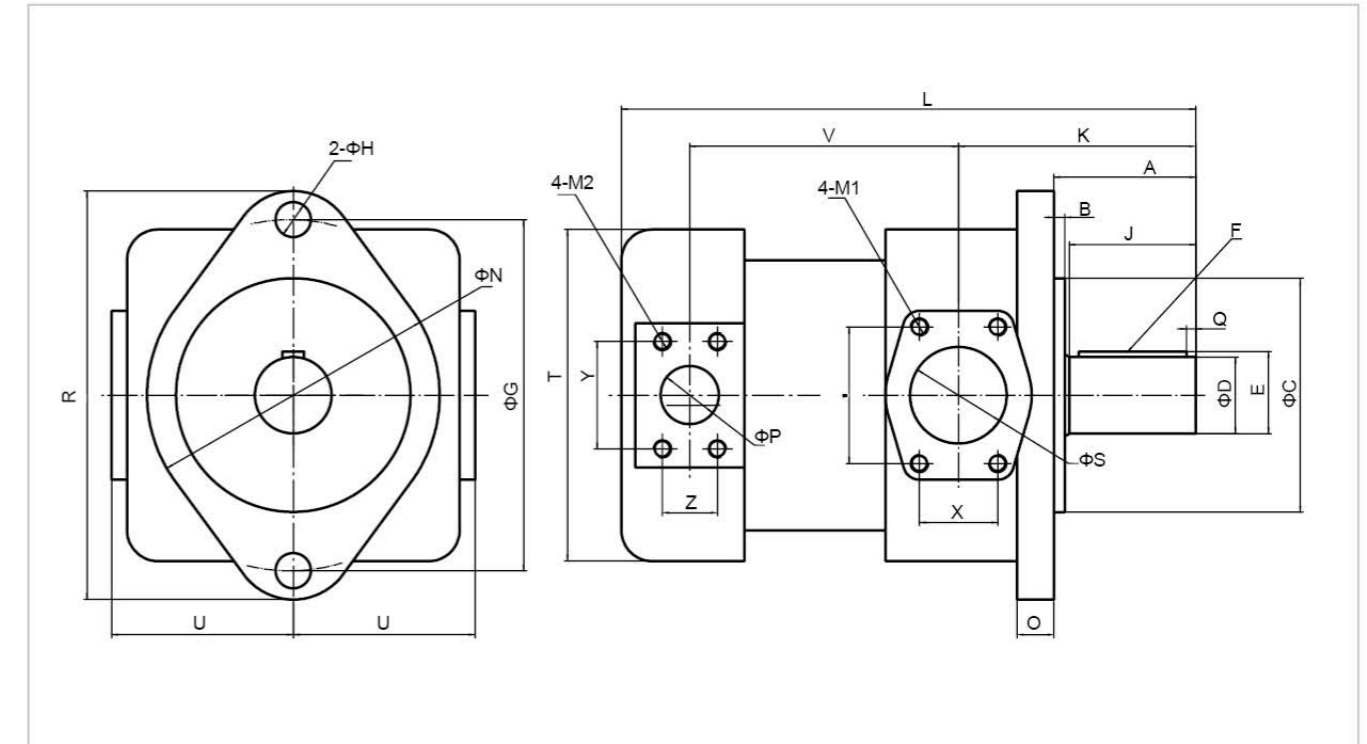
注塑机专用伺服电机上的编码器主要采用旋转变压器, 常用的旋转变压器的型号为TS2640N321E64; 也有少数厂家使用安装增量编码器的伺服电机。以下主要内容为PCB板、航空插座接线及编码器的信号定义及说明。

The encoder for the servo motor of injection molding machine used professionally using rotating transformer, the model number of commonly rotating transformer is TS2640N321E64. Also a few of factories use the servo motor of incremental encoder. The follow definition and description is for PCB board, aviation socket connection and signal of encoder.



住友内啮合齿轮泵安装连接尺寸

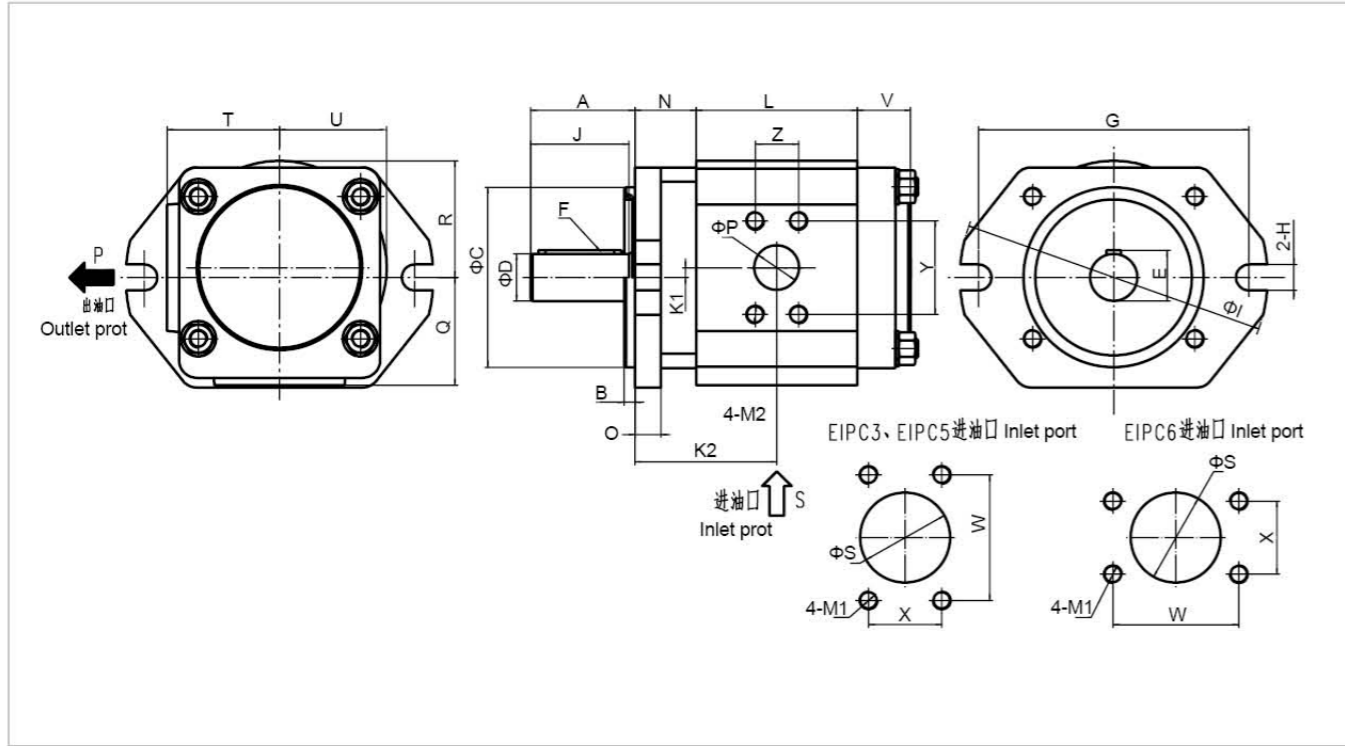
Sumitomo internal gear pump installation dimensions



型号 Model	A	B	ΦC	ΦD	E	F键宽x长 key width x length	Q	2-ΦH	ΦG	J	K	V
QT42-31.5	68	7	$\Phi 101.6 - 0.05$	$\Phi 32 - 0.005$	35	$\Phi 10 - 0.036 \times 50$	4	2-Φ14.5	Φ146	58	115	114
QT42-40												
QT52-50	92	7	$\Phi 127 - 0.05$	$\Phi 40 - 0.005$	43	$\Phi 12 - 0.043 \times 70$	6	2-Φ18.5	Φ181	82	145	136
QT52-63												
QT62-80	92	7	$\Phi 152.4 - 0.05$	$\Phi 50 - 0.005$	53.5	$\Phi 14 - 0.043 \times 70$	6	2-Φ23	Φ228.6	82	154	174.5
QT62-100												
QT62-125												

型号 Model	L	ΦN	O	R	T	U	ΦS	W	X	M1	ΦP	Y	Z	M2
QT42-31.5	256	Φ125	16	172	139	75	Φ38	69.9	35.7	M12 deep 25	Φ25	52.4	26.2	M10 deep 20
QT42-40														
QT52-50	313	Φ150	20	214	170	93	Φ50	77.8	42.9	M12 deep 25	Φ32	58.7	30.2	M10 deep 20
QT52-63														
QT62-80	373	Φ190	24	266	216	118	Φ63	88.9	50.8	M12 deep 25	Φ38	69.9	35.7	M12 deep 25
QT62-100														
QT62-125														

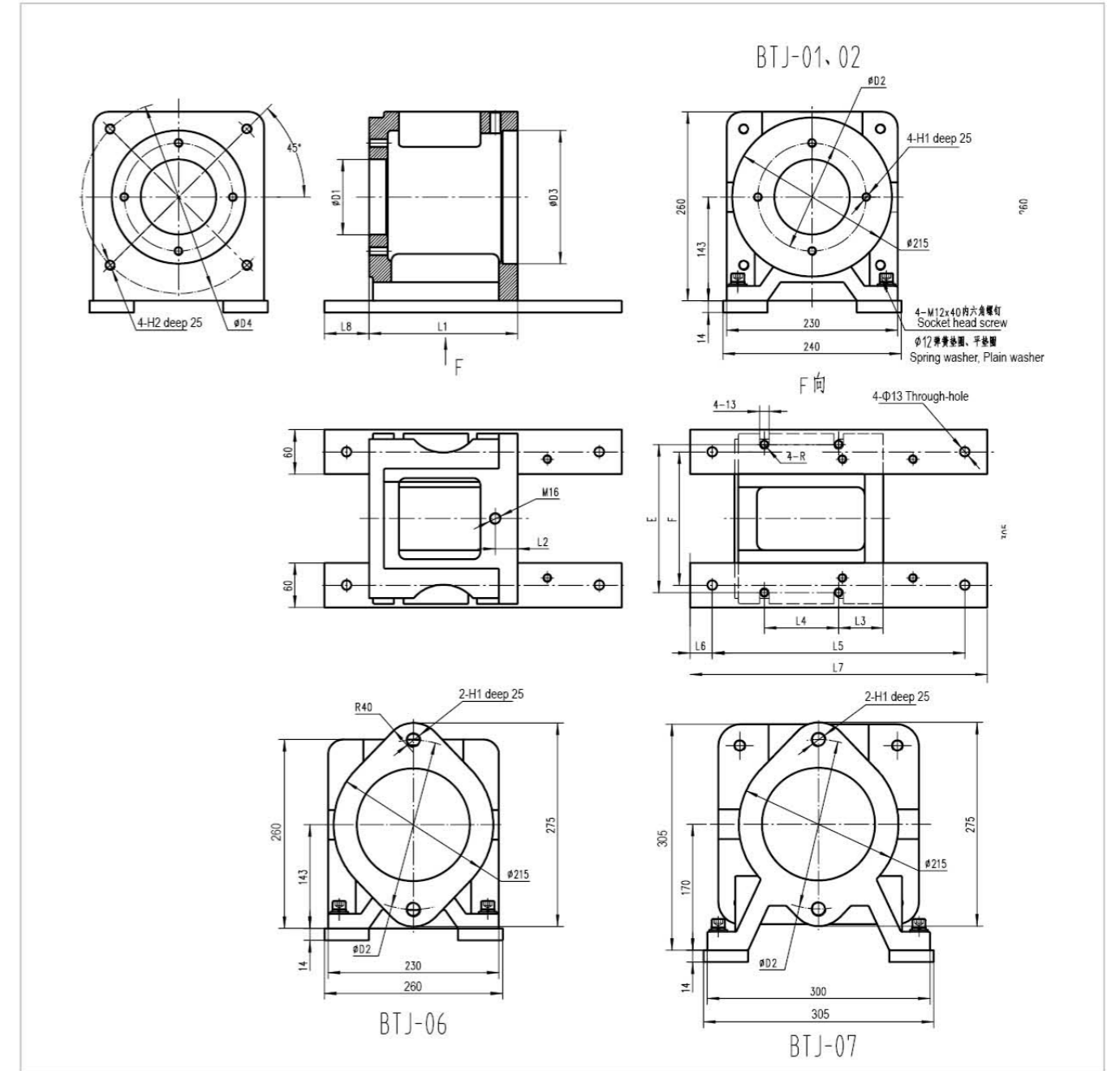
艾可勒内啮合齿轮泵安装连接尺寸
Eckerle internal gear pump installation dimensions



型号 Model	A	B	ΦC	ΦD	E	F键宽x长 key width x length	O	2-H	G	ΦI	J	K1	K2	V
EIPC3-32	56	6	Φ101.6h8	Φ25g6	28	8h9x36	13	2-13.5	146	Φ170	48	6.5	83.2	34
EIPC3-40													88.7	
EIPC3-50													95.7	
EIPC3-63													104.7	
EIPC5-80	68	6	Φ127h8	Φ32g7	35	10h9x60	25	2-17.5	181	Φ208	70	8.3	92.5	41.5
EIPC5-100													100.5	
EIPC6-125	88	9	Φ152.4h8	Φ40g6	43	12h9x70	22	2-22	228.6	Φ260	83	8.3	109.5	45
EIPC6-160													120	

型号 Model	L	N	O	R	T	U	ΦS	W	X	M1	ΦP	Y	Z	M2
EIPC3-32	114.4	26	57	67.5	64	65	Φ32	58.7	30.2	M10 deep 17	Φ18	47.6	22.2	M10 deep 17
EIPC3-40	125.4										Φ20	52.4	26.2	M10 deep 17
EIPC3-50	139.4										Φ25.4	52.4	26.2	M10 deep 17
EIPC3-63	118	45.7	75	82	75.5	76	Φ50.8	77.8	42.9	M12 deep 17	Φ25.4	66.7	31.8	M14 deep 24
EIPC5-80	93	Φ47.2					77.8	42.9	M12 deep 20					
EIPC5-100	109	46	75	82	75.5	76	Φ63.5	88.9	50.8	M12 deep 20	Φ31.75	66.7	31.8	M14 deep 24
EIPC6-125	115	52	91.2	98.8	95	90	Φ63.5	88.9	50.8	M12 deep 20	Φ38.1	79.4	36.5	M16深24
EIPC6-160	136						Φ76.2	106.4	61.9	M16 deep 22				

泵托架安装连接尺寸
Installation dimensions of pump bearing bracket



型号 Model	ΦD1	ΦD2	ΦD3	ΦD4	H1	H2	L1	L2	L3	L4	E	F	L5	L6	L7	L8
BTJ-01	Φ101.6 ^{+0.025} _{-0.010}	Φ146	Φ180 ^{+0.039} ₀	Φ215	M12	M12	170	15	45	95	200	180	340	30	400	70
BTJ-02	Φ127 ^{+0.025} _{-0.010}	Φ181	Φ180 ^{+0.039} ₀	Φ215	M16	M12	200	15	60	100	200	180	340	30	400	55
BTJ-06	Φ152.4 ^{+0.025} _{-0.010}	Φ228.6	Φ180 ^{+0.039} ₀	Φ215	M20	M12	220	15	65	100	200	180	420	40	500	85
BTJ-07	Φ152.4 ^{+0.025} _{-0.010}	Φ228.6	Φ250 ^{+0.039} ₀	Φ300	M20	M16	230	30	60	140	270	250	420	40	500	75

高性能水基叶片泵

概述

本公司设计生产的高性能水基叶片泵CPV是一种结构简单合理、压力高、压力脉动小、效率高、使用寿命长、性价比高的节能环保型的产品，已经获得中国国家专利。该泵可用于高水基液压力，（由5%的无油高水基液压力与95%的水所组成。）其最大的特点是无污染、节能环保、价格便宜、不燃、防锈，优于任何其它难燃液，如：水-乙二醇等。该泵除了用于高温、明火场合外，也适合目前广泛使用的以液压油为工作介质的各种液压机械和液压系统，尤其适合应用在要求节能环保的场合。因此，工作压力更高，可靠性更好的高性能水基叶片泵必将会逐步代替现在正在使用液压油等对环境污染较重的各类介质的液压泵，真正做到节约资源，保护环境。“节能环保”不能成为一句空话，要从我做起，从现在做起。可以预期：今后，该泵的应用必将具有广阔的市场前景。

- ◆CPVZ系列：5.8至76ml/rev
- ◆CPV3系列：48至158ml/rev
- ◆CPV4系列：132至227ml/rev

CPV2系列泵的特点

- ◆工作压力高
泵的额定压力达到20Mpa，最高压力达到25MPa。
- ◆流量脉动小
泵在20 MPa的压力下，运转稳定，压力脉动值只有0.01-0.03MPa，泵的压力与流量脉动值，明显低于油压叶片泵。
- ◆容积效率高
虽然高水基液体的粘度只有46号抗磨液压力的1/30，其容积效率仍能达到油压叶片泵的标准。
- ◆抗污染能力强
液体不需要精密过滤，不需要更换液压系统其它配件。
- ◆使用寿命长
经过泵的耐久性试验，超过国家油压泵标准的使用寿命。
- ◆性价比很高
泵的价格比国外的相同排量的水基柱塞泵要低得多，而泵的稳定性和噪音明显比柱塞泵好。
- ◆使用成本低
无油高水基液压力，其价格只有液压油的1/10，水-乙二醇的1/40，磷酸脂的1/70。
- ◆节能环保
采用指定的HR-SY-1无油液压力，不含有毒有害物质，对人体和环境无害，使用安全、环保、不会燃烧、防腐蚀等优点。
- ◆组件式泵芯结构
CPV系列叶片泵采用整装入式泵芯结构。可以在几分钟内方便地对泵芯进行更换或翻新
- ◆推荐工作液：
高水基合成液压力HR-SY-1。
- ◆工作液温度
使用高水基液温度控制在5-55度之间。
- ◆使用高水基液压力注意事项
使用高水基液的水箱必须高于泵的吸入口，确保泵正压吸入液体；所使用液体的PH值控制在9-10之间。不能有液压油混入该液体。

一般使用说明

- 1 检查泵的转向、转速范围、压力、温度、液体的质量及粘度；
- 2 检查泵的吸入口条件是否符合使用要求；
- 3 检查转动轴类型，扭矩是否满足工况要求；
- 4 选用适当的联轴器以使泵的径向载荷(重量、不同轴偏差等引起)最小；
- 5 过滤必须满足最低污染度等级的要求；
- 6 工作环境：避免噪音、污染以及冲击的影响。

High Performance Water Based Hydraulic Vane Pump

Overview

The CPV pump is one high performance water based vane pump. developed and produced by our company. It is with simple and reasonable structure, high pressure, pressure pulse small, high efficiency, long working life, competitive price, and it is a energy saving and environmental Product. It has won the China state patent. It can be used with high water based hydraulic fluid, (it is composed of 5% non-oil high water based hydraulic fluid and 95% water). The most strength and advantage is no pollution, energy saving and environmental, cheap price, flame-retardant, antirust, better than all others flame-retardant fluid. such as water glycol etc. In addition to high temperature and fire situation. it also can be used in kinds of hydraulic machines and system which mainly use hydraulic oil as working fluid, especially it is suitable in energy saving situation. So with higher pressure and more steady performance, the CPV pump must be instead of the traditional pumps which use hydraulic oil as working fluid and polluted environment too much step by step in the future. to reach the goal really achieve energy saving and environmental. Energy saving and environmental can not be only a word, it must be done from me, from now on. We can predict for sure: from now on, the CPV pump will be widely used and with good market.

- ◆CPVZ series: 5.8 to 76ml/rev
- ◆CPV3 series: 48 to 158ml/rev
- ◆CPV4 series: 132 to 227ml/rev

The characteristics of CPV pump

- ◆High working pressure:
The nominal pressure is 20 MPa, maximum pressure can reach 25 MPa.
- ◆Displacement pulse small:
The pump is running steadily at the pressure 20 MPa, the pressure pulse value is 0.01-0.03MPa, the pressure and displacement pulse value is obviously lower than hydraulic oil vane pump.
- ◆High volume efficiency:
Though viscosity of water based fluid is 1/30 of No.46 anti-wear, but the volume efficiency still can reach the hydraulic oil pump standard.
- ◆Strong resistance to pollution:
The fluid does not need be filtered accurately, does not need change other components on the hydraulic system.
- ◆Long working life:
After the pump working life test, it has been beyond the state standard of hydraulic oil pressure pump working life.
- ◆Competitive price:
CPV pump price is more lower than the same displacement of water based piston pump, but more steady, and with more lower noise level.
- ◆Lower using cost:
The cost of non-oil water based hydraulic fluid is 1/10 of hydraulic oil, 1/40 of water glycol, 1/70 of phosphate ester.
- ◆Energy saving and environmental:
Use the specified HR-SY-1 non-oil hydraulic fluid.
- ◆Assembly Type Pump Core Structure.
CPV series vane pumps use the whole built-in pump core structure and their cores can be replaced or renewed conveniently within a few minutes with low cost and small pollution risk.
- ◆Recommended Operating Liquid:
High water-based synthetic hydraulic fluid HR-SY-1, when the antiwear hydraulic oil is used, oil viscosity is better equal to or less than 15Cst.
- ◆Working Fluid Temperature.
5-55SoC for high water-based fluid.
- ◆Attentions of High Water-Based Fluid Tank.
The tank for high water-based hydraulic fluid must be higher than suction inlet of the pump in order to ensure the pump to inhale the liquid under positive pressure: PH value of used liquid is 9-10. No hydraulic oil shall be mixed into the liquid.

General Use Instructions

Check the pump steering, speed, pressure, temperature and liquid mass and viscosity;
 Check whether the Pump suction conditions meet use requirements;
 Check the rotation shaft type and whether the torque meets the requirements of working conditions;
 Choose the appropriate coupler to minimize the radial load (by weight, different axis deviation);
 The filtration must meet the requirements of the minimum degree of contamination;
 Working environment: avoid the impact of noise, pollution and striking.

型号说明/Model Designation

(W.)	CPV	19	A	-1	A	30	R
前注 Note	系列号 Series	排量代号 Flow code	油口连接 Port connection	轴伸形式 Shaft type	出口位置 Outlet Positions	设计号 Design number	旋转方向 Rotation
无标记No-marking: 石油系油 Petroleum series oil W: 乳化液、液压油、切削液	CPV2	02, 03, 05, 06, 08, 10, 12, 14, 17, 20, 22, 25	A-SAE 4螺栓法兰 A-SAE 4-bolt flange	1- 花键轴 Strkey 151-花键轴 Spline	(从泵的轴端看) (Views from shaft end of pump) A-进油口对面 Opposite inlet port B-从进油口逆时针90° 90° CCW from inlet C-进油口同侧 Inline with inlet D-从进油口顺时针90° 90° CW from inlet	08	(从泵的轴端看) (Views from shaft end of pump) R-顺时针旋转 right hand for clockwise L-逆时针旋转 left hand for counter-clockwise

使用指定无油液压液HR-SY-1的技术参数

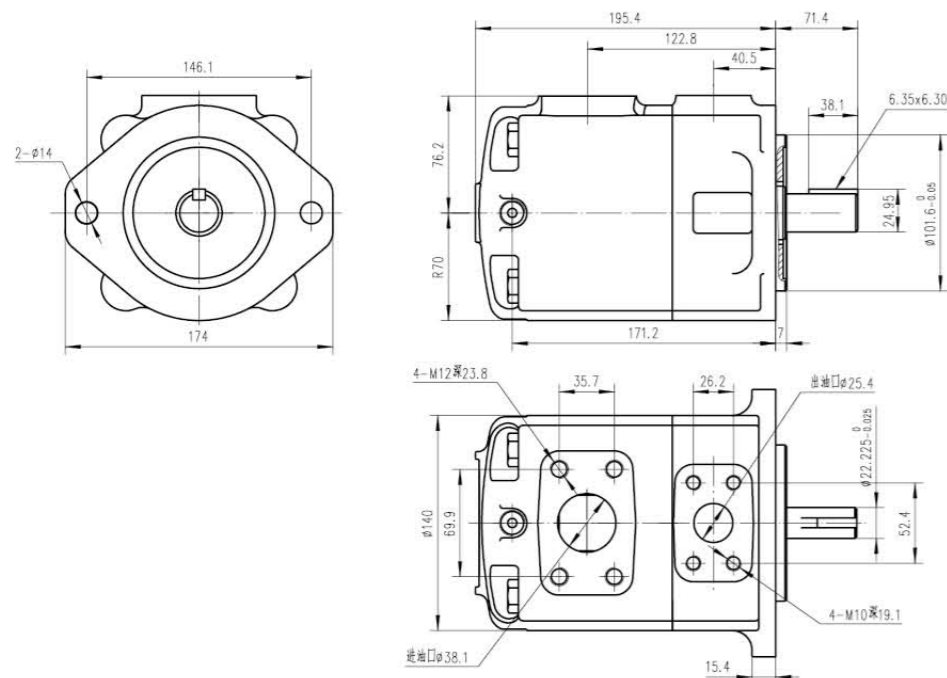
Using the specified without oil hydraulic fluid HR-SY-1 technical parameters

技术参数/Technical Data

系列号 series	排量代号 Flow code (US gpm)	理论排量 Geometric displacement L/r(in ³ /r)	转速Speed 1000r/min	转速Speed 1500r/min	转速Speed 1200r/min	转速Speed 1800r/min
			最高使用压力/Mpa Max.pressure	最高使用压力/Mpa Max.pressure	最高使用压力/Mpa Max.pressure	最高使用压力/Mpa Max.pressure
CPV2	05	16	14	16	16	18
	06	21	14	16	16	18
	08	26	16	18	16	18
	10	34	16	18	16	18
	12	37	16	18	16	18
	14	44	16	18	16	18
	17	53	14	16	16	16
	20	63	14	16	16	16
	22	70.6	14	16	16	16
	25	76	14	16	16	16

CPV2安装尺寸/Installation Dimension

重量/Weight: 15.7kg



安装、使用与维护

1、工作介质

- 为提高油泵性能, 延长使用寿命, 推荐使用抗磨液压油。粘度范围10-860cst, 推荐粘度46cst。
- 液压油的污染会引起叶片泵的故障和降低其寿命, 应对液压油液进行有效的控制, 系统过滤精度不低于25μm。为防止吸入污物和杂质, 应在吸油口处安装过滤精度70-150μm的过滤器, 其额定流量不低于泵流量的两倍。
- 油泵工作油温范围: 0°C-70°C, 为保证长期的可靠寿命, 最佳油温10°C-60°C

2、泵的安装

- 油泵支架结构要牢固, 刚性好, 并能充分吸收振动。
- 油泵可卧式或立式安装(最好卧式)。泵和电机轴必须对正, 同轴度应控制在0.1mm以内, 尽量采用柔性联轴节, 以避免因弯曲或侧向力引起的任何应力。
- 尽量避免进出油管采用钢管硬连接, 建议使用橡胶软管, 以避免出现额外的负载导致额外的噪声。
- 吸入阻力不应太高, 以防产生空蚀现象。油泵允许吸入真空度为110mm水银柱。安装应尽量接近油箱, 吸入高度不得大于500mm。
- 注意进油口处连接法兰、接头以及整个吸油管道必须严格密封, 防止漏气, 否则将会引起噪声、系统振动, 并使油箱内产生大量泡沫, 降低泵的寿命。
- 油泵的吸油管道直径不小于泵入口直径。
- 油箱应设有隔板, 用来分隔回油带来的气泡与脏物。回油管应伸到油面以下(不得直接和泵的入口连接), 防止回油飞溅引起气泡。

3、启动

- 油泵启动前, 应检查进、出口, 切勿搞错方向, 泵旋转方向应与标牌指示方向一致(订货时未注明旋向者, 一律按顺时针旋向供货)。初次启动应向泵里注满油, 并用手动联轴器, 旋转力量应均匀、灵活。
- 启动时, 应尽量在无负荷工况下经点动运转正常后再正式启动。
- 由于泵装配后或长时间停运再启动, 会产生吸空现象, 故应在排油口安装放气阀, 或松动出口法兰、接头, 以便放出空气。

4、维护

- 用户购回油泵后, 如不及时使用, 必须将内部注入防锈油, 并将外露加工表面涂防锈油脂, 然后盖好防尘盖, 妥善保存。
- 要定期检查油液性能, 达不到规定要求时要及时予以更换, 并清洗油箱。
- 过滤器应经常清洗, 以保证油液吸入通畅。
- 保持油箱正常油面高度。配管和油缸的容量很大时, 尽管最初已加入足够数量的油, 在启动之后, 油进入管道和油缸, 也会发生油面下降使过滤器露出油面, 因此必须再一次补油。在使用过程中, 还会发生泄漏, 应该在油箱中设置油面计, 以便经常观察和补油。
- 油泵工作一段时间后, (由于振动) 安装螺钉或进出口法兰螺钉有可能松动, 要注意检查, 并拧紧防松。
- 由于ABT伺服泵内腔采用插装式结构, 因此正常维修时只需要更换泵芯, 更换时应检查密封圈是否完整, 防止切边, 拧紧壳体连接螺钉时, 应对角线方向逐渐拧紧, 用力均匀。

Installation, Application and Maintenance

1、Operating oil

- Anti-wear hydraulic oil is recommended for better performance and longer life. Viscosity range: 10-860cst, Recommended viscosity 46cst.
- Proper fluid condition is essential for long and satisfactory life of hydraulic components and systems. The filtration rating should not be lower than 25μm. Filter of 70-150μm on the inlet port is recommended and its rated flow should not be lower than 200% of pump's.
- Oil temperature range of pump working: 0°C-70°C. The best oil temperature is 10°C-60°C for ensuring long-term and reliable life.

2、Installation

- Foot and frame for pump must be reliable, solid and good in vibration absorbent.
- Horizontal mounting is recommended to maintain necessary case fluid level. Concentricity of shafts between pump and motor is important to pump life and should be within 0.1mm. It is better to use flexible coupling to avoid harmful effects.
- Try to avoid using the steel pipe connection for tubing, the rubber hose is recommended for avoiding additional load causes the extra noise.
- The oil pump allows the inhalation vacuum as 110 mm column of mercury. Installation should near fuel tank, inhaling the height can not be big in 500 mm.
- Please notice the seal of flange at port connections, ports and absorb pipeline has to be sealed strictly, to prevent air leakage. If not it will cause the noise and vibration of system, also will make foam, to low the life of pump.
- The diameter of absorb pipeline should not smaller than that of inlet.
- There should be a plank in the tank to separate bubble and dirty thing from used oil. Return pipeline under oil is recommended(not connect with inlet) for avoid bubble.

3、Start

- Before starting pump, please check up if the inlet and outlet have been correctly connected and the rotation of the pump is inline with the nameplate.(CW without notice).
- After confirming it is able to work well without burthen, please restart.
- When initially starting the pump after long-time unused, removing all trapped air from the system can be accomplished by loosening flange or connections.

4、Maintenance

- Please inject defend-rust oil in the pump, plant the surface with defend-rust grease and then cover ports, if you do not want to use it right now.
- Please check up oil periodically, while if the oil can not reach the demand, replace it and clean up tank.
- Purging of filter regular is recommended.
- Keep the normal level of oil in the tank. When capability of tubing and tank are large, even if injected enough oil. Because when starting, the level of oil would fall, then please add some oil. Please observe the level of oil and add some oil when needed.
- After a period of working, it is likely that the install bolt and flange of inlet and outlet would loose because of vibrating. please tight them.
- The cartridge design of ABT series servo pumps offers fast and efficient field service ability, when replacing the cartridge, seals inside the pump should be checked to avoid them crimping, when tightening the fastening screws, they should be treated with even force in diagonal direction.



KEBA
Automation by innovation.

最佳的注塑机自动化解决方案
The optimized automation solution for injection molding machines

适用于液压、全自动和双托盘设备的优化解决方案 Optimized solutions for hydraulic, all-electric and 2-platen injection molding machines

KePlast 是专为塑料加工设备研发的控制系統。整个系列既适用于简单的液压式注塑机，也适用于复杂的全电动注塑机及多组件机械手。

KePlast control systems have been specially developed for use in plastics processing machines. The model series covers the entire spectrum of applications from simple hydraulic and all-electric injection molding machines through to complex multi-component systems with process-integrated robotics.

一致的理念 Uniform concept

适用于液压、混合或全电动注塑机，设计基于同理念。杰出的产品源于：

- 统一的产品设计
- 统一的外观和质感
- 统一的诊断及维护

All machines have a uniform design regardless of whether they are hydraulic, hybrid or all-electric. All injection molding machines stand out thanks to:

- Uniform engineering
- Uniform look and feel
- Uniform diagnostics and maintenance

量身定制的解决方案造就了物超所值 Best price-performance ratio thanks to customized solutions

注塑机控制和电气驱动技术准确地针对应用目的而优化。KePlast 系列创新的、可扩展的解决方案有效节省空间并控制了成本。

The control systems and electrical drive technology used in the injection molding machines are precisely optimized toward their intended application. Thanks to the innovative solutions from the scalable KePlast series, expensive undersizing and oversizing have become a thing of the past.



可扩展的KePlast 产品范围 The scalable KePlast product range

无论简单的液压注塑机还是复杂的多组件设备（带有深加工机械手），KePlast控制系统都能应对。

From simple hydraulic injection molding machines to complex multi-component systems with process-integrated robotics – KePlast control systems cover the entire range of applications.

i1000、i2000和i8000系列控制系统因精准性高、生产率高而出类拔萃，并且节能。整套软件和可扩展的硬件 – 无论在控制性能还是操作方面都具有最大的灵活性。在可视化方面也使用相同元素，在整个范围内确保统一的可视化操作。

The control systems of the i1000, i2000 and i8000 series stand out thanks to their precision and high productivity and ensure savings in energy consumption. The common software platform and the scalable hardware – both in control performance and in the operating unit – provide maximum flexibility. Identical elements are also used for visualization in order to ensure uniform visual operation over the entire range.



KePlast i2000

i2000系列硬件由一个性能等级可调的高性能单板控制器组成。I/O模块或电子驱动装置通过集成的高速实时EtherCAT总线联结。

The hardware of the i2000 series consists of a high-performance single-board computer with scalable performance level. I/O modules or electric drives are connected via the integrated high-speed real-time EtherCAT bus.

- 用于液压、混合和全电动注塑机
- 基于Intel Atom处理器上的模块化硬件
- 高性能的EtherCAT界面
- 12英寸SVGA至15英寸XGA TFT显示屏，纵向和横向规格
- 触摸屏操作
- 无缝集成KEBA驱动技术包括全电动注塑机应用包
- 全面的质量数据包

- For hydraulic, hybrid and all-electric injection molding machines
- Modular hardware based on Intel Atom
- High-performance EtherCAT interface
- 12" SVGA to 15" XGA TFT displays in portrait and landscape format
- Operation via touchscreen
- Seamless integration of the KEBA drive technology incl. application package for all-electric injection molding machines
- Comprehensive quality data package

KePlast i1000

KePlast控制系统i1000源于强大的稳定的控制核心，保证了生产中的稳定与高效。

Owing to its powerful computer core, the KePlast control system i1000 is real-time-capable, thereby enabling a continuously controlled quality of production.

- 适用于标准的液压注塑机
- 超紧凑型单板控制器
- 7至12英寸显示屏
- 微动开关操作
- 注射闭环，包括通过注射图监控
- SPC软件包（流程控制统计）
- CAN总线扩展
- 通过Ethernet接口实现互联

- For hydraulic standard injection molding machines
- Ultracompact single-board computer
- 7" to 12" TFT displays
- Operation via microswitch keyboard
- Closed-loop injection process including monitoring by means of injection graphic
- SPC package (Statistic Process Control)
- Expandable via CAN bus
- Network-compatible through Ethernet connection



KePlast i8000

i8000系列控制解决方案提供了最高的控制器性能和最大的灵活性。整个程序包基于Linux，最先进的手势操作和开放的控制平台结合在一起，提供最大程度的个性化。

The control solution of the i8000 series offers the very latest multitouch technology in combination with top performance. The Linux-based complete package combines state-of-the-art gesture operation with an open control platform and provides maximum individuality.

- 用于液压、混合和全电动多组件注塑机以及大型设备
- 开放式Linux控制平台，最短控制周期
- 带有Linux操作系统和JavaFx技术的有效操作单元
- 纵向模式的15英寸和21.5英寸宽屏显示器
- 通过EtherCAT界面无缝集成KEBA驱动技术

- For hydraulic, hybrid and all-electric multicomponent injection molding machines as well as high tonnage IMMs
- Open Linux control platform with extremely short control cycles
- Active operating unit with Linux operating system and JavaFx technology
- 15" and 21.5" multitouch widescreen displays in portrait format
- Seamless integration of KEBA drive technology via EtherCAT interface

HMI可视化/HMI visualization

- ✓ 可直接连接各种面板（7、8、10和12寸）的集成图形处理器
- ✓ 便捷、完整的注塑机操作界面
- ✓ SPC功能
- ✓ 注射图
- ✓ 质量数据记录
- ✓ 集成的服务页

- ✓ Integrated graphics processor for direct connection of various panels (7", 8", 10" and 12")
- ✓ Convenient, complete user interface for injection molding machines
- ✓ SPC functions
- ✓ Injection graphic
- ✓ Quality data logging
- ✓ Integrated service pages

流程-功能/Process functions

- ✓ 自动调节闭环式注入
- ✓ 自动校准
- ✓ 多通道闭环温度控制和自动调谐
- ✓ 欧规12/67机械手接口
- ✓ 集成的加热通道控制器
- ✓ KePlast S阳dPur刚

- ✓ Controlled injection and holding pressure process with auto-tuning
- ✓ Auto-calibration
- ✓ Multichannel temperature control with auto-tuning
- ✓ Euromap 12/67 robotics interface
- ✓ Integrated hot runner controller
- ✓ KePlast SpeedPump servo pump



硬件

- ✓ 强大的32位处理器
- ✓ 标准注塑机的所有I/O
- ✓ 用于直接控制比例阀的PWM电流输出
- ✓ 优化后的液压开关阀数字输出端
- ✓ J、K或L型传感器的热电偶输入端
- ✓ 螺杆转速脉冲输入
- ✓ 主机的以太网接口
- ✓ 打印机、调制解调器、U盘等的USB接口

Hardware

- ✓ High-performance 32 bit processor
- ✓ All I/Os for standard injection molding machines
- ✓ PWM current outputs for direct control of proportional valves
- ✓ Optimized digital outputs for hydraulic switching valves
- ✓ Thermocouple inputs for J, K or L sensors
- ✓ Pulse input for screw speed
- ✓ Ethernet connection for host computer
- ✓ USB connection for printer, modem, USB stick, etc.

欧洲品质

源于高性能的控制核心，高性能的系列产品拥有实时控制和注射闭环控制两大优势。

通过以太网可将紧凑型控制系统加入指导方案。借此可通过PC轻松管理所有设备数据。

European brand quality

Owing to its powerful computer core, the high-quality model series is full real-time capability so that even the lower-priced models can provide a controlled injection and holding pressure process as standard.

Via Ethernet it is possible to integrate the compact control system in a control station concept. As a result, all machine data can then be managed conveniently using a PC.



无论是单板控制器还是复杂的模块系统，无论是用于液压、混合或是全电动的注塑机—所有 KePlast 系统均基于通用的可扩展控制平台和软件平台。

Whether a single-board computer or a complex modular system, whether for hydraulic, hybrid or all-electric injection molding machines – all KePlast systems are based on a completely scalable control and software platform.

资源丰富的技术库

Comprehensive technology libraries

功能强大的 Framework 软件部分成为控制注塑流程及实现所有注塑功能的技术功能大平台。借助多年的经验，为您提供多种技术支持，例如何伺服阀控制或成形定位控制功能。此外，在软件和技术库中还包含专用于流程的特殊功能，如冲压和通风。借此在最短时间内实现高度复杂的应用。

Part of the powerful software framework is the extensive range of technology functions for controlling the injection molding process and for implementing all of the injection molding functions. As a result of years of experience, a wide variety of technology modules such as servo valve control or control of the mold position is available. Furthermore, process-specific special functions such as coining and venting are also contained in the software and technology libraries. They allow highly complex applications to be realized in a very short time.

创建应用程序快速便捷

Fast and simple creation of applications

KePlast 软件为高度便携式软件。运行于注塑机 编制的程序时无需费时调整，这些程序也可运行在 KePlast 控制的配有不同硬件的机器上。为了便捷快速地创建应用程序，内置软件包提供了资源丰富的软件及技术支持。

KePlast software is extremely portable. Without tedious adaptation, programs that were created for one injection molding machine can also run on other KePlast-controlled machines with different hardware. To ensure that applications can be created simply and quickly, comprehensive software and technology libraries for injection molding machines are included in the scope of delivery.

压铸软件工具

Software tools for injection molding

在统一模块化结构的开发环境中进行编程。根据机器性能和目标市场调整操作理念和服务范围。以这种方式，针对每台机器（无论是液压、混合或是电动的机器），客户可获得控制系统的最佳设计参数。

Programming takes place in a uniform, modularly structured development environment. The operating concept and the scope of services are adapted to the performance and the target market of the machine in question. In this way, the customer receives an optimally machine, irrespective of whether it is hydraulic, hybrid or electric.

