

ZUOSEN[®]
卓信驱动



ZUOSEN
VARIABLE
PISTON PUMP

Quality-assured
Easy-to-use
Cost-effective

卓信驱动
液压变量柱塞泵

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ABOUT ZUOSEN

Zuosen Technology

Shenzhen Zuosen Technology Co., Ltd. is one of the world's leading manufacturers and suppliers of professional hydraulic pumps, equipment and accessories. The Factory located at Dongguan city, Changan town which owned advanced and precise machines and equipment, like Emag gear hobbing machine, Mitsubishi gear hobbing machine, Liebherr gear shaping machine, Horizontal machining centre DMG MORI, CNC grinding machine, NC honing machine, CNC lathe, trilinear coordinates measuring instrument, Gear measuring center, etc.

Since our foundation, we have been committed to creating maximum long-term value to customers worldwide by providing quality-assured, easy-to-use, cost-effective and innovative products. To deliver this value to our customers, we make every effort to understand our end-users' needs and translate those needs into superior products by maximizing our research and development and manufacturing capabilities. Our team is made up of the most distinguished experts and engineers with years of experience in this industry. We have been investing a minimum of 50% of our annual revenue into new product development. All our products are manufactured with the strictest standards to meet international quality and environment standards.

Today we have grown to be able to offer a full line of hydraulic pumps with industry-leading technology. We also provide innovative systematic solutions for other specialized agriculture machines, construction machines, material handling machines, road building machines, CNC, Paint sprayer Machines etc.

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V & P Series Variable Piston Pumps



V Series Variable Piston Pumps

- Low noise operation over the entire pressure range
- Small power loss, reduced oil temperature rise, optional small tank
- High responsivity, high stability, increased the reliability of the machines
- Unique inclined plate Angle design, applies in many environment
- Widely used in forging, plastic forming machines



Model	Pump capacity 7 bar (101.53psi)						Pressure adjustment range kgf/cm ²	Permissible rotational speed		Mass kg
	cm ³ /rev	In ³ /rev	LPM(1500 RPM)	U.S.GPM(1500 RPM)	LPM(1800 RPM)	U.S.GPM(1800 RPM)		Max. (RPM)	Min. (RPM)	
V 8	8.0	0.48	12.0	3.17	14.4	3.8	1:8~70 2:15~140 3:20~210 4:20~250	1800	500	13
V 10	10.0	0.61	15.0	3.90	18.0	4.76				13
V 12	12.0	0.73	18.0	4.76	21.6	5.73				13
V 15	15.0	0.90	22.5	5.78	27.0	7.05				13
V 18	17.8	1.09	26.7	7.05	32.0	8.45				13
V 23	23.0	1.40	35.4	9.11	41.4	10.94				22
V 25	25.0	1.52	37.5	9.66	45.0	11.60				22
V 38	37.8	2.31	56.7	14.98	68.0	17.96				26
V 42	42.0	2.56	63.0	16.23	76.0	19.58				26
V 50	51.5	3.14	77.2	20.37	92.7	24.48				1:8~70 2:15~140 3:20~210
V 70	69.7	4.25	104.5	27.6	125.4	33.10	56			

P Series Variable Piston Pumps

- **Low Power Saving Energy**
The unique semi-cylindrical inclined disk can maintain stable oil output and reduce flow loss; Use power effectively according to the load cycle, save energy and to realize low-cost use
- **Smooth Operation Low Noise**
In the inclined plate, oil distribution plate and other places have adopted the muffler structure, to achieve low noise, especially the semicircular inclined plate, stable movement characteristics, low noise in operation



Model	Flow cm ³ /rev	Delivery at no load l/min				Max setting pressure bar	Drive Speed min ⁻¹		Mass kg
		1000min ⁻¹	1200min ⁻¹	1500min ⁻¹	1800min ⁻¹		Max	Min	
P08	8.0	8.0	9.6	12.0	14.4	255 286	300	2000	9
P16	16.5	16.5	19.8	24.7	29.7		300	2000	13
P22	22.0	22.0	26.4	33.0	39.6		300	2000	13
P36	36.0	36.0	43.2	54.0	64.8		300	2000	24
P46	46.0	46.0	55.2	69.0	82.8		300	2000	24
P70	70.0	70.0	84.0	105.0	126.0		300	1800	43
P100	100.0	100.0	120.0	150.0	180.0		300	1800	62

A & AR Series Variable Piston Pumps



A Series Variable Piston Pumps

- Inclined plate design, high volume efficiency, good closure characteristics
- Small power loss, reduced oil temperature rise, optional small tank
- A variety of control types, such as pressure compensator type, solenoid-two pressure control type, proportional electro-hydraulic load sensing type etc.
- The displacement is various, from 10cm³/rev to 219cm³/rev, can be used for each large and small hydraulic oil station.



Model	Flow cm ³ /rev	Minimum adjustment flow cm ³ /rev	Operating Pressure MPa		Shaft Speed Range r/min		Mass kg
			Rated	Intermittent	Max	Min	
A10	10.0	2	16	21	1800	600	8.5
A16	15.8	4	16	21			16.5
A22	22.2	6	16	16			16.5
A37	36.9	10	16	21			28.0
A56	56.2	12	16	21			35.0
A70	70.0	30	25	28			58.5
A90	91.0	56	25	28			72.5
A100	100	62	21	21			72.5
A145	145	83	25	28			92.5

AR Series Variable Piston Pumps

- **Lightweight Low Noise**
Compact design and an aluminum body ensures a high power to mass ratio.
- **Compact Easy to assemble**
Can be directly connected to the electric motor, save fuel tank piping and space
- **Multi-purpose**
Applicable to a variety of machine tools Nc lathe, MC machining machines, pipe bender, small punch, high efficiency special machines etc.



No	Model	Pump capacity 7 bar (101.53psi)						Pres. Adj. Range MPa		Shaft Speed Range r/min		Mass KG
		cm ³ /rev	In ³ /rev	1500 RPM		1800 RPM		B bar (Mpa)	C bar (Mpa)	Max. (RPM)	Min. (RPM)	
				LPM	U.S.GPM	LPM	U.S.GPM					
1	AR8	8.0	0.48	12	3.17	14.4	3.8	12~70 (1.2~7)	12~210 (1.2~21)	1800	500	9
2	AR10	10.0	0.61	15	3.9	18	4.76					
3	AR12	12.0	0.73	18	4.76	21.6	5.73					
4	AR16	15.8	0.96	23.7	6.26	28.44	7.51					
5	AR22	22.2	1.35	33.3	8.8	39.96	10.56					

A10VSO & P**V Series Variable Piston Pumps



A10VSO Series Variable Piston Pumps

- Long service life
- Low operating noise
- Short control response times
- Excellent suction characteristics
- 2 drain ports Swashplate design
- Rate pressure could reach to 28MPa
- Axial variable piston pump ,stepless variable can be realized
- Through drive for mounting of further pumps up to same nominal size



Model	Flow cm ³ /rev	Operating Pressure MPa		Shaft Speed Range r/min		Mass kg
		Rated	Intermittent	Max	Min	
A10VSO18	18	28	35	3300	600	12
A10VSO28	28			3000	600	15
A10VSO45	45			2600	600	21
A10VSO71	71			2200	600	33
A10VSO100	100			2000	600	45
A10VSO140	140			1800	600	60

P**V Series Variable Piston Pumps

- Avarity of electronic control types
- Less power loss, can reduce oil heating, reduce tank capacity
- Unique inclined plate structure, low noise, high volume efficiency, high reliability
- Displacement design range from 16cm³/rev to 130cm³/rev, with a wide range of applications



Model	Flow cm ³ /rev	Max Operating Pressure MPa	Shaft Speed Range r/min		Mass kg
			Max	Min	
P16VM	16	14	1800	600	16
P21VM	21	14			17
P16V	16	21			16
P21V	21	21			22
P31V	31	21			23
P40V	40	21			37
P70V	70	21			63
P100V	100	21			91
P130V	130	21			112

Paint Sprayer & Scribing Machine Variable Piston Pumps



P09 Series Rotational Piston Pumps

- **Lower oil temperature**
P09 series internal leakage has reached the international standard and can maintain normal oil temperature without cooling
- **Greatly reduce loss Save power**
The unique semi-circular inclined plate design can maintain the stable oil output, reduce the flow loss, effectively use the power according to the load cycle, save energy, reduce the power loss, and achieve low production cost
- **Smooth operation Low noise**
In the inclined plate, oil distribution plate and other places have adopted the muffler structure, especially the semicircular inclined plate, low noise in operation
- **Customized structure**
Equipped with pressure regulating valve adapter plate, pressure regulating valve can be adjusted according to customer requirements



Model	Flow cm ³ /rev	Delivery at no load l/min				Max setting pressure bar	Drive Speed min ⁻¹		Mass kg
		1000min ⁻¹	1200min ⁻¹	1500min ⁻¹	1800min ⁻¹		Min	Max	
P09	9.0	9.0	10.8	13.5	16.2	255	300	2000	7.9
P12	12.0	12.0	14.4	18.0	21.6	255	300	2000	8.0

P12 Series Reversal Piston Pumps

- **Larger Flow Higher pressure**
Compared with the plunger pump used in the 970 sprayer on the market, p12 has a larger flow rate and will make the sprayer gun has higher pressure
- **Greatly reduce loss Save power**
The unique semi-circular inclined plate design can maintain the stable oil output, reduce the flow loss, effectively use the power according to the load cycle, save energy, reduce the power loss, and achieve low production cost
- **Smooth operation Low noise**
In the inclined plate, oil distribution plate and other places have adopted the muffler structure, especially the semicircular inclined plate, low noise in operation
- **Reasonable structure design Customized**
Base with 4 mounting holes, directly fix the oil pump on the oil tank cover pressure regulating valve can be adjusted according to customer requirements



Model	Flow cm ³ /rev	Delivery at no load l/min				Max setting pressure bar	Drive Speed min ⁻¹		Mass kg
		1000min ⁻¹	1200min ⁻¹	1500min ⁻¹	1800min ⁻¹		Min	Max	
P09	9.0	9.0	10.8	13.5	16.2	255	300	2000	7.9
P12	12.0	12.0	14.4	18.0	21.6	255	300	2000	8.0

Paint Sprayer & Scribing Machine Variable Piston Pumps



V8 Series Variable Piston Pumps

- **Low oil temperature Miniaturized oil tank**

Due to small power loss and slow oil temperature rise, the tank can be miniaturized

- **High Efficiency Low production cost**

The unique semi-circular inclined plate design can maintain the stable oil output, reduce the flow loss, effectively use the power according to the load cycle, save energy, reduce the power loss, and achieve low production cost

- **Smooth Operation Low Noise**

Low noise operation is achieved in all pressure ranges

- **Reliable quality**

High sensitivity, high efficiency and long service life increase the stability of the spraying machine



Model	Pump capacity 7 bar (101.53psi)						Pres. Adj. Range MPa	Shaft Speed Range r/min		Mass
	cm ³ /rev	In ³ /rev	LPM(1500 RPM)	U.S.GPM(1500 RPM)	LPM(1800 RPM)	U.S.GPM(1800 RPM)		kgf/cm ²	Max. (RPM)	
V 8	8.0	0.48	12.0	3.17	14.4	3.8	2:15~140	1800	500	8

VR18 Series Variable Piston Pumps

- **Larger Flow Zero Pulse**

Professional piston pump for 833 series paint sprayers, larger flow, stably output, zero pulse

- **Less power consumption Low oil temperature**

Less power consumption could reduce the oil temperature rising, optional small oil tank

- **Smooth operation Low noise**

In the inclined plate, oil distribution plate and other places have adopted the muffler structure, especially the semicircular inclined plate, low noise in operation

- **Customized structure**

Equipped with pressure regulating valve adapter plate, pressure regulating valve can be adjusted according to customer requirements



Model	Pump capacity 7 bar (101.53psi)						Pres. Adj. Range MPa	Shaft Speed Range r/min		Mass
	cm ³ /rev	In ³ /rev	LPM(1500 RPM)	U.S.GPM(1500 RPM)	LPM(1800 RPM)	U.S.GPM(1800 RPM)		kgf/cm ²	Max. (RPM)	
VR18	17.8	1.09	26.7	7.05	32.0	8.45	8~250	1800	500	14.5



Distributer



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