

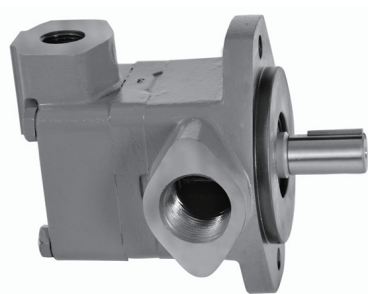
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V10/V20 系列叶片泵

V10/V20 Series Vane Pumps

——适合工业用途 /Suitable for industrial use

产品外观



型号说明 Model Code

(F3-)	V10-	1	P	3	P	-	1	A	L
无要求可省略 Omit if not required F3- 氟橡胶密封 F3-Viton seals	系列叶片泵 Series vane pumps	安装形式 Mounting type: 1—两螺孔安装法兰 Flange mounting 2 holes	进油口尺寸代号: Inlet dimensions code	排量代号 Displacement code	出油口与进油口相对位置 (从轴端看) Outlet positions to inlet (Viewed from shaft end) A—与进油口反向 Clock wise 180° B—顺时针 90°方向 Clock wise 90° C—与进油口同向 Clock wise 0° D—逆时针 90°方向 Counter clock wise 90°	轴伸形式 Form of shaft	出油口尺寸代号: Outlet dimensions code	旋转方向 (从轴端看) Direction of rotation (Viewed from shaft end): R — 顺时针 (标准, 可省略) Clockwise (Standard, omit) L — 逆时针 counter clockwise	

注：工作液为磷酸酯液时，因需要采用特殊性密封（氟橡胶），订货时请在指定型号前加 [F3-]。

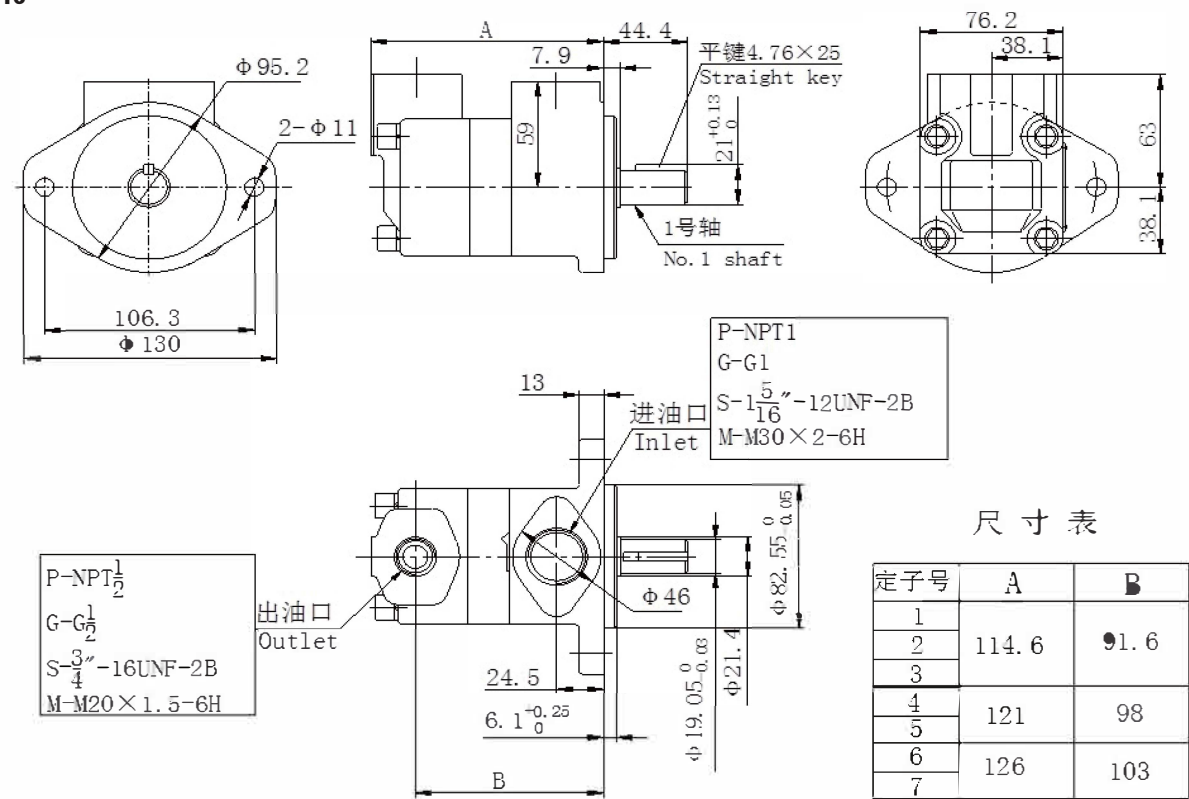
Note: When the working fluid is phosphate ester fluid, it uses special sealing (FPM), Prefix [F3-] to the specified model when ordering.

技术参数 Technical parameters

型号 Model	代号 Code	理论排量 Geometric Displacement mL/r	抗磨液压油 Antiwear oil		水乙二醇液 Water glycol fluid		油包水乳化液 Water-in-oil emulsions		合成油 Synthetic fluid				
			最高压力 Max. pressure MPa	最高转速 Max. speed r/min	最高压力 Max. pressure MPa	最高转速 Max. speed r/min	最高压力 Max. pressure MPa	最高转速 Max. speed r/min	最高压力 Max. pressure MPa	最高转速 Max. speed r/min			
V10	1	3.3	17.2	4800	12.4	1800	10.3	1800	13.8	1800			
	2	6.6		4500									
	3	9.8		4000									
	4	13.1		3400									
	5	16.4		3200									
	6	19.5	15.2	3000			10.9						
	7	22.8	13.8	2800									
V20	6	19.5	17.2	3400	12.4	1800	10.9	1800	13.8	1800			
	7	22.8		3000									
	8	26.5		2800									
	9	29.7		2500							9.3		
	11	36.4		2400									
	12	39	15.2	2400			10.9						
	13	42.4											

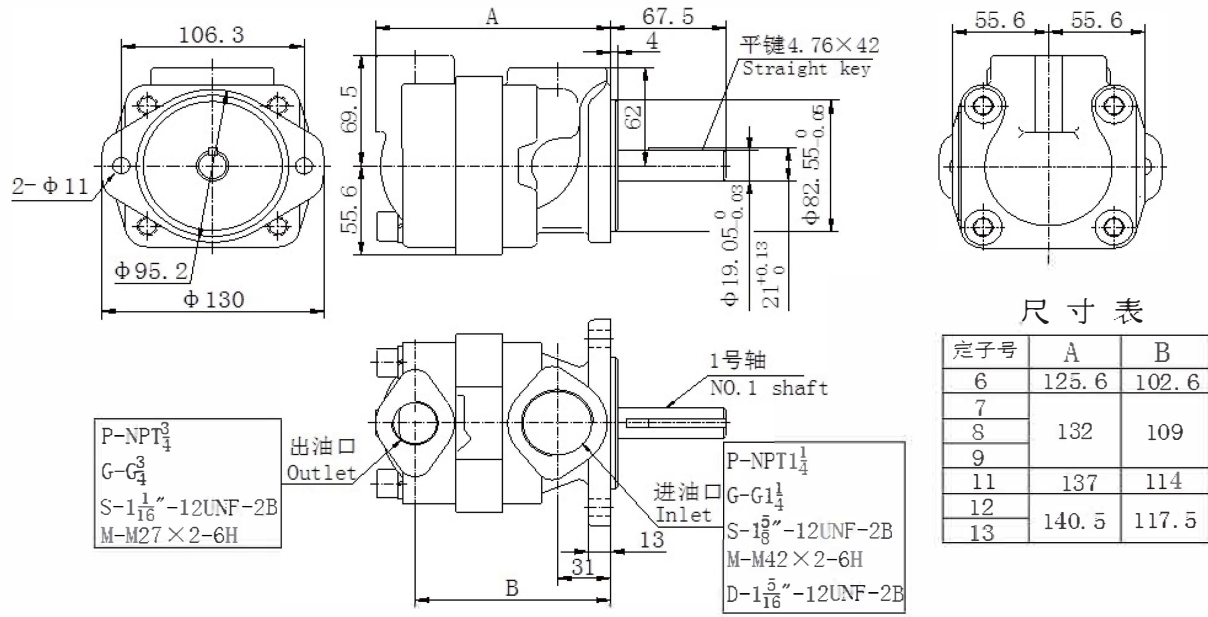
安装联接尺寸 Install Connection Dimensions

• V10



其它轴形参数见第 103 页 Other shaft parameter see page 103

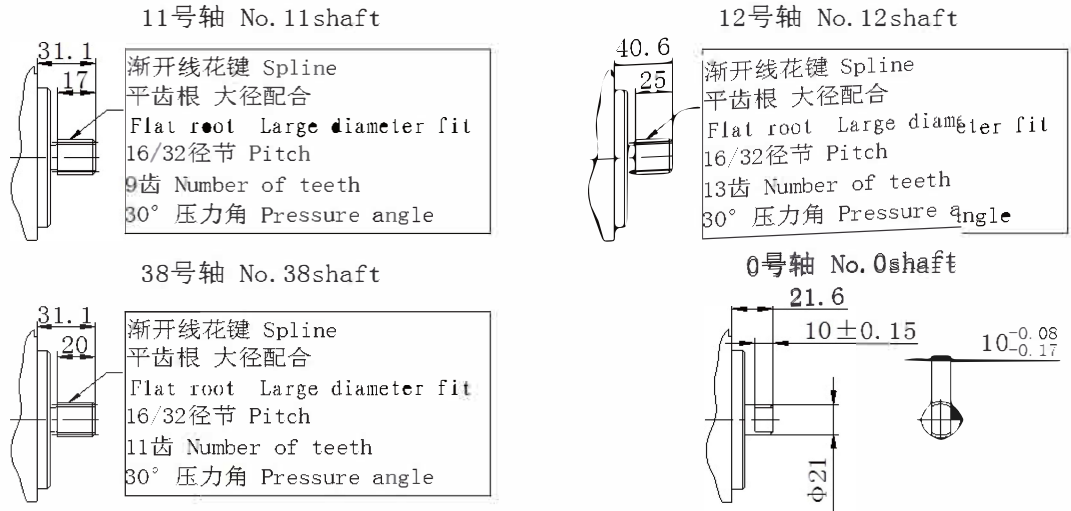
• V20



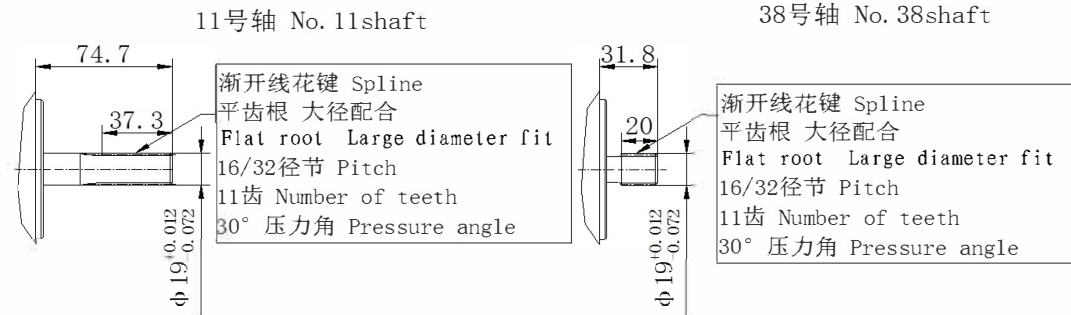
其它轴形参数见第 103 页 Other shaft parameter see page 103

轴伸形式 Form of shaft

• V10



• V20



Installation and Use

- 1 . In installation, the tolerance of concentricity between shaft of pump and motor must be less than 0.10mm(TIR) by using the flexible coupling; The pump shaft shall not bear the radial and axial load; The carrier must be firm with good rigidity and can fully absorb vibrations.
- 2 . Fix pipes, especially inlet pipes in accordance with the size of port and assemble safety relief valves in the system. The regulating pressure of the safety valve shall not be greater than the maximum pressure of the pump; Inlet pipes must be strictly sealed with no leakage; The fuel tank shall be equipped with a diaphragm to separate the bubbles and dirt from the oil; The oil return nozzle should be lower the fluid surface, the minimum depth of 50mm, even in a low, too, when the permissible level of to avoid the formation of bubbles.
- 3 . Set the suction pressure at pump inlet port : Oil hydraulic oil is $+ 35 \sim -16.7\text{KPa}$. The hydraulic oil of water - glycol and phosphate ester was $+ 35 \sim -10.1\text{KPa}$.
- 4 . In case where the pump is installed on the tank or at the position higher than the tank top cover, the height of the suction port of the pump should be less than 500mm.
- 5 . Oil should be kept clean, pipes and tanks must be thoroughly cleaned; Precise filters should be assembled with the advised precision of $25\mu\text{m}$ in the system, the cleanness level of oil should be within NSA12. Fix the sufficient-volume filter (the rated flow rate should be greater than twice the pump flow)at the inlet of the pump 50mm above the bottom of the tank, with the suggested precision of $100\mu\text{m}$ (150 mesh).
- 6 . Pumps can be used with anti-wear hydraulic oil, or automotive type crankcase oil (designations SC, SD, SE, SF, or SG) per SAE J183 JUN89. Fire-resistant fluids can also be used, but may require the use of special seals. The viscosity range of petroleum oil, with the pump running, should be 13-54 cSt. The oil viscosity at 38°C should be 32-48cSt. Fire-resistant fluids should have a viscosity as close as possible to that of petroleum oil as described above. A maximum specific gravity of 1.3 is suggested for fire-resistant fluids. An operating temperature of 49°C is recommended. The maximum temperature for oil should be 65°C , and the maximum for water-containing fluids should be 54°C .
- 7 . Seals nitrile : Seals are standard and are suitable for use with petroleum, water-glycol, water-in-oil emulsion, polyol ester, and high-water-base fluids. Phosphate ester fluids require the use of fluorocarbon seals, which are identified in model codes as an "F3" prefix.
- 8 . Check the inlet, outlet and direction of rotation before starting the pump. Turn the shaft of pump evenly and nimbly by hand after fixing the pump. Fill the pump with system fluid through the uppermost port. The housing must be kept full at all times to provide internal lubrication. At initial startup, it may be necessary to bleed air from the pump outlet to permit priming and reduce noise. Bleed by loosening an outlet connection until a solid stream of fluid appears.
- 9 . At startup, If the oil viscosity is higher than the suitable viscosity ,the pressure should be limited to 50% or less of their respective rated values until the system has warmed up.