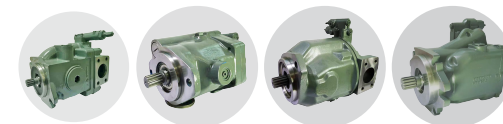


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液压柱塞泵&马达



Hydraulic piston pump & motor

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集开发、生产、销售、服务为一体的传动控制制造中心

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WPVE 柱塞泵系列

WPVE SERIES PISTON PUMPS



WPVE柱塞泵是斜盘式直轴变量泵，结构简洁，使用范围广泛，现有两种排量规格可供供货。

WPVE piston pumps are inline, variable displacement pumps that are available in two displacement sizes.

产品特征和优点

- ① 直轴变量泵。
- ② 排量变化由压力/流量补偿器控制。
- ③ 可选择控制方式，最大限度提高工作的灵活性。
- ④ 广泛应用于冶金机械、矿山机械、工程机械、工程机械等领域。

Features and Advantages

- ① Inline, variable displacement pump.
- ② Displacement is varied by pressure/flow compensator controls.
- ③ Optional controls for maximum operating flexibility.
- ④ Widely used in metallurgy, mining, industry, engineering machinery field.

技术参数 (TECHNICAL PARAMETERS)

型 号 Model	WPVE19	WPVE21
排 量 Displacement	41mL/r	45.1mL/r
最高转速 Maximum Speed	2400r/min	2400r/min
额定转速 Rated Speed	1800rpm	1800rpm
最高压力 Maximum Pressure	210bar	180bar
进口压力 Inlet Pressure	2-20bar	2-20bar

轴扭矩数据 (SHAFT TORQUE DATA)

花键数据 Spline Data	说明 Designation	通轴驱动选项 Thru-drive Option	最大输入扭矩 Maximum Input Torque N.m(lb.in.)
02	SAE "BB" 平键 Straight keyed	有 Yes	215(1900)
08	SAE "BB" 花键Spline, 15齿T, 16/32径节, 平齿根, 侧配合 D.P., FRSF	有 Yes	337(2987)
05	SAE "B" 花键Spline, 13齿T, 16/32径节, 平齿根, 侧配合 D.P., FRSF	有 Yes	208(1850)
01	SAE "B" 平键 Straight keyed	无 No	135(1200)
09	专用26齿花键, 用于双联PVE**-PVE**装置的后泵 Special Eaton 26T for use in rear pump of tandem PVE**-PVE** unit	无 No	不适用 N/A

型号编码 (WPVE SERIES TYPE CODE)

标识 Code	名称代码 Name
WPV	开式回路柱塞泵 Open circuit piston pump

标识 Code	排量 Displacement
E19A	41mL/r
E21A	45.1mL/r

标识 Code	输入轴旋转方向 Input shaft rotation
L	左手旋转(逆时针 CCW)
R	右手旋转(顺时针 CW)

标识 Code	前安装和输入轴 Front mounting and input shaft
01	2 螺栓Bolt B (SAE J744-101-2), 22.2 [1.88] 直径带键直轴DIA straight key shaft (SAE J744-22-1) (包括键Key included)
02	2 螺栓Bolt B-B (SAE J744-101-2), 25.4 [1.00] 直径带键直轴DIA straight key shaft (SAE J744-25-1) (包括键Key included)
04	2 螺栓Bolt B (SAE J744-101-2), 25.4 [1.00] 直径带键直轴DIA straight key shaft (SAE J744-25-3) (包括键Key included)
05	2 螺栓Bolt B (SAE J744-101-2) 径节, 13 齿Tooth 16/32 径节DP 41.1 [1.62] 长Long, 花键轴Splined shaft
08	2 螺栓Bolt B-B (SAE J744-101-2) 15 齿Tooth 16/32 径节Diametral pitch 花键轴Splined shaft
09	2 螺栓Bolt B (SAE J744-101-2) 26 齿Tooth 32/64 径节Diametral pitch 花键轴Splined shaft

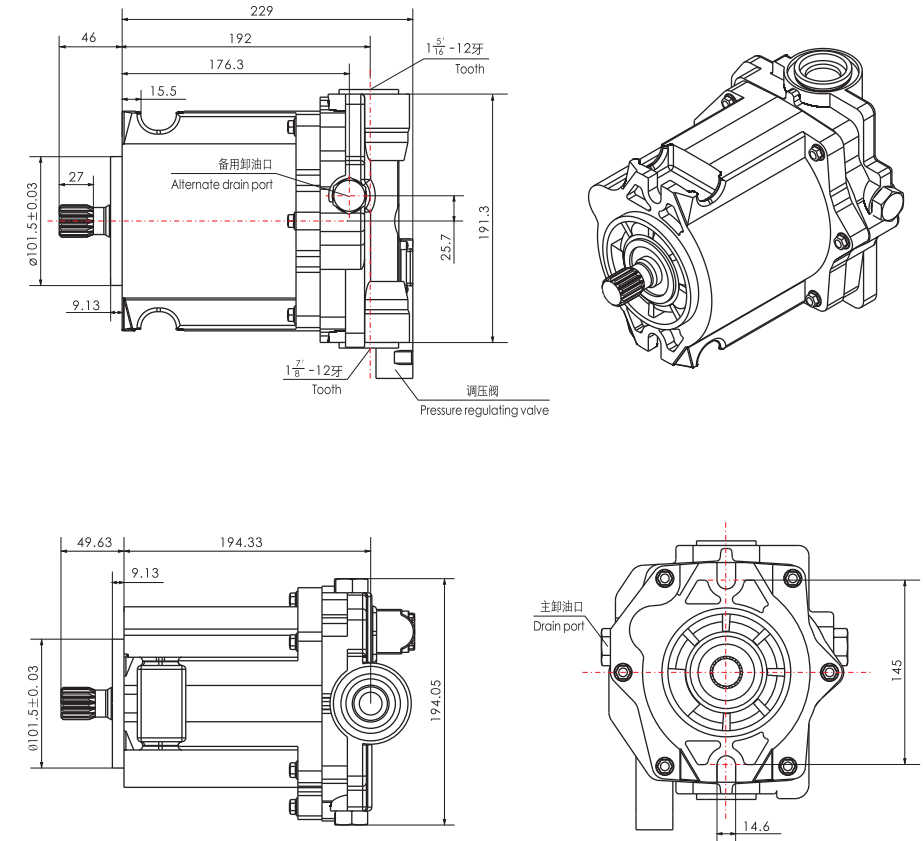
标识 Code	控制方式 Controller type
A	压力补偿器 Pressure compensator
B	压力和流量补偿器 Pressure and flow compensator

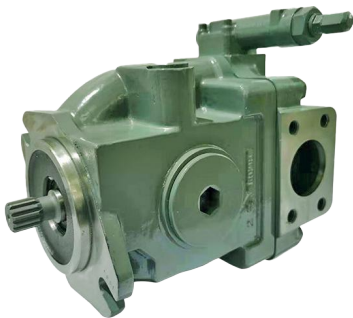
标识 Code	漏油口位置和规格 Drain ports location and size
1	875-14 UNF - 2B SAE O- 形圈Ring 油口Port- 顶部Top (D1)
2	875-14 UNF - 2B SAE O- 形圈Ring 油口Port- 底部Bottom (D2)
6	M18 X 1.5 公制Metric O- 形圈Ring 油口Port- 顶部Top (D1)
7	M18 X 1.5 公制Metric O- 形圈Ring 油口Port- 底部Bottom (D2)

标识 Code	主油口位置和规格 Main ports location and size
AA	侧油口, 管油口按照SAE J514, Side ports; tube ports per SAE J514, 吸油口Suction - 1.875-12 UN-2B, 压力油口Pressure - 1.3125-12 UN-2B
AB	端油口, 管油口按照SAE J514, End ports; tube ports per SAE J514, 吸油口Suction - 1.875-12 UN-2B, 压力油口Pressure - 1.3125-12 UN-2B

安装尺寸图

INSTALLATION DIMENSIONS





WPVH 柱塞泵系列 WPVH SERIES PISTON PUMPS

WPVH柱塞泵是大流量、高性能的直轴变量泵，使用范围广泛。

PVH high flow,high performance pumps are a family of variable displacement.

产品特征和优点

- ① 直轴变量泵: 灵活的设计包括单联泵，通轴驱动配置以及各种驱动轴伸和控制方式，最大限度提高工作的灵活性。
- ② 小而轻的设计减小应用重量并为安装和维修提供便利。
- ③ 低噪音设计为重视噪声的工业用途所采用。
- ④ 在各种用途中均针对最高效率来设计各种补偿器提供最为有效的系统控制。
- ⑤ 重载轴承和轴伸造成最小的内部变形和磨损，提高使用寿命。
- ⑥ 广泛应用于土方机械、建筑机械、塑料机械、机床等领域。

Features and Advantages

- ① Inline,variable displacement pump.Versatile design includes single pumps,thru-drive arrangements,and a variety of drive shaft and control options that will adapt to any application and provide the most cost effective installation.
- ② Compact and lightweight design to reduce the application weight,and provide better access for installation and servicing.
- ③ Quiet designs available for noise-sensitive industrial applications, reducing sound levels further to provide a more acceptable environment.
- ④ Designed for maximum efficiency in any type of application.
- ⑤ Heavy duty bearings and shafts result in minimum internal deflections and wear,providing for longer life and maximum uptime.
- ⑥ Widely used in metallurgy, mining, industry, engineering machinery field.

技术参数 (TECHNICAL PARAMETERS)

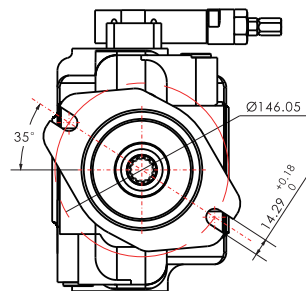
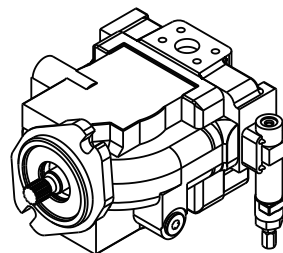
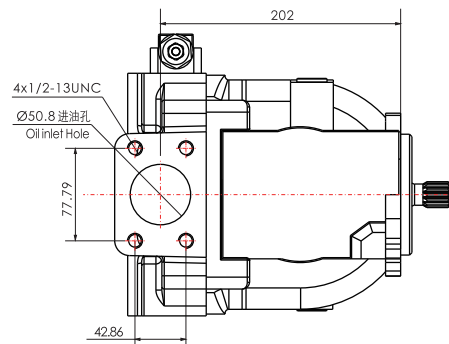
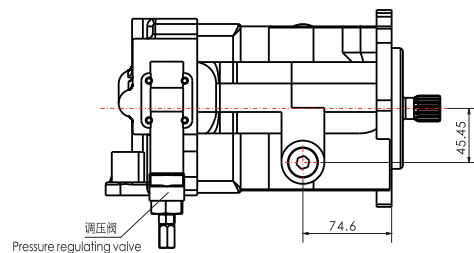
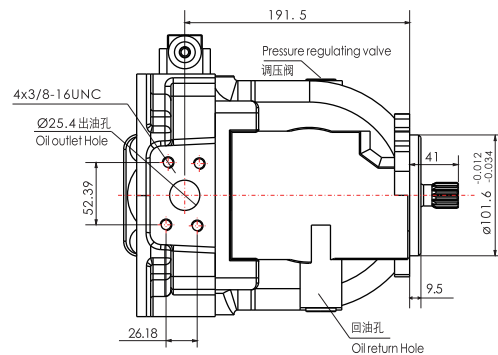
型 号	Model	WPVH50	WPVH57
排 量	Displacement	50.4mL/r	57.4mL/r
额定转速	Rated Speed	1800r/min	
进口压力	Inlet Pressure	(0.8~3)bar	
额定压力	Rated Pressure	250bar	
旋向(从原动机端看)	Rated Direction	R- 顺时针 Clockwise ; L:逆时针 Anticlockwise	
工作方式	Working Mode	开式系统 Open-type System	

型号编码 (WPVH SERIES TYPE CODE)

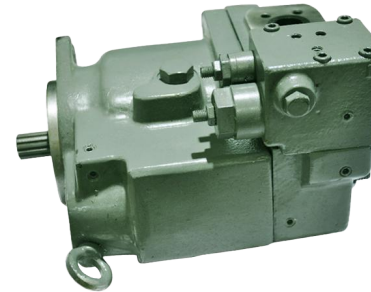
标识 Code	名称代码 Name
WPVH	柱塞泵 Piston pump
标识 Code	排量 Displacement
50	50.4mL/r
57	57.4mL/r
标识 Code	设计/应用 Design/Application
B	用于行走用途的设计
	Design for mobile applications
QI	用于工业用途的低噪声设计
	Quiet design for industrial applications
标识 Code	轴转向(从原动机端看) Shaft rotation Viewed at shaft end
L	逆时针 Anticlockwise
R	顺时针 Clockwise
标识 Code	安装法兰, 原动机端 Mounting flange, prime mover end
A	SEA J744-82-2(A,2螺栓 Bolt)
C	SAE"C"4- 螺栓型 Bolt type
	(SAE J744-127-4)
标识 Code	泵设计号 Pump design number
19	
标识 Code	主油口 Main ports
F	SAE 4-螺栓法兰油口
	Bolt flange pads
M	SAE 4-螺栓法兰油口
	带米制安装螺纹
	Bolt pads with metric mounting bolt threads
标识 Code	轴密封件, 原动机短 Shaft seal, prime mover end
S	一道, 单向 Single, one-way
D	二道, 双向 Double, two-way
标识 Code	压力补偿器 Pressure compensator
C	70-250 bar(1015-3625 psi)
	(标准型 Standard)
CM	40-130 bar(580-1885 psi)
	(可选的QI型 Optional QI version)
IC	工业用控制 Industrial control
标识 Code	轴伸型式, 在原动机端 Shaft-end type, at prime mover end
N	ISO 3019/2-E32NE 带键短直轴
	Short straight keyed
2	SAE"C" 12/24 D.P.径节(J744-32-4)
	花键轴14齿 Splined 14 tooth
3	SAE"CC" 12/24 D.P.径节(J744-38-4)
	花键轴17齿 Splined 17 tooth
12	SAE"D" 8/16D.J.径节(J744-44-4)
	花键轴13齿 Splined 13 tooth

安装尺寸图

INSTALLATION DIMENSIONS



WK3VL 柱塞泵系列 WK3VL SERIES PISTON PUMPS



WK3VL系列最适合用于节省空间的工程机械、产业车辆及一般产业机械的泵。

The WK3VL series swash-plate type axial piston pump is a heavy duty variable displacement hydraulic pump newly developed for mobile and industrial applications.

产品特征和优点

① 低脉动、低噪声

通过研发独特的新机构，大幅度降低了噪声发生源的压力脉动。

② 高效率、卓越的吸入能力、长寿命

通过最佳配油盘的设计实现了高效、卓越的吸入能力，并通过采用大负载容量轴承和高强度的柱塞、滑靴从而实现了长寿化。

③ 辅助齿轮泵连接和泵的复合化、SAE/ISO规格的对应

可对应SAE规格的辅助齿轮泵连接和串联柱塞泵化，固定件和轴端形状对应SAE/ISO的规格。

④ 丰富的控制方式

以负载敏感和恒压型为基本，可使其卸载及压力可调,还可进行功率控制及其复合控制。

Features and Advantages

① Reduced Pressure Pulsation and Low Noise

The unique mechanism obtained through our long research has drastically reduced pressure pulsation.

② High Efficiency, High Self-priming Capability and Long Life

High efficiency, self-priming capability and long life are made possible by utilizing an optimized piston/slider, high-load bearings and valve plate design.

③ Optional Through Drive

Optional through drive allows an auxiliary pump and WK3VL pump to be direct mounted proving a compact, low-cost solution. Available with American (SAE) and International (ISO) mounting and shaft.

④ Varieties of Control Methods

Unload and remotely pressure controls are made possible in addition to load-sensing and pressure constant control. In addition, the horsepower control and the combination of these are available.

型号编码 (WK3VL SERIES TYPE CODE)

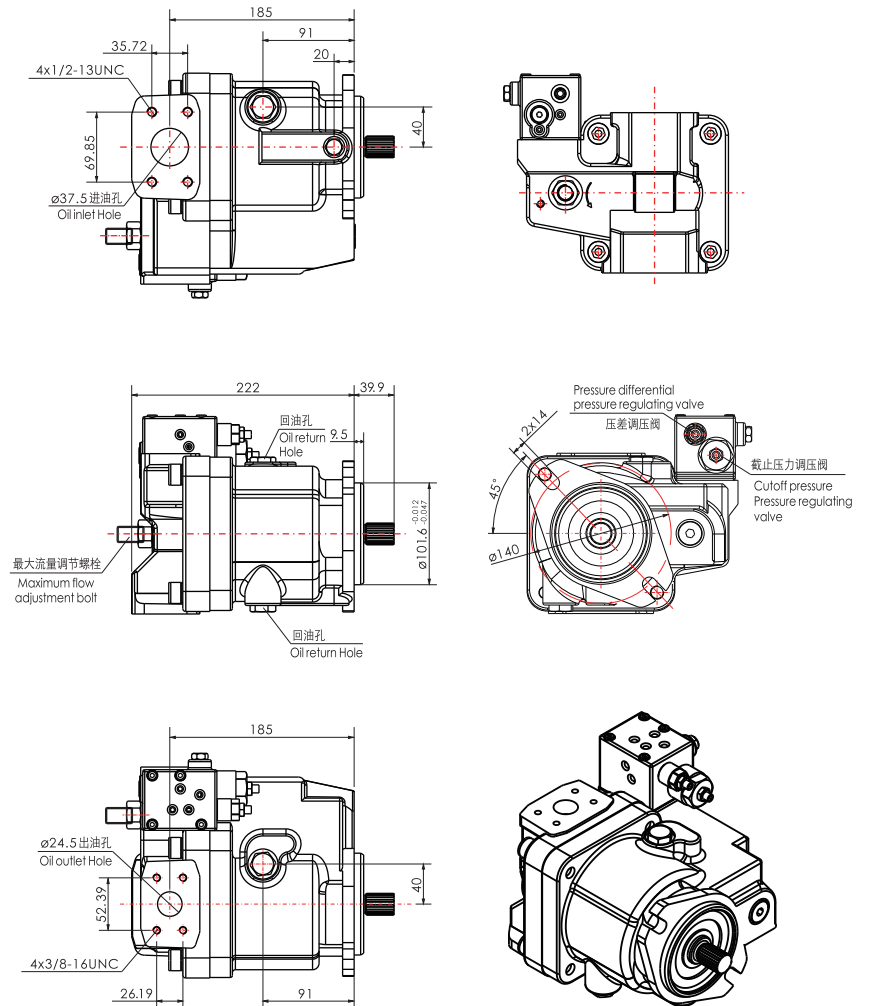
WK3VL	45	B	1	O	R	PO	S
标识 Code	名称代码 Name					标识 Code	法兰盘部螺纹形式 Port thread type
WK3VL	柱塞泵 Piston Pump					S	统一协定(UNC)螺纹 UNC threads
标识 Code	排量 Displacement					标识 Code	排压力/流量控制 Pressure/flow control
45	45mL/r					PO	恒压控制 Pressure compensator
标识 Code	模式代码 Model code					LO	负载敏感 Load sensing
B	B系列 Series					标识 Code	旋转方向 Direction of rotation
标识 Code	液压回路 Circuit type					R	右转 Clockwise
1	开式回路 Open circuit					L	左转 Anticlockwise
标识 Code	辅助泵安装形状 Auxiliary pump unit						
O	不可安装辅助泵(横出) Auxiliary pump cannot be attached (side ported)						

技术参数 (TECHNICAL PARAMETERS)

型 号	Model	WK3VL45
排 量	Displacement	45mL/r
旋转方向	Direction of rotation	R- 顺时针Clockwise ; L- 逆时针Anticlockwise
最高驱动转速	Maximum drive speed	3250r/min
最大输入扭矩	Maximum input torque	225Nm
峰值压力	Peak Pressure	350bar
额定压力	Rated Pressure	320bar
工作方式	Working Mode	开式系统 Open-type System

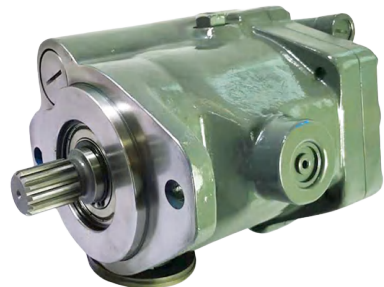
安装尺寸图

SLNSTALLATION DIMENSIONS



WPVB 柱塞泵系列

WPVB SERIES PISTON PUMPS



控制方式

- ① 带或不带远程控制装置的补偿器
- ② 带可调排量控制的补偿器
- ③ 负载传感补偿器
- ④ 手轮控制

Control Mode

- ① Pressure compensator with or without a remote control facility.
- ② Pressure compensator with a adjustable displacement control.
- ③ Load sensing compensator.
- ④ Handwheel control.

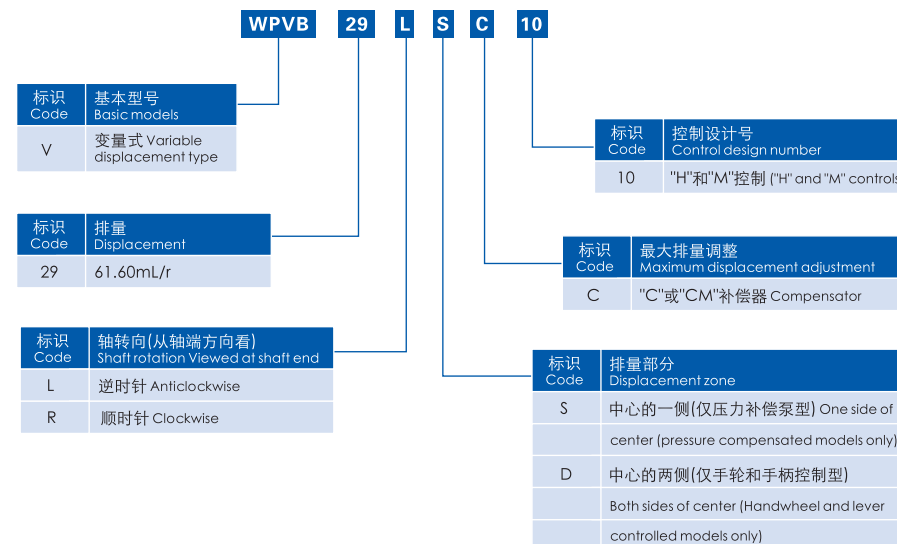
WPVB柱塞泵是轻型斜盘式轴向泵，包括定量型和变量型，使用各种液压油均能达到很高的性能指标和效率。定量型的容积效率和机械效率很高；变量型能与压力和/或流量的需要紧密匹配，有多种控制方式，使用范围广。

Both fixed and variable displacement models make up this range of axial piston pumps. Their high performance ratings and efficiencies are achieved with a variety of hydraulic fluids. Fixed displacement models are noted for their volumetric and mechanical efficiencies. Variable displacement models can closely match pressure and/or flow demand. There are several ways to control.

技术参数 (TECHNICAL PARAMETERS)

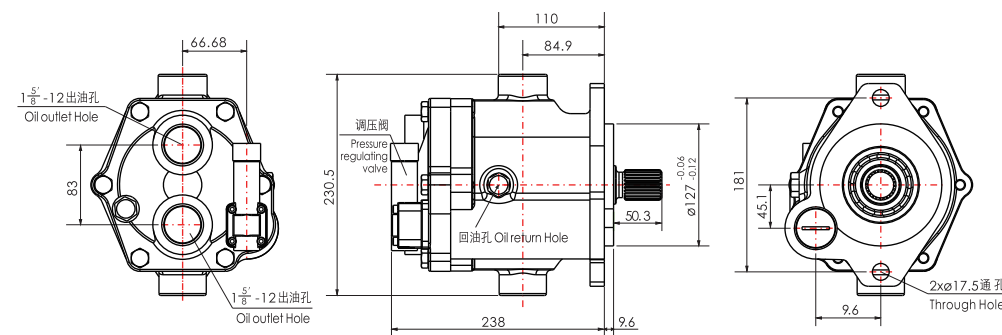
型 号 Model	WPVB29
排 量 Displacement	61.6mL/r
轴 旋 向 Shaft rotation	R- 顺时针Clockwise ; L- 逆时针Anticlockwise
额定转速 Rated Speed	1800r/min
进口压力 Inlet Pressure	1bar
额定压力 Rated Pressure	14bar
推荐油液 Recommended Oil	L-HM46(夏天Summer) ; L-HM32(冬天Winter)
工作方式 Working Mode	开式系统 Open-type System

型号编码 (WPVB SERIES TYPE CODE)



安装尺寸图

SLNSTALLATION DIMENSIONS



WADU 柱塞泵系列 WADU SERIES PISTON PUMPS



WADU柱塞泵是开式回路工程机械泵，提供许多种控制器使泵具有和每一种用途相匹配的能力。泵控制器的效率允许降低了对系统冷却的要求，保持制冷量不变，而系统的流量增大，于是改善了性能和用户的满意度。

WADU piston pump is an open circuit engineering mechanical pump, it offers a wide variety of controllers in order to match every use. Efficiency of the pump controller allows to reduce the requirements of the system's cooling, maintaining the same cooling capacity, while the flow rate of the system is increased, so as to improve the performance and user satisfaction.

产品的特征和优点

- ① 泵的寿命长
- ② 泵的噪声低
- ③ 安装和使用成本低
- ④ 维护简单
- ⑤ 设备设计的灵活性强
- ⑥ 体积小，节省空间
- ⑦ 提升无泄漏系统设计

Features and Advantages

- ① Pump life long
- ② Pump with low noise
- ③ The installation and use of low cost.
- ④ Simple maintenance
- ⑤ Equipment design flexibility
- ⑥ Small volume, space saving.
- ⑦ To enhance the leak free system design.

技术参数 (TECHNICAL PARAMETERS)

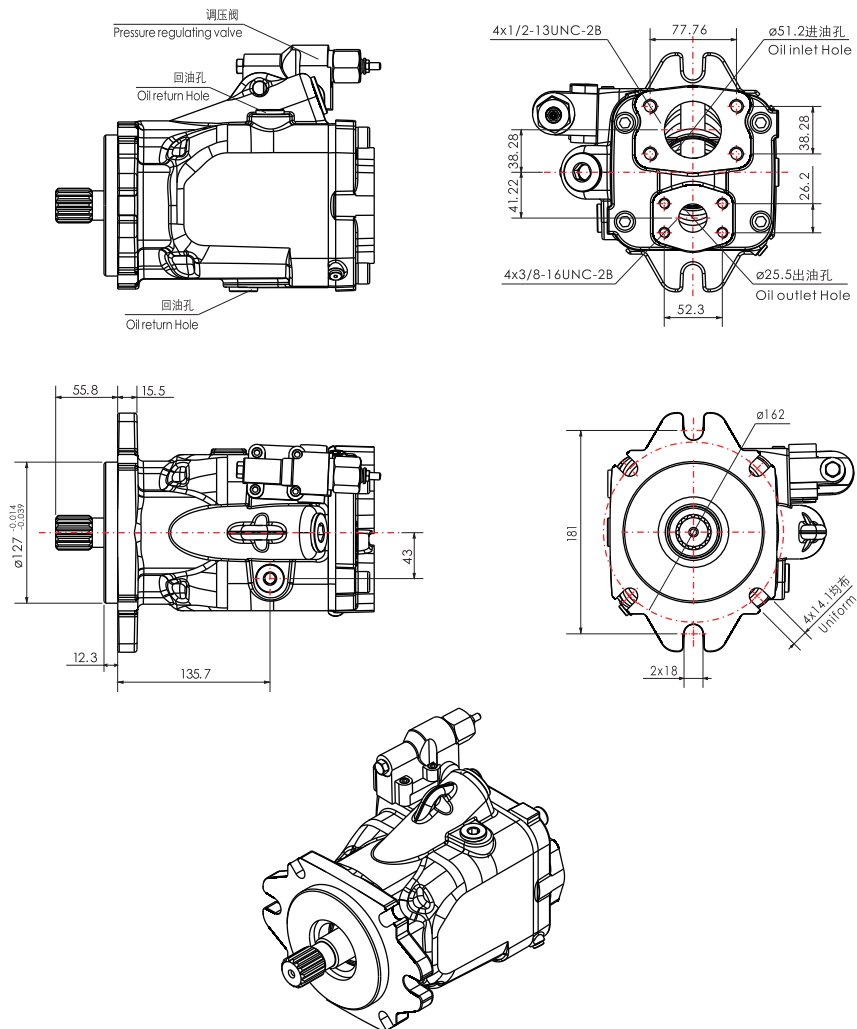
型号 Model	排量 Displacement		重量 Weigh		双密封重量 Double seal Weight			
WADU062	62.3mL/r		22kg		23kg			
	压力额定值 Rated Pressure							
	连续 Continuous		间歇 Intermittent		峰值 Peak value			
	280bar		320bar		350bar			
	转速额定值 Rated Speed							
	1bar进油口 Oil inlet (0 psi, 供油 Oil supply)		0.85bar进油口 Oil inlet (5 in.Hg, 真空 Vacuum)		3bar进油口 Oil inlet (15 psi, 增压 Pressure boost)		最低转速 Min. Speed	最高转速 在备用时 Max. Speed
	法兰油口	管螺纹油口	法兰油口	管螺纹油口	法兰油口	管螺纹油口		
	Flange	Pipe thread	Flange	Pipe thread	Flange	Pipe thread		
	2600	N/A	2400	N/A	2800	N/A	600rpm	3600rpm

型号编码 (WADU SERIES TYPE CODE)

标识 Code	名称代码 Name	标识 Code	压力补偿器设定值范围 Pressure compensator
WADU	420系列开式回路柱塞泵	28	206.8-213.7 bar
	420 Series Open circuit		[3000-3100 lbf/in ²]
		35	241.3-248.2 bar
			[3500-3600 lbf/in ²]
		43	275.8-282.7 bar
			[4000-4100 lbf/in ²]
标识 Code	排量 Displacement	标识 Code	控制器形式 Controller
062	62.3mL/r	C	仅压力补偿器 Only the pressure compensator
标识 Code	输入轴旋转方向 Input shaft rotation direction	标识 Code	诊断压力油口 Diagnostic of pressure oil port
R	右手(顺时针)右侧吸油口, 左侧压力油口 Clockwise, Left - Oil outlet Pressure	0	无诊断压力油口 NO diagnostic of pressure oil port
L	左手(逆时针)左侧吸油口, 右侧压力油口 Anticlockwise, Right - Oil outlet Pressure		
标识 Code	前安装和轴 Input shaft rotation direction	标识 Code	壳体泄漏口 Main oil outlet and position
31	2 螺栓 B (SAE J744-101-2) 带 25.4mm [1.00in] 直径的带键直轴带内螺纹 .375-24 UNF-2B 2 bolt "A" (SAE J744-101-2). Key Dia. 25.4mm [1.00in] Straight shaft with internal thread .375-24 UNF-2B	1	875 -14 UNF -2B ; O- 形圈; 油口 - 顶 875 -14 UNF -2B ; O- ring; Oil outlet - Top
		2	875 -14 UNF -2B ; O- 形圈; 油口 - 底 875 -14 UNF -2B ; O- ring; Oil outlet - Bottom
		3	M22 x 1.5 ; O-形圈; 油口 - 顶 M22 x 1.5 ; O- ring; Oil outlet - Top
		4	M22 x 1.5 ; O-形圈; 油口 - 底 M22 x 1.5 ; O- ring; Oil outlet - Bottom
标识 Code	主油口对和位置 Main oil outlet and position		
AA	后油口; 吸油 2.00 SAE J518, 4螺栓对开法兰油口 标准压力系列(代号 61); 压力 1.00 SAE J518 4螺栓对开法兰油口, 标准压力系列(代号 61) Oil outlet - After; Oil-absorbing 2.00 SAE J518 4 bolt split flange oil mouth, Standard pressure (code 61); Pressure 1.00 SAE J518, 4 bolt split flange oil mouth Standard pressure (code 61)		

安装尺寸图

SLNSTALLATION DIMENSIONS



WA10VSO 柱塞泵系列

WA10VSO SERIES PISTON PUMPS

产品的特征和优点

- ① 开式回路轴向柱塞泵。
- ② 工作噪声很低，使用寿命长久。
- ③ 有多种控制范围，控制方式反应灵敏。
- ④ 该泵带有通轴驱动，可承载齿轮泵或者小于等于相同规格的轴向柱塞泵，即100%通轴驱动。

Features and Advantages

- ① Open circuit axial piston pump.
- ② Low noise level and long service life.
- ③ Versatile controller range.
- ④ The through drive is suitable for adding gear pumps and axial piston pumps up to the same size, i.e., 100% through drive.



WA10VSO是斜盘结构轴向柱塞变量泵，用于开式回路中的静液压传动。流量与传动速度和排量成比例，可通过调节旋转斜盘角度实现无级变量。

Variable pump in axial piston swashplate design for hydrostatic drives in an open circuit. The flow is proportional to the drive speed and the displacement. The flow can be steplessly varied by adjustment of the swashplate angle.

技术参数 (TECHNICAL PARAMETERS)

型 号 Model	WA10VSO		
排 量 Displacement	45mL/r	71mL/r	100mL/r
旋转方向 Direction of rotation	R- 顺时针Clockwise ; L- 逆时针Anticlockwise		
工作方式 Operation mode	开式回路 Open circuit		
工作压力 Operating pressure	280bar		
最大压力 Maximum pressure	350bar		
最大转速 Maximum drive speed	3600r/min		

型号编码 (WA10VSO SERIES TYPE CODE)

WA10VS		O	71	DG	R	V	S	C	N00
标识 Code	轴向柱塞元件 Axial piston unit								
WA10VS	斜盘设计, 变量泵 Swashplate design, variable								
标识 Code	工作模式 Operation mode								
O	泵, 开式回路 Pump, open circuit								
标识 Code	排量 Displacement								
45	45mL/r								
71	71mL/r								
100	100mL/r								
标识 Code	控制设备 Control device								
DG	两点直动式控制 Two-point control, directly operated								
DR	压力控制 Pressure control								
DFR	带液压流量控制 X-T 开启 With flow control, hydraulic, X-T open								
DFR1	带液压流量控制 X-T 关闭 With flow control, hydraulic, X-T closed								
DRG	远程压力控制 液压 With pressure cut-off, remotely operated, hydraulic								
ED71	远程压力控制 电动控制 负极特性								
ED72	With pressure cut-off, remotely operated, electrical, negative characteristic								
ER 71	远程压力控制 电动控制 正极特性								
ER 72	With pressure cut-off, remotely operated, electrical, positive characteristic								
DFLR	压力、流量和功率控制(仅WA10V 型) Pressure, flow and power control (WA10V only)								
标识 Code	通轴驱动 Through drive								
N00	无通轴驱动 Without through drive								
标识 Code	安装法兰 Mounting flange								
A	ISO 3019-2 (DIN) 2孔 Hole								
B	ISO 3019-2 (DIN) 4孔 Hole								
C	ISO 3019-1 (SAE) 2孔 Hole								
D	ISO 3019-1 (SAE) 4孔 Hole								
标识 Code	传动轴, 花键轴 ANSI B92.1a Drive shaft, Splined shaft								
S	标准轴 Standard shaft								
R	适合更高的输入扭矩 Higher input torque								
U	缩小的直径, 不用于通轴驱动 Reduced diameter								
W	扭矩更高, 不用于通轴驱动 Higher torque Parallel keyed shaft DIN 6885								
P	不用于通轴驱动 Not for through drive								
标识 Code	密封件 Seals								
V	FKM氟橡胶 Fluor-caoutchouc								
标识 Code	旋转方向(从传动轴上看) Direction of rotation Viewed on drive shaft								
R	顺时针 Clockwise								
L	逆时针 Anticlockwise								

通轴驱动 (THROUGH DRIVE)

标识 Code	排量 Displacement (mL/r)			通轴驱动 Through Drive	
	45	71	100		
N00	✓	✓	✓	无通轴驱动 Without Through Drive	
有通轴驱动					
标识 Code	45	71	100	安装法兰 Flange	花键轴/轴套 Coupling for Splined Shaft
ISO 3019-1				ANSI B92.1a	
K01	✓	✓	✓	82-8 (S)	5/8 in 9T 16/32DP
K52	✓	✓	✓		3/4 in 11T 16/32DP
K68	✓	✓	✓	101-2 (B)	7/8 in 13T 16/32DP
K04	✓	✓	✓		1 in 15T 16/32DP
K07	/	✓	✓	127-2 (C)	1 ¼ in 14T 12/24DP
K24	/	/	✓		1 ½ in 17T 12/24DP
K17	/	/	/	152-4 (D)	1 ¾ in 13T 8/16DP

传动轴 (DRIVE SHAFT)

标识 Code	45	71	100	传动轴 Drive Shaft
ANSI B92.1a 花键轴 Splined Shaft				
S	✓	✓	✓	标准轴 Standard shaft
R	✓	✓	/	类似于轴 "S", 但适合更高的输入扭矩。 Similar to shaft "S" however for higher input torque.
U	✓	✓	✓	缩小的直径, 不用于通轴驱动。 Reduced diameter, Not for through drive.
W	✓	✓	✓	等同于 "U", 但扭矩更高, 不用于通轴驱动。 Higher torque, Not for through drive.
DIN 6885 平键轴 Parallel keyed shaft				
P	✓	✓	✓	不用于通轴驱动 Not for through drive

安装法兰 (MOUNTING FLANGE)

标识 Code	45	71	100	安装法兰 Mounting Flange
A	✓	✓	✓	ISO 3019-2 DIN 2孔 Hole
B	/	/	/	ISO 3019-2 DIN 4孔 Hole
C	✓	✓	✓	ISO 3019-1 SAE 2孔 Hole
D	/	/	/	ISO 3019-2 SAE 4孔 Hole

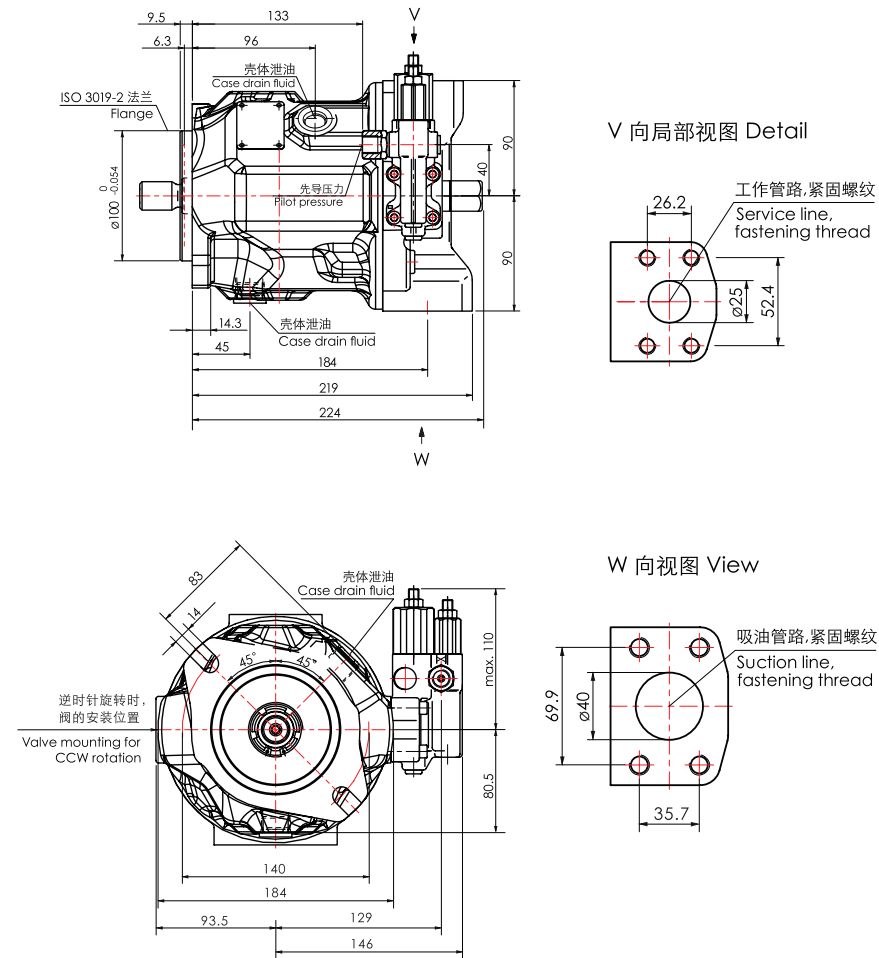
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WA10VSO-45 安装尺寸图

WA10VSO-45 SLNSTALLATION DIMENSIONS

DFR/DFR1 压力和流量控制 Pressure and Flow Control

顺时针旋转 Clockwise Rotation

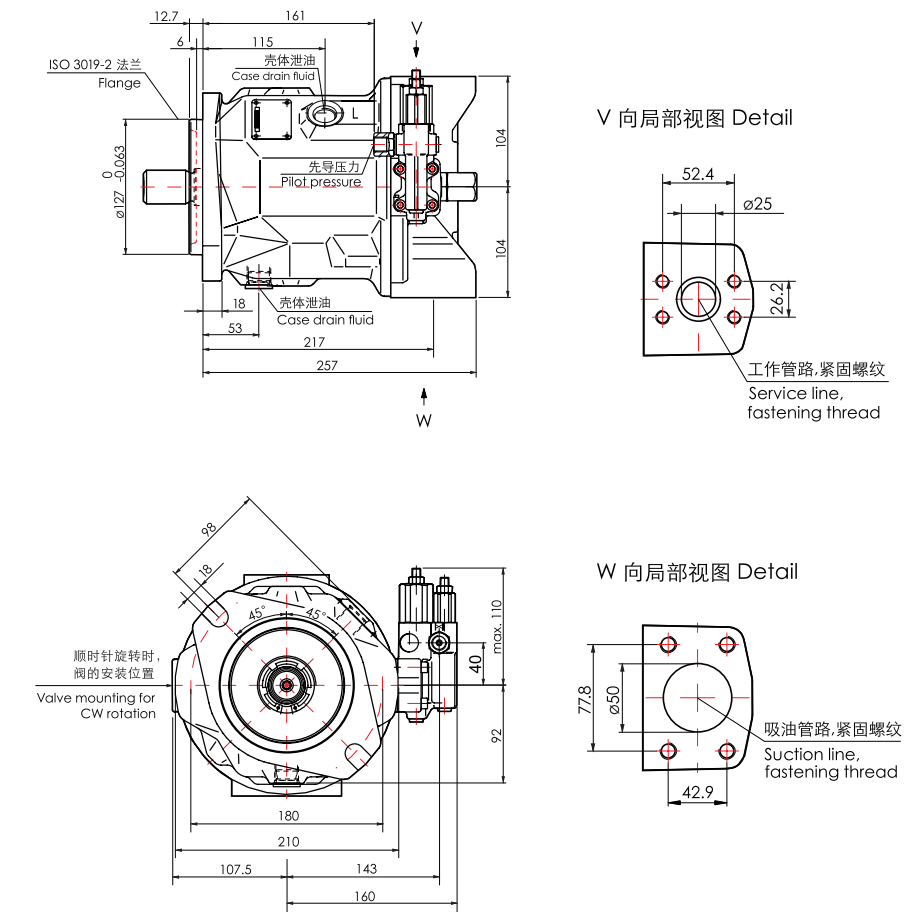


WA10VSO-71 安装尺寸图

WA10VSO-71 SLNSTALLATION DIMENSIONS

DFR/DFR1 压力和流量控制 Pressure and Flow Control

顺时针旋转 Clockwise Rotation

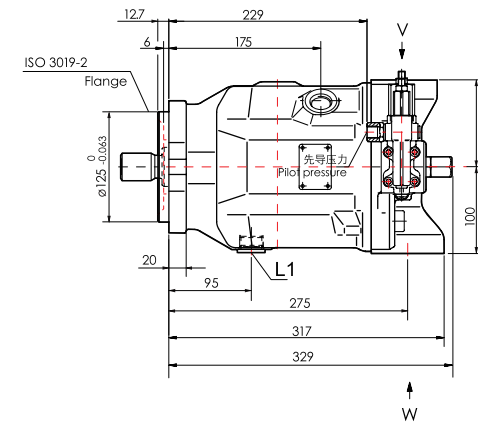


WA10VSO-100 安装尺寸图

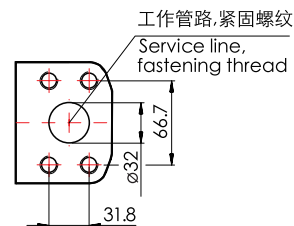
WA10VSO-100 SLNSTALLATION DIMENSIONS

DFR/DFR1压力和流量控制 Pressure and Flow Control

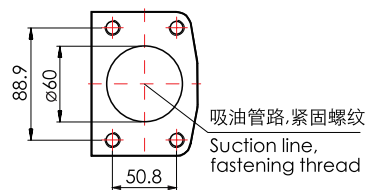
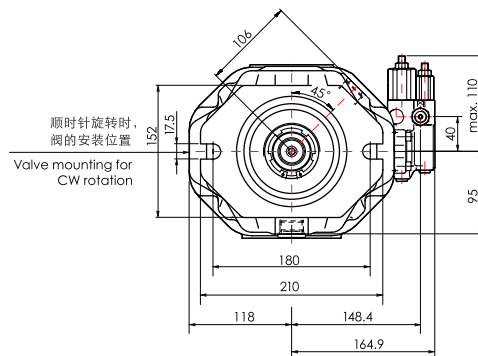
顺时针旋转 Clockwise Rotation



V 向局部视图 Detail



W 向局部视图 Detail



WA2FM 轴向柱塞定量马达 WA2FM AXIAL PISTON FIXED MOTOR

WA2FM是采用斜轴式设计的轴向柱塞定量马达, 用于开式回路和闭式回路中的静液压传动, 适用于行走机械和工业应用。

Fixed motor with axial tapered piston rotary group of bent-axis design, for hydrostatic drives in open and closed circuits. For use in mobile and stationary applications.

产品的特征和优点

- ① 输出速度取决于泵的流量和马达的排量。
- ② 输出扭矩随高低压侧之间的差压而增大。
- ③ 具有高功率密度、总效率高。
- ④ 具有尺寸小、设计经济。
- ⑤ 带密封柱塞环的一体式柱塞设计。

Features and Advantages

- ① The output speed is dependent on the flow of the pump and the displacement of the motor.
- ② The output torque increases with the pressure differential between the high-pressure and the low-pressure side.
- ③ High power density and high total efficiency.
- ④ Small dimensions and economical design.
- ⑤ One-piece tapered piston with piston rings for sealing.

技术参数 (TECHNICAL PARAMETERS)

型 号 Model	32	56	63	80	90
排 量 Displacement	32.1 mL/r	56.1 mL/r	63 mL/r	80.4 mL/r	90 mL/r
最高转速 Max. drive speed	5000 rpm	5000 rpm	5000 rpm	4500 rpm	4500 rpm
最高转速(间歇) Max. drive speed(Intermittent)	5500 rpm	5500 rpm	5500 rpm	5000 rpm	5000 rpm
输入流量 Input flow	160 L/min	281 L/min	315 L/min	362 L/min	405 L/min
旋转方向 Direction of rotation	R- 顺时针Clockwise ; L- 逆时针Anticlockwise				
工作方式 Operation mode	开式回路 Open circuit ; 闭式回路 Close circuit				

型号编码 (WA2FM SERIES TYPE CODE)

WA2F M 63 W V A B SS

标识 Code	轴向柱塞元件 Axial piston unit
WA2F	斜轴式结构，定量 Bent-axis design, fixed

标识 Code	工作模式 Operation mode
M	马达 Motor

标识 Code	排量 Displacement
32	32.1 mL/r
56	56.1 mL/r
63	63 mL/r
80	80.4 mL/r
90	90 mL/r

标识 Code	旋转方向(从轴端上看) Direction of rotation Viewed at shaft end
W	正反可逆 Viewed on drive shaft, bidirectional

标识 Code	密封件 Seals
V	FKM氟橡胶 Fluor-caoutchouc

标识 Code	工作油口 Work oil port
SS	如下图所示

标识 Code	安装法兰 Mounting flanges
B	ISO 3019-2 4孔 Hole

标识 Code	传动轴 Drive shafts					
	45	56	63	80	90	
A	/	✓	✓	✓	✓	花键轴 DIN5480
Z	✓	✓	/	✓	/	Splined shaft
B	/	✓	✓	✓	✓	平键轴 DIN6885
P	✓	✓	/	✓	/	Parallel keyed shaft

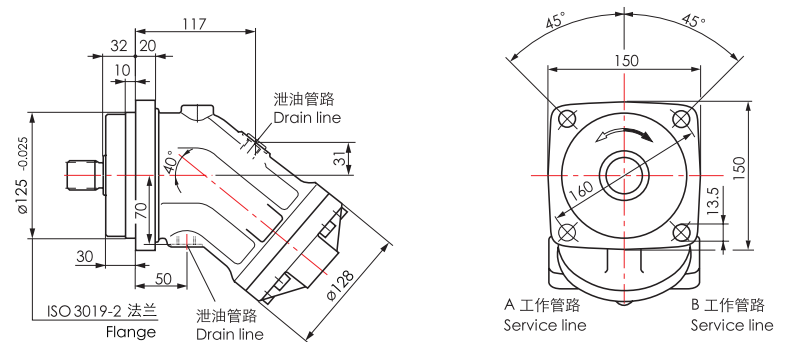
(“✓”: 可供货 Available; “/”: 无供货 Not Available;)

工作油口 ¹⁾	32	45	56	63	80	90
油口A,B SAE法兰, 在后面	✓	✓	✓	✓	✓	✓
油口A,B SAE法兰, 在侧面	✓	✓	✓	✓	✓	/
油口A,B SAE法兰, 在侧面, 带冲洗和补油阀	✓	✓	✓	✓	✓	/
油口A,B 公制螺纹, 在侧面	✓	/	/	/	/	/
油口A,B 公制螺纹, 在侧面和后面	✓	✓	✓	✓	/	/
油口A,B; SAE法兰, 在底部	✓	✓	✓	✓	✓	✓
带1级溢流阀(不带增压装置) 的油口 接板用于安装平衡阀	/	/	/	/	/	/
带1级溢流阀(不带增压装置) 的油口 接板用于安装平衡阀	/	/	/	/	✓	✓
带1级溢流阀的油口 接板用于 安装平衡阀, 配有平衡阀BVD	/	/	/	/	✓	✓
带溢流阀(不带增压装置) 的油口 接板	/	/	/	/	✓	✓

✓ =可优先供货 / =不可供货

安装尺寸图 - 规格56 / 63

SLNSTALLATION DIMENSIONS - Dimensions size 56 / 63



轴伸 Drive shafts

规格 56/63

A 花键轴 DIN 5480
W35x2x30x16x9g
 $P_N = 400 \text{ bar}$

规格 56

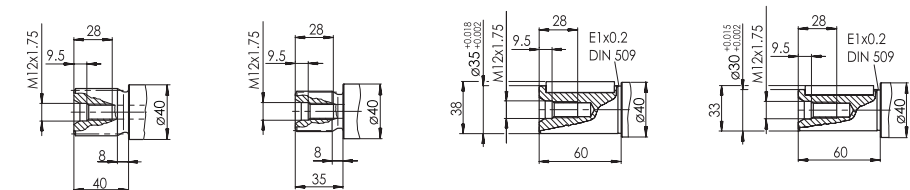
Z 花键轴DIN5480
W30x2x30x14x9g
P_N = 350 bar

规格 56/63

B 平键直轴,
DIN 6885, As10x8x50
 $P_N = 350 \text{ bar}$

规格 56

P平键直轴,
DIN 6885, As8x7x50
 $P_N = 350 \text{ bar}$

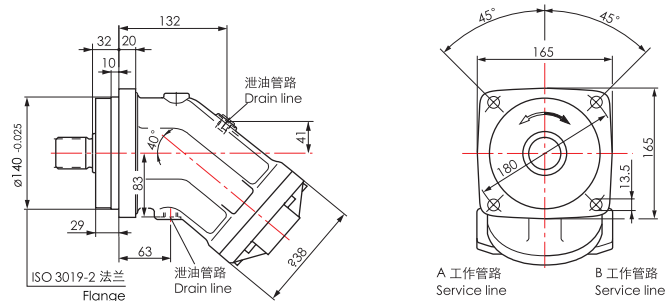


SAE法兰油口, 侧面 Flange ports at side, opposite



安装尺寸图 - 规格80 / 90

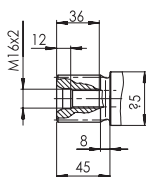
SLNSTALLATION DIMENSIONS - Dimensions size 80 / 90



轴伸 Drive shafts

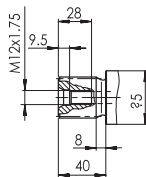
规格 80/90

A 花键轴DIN 5480
W40x2x30x18x9g
P_N = 400 bar



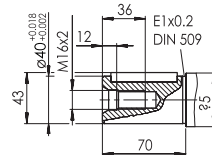
规格 80

Z 花键轴DIN5480
W35x2x30x16x9g
P_N = 400 bar



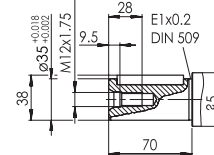
规格 80/90

B 平键直轴,
DIN 6885, As12x8x56
P_N = 350 bar

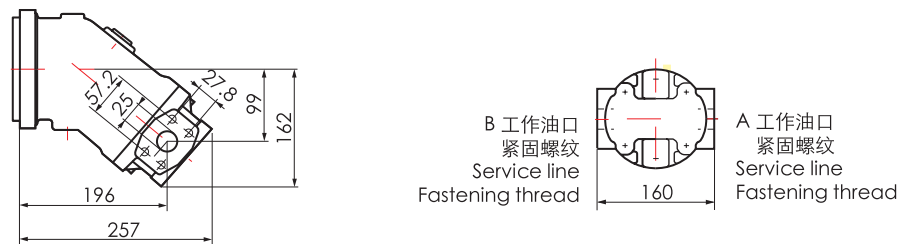


规格 80

P 平键直轴,
DIN 6885, As10x8x56
P_N = 350 bar



SAE法兰油口, 侧面 Flange ports at side, opposite



WA10VG 轴向柱塞变量泵 WA10VG AXIAL PISTON VARIABLE PUMP



WA10VG采用斜盘结构设计的轴向柱塞变量泵, 适用于
闭式回路的静液压传动。

Variable axial piston pump of swashplate design
for hydrostatic drives in closed circuit.

产品的特征和优点

- ① 流量与驱动转速和排量成比例可无级调节。
- ② 斜盘摆动角度增加, 流量从零至最大值。
- ③ 当斜盘摆动经过零位时, 液流方向平稳换向。
- ④ 高压溢流阀保护液压传动元件(泵和马达)不过载, 同时作为补油压阀。
- ⑤ 内置辅助泵作为补油和控制油泵。
- ⑥ 通过内装的补油溢流阀限制最大补油压力。

Features and Advantages

- ① The flow is proportional to the drive speed and displacement.
- ② The flow increases as the angle of the swashplate is adjusted from zero to its maximum value.
- ③ Flow direction changes smoothly when the swashplate is moved through the neutral position.
- ④ Two pressure-relief valves are provided on the high pressure ports to protect the hydrostatic transmission (pump and motor) from overload. The high-pressure relief valves also function as boost valves.
- ⑤ The integrated boost pump acts as a feed pump and control pressure supply.
- ⑥ The maximum boost pressure is limited by a built-in boost pressure-relief valve.

型号编码 (WA10VG SERIES TYPE CODE)

WA10V G 28 D1 N HW R S C F5 X

标识 Code	轴向柱塞元件 Axial piston unit	标识 Code	X: 如有特殊需求请联系我们 X: Please contact us if you have any special needs
WA10V	斜盘设计, 变量泵 Swashplate design, variable	标识 Code	调压系统 Voltage regulation system
标识 Code	工作模式 Operation mode	F5	内置补油泵和高压溢流阀 Built-in refill pump and high pressure relief valve
G	泵, 闭式回路 Pump, closed circuit	标识 Code	安装法兰 Mounting flange
标识 Code	排量 Displacement	C	SAE J744-2
28	28 mL/r	标识 Code	压力切断阀 Pressure cut-off valve
55	55 mL/r	S	带有压力切断阀 With pressure cut-off valve
63	63 mL/r	标识 Code	旋转方向(从轴端上看) Direction of rotation Viewed at shaft end
标识 Code	执行元件 Executing element	R	顺时针 Clockwise
D1	开关电池阀 On-off battery valve	L	逆时针 Anticlockwise
标识 Code	密封件 Seals	标识 Code	控制设备 Control device
N	轴密封为氟橡胶 The shaft seal is fluororubber	HW	液压比例控制, 机械伺服 Proportional control hydraulic Mechanical servo
		Ep3	12V DC, 电气比例控制 Proportional control electric
		Ep4	24V DC, 电气比例控制 Proportional control electric

技术参数 (TECHNICAL PARAMETERS)

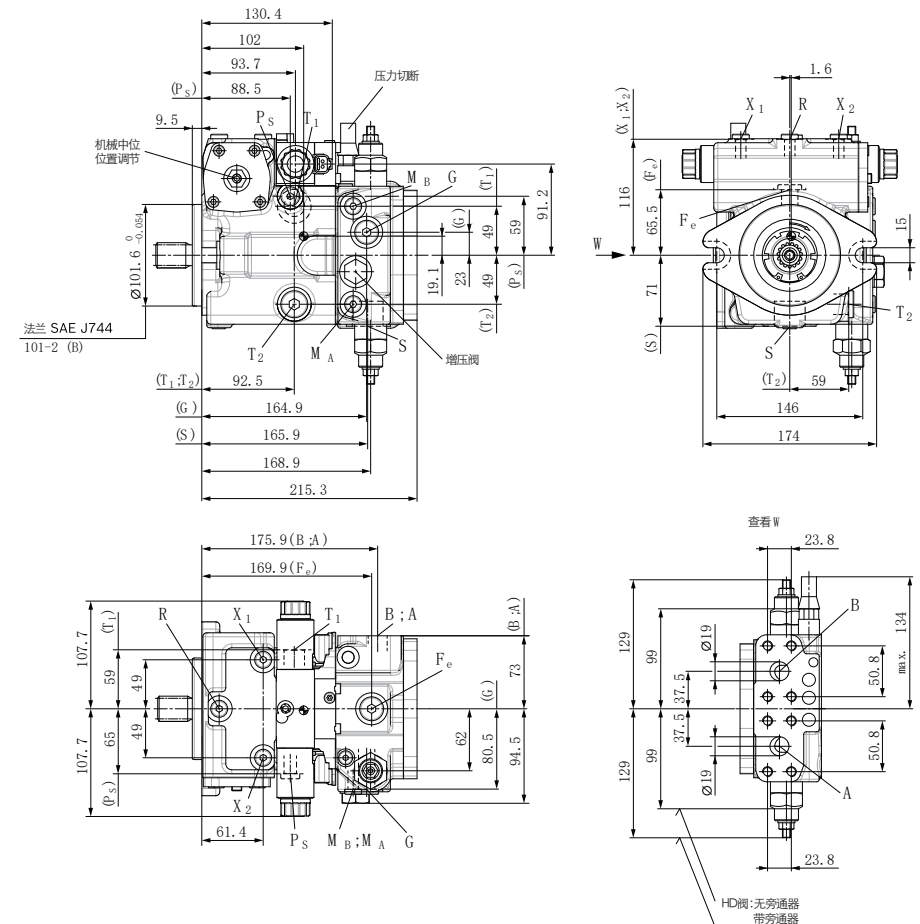
规格	Model	28	55	63
变量泵排量	Variable pump displacement	28 mL/r	55 mL/r	63 mL/r
辅助泵排量	Boost pump displacement	6.1 mL/r	8.6 mL/r	14.9 mL/r
最高转速	Maximum speed	3900 r/min	4200 r/min	3000 r/min
最低转速	Minimum speed	500 r/min	500 r/min	500 r/min
流量	Flow	109L /min	152L /min	189L /min
功率	Power	54.6 KW	75.9 KW	94.5 KW
最大扭矩	Maximum torque	134 Nm	215 Nm	301 Nm
工作方式	Operation mode	闭式系统 Closed circuit		

安装尺寸图 - 规格 28

SLNSTALLATION DIMENSIONS - Dimensions size 28

EP-比例控制, 电动

标准: SAE工作口A和B, 同一侧左侧, 吸入口S底部。

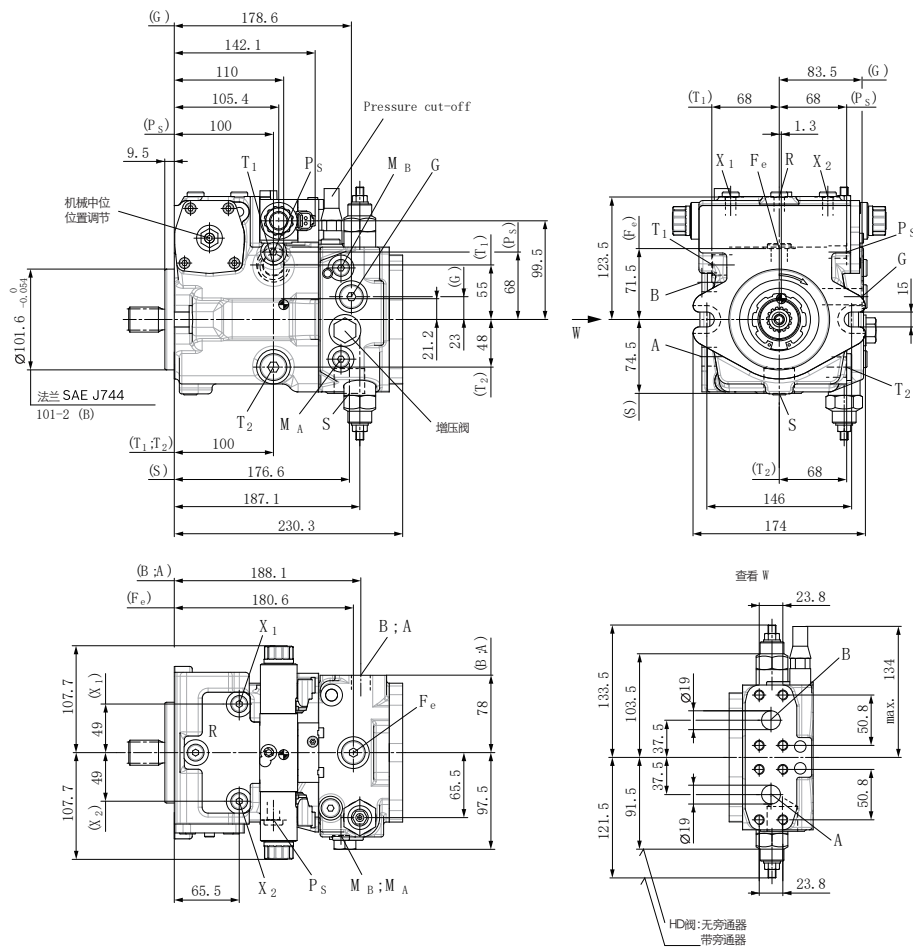


安装尺寸图 - 规格 55

SLNSTALLATION DIMENSIONS - Dimensions size 55

EP-比例控制, 电动

标准: SAE工作口A和B, 同一侧左侧, 吸入口S底部。

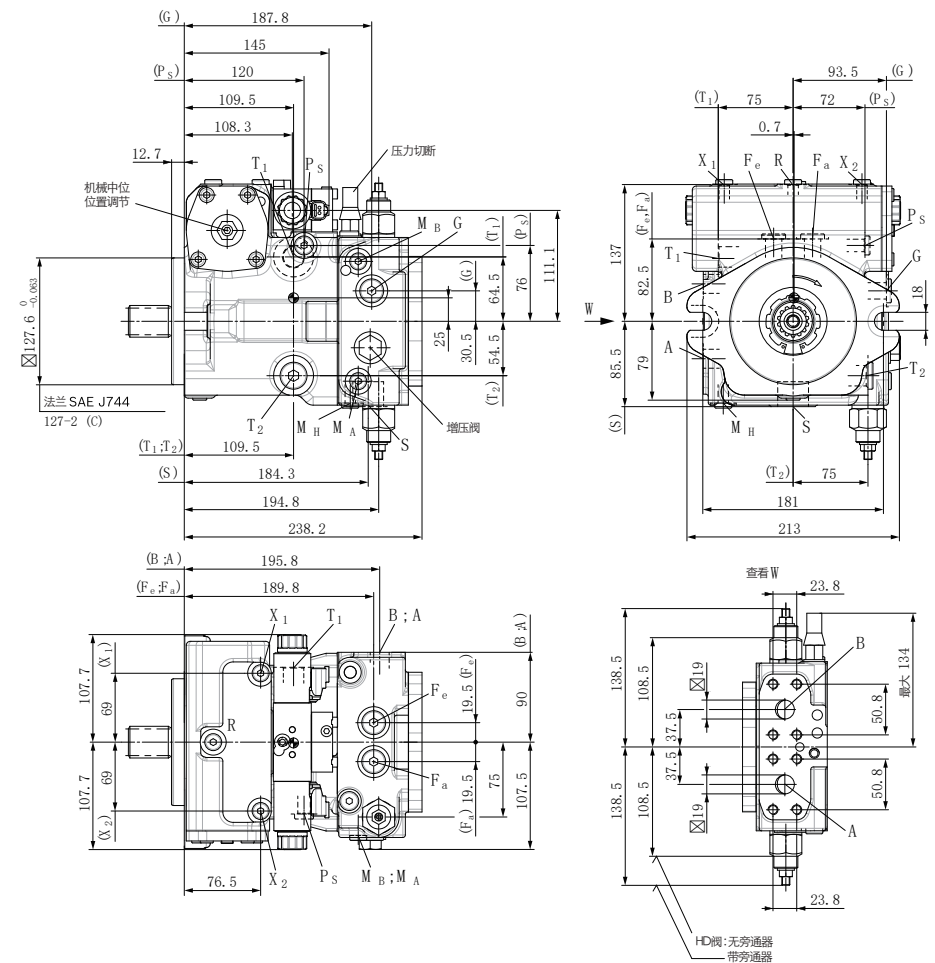


安装尺寸图 - 规格 63

SLNSTALLATION DIMENSIONS - Dimensions size 63

EP-比例控制, 电动

标准: SAE工作口A和B, 同一侧左侧, 吸入口S底部。



WA4VG 轴向柱塞变量泵 WA4VG AXIAL PISTON VARIABLE PUMP



WA4VG 采用斜盘结构设计的轴向柱塞变量泵，适用于闭式回路的静液压传动。

Variable axial piston pump of swashplate design for hydrostatic drives in closed circuit.

产品的特征和优点

- ① 用于补油和先导供油。
- ② 当斜盘通过中位时，流动方向会平稳改变。
- ③ 高压溢流阀也可作为补油阀使用。
- ④ 标配可提供可调节的压力切断装置。
- ⑤ 补油溢流阀。
- ⑥ 通轴驱动，可安装更多相同规格的泵。
- ⑦ 多种控制形式。
- ⑧ 斜盘式设计。

Features and Advantages

- ① For oil replenishment and pilot oil supply.
- ② As the swash plate passes through the center, the flow direction changes smoothly.
- ③ The high-pressure relief valve can also be used as an oil fill valve.
- ④ Adjustable pressure cut-off is available as standard.
- ⑤ Oil fill relief valve.
- ⑥ Through-shaft drive, allowing for the installation of more pumps of the same specifications.
- ⑦ Multiple forms of control.
- ⑧ Swash plate design.

型号编码 (WA4VG SERIES TYPE CODE)

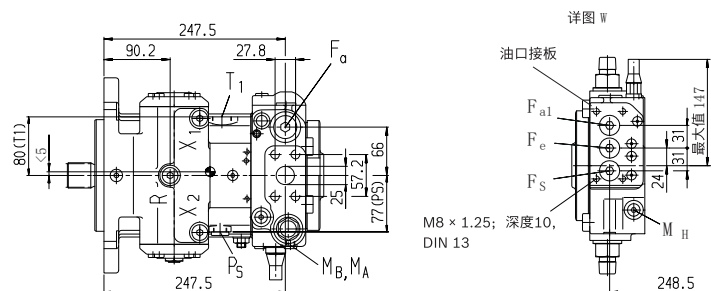
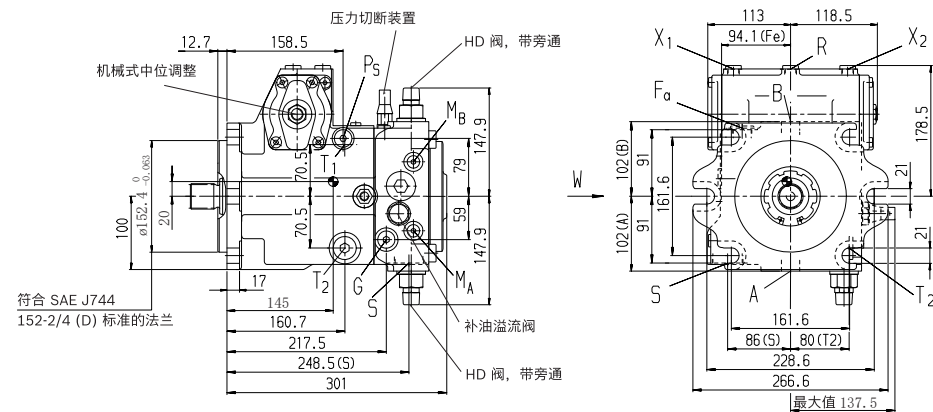
WA4V G 71 R HW V S C4	
标识 Code	轴向柱塞元件 Axial piston unit
WA4V	斜盘设计, 变量泵 Swashplate design, variable
标识 Code	工作模式 Operation mode
G	泵, 闭式回路 Pump, closed circuit
标识 Code	排量 Displacement
71	71 mL/r
90	90 mL/r
标识 Code	旋转方向(从轴端上看) Direction of rotation Viewed at shaft end
R	顺时针 Clockwise
L	逆时针 Anticlockwise
标识 Code	安装法兰 Mounting flange
C4	SAE J744, 127-4
标识 Code	旋花键轴 Splined shaft
S	不带连接法兰 Without coupling flange
L	带连接法兰 With coupling flange
标识 Code	密封件 Seals
V	FKM氟橡胶 Fluor-caoutchouc
标识 Code	控制设备 Control device
HW	液压比例控制, 机械伺服 Proportional control hydraulic Mechanical servo
Ep3	12V DC, 电气比例控制 Proportional control electric
Ep4	24V DC, 电气比例控制 Proportional control electric

技术参数 (TECHNICAL PARAMETERS)

规 格 Model	71	90
变量泵排量 Variable pump displacement	71 mL/r	90 mL/r
辅助泵排量 Boost pump displacement	19.6 mL/r	19.6 mL/r
最高转速 Maximum speed	3300 r/min	3050 r/min
最低转速 Minimum speed	500 r/min	500 r/min
流 量 Flow	234 L/min	275 L/min
功 率 Power	156 KW	183 KW
最大扭矩 Maximum torque	451 Nm	573 Nm
工作方式 Operation mode	闭式系统 Closed circuit	

安装尺寸图 - 规格 71

SLNSTALLATION DIMENSIONS - Dimensions size 71



安装尺寸图 - 规格 90

SLNSTALLATION DIMENSIONS - Dimensions size 90

