

# 5

## YB<sub>1</sub> 系列中压叶片泵

YB<sub>1</sub> Series Vane Pumps with Middle Pressure

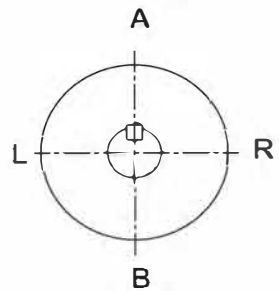
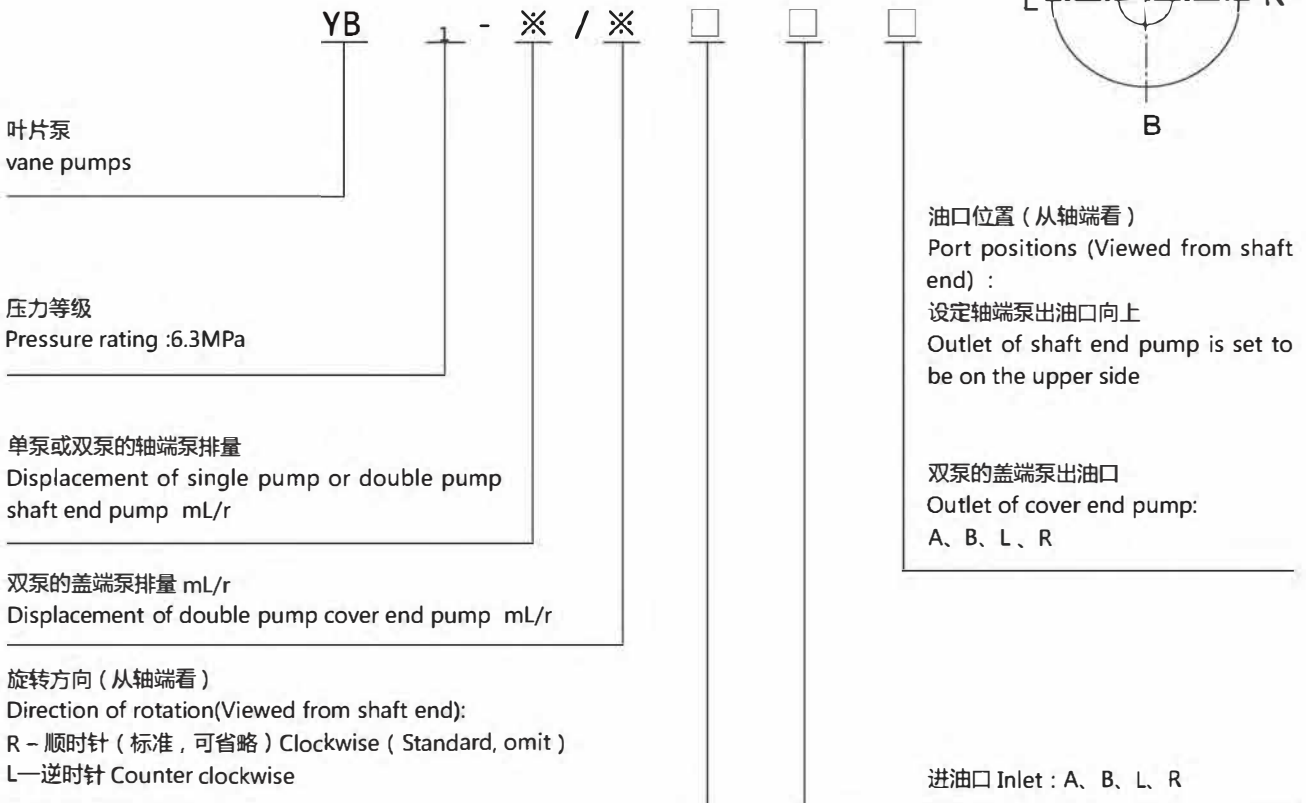
### 产品简介 Products Introduction

YB<sub>1</sub> 系列中压叶片泵是 YB 型泵的改进产品，适用于中压液压系统。广泛应用于各种机床、自动线、轻工机械、交通机械、农业机械及各种压力机等液压系统。

YB<sub>1</sub> Series vane pumps with middle pressure are the improvement of YB type, used in the hydraulic system with middle pressure, and they can be widely used in cutting, automated line, light industry, transportation, agricultural machinery as well as different pressure machines and so forth.



### 型号说明 Model Code



## 技术规格 Specifications

### · 单泵 Single Pump

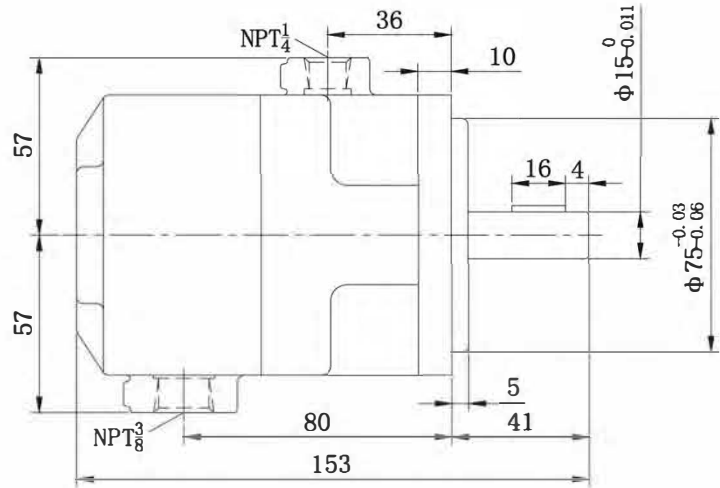
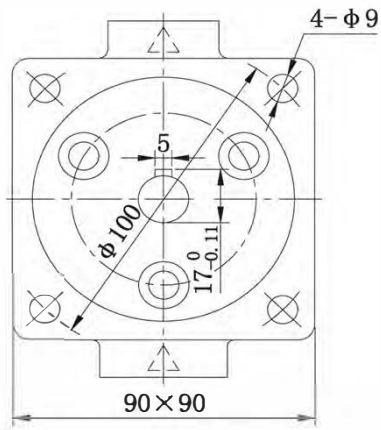
子系列代号 Subsidiary series	型号 Model	公称排量 Displacement mL/r	额定压力 Rated pressure MPa	转速 Speed r/min	驱动功率 Input power kW	质量 Weight kg
CP1	YB <sub>1</sub> -2.5	2.5	6.3	1450	0.6	5.3
	YB <sub>1</sub> -4	4			0.9	
	YB <sub>1</sub> -6.3	6.3			1.4	
	YB <sub>1</sub> -10	10			2.2	
CP2	YB <sub>1</sub> -12.5	12.5		960	1.6	8.7
	YB <sub>1</sub> -16	16			2.0	
	YB <sub>1</sub> -20	20			2.6	
	YB <sub>1</sub> -25	25			3.3	
CP3	YB <sub>1</sub> -31.5	31.5			16	4.2
	YB <sub>1</sub> -40	40				5.2
	YB <sub>1</sub> -50	50				6.5
CP4	YB <sub>1</sub> -63	63				20
	YB <sub>1</sub> -80	80	10.3			
	YB <sub>1</sub> -100	100	12.8			
	YB <sub>1</sub> -125	125	16.0			

### · 双联泵 Double Pumps

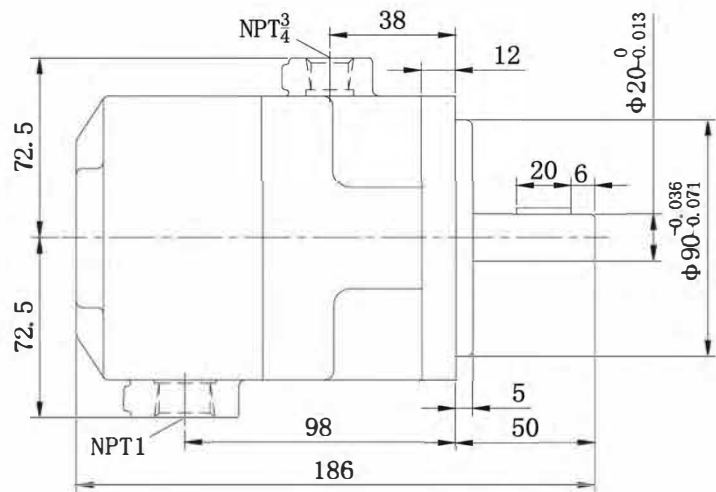
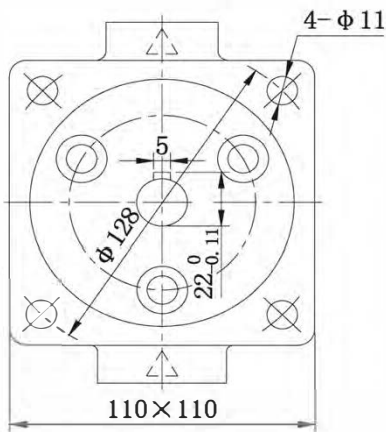
子系列代号 Subsidiary series	型号 Model	子系列代号 Subsidiary series	型号 Model
CP11	YB <sub>1</sub> -2.5 ~ 10/2.5 ~ 10	CP33	YB <sub>1</sub> -31.5 ~ 50/31.5 ~ 50
CP21	YB <sub>1</sub> -12.5 ~ 25/2.5 ~ 10	CP41	YB <sub>1</sub> -63 ~ 125/2.5 ~ 10
CP22	YB <sub>1</sub> -12.5 ~ 25/12.5 ~ 25	CP42	YB <sub>1</sub> -63 ~ 125/12.5 ~ 25
CP31	YB <sub>1</sub> -31.5 ~ 50/2.5 ~ 10	CP43	YB <sub>1</sub> -63 ~ 125/31.5 ~ 50
CP32	YB <sub>1</sub> -31.5 ~ 50/12.5 ~ 25	CP44	YB <sub>1</sub> -63 ~ 125/63 ~ 125

## 安装联接尺寸 Install Connection Dimensions

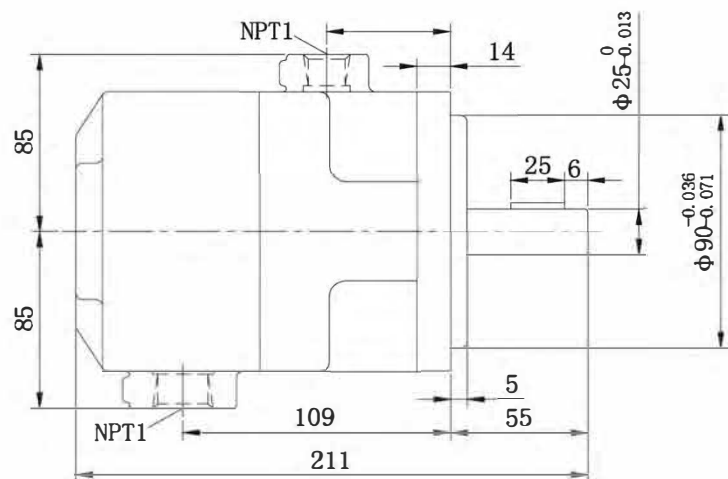
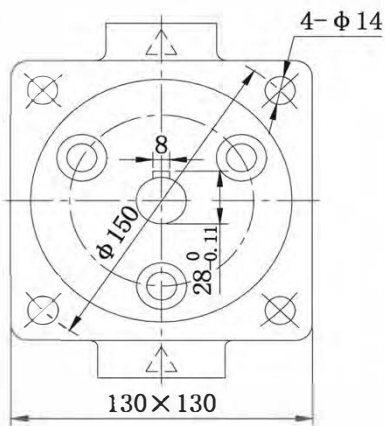
- 单泵 Single Pump
- CP1



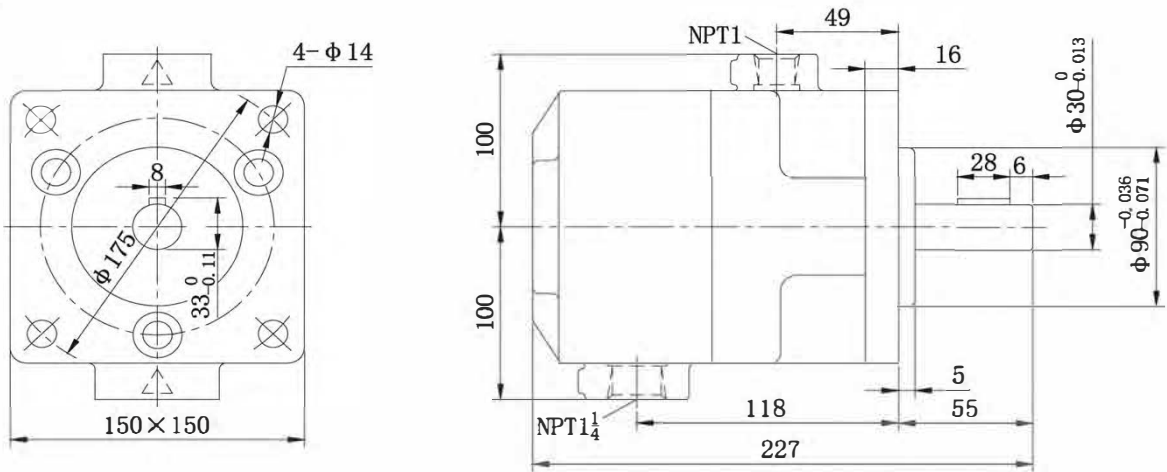
- CP2



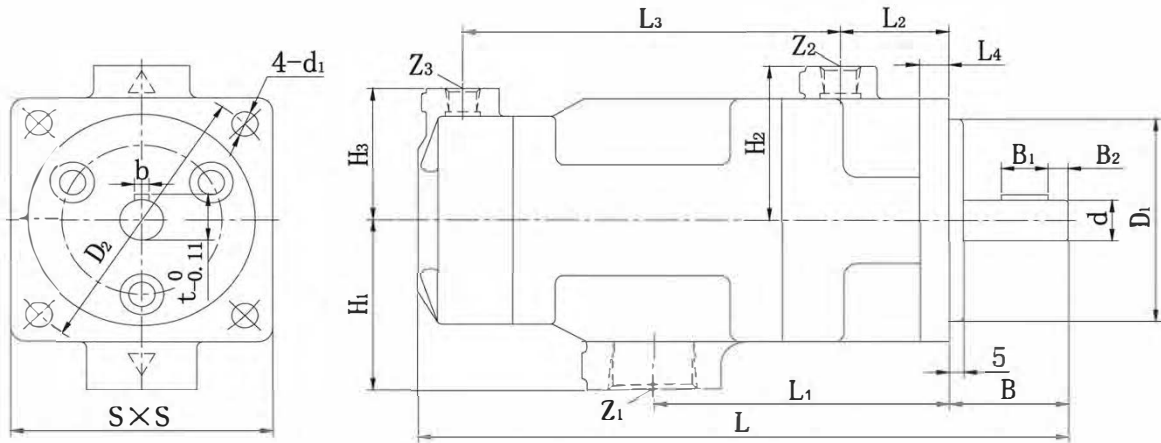
- CP3



• CP4



• 双联泵 Double Pumps



子系列 代号 Subsidiary series	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	D <sub>1</sub>	D <sub>2</sub>	d	d <sub>1</sub>	t	b	Z <sub>1</sub>	Z <sub>2</sub>	Z <sub>3</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>			
CP11	226	98.5	36	124	10	41	16	4	90	φ75	<sup>-0.03</sup> <sub>-0.06</sub>	φ100	φ15	<sup>0</sup> <sub>-0.011</sub>	φ9	17	5	NPT 3/4	NPT 1/4	NPT 1/4	60	57	57
CP21	259	114	38	146	12	50	20	6	110	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ128	φ20	<sup>0</sup> <sub>-0.013</sub>	φ11	22	5	NPT 1	NPT 3/4	NPT 1/4	72.5	72.5	57
CP22	279	122.5	38	168	12	50	20	6	110	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ128	φ20	<sup>0</sup> <sub>-0.013</sub>	φ11	22	5	NPT 1	NPT 3/4	NPT 3/4	72.5	72.5	72.5
CP31	284	128	44	160	14	55	25	6	130	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ150	φ25	<sup>0</sup> <sub>-0.013</sub>	φ14	28	8	NPT 1 1/4	NPT 1	NPT 1/4	90	85	57
CP32	304	135	44	182	14	55	25	6	130	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ150	φ25	<sup>0</sup> <sub>-0.013</sub>	φ14	28	8	NPT 1 1/4	NPT 1	NPT 3/4	90	85	72.5
CP33	321	142.5	44	196	14	55	25	6	130	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ150	φ25	<sup>0</sup> <sub>-0.013</sub>	φ14	28	8	NPT 1 1/4	NPT 1	NPT 1	90	85	85
CP41	300	138	49	171	16	55	28	6	150	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ175	φ30	<sup>0</sup> <sub>-0.013</sub>	φ14	33	8	NPT 1 1/2	NPT 1	NPT 1/4	100	100	57
CP42	321	146	49	194	16	55	28	6	150	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ175	φ30	<sup>0</sup> <sub>-0.013</sub>	φ14	33	8	NPT 1 1/2	NPT 1	NPT 3/4	100	100	72.5
CP43	338	153	49	208	16	55	28	6	150	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ175	φ30	<sup>0</sup> <sub>-0.013</sub>	φ14	33	8	NPT 2	NPT 1	NPT 1	100	100	85
CP44	352	158.5	49	218	16	55	28	6	150	φ90	<sup>-0.036</sup> <sub>-0.071</sub>	φ175	φ30	<sup>0</sup> <sub>-0.013</sub>	φ14	33	8	NPT 2	NPT 1	NPT 1	100	100	100

## Installation and Use

1. In installation, the tolerance of concentricity between shaft of pump and motor must be less than 0.10mm (TIR) and the maximum permissible angle error is less than 0.2 degrees 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. When installing, it is recommended that the suction inlet of the pump should be set up so that it is easy to absorb oil when it is started.
3. 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 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. And as far as possible in the no-load condition of pump starting point mde (Preferably filled with oil in the pump).
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 cleared. Fix the sufficient-volume filter at the inlet of the pump 50mm above the bottom of the tank, with the suggested precision of 100 $\mu$ m. Precise filters should be assembled with the advised precision of 25 $\mu$ m in the system. The cleanness 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. Turn the shaft of pump evenly and nimbly by hand after fixing the pump.