

PV2R系列高压低噪声叶片泵

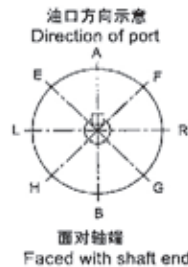
PV2R Series of vane pumps with high pressure and lower noise



○ 产品简介/Products Introduction

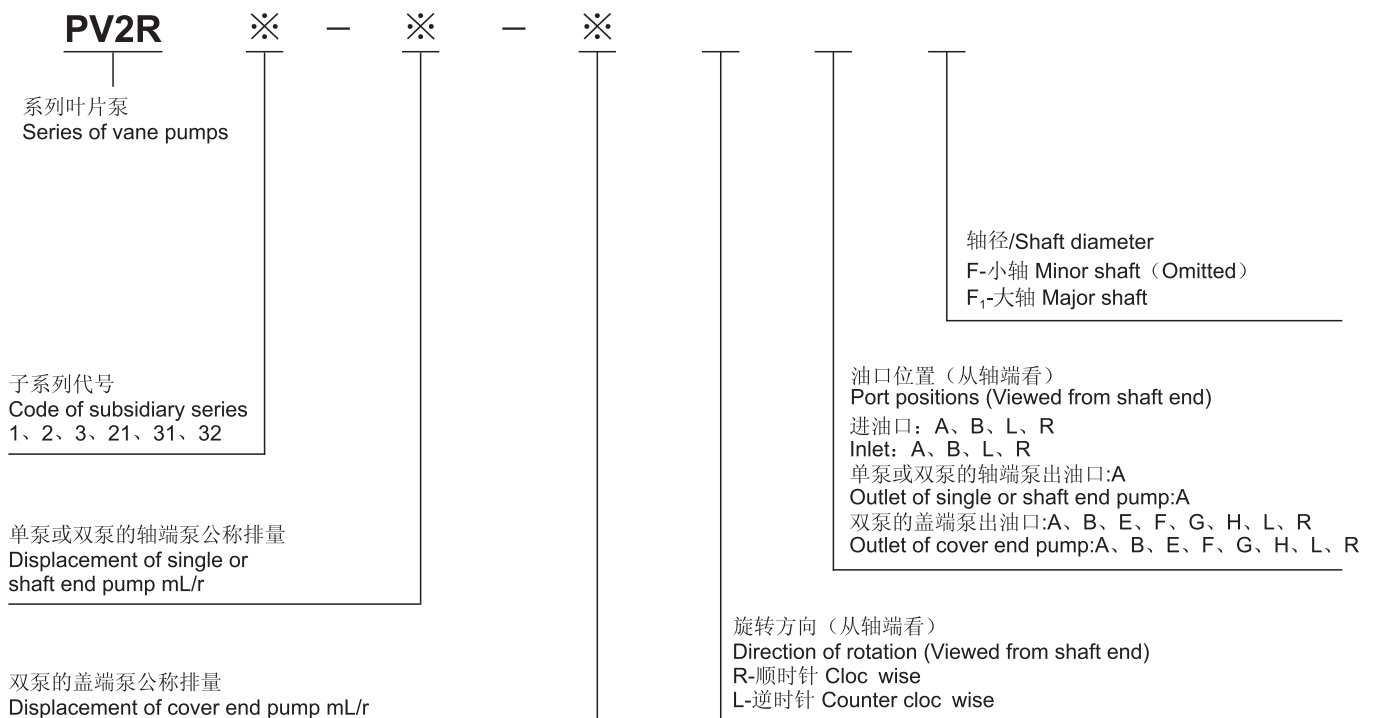
PV2R系列高压低噪声叶片泵是我公司独立研制开发的国产化高性能产品，具有性能先进，结构合理，可靠性好，噪声低，脉动极小，质量稳定的特点。产品精工制造，特别适应高精度低噪声设备的要求，广泛应用于切削机械、塑料机械、皮革机械、锻压机械、工程机械等领域。

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 li e.



○ 油口方向示意图/Direction of port

○ 型号说明/Model Designation



○ 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 ()	重量 eight (g)
		高压用特定油 Special oil	抗磨液液压油 Antiwear oil	普通液液压油 Common oil	最低 Min.	最高 Max.		
PV2R1-4	4.3	21	17.5	16	750	1800	2.1	8
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						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	21	17.5	14	600	1800	11.7	16
PV2R2-33	32.3						15.5	
PV2R2-41	39.8						18.9	
PV2R2-47	49.8						23.2	
PV2R2-53	51.5						24	
PV2R2-59	55.8						24.9	
PV2R2-65	63.7						29.4	
PV2R2-70	70.3	16				1200	31.6	
PV2R2-79	78.1						35.7	
PV2R2-85	82.7						37.5	
PV2R3-52	51.5	21	17.5	14	600	1800	23.2	32
PV2R3-60	63.7						29.4	
PV2R3-66	66.6						34.2	
PV2R3-76	75.5						37.7	
PV2R3-94	89.5						41.2	
PV2R3-116	118	16	16			1200	50	
PV2R3-125	122.2						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. 使用合成液液压油及含水液液压油时, 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.

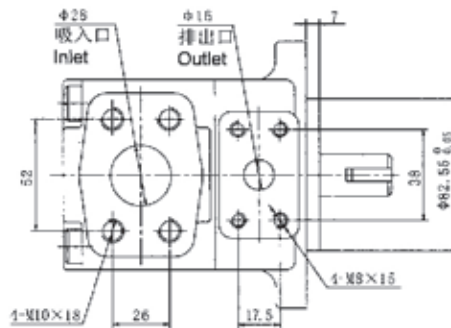
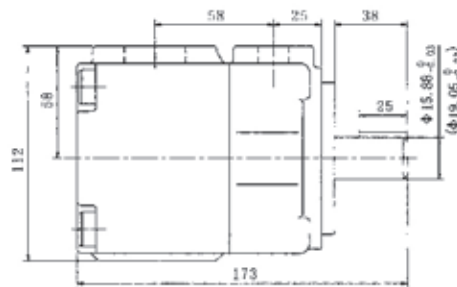
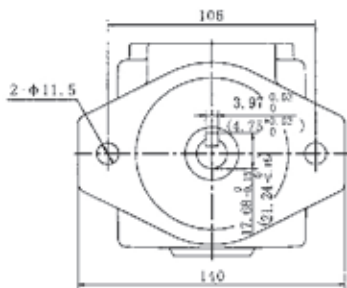
双联泵/Double Pumps

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

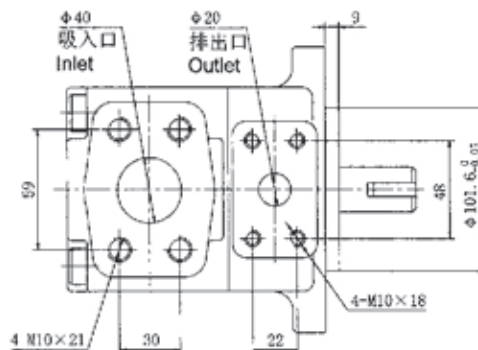
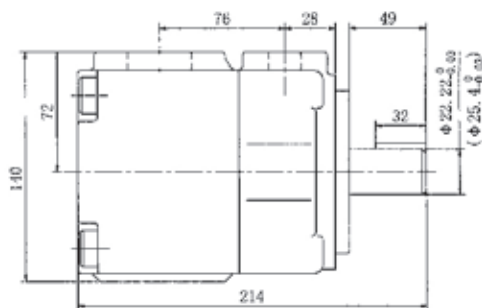
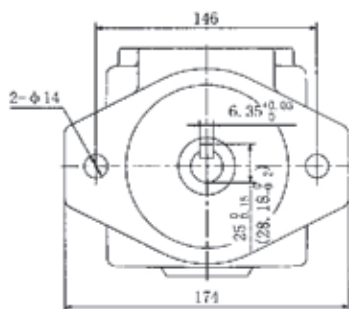
o 外型尺寸/Installation Dimensions

单泵/Single Pumps

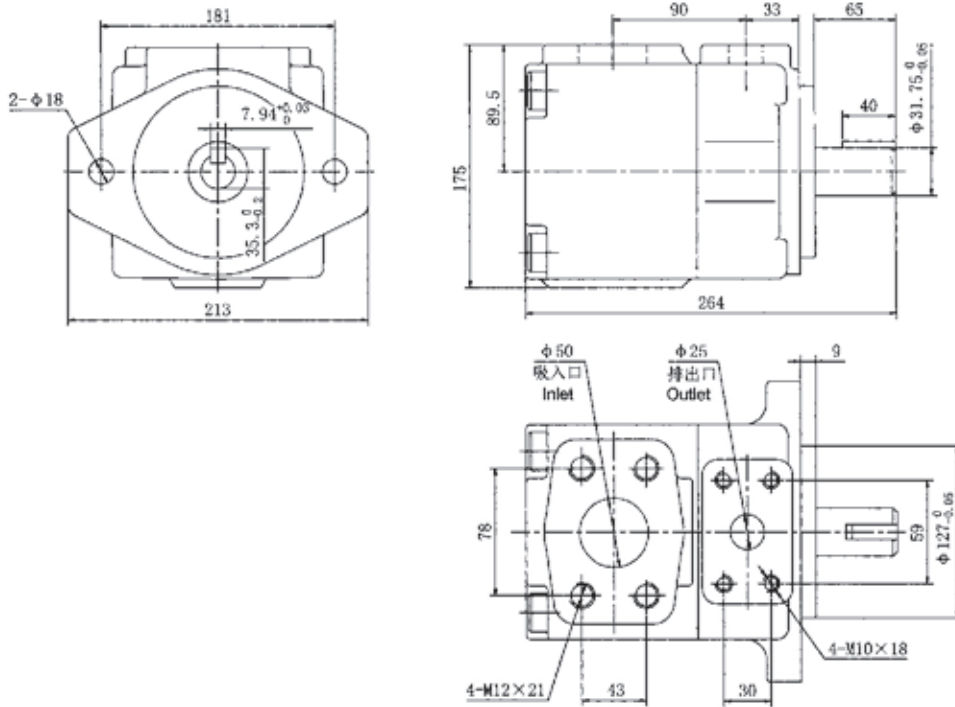
◇ PV2R1



◇ PV2R2

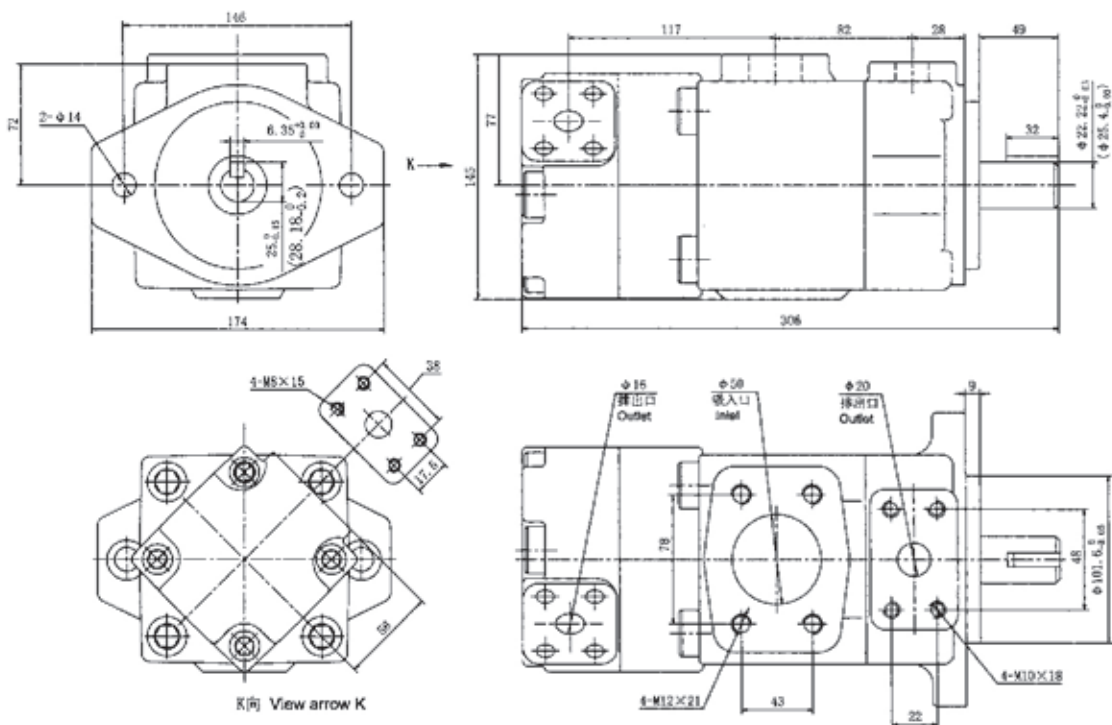


◇ PV2R3

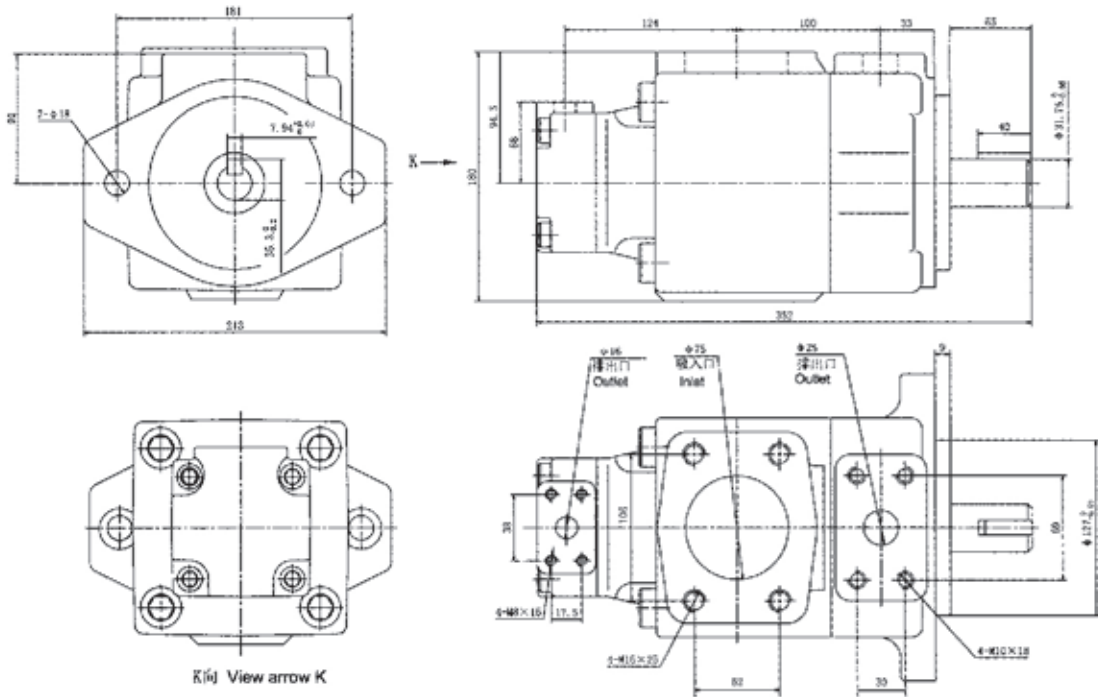


双联泵/Double Pumps

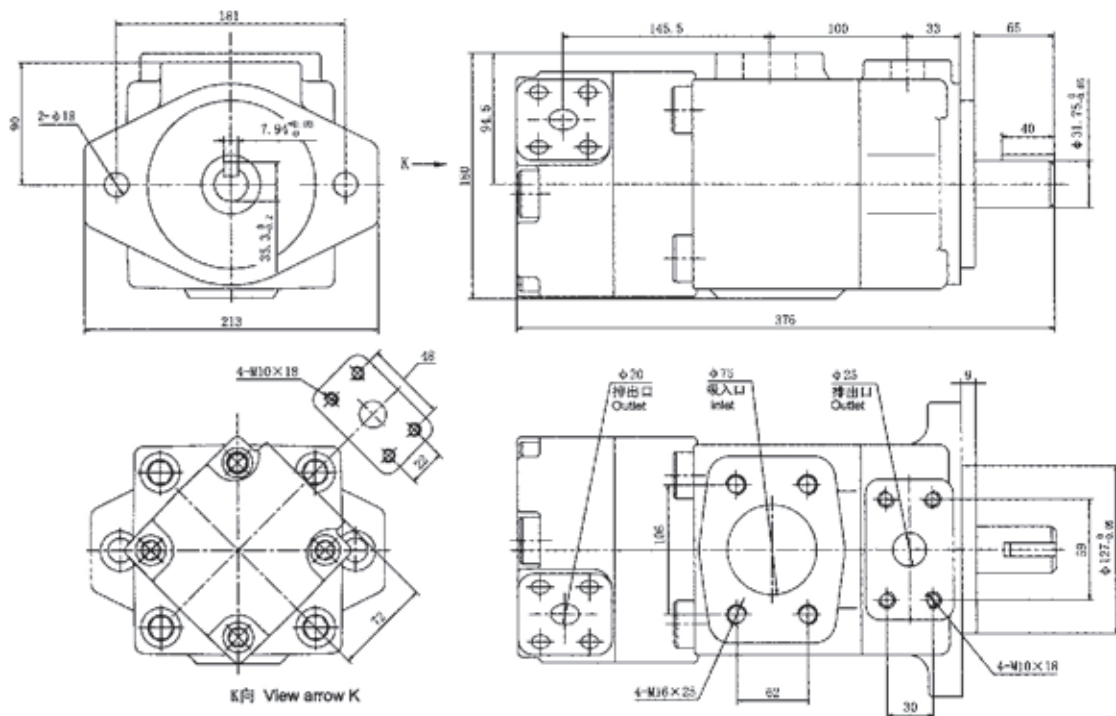
◇ PV2R21



◇ PV2R31



◇ PV2R32



○ 安装使用/Installation and Use

1. 安装时，泵轴与驱动电机轴同轴度误差应 0.10mm ，并采用柔性联轴器，支座结构要牢固，刚性好，能充分吸收振动。泵轴应水平安装。
2. 工作转速低于 1200r/min 时，安装时建议将泵的吸入口向上，以便启动时易于吸油。
3. 按油口尺寸配接管路，特别是进油管，并在系统中安装安全溢流阀；进油管路要严格密封，不得漏气，回油管口应低于液面。
4. 泵启动前，应查对进出油口、旋转方向是否正确。泵新装或长时间停转后再启动时，应在出油口放气。启动时先低压（ 1.5MPa ）运转。
5. 泵安装高于油箱油面时，吸油高度 500mm 。最好使吸油口低于油箱油面。吸入口正压力应 0.03MPa 。
6. 保持油液清洁，管路和油箱必须彻底洗净。泵吸入口距油箱底 50mm 以上位置安装足够容量的过滤器，建议精度为 $100\ \mu\text{m}$ 。系统中应安装精过滤器，建议为 $25\ \mu\text{m}$ 。油液清洁度等级应在NAS12级以内。
7. 油液工作温度应控制在 $15^{\circ}\text{C}\sim 55^{\circ}\text{C}$ 范围内，严寒低温启动时应将油液加温，油泵空载点动几次后进行空载连续运转。
8. 注意油液的粘度和油品，环境温度较低时推荐使用 32抗磨液压油。
9. 如需改变油口方向时，先退出相关泵体螺钉，注意不能使左右泵体脱离，保证心脏件随进油口转动一定角度，然后对角逐渐拧紧。
10. 整泵安装好后用手转动泵轴，应均匀、灵活。

1. In installation, the tolerance of concentricity between shaft of pump and motor must be less than 0.10mm by using the flexible coupling the carrier must be firm with good rigidity and can fully absorb vibrations the shaft of pump should be horizontally fixed.
2. When the working speed is less than 1200r/min , the pump should be installed with inlet upward in order to suck the oil easily after being started.
3. Fix pipes, especially inlet pipes in accordance with the size of port and assemble safety relief valves in the system inlet pipes must be strictly sealed with no leakage and the oil return nozzle should be below the fluid surface.
4. Check the inlet, outlet and direction of rotation before starting the pump. When operating the pump, newly fixed or not used for a long time, deflate it at the outlet. Run it at the low pressure of 1.5MPa first.
5. When the pump is fixed above the oil surface of the tank, suction height should be lower than 500mm , with the inlet below the oil surface of the tank and the positive pressure of the inlet restricted within 0.03MPa .
6. Oil should be kept clean pipes and tanks must be thoroughly cleaned. Fix the sufficient-volume filter at the inlet of the pump 50mm above the bottom of the tank, with the suggested precision of $100\ \mu\text{m}$. Precise filters should be assembled with the advised precision of $25\ \mu\text{m}$ in the system. The cleanliness level of oil should be within NAS12.
7. The working temperature of oil should be controlled between 15°C and 55°C . If starting the pump in coldness, heat the oil, and after switching on the pump with no load, operate it continuously with no load.
8. Pay attention to the glue level and quality of the oil. Antiwear hydraulic oil, such as No.32, is recommended at lower temperature.
9. When changing the position of port if necessary, withdraw the correlated screws of the pump first, preventing the pump from cracking and ensuring core parts be revolved for a certain angle along with the inlet, and then tighten the screws in cater corner by degrees.
10. Turn the shaft of pump evenly and nimbly by hand after fixing the pump.

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PV2R Series of vane pumps with high pressure and lower noise



产品简介/Products Introduction

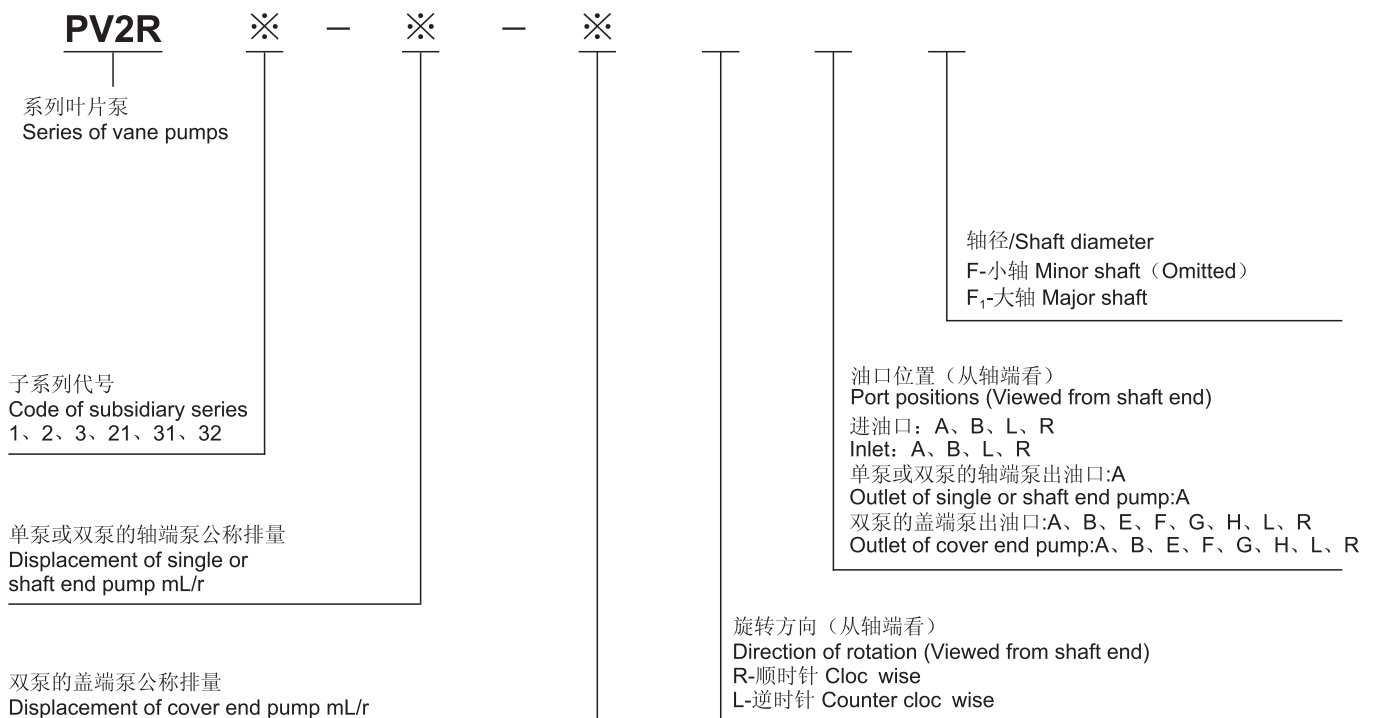
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油口方向示意图/Direction of port

型号说明/Model Designation



○ 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 ()	重量 eight (g)
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PV2R1-8	8.5						4.5	
PV2R1-10	10.8						5.4	
PV2R1-12	12.8						6.1	
PV2R1-14	14.5						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	21	17.5	14	600	1800	11.7	16
PV2R2-33	32.3						15.5	
PV2R2-41	39.8						18.9	
PV2R2-47	49.8						23.2	
PV2R2-53	51.5						24	
PV2R2-59	55.8						24.9	
PV2R2-65	63.7						29.4	
PV2R2-70	70.3	16				1200	31.6	
PV2R2-79	78.1		35.7					
PV2R2-85	82.7		37.5					
PV2R3-52	51.5	21	17.5	14	600	1800	23.2	32
PV2R3-60	63.7						29.4	
PV2R3-66	66.6						34.2	
PV2R3-76	75.5						37.7	
PV2R3-94	89.5						41.2	
PV2R3-116	118	16	16			1200	50	
PV2R3-125	122.2			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.

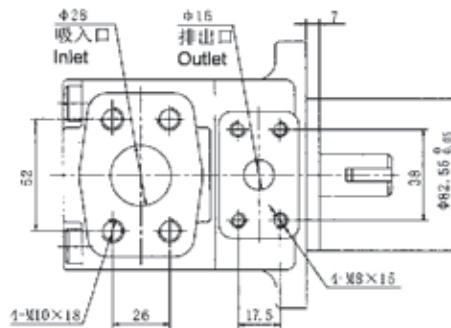
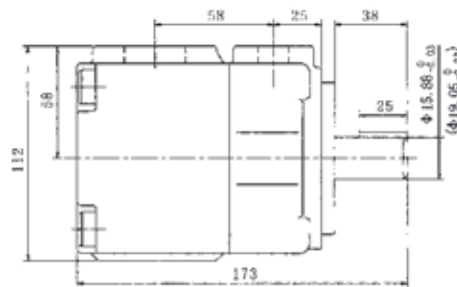
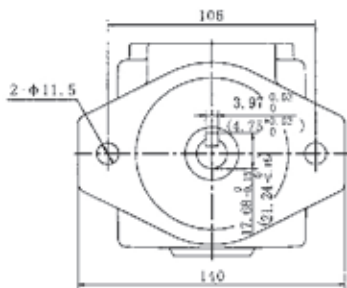
双联泵/Double Pumps

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

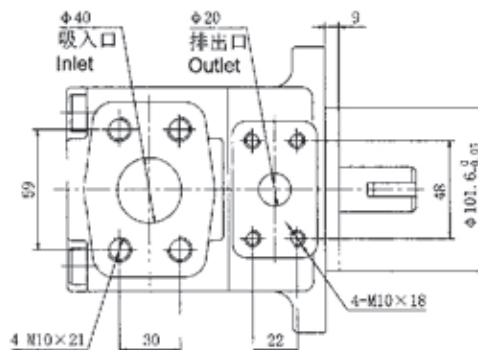
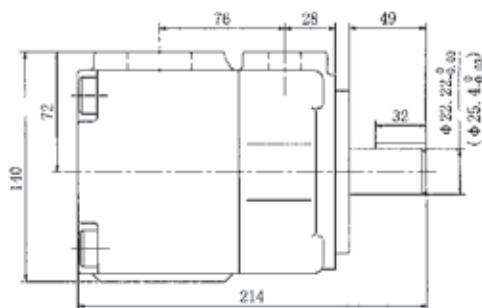
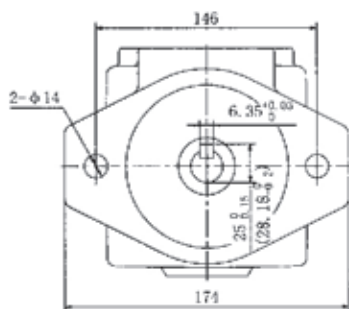
o 外型尺寸/Installation Dimensions

单泵/Single Pumps

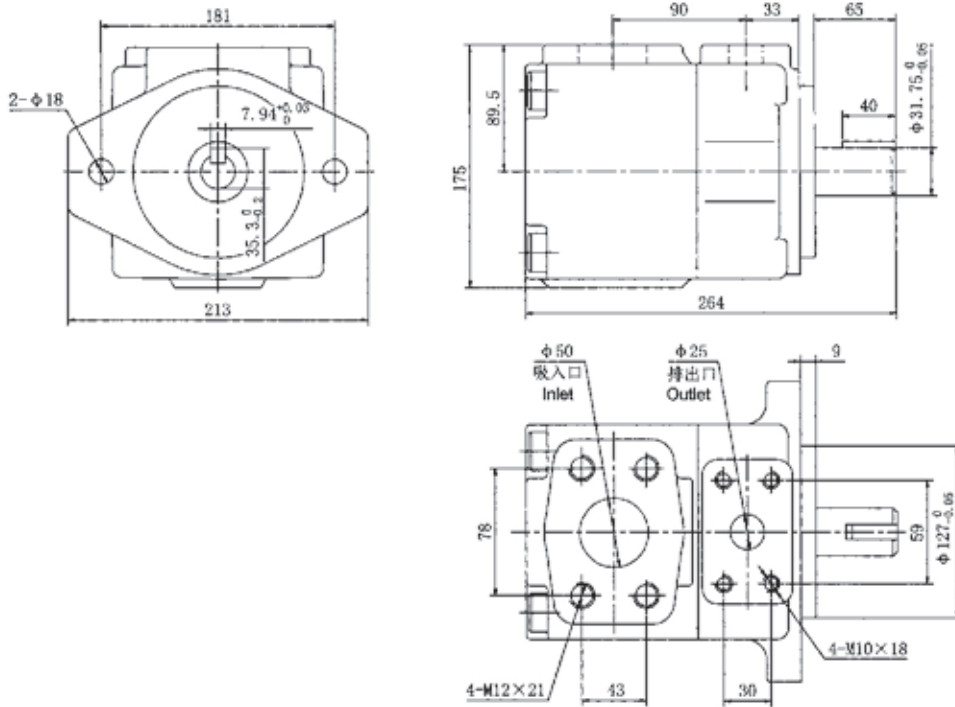
◇ PV2R1



◇ PV2R2

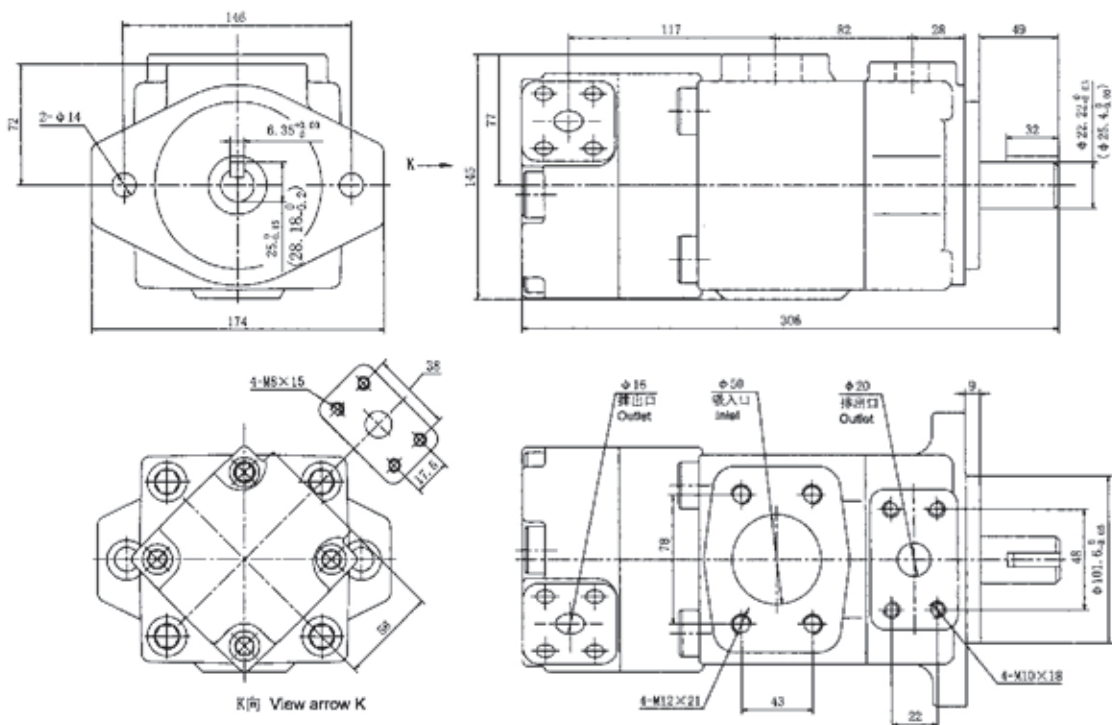


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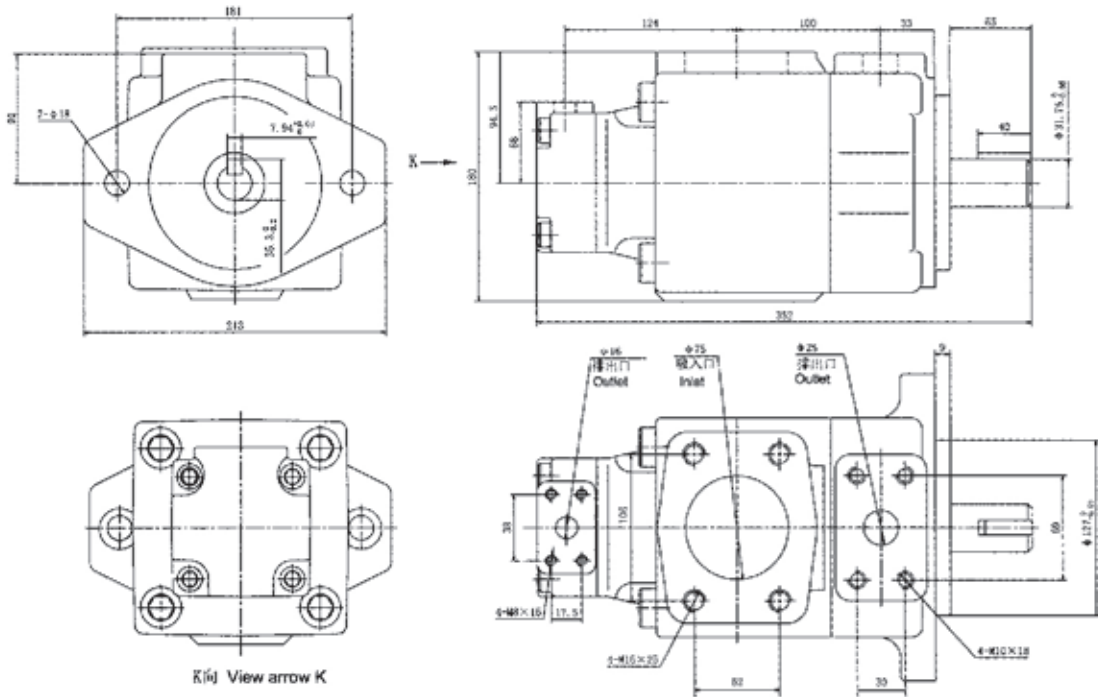


双联泵/Double Pumps

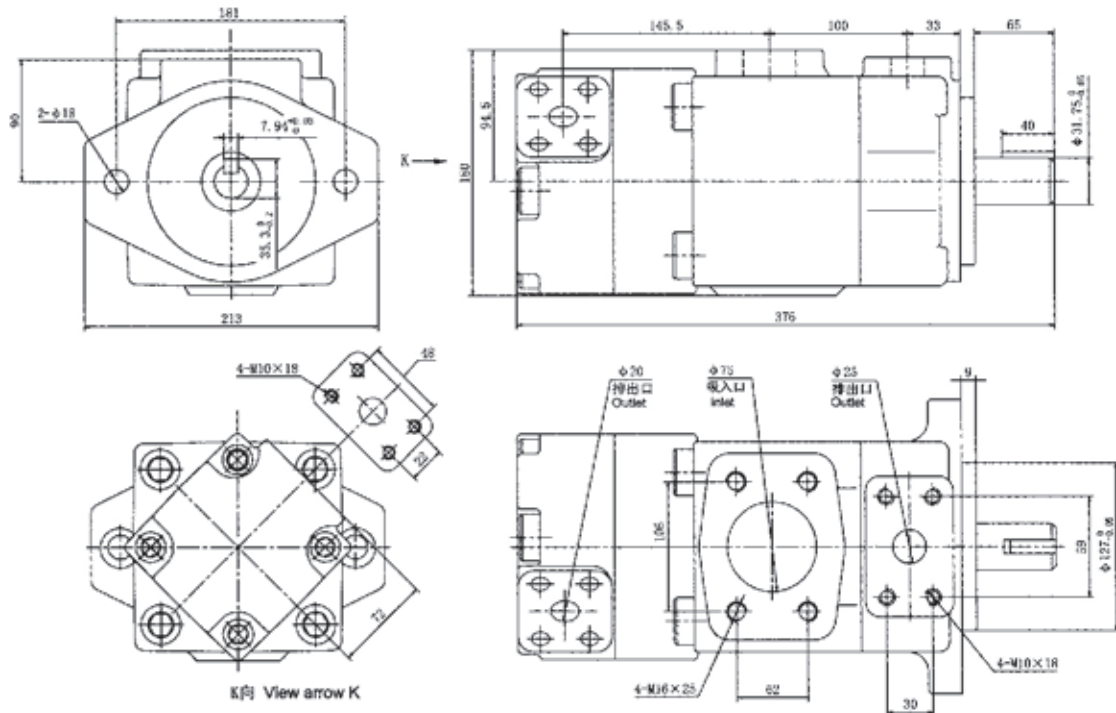
◇ PV2R21



◇ PV2R31



◇ PV2R32



○ 安装使用/Installation and Use

1. 安装时，泵轴与驱动电机轴同轴度误差应 0.10mm ，并采用柔性联轴器，支座结构要牢固，刚性好，能充分吸收振动。泵轴应水平安装。
2. 工作转速低于 1200r/min 时，安装时建议将泵的吸入口向上，以便启动时易于吸油。
3. 按油口尺寸配接管路，特别是进油管，并在系统中安装安全溢流阀；进油管路要严格密封，不得漏气，回油管口应低于液面。
4. 泵启动前，应查对进出油口、旋转方向是否正确。泵新装或长时间停转后再启动时，应在出油口放气。启动时先低压（ 1.5MPa ）运转。
5. 泵安装高于油箱油面时，吸油高度 500mm 。最好使吸油口低于油箱油面。吸入口正压力应 0.03MPa 。
6. 保持油液清洁，管路和油箱必须彻底洗净。泵吸入口距油箱底 50mm 以上位置安装足够容量的过滤器，建议精度为 $100\ \mu\text{m}$ 。系统中应安装精过滤器，建议为 $25\ \mu\text{m}$ 。油液清洁度等级应在NAS12级以内。
7. 油液工作温度应控制在 $15^{\circ}\text{C}\sim 55^{\circ}\text{C}$ 范围内，严寒低温启动时应将油液加温，油泵空载点动几次后进行空载连续运转。
8. 注意油液的粘度和油品，环境温度较低时推荐使用 32抗磨液压油。
9. 如需改变油口方向时，先退出相关泵体螺钉，注意不能使左右泵体脱离，保证心脏件随进油口转动一定角度，然后对角逐渐拧紧。
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2. When the working speed is less than 1200r/min , the pump should be installed with inlet upward in order to suck the oil easily after being started.
3. Fix pipes, especially inlet pipes in accordance with the size of port and assemble safety relief valves in the system inlet pipes must be strictly sealed with no leakage and the oil return nozzle should be below the fluid surface.
4. Check the inlet, outlet and direction of rotation before starting the pump. When operating the pump, newly fixed or not used for a long time, deflate it at the outlet. Run it at the low pressure of 1.5MPa first.
5. When the pump is fixed above the oil surface of the tank, suction height should be lower than 500mm , with the inlet below the oil surface of the tank and the positive pressure of the inlet restricted within 0.03MPa .
6. Oil should be kept clean pipes and tanks must be thoroughly cleaned. Fix the sufficient-volume filter at the inlet of the pump 50mm above the bottom of the tank, with the suggested precision of $100\ \mu\text{m}$. Precise filters should be assembled with the advised precision of $25\ \mu\text{m}$ in the system. The cleanliness level of oil should be within NAS12.
7. The working temperature of oil should be controlled between 15°C and 55°C . If starting the pump in coldness, heat the oil, and after switching on the pump with no load, operate it continuously with no load.
8. Pay attention to the glue level and quality of the oil. Antiwear hydraulic oil, such as No.32, is recommended at lower temperature.
9. When changing the position of port if necessary, withdraw the correlated screws of the pump first, preventing the pump from cracking and ensuring core parts be revolved for a certain angle along with the inlet, and then tighten the screws in cater corner by degrees.
10. Turn the shaft of pump evenly and nimbly by hand after fixing the pump.