



中颐液压
ZHONGYI HYDRAULIC

螺旋液压

ZHONGYI HYDRAULIC

摆动马达

ROTARY ACTUATORS



威海中颐液压科技有限公司





公司简介

COMPANY PROFILE

威海中颐液压科技有限公司位于山东威海市，是一家集科研、制造、销售为一体的专业螺旋液压摆动马达的生产商。公司创建于2016年，拥有一支高素质的员工团体。秉承“务实、严谨、高效、负责”的经营理念，坚持诚信、友善、科学的发展企业。竭力为用户提供合格产品。公司已制造出10、20、30、40、50、60、70七大系列四十大类七百多种产品。目前已出口美国、加拿大、澳大利亚、波兰、瑞典、西班牙、智利等多个国家。广泛应用于矿山、基建、海洋钻探各个领域。以可靠的质量，获得广大用户的好评。

Weihai ZHONGYI Hydraulic Technology Co., LTD. is located in Weihai, Shandong Province, which is a professional manufacturer of Hydraulic Rotary Actuators together with Research and development, manufacturing and sales. Our company was founded in 2016 and owns a high quality staff group. We insist on developing our business by the way of integrity, friendly, scientific philosophy and do our best to supply high quality products to our customers under the business philosophy of "pragmatic, rigorous, efficient, responsible". The company owns five series of products, including 10, 20, 30, 40, 50, 60 and 70, with forty categories and seven hundred of sub-categories. So far, we have exported our products to USA, Canada, Australia, Poland, Sweden, Spain and Chile. Production are being widely used in mining, infrastructure, offshore drilling industries and so on and won a favorable reputation by the reliable quality.

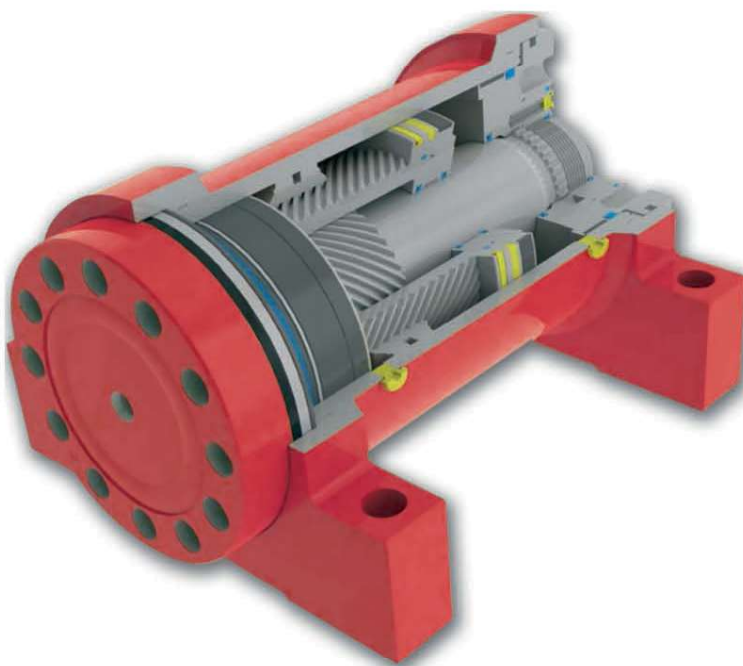
产品内部结构

Product internal structure

工作原理 / Description

螺旋液压摆动马达的工作原理：通过滑动花键操作技术把活塞的直线运动转化成强有力的轴的摆动。每个摆动马达由一个壳体及两个运动件—中心轴及活塞组成。活塞外径上的第二组螺旋花键与壳体上的齿轮相啮合。

The operating concept of the hydraulic rotary actuators designed and manufactured by zoomye is simple: The linear motion of the piston is converted into a rotation movement by twin helical gears, the first between the piston and the splined bushing, the second matching helical gears between the shaft and the piston.





应用行业

Application industry

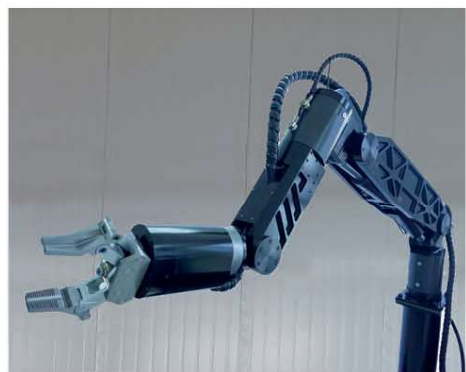
农业 材料处理
建筑 军工
能源 矿山
船舶 卡车 / 拖车
及其它行业

Agriculture
Construction
Energy
Marine

Material handling
Military
Mining
Truck/Trailer
And many others...

螺旋液压摆动马达用于移动、支撑及定位……

ZHONGYI actuators move, support and position...





型号代码参考选项

Model Code Reference Guide

Z30 - 25 - 180/90 - M - FT - SC - CO4 - H

1 2 3 4 5 6 7 8 9

型号代码描述 Model Code Description	Z10 系列 Z10 Series	Z20 系列 Z20 Series	Z30 系列 Z30 Series
1 摆动马达系列 Actuator Series	Z10	Z20	Z30
2 扭矩 in-Lb Torque	1.7 9.5 3.0 15 5.5 25 7.5 80	4.5 30 8.2 39 15 25	17 80 165 1600 25 95 215 42 HP125 250 65 125 380
3 标准旋转角度 Standard Rotation	180-180° 360-360°	180-180°	180-180° 360-360°
4 特殊旋转角度 Special Rotation	标准设计带内部限位块以限制转向-指出所需的角度的。 Standard design with internal stop tube to limit rotation - indicates final rotation.		
5 单位制式 Screw	E-英制 English Screw	M-公制 Metric Screw	ES/MS-客户订制 Custom Design
6 壳体规格 Housing Configuration	RF-后法兰 Rear Flange	FT-底脚安装 Foot Mount	FT-底脚安装 Foot Mount FF-前法兰 Front Flange
7 轴/端盖规格 Shaft/End cap Configuration	SC-安装孔 SC Mounting holes in shaft flange only.	SC-安装孔 轴法兰带系杆通孔 (型号4.5, 8.2及15K) DC-安装孔 轴及端盖法兰 (型号25及39K) SC-Mounting holes in shaft flange with through-hole for tie rod (4.5, 8.2, and 15k models) DC-Mounting holes in shaft and endcap flanges (25 and 39k models)	SC-安装孔 仅轴法兰 DC-安装孔 轴及端盖法兰 CL-马蹄铁 RL-轨道 RB-加强板 SC-Mounting holes in shaft flange only DC-Mounting holes in shaft and end cap flanges CL-Clevis RL-Rail RB-Reinforced plate
8 阀选项 Valve Options	C-平衡阀 C-Counterbalance Valve CO4-7/16 UNF油口; SAE-4 Port CO6-9/16 UNF油口; SAE-6 Port	O-不带平衡阀 O-No Valve CG4-G1/4 油口; G1/4 Port CG6-G3/8 油口; G3/8 Port	V-预装阀平面 V-Valve Ready
9 密封 Seals	H-标准密封及轴承 H-Standard Seals and Bearings	S-特殊密封及轴承 S-Special Seals and Bearings	

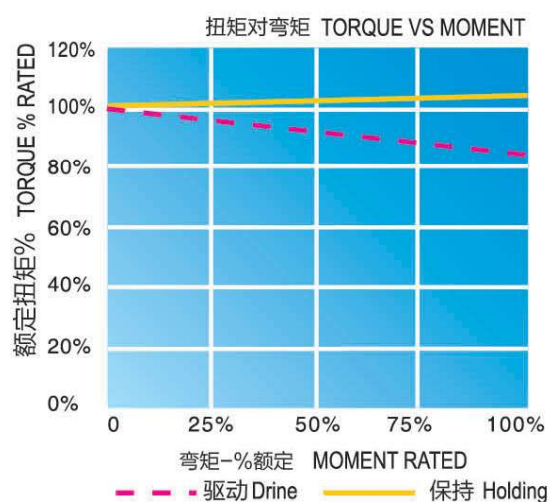
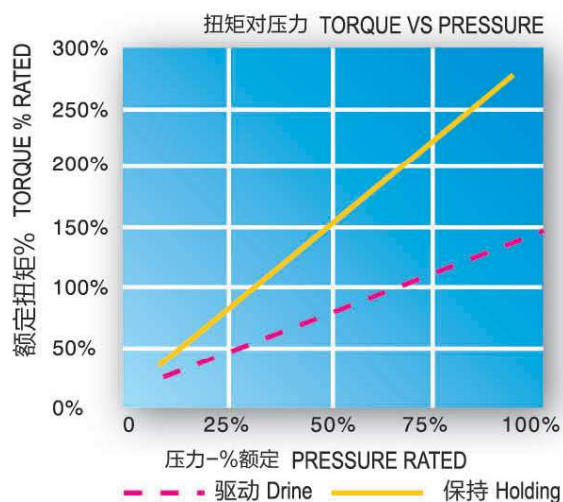
摆动马达性能

Actuator Performance

扭矩与液压压力及负载的关系 / Torque Versus Hydraulic Pressure and Loads

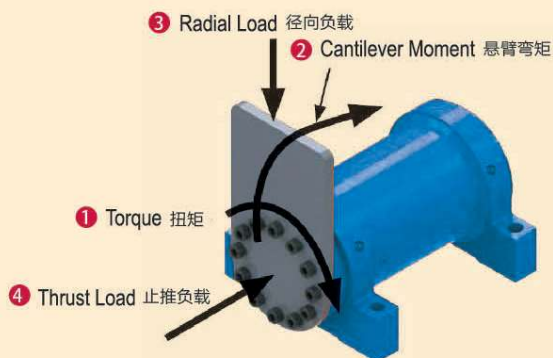
驱动扭矩及保持扭矩与液压压力大约为线性关系。当弯矩负载增加的时候，驱动扭矩大约减小15%。

The driving torque and holding torque are approximately linear with hydraulic pressure. As moment loads increase, drive torque may be reduced by up to 15%.

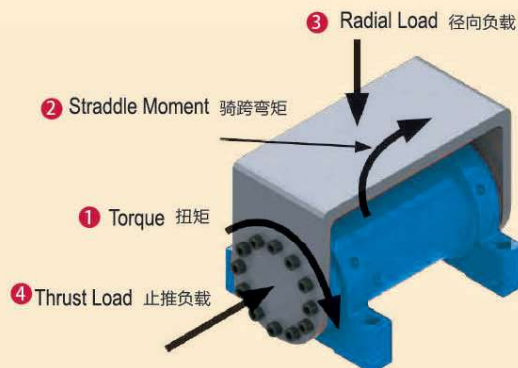


安装参考指南 / Installation reference guide

Cantilever mount / 悬臂式安装



Straddle mount / 骑跨式安装



警告 / Warning

不正确的选择、安装或使用本产品或系统可能造成故障、死亡、人身伤害或财产损失。
 improper selection, installation, or use of zoomye products or systems may result in failure and cause death, personal injury or property damage.

主要系列概述

Main series overview

Z10 系列

摆动角度 / Rotation:	180° and 360°
最大驱动扭矩 / Maximum Drive Torque:	190Nm-9000Nm/1,700 to 79,600 in-lb
最大保持扭矩 / Maximum Holding Torque:	630Nm-22000Nm/5,600 to 200,000 in-lb
最大悬臂弯矩 / Maximum Straddle Moment:	565Nm-23000Nm/5,000 to 210,000 in-lb
安装方式 / Mounting:	法兰 / Flange

Z20 系列

摆动角度 / Rotation:	180° and 270°
最大驱动扭矩 / Maximum Drive Torque:	508Nm-4400Nm/4,500 to 39,000 in-lb
最大保持扭矩 / Maximum Holding Torque:	1300Nm-10530Nm/1,800 to 93,200 in-lb
最大骑跨弯矩 / Maximum Straddle Moment	2500Nm-31600Nm/22,500 to 280,000 in-lb
最大悬臂弯矩 / Maximum Cantilever Moment:	1356Nm-15820Nm/12,000 to 140,000 in-lb
安装方式 / Mounting:	地脚 / Foot

Z30 系列

摆动角度 / Rotation:	180° and 360°
最大驱动扭矩 / Maximum Drive Torque:	1920Nm-42900Nm/17,000 to 380,000 in-lb
最大保持扭矩 / Maximum Holding Torque:	4900Nm-11000Nm/43,600 to 936,000 in-lb
最大骑跨弯矩 / Maximum Straddle Moment	13400Nm-170000Nm/119,000 to 1,505,000 in-lb
最大悬臂弯矩 / Maximum Cantilever Moment:	5200Nm-64400Nm/45,900 to 570,000 in-lb
安装方式 / Mounting:	地脚 / Foot 法兰 / Flange

Z40 系列

摆动角度 / Rotation:	220°
最大驱动扭矩 / Maximum Drive Torque:	2830Nm-3050Nm/25,000to 27,000 in-lb
最大保持扭矩 / Maximum Holding Torque:	6100Nm-6590Nm/54,200to58536 in-lb
最大骑跨弯矩 / Maximum Straddle Moment	4240Nm-4575Nm/37,500to 40500 in-lb
安装方式 / Mounting:	地脚 / Foot

Z50 系列（挖机）

摆动角度 / Rotation:	120° and 180°
最大驱动扭矩 / Maximum Drive Torque:	927Nm-14688Nm/8,200 to 130,000 in-lb
最大保持扭矩 / Maximum Holding Torque:	2260Nm-33700Nm/20,000 to 298,100 in-lb

Z60 系列

摆动角度 / Rotation:	110° and 360°
最大驱动扭矩 / Maximum Drive Torque:	290Nm-12800Nm/2,580 to 113,280 in-lb

Z70 系列（阀门控制）

摆动角度 / Rotation:	90°
最大驱动扭矩 / Maximum Drive Torque:	61Nm-13400Nm/540 to 120,000 in-lb

安装选项

setup options

悬臂式安装 / Cantilever mount

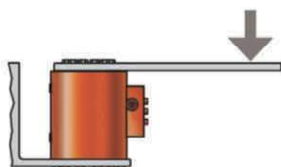
负载被安装于轴法兰且仅由轴的一端来支撑。
 悬臂式安装不推荐用于高空作业平台或者其它严格与安全相关的应用。

The load is mounted on the shaft flange and is supported only by one end of the shaft.
 Cantilever installation is not recommended for high altitude operation platform.

骑跨式安装 / Straddle mount

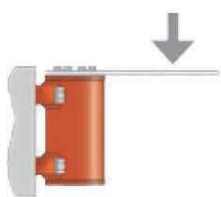
负载由轴两端来支撑。
 The load is supported by both ends of the shaft.

Z10 系列

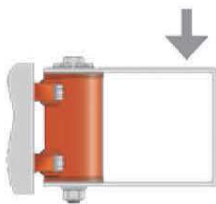


悬臂式安装 / Cantilever Mount

Z20 系列



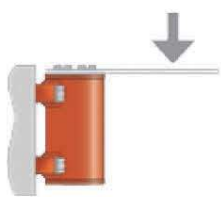
悬臂式安装
Cantilever Mount



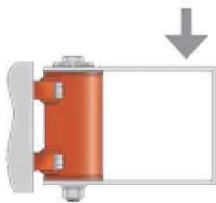
骑跨式安装
Straddle Mount

支架上部用螺栓安装于轴法兰上，下部通过一个连杆穿过轴中心孔被固定。
The upper portion of the bracket is bolted to the shaft flange. The lower portion is secured by tie rod passed through the shaft bore.

Z30 系列



悬臂式安装
Cantilever Mount



骑跨式安装
Straddle Mount

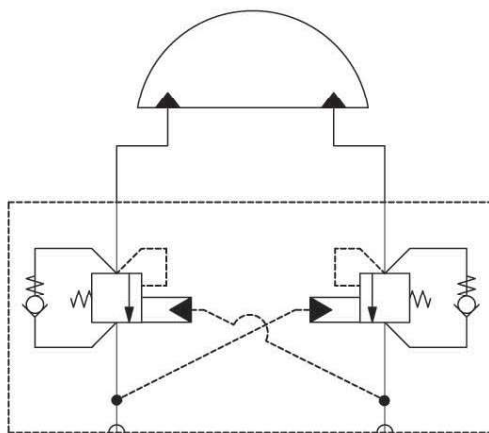
支架上部用螺栓安装于轴法兰上，下部用螺栓安装于端盖法兰上。
The upper portion of the bracket is bolted to the shaft flange, the lower portion is bolted to the end cap flange.

阀规格

Valve Configurations

可选工厂安装的平衡阀，以防止在液压管路故障时的摆动，控制当负载过重时的转向以及在扭矩过载时保护摆动马达。

Optional factory mounted counterbalance valves prevent rotation in the event of a hydraulic line failure, control rotation when loads go over center, and protect the actuator against Excessive torque loads.



可选平衡阀的液压原理图

Z10, Z20 系列 / Z10,Z20 Series

阀块材质为铝的，用螺栓安装于摆动马达壳体铣成的平面上，通过三个螺栓固定阀于马达上，阀的位置参见规格页。

先导比是 3:1. 阀的溢流压力设置在 3300psi±300psi(228bar±21bar)。

Manufactured from aluminum, the valve blocks are bolted to a flat mounting pad on the actuator. Housing, Three bolts secure the valve block to the actuator. See specification pages for valve location. The pilot ratio is 3:1. The valves are set to relieve at 3300 psi ±300 psi (228 bar ±21 bar).

Z30 系列 / Z30 Series

用于 Z30-17 和 Z30-25 180°的标准平衡阀。

阀块材质为铝的，用螺栓安装于摆动马达壳体铣成的一个平面上，通过三个螺栓固定阀于摆动马达上，阀的位置参见规格页。

先导比是 3:1. 阀的溢流压力设置在 3300psi±300 psi(228bar±21bar)。

Standard Valve for L30-17 and L30-25 180 Degree Models

Manufactured from aluminum, the valve blocks are bolted to a flat mounting pad on the actuator housing. Three bolts secure the valve block to the actuator. See specification pages for valve location.

The pilot ratio is 3:1. The valves are set to relieve at 3300 psi ±300 psi (228 bar ±21 bar).

所有其他 Z30 系列摆动马达的标准平衡阀阀块材质为钢的，用螺栓安装于摆动马达壳体铣成的一个平面上，通过三个螺栓固定阀于摆动马达上，阀的位置参见规格页。

先导比是 2.5:1。

阀的溢流压力设置在 3625psi±360 psi(250bar±25bar)。

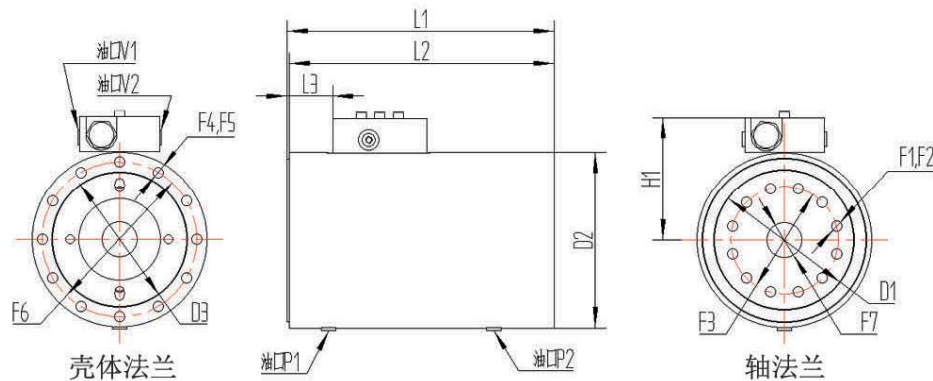
Standard Valve for all other L30 Series Actuators

Manufactured from ductile iron, the valve blocks are bolted to a flat mounting pad on the actuator housing, usually over port P1. Factory installed steel tubing connects the valve to port P2. Valve locations and plumbing routing differ among sizes. See specification pages for details. The pilot ratio is 2.5:1. The valves are set to relieve at 3,625 psi +/- 360 psi (250 bar +/- 25 bar).

预装阀选项 / Valve ready option

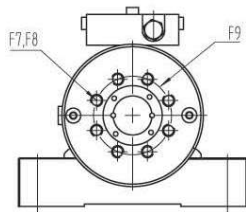
仅于所选的型号可供。摆动马达在壳体上加工了一个平的安装面并带有螺纹安装孔可以用来进行阀的安装。摆动马达对着阀的油口已经加螺堵以允许摆动马达装与不装阀。

Available on select models only, the actuator has a flat mounting pad machined on the housing with threaded holes to accept the valve mounting bolts. The actuator-to-valve ports have threaded plugs which allow the actuator to be used with or without a valve.

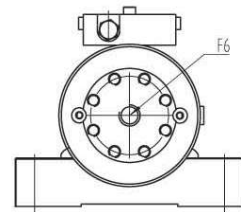


Z10 规格 / Size		1.7	3.0	5.5	7.5	9.5	15	25	80
扭矩 (A) / Torque (A)									
驱动扭矩 Drive Torque	In-lb@3000psi	1700	3000	5500	6940	9500	15000	25000	79600
	Nm@210bar	190	340	620	780	1075	1695	2825	9000
保持扭矩 Holding Torque	In-lb@3000psi	5600	11000	17000	17000	34000	50000	83000	200000
	Nm@210bar	630	1020	1900	1900	3800	5700	9400	22000
弯矩能力 (B) 悬臂式安装 / Moment Capacity (B), Cantilever Mount									
能力 Torque	In-lb	5000	9000	20000	20000	50000	80000	100000	210000
	Nm	565	1020	2260	2260	5650	9040	11300	23000
径向负载 (C) / Radial Capacity (C)									
径向 Capacity	lb	2000	3000	4000	4000	8000	11000	15000	21000
	kg	907	1360	1850	1850	3630	4990	6800	9500
轴向负载 (D) / Axial Capacity (D)									
轴向 Capacity	lb	2000	3000	4000	4000	8000	11000	15000	21000
	kg	907	1360	1850	1850	3630	4990	6800	9500
排量 / Displacement									
180°	In ³	3.90	7.40	11.7	14.6	22.3	33.7	558	1524
	cc	63.9	116.5	192	240	375	560	921	2500
360°	In ³		14.80	23.40		44.70	67.40	111.60	3050
	cc		233	384		733	1120	1842	5000
大约重量 / Approximate Weight									
180°	lb	14.0	22.0	31.0	35.2	57.0	95.0	125	395
	kg	6.35	10.0	14.1	16	25.9	43.1	56.7	179
360°	lb		28.0	42.0		77.0	120	183	683.5
	kg		12.7	19.1		34.9	54.4	83.0	310
D1 轴安装表面 直径 D1 Shaft mounting surface diameter	in	3.04	3.50	4.00	4.84	5.00	5.81	7.27	9.84
	mm	77.2	89.0	102	123	127	148	185	250

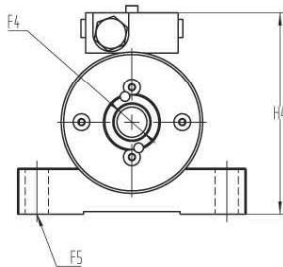
Z10 规格 /Size		1.7	3.0	5.5	7.5	9.5	15	25	80
D2 壳体直径 D2 Housing diameter	in	3.90	4.70	5.30	5.31	6.70	7.80	8.90	11.575
	mm	101	119.1	135	135	170	196.8	225.5	294
D3 安装法兰内径 D3 Mounting flange inside diameter	in	3.02	3.66	4.12	4	5.28	6.16	7.32	8.97
	mm	73	88.8	101.6	101.6	130.15	152.4	180.95	228
F1 轴法兰安装孔 F1 Mounting holes, shaft flange	英寸 /inch	5/16-18	5/16-18	3/8-16	3/8-16	1/2-13	1/2-13	5/8-11	3/4-10
	深度 /deep	0.5	0.5	0.63	0.63	0.75	0.75	1.00	1.13
	米制 /metric	M8*1.25	M8*1.25	M10*1.5	M10*1.5	M12*1.75	M12*1.75	M16*2	M20*2.5
	深度 /deep	11.9	12.0	15.2	16	19.1	19.1	25.4	30.0
F2 轴法兰安装孔数量 F2 Number of mounting holes, shaft flange		8	8	12	12	12	12	12	12
F3 轴法兰螺栓圆直径 F3 Bolt circle diameter, shaft flange	in	2.125	2.875	3.125	3.125	4.000	5.000	5.500	6.3
	mm	54.0	73.0	80.0	80	102	127	140	160
F4 壳体法兰安装孔 F4 Mounting holes, housing flange	英寸 /inch	5/16-18	5/16-18	3/8-16	3/8-16	1/2-13	1/2-13	1/2-13	3/4-10
	深度 /deep	0.5	0.5	0.63	0.63	0.75	0.75	0.75	1.13
	米制 /metric	M8*1.25	M8*1.25	M10*1.5	M10-1.5	M12*1.75	M12*1.75	M12*1.75	M20*2.5
	深度 /deep	11.9	12.0	15.2	16	19.1	19.1	25.4	30.0
F5 壳体法兰安装孔数量 F5 Number of mounting holes, housing flange		8	8	12	12	12	12	12	12
F6 壳体法兰螺栓圆直径 F6 Bolt circle diameter, housing, flange	in	3.375	4.063	4.625	4.6	5.938	6.875	8.000	10.0
	mm	86.0	103	117	117	151	175	203	254
F7 轴通孔直径 F7 Shaft through-hole diameter	in	0.56	0.66	0.84	0.84	1.41	1.80	2.63	
	mm	14.3	17.0	21.4	21.5	35.7	45.7	66.7	
H1 中心线到阀顶部 H1 Centerline to valve top	in	3.15	3.53	3.85	97.8	4.53	5.07	5.63	7
	mm	80.4	91	98.8		117.5	131	143.5	177.5
L1 整体长度 / L1 Overall Length									
180°	in	5.50	5.63	6.13	6.72	7.25	8.83	9.50	16.87
	mm	140	143	156	170.7	184	224	241	428.5
360°	in		7.45	8.35		10.15	12.25	13.64	25.65
	mm		189	212		258	311	346	651.5
L2 整体长度，非转动部分 / L2 Overall Length, non-rotating									
180°	in	5.45	5.58	6.08	6.7	7.17	8.72	9.40	16.08
	mm	138	142	154	169.4	182	221	239	408.5
360°	in		7.40	8.30		10.07	12.14	13.54	25.65
	mm		188	211		256	308	344	651.5
L3 轴法兰到平衡阀 / L3 Shaft flange to counterbalance valve									
180°	in	1.00	1.06	1.09	0.97	1.10	1.52	1.73	
	mm	25.4	26.9	27.7	24.6	27.9	38.6	43.9	
360°	in		0.89	0.97		1.68	2.37	2.77	7.48
	mm		22.6	24.6		42.7	60.2	70.4	190mm
P1, P2 壳体油口 P1, P2 Ports, housing	英寸 inch	ISO-11926/SAE 系列油口，尺寸为 7/16. 详细请见图纸。 ISO-11926/SAE Series of ports. Sizes are 7/16. See drawings for details.							
V1V2 阀油口 V1V2 Ports, valve	米制 metric	ISO-1179-1/BSPP “G” 系列油口。尺寸为 1/8. 详细请见图纸 ISO-1179-1/BSPP ‘G’ Series of ports. Sizes are 1/8. See drawings for details.							



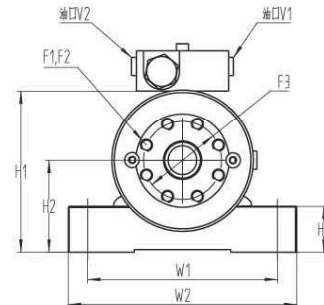
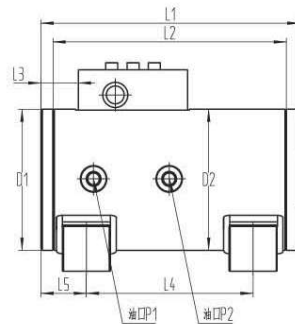
Z20-25,39端盖



Z20-25,39轴法兰



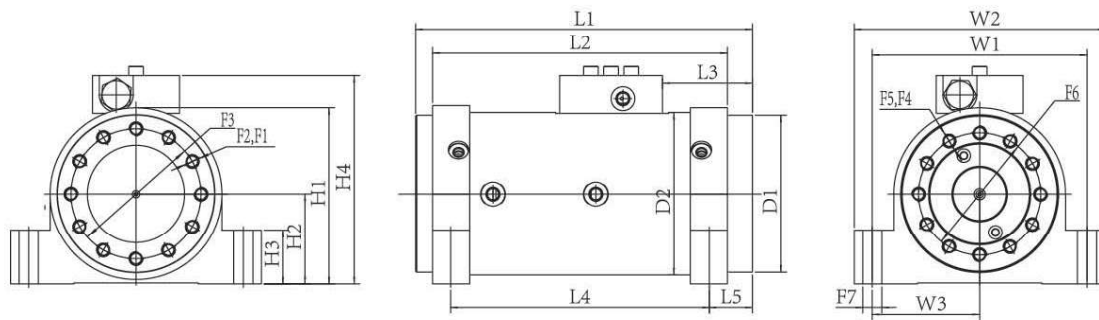
Z20-4.5,8.2,15端盖



Z20-4.5,8.2,15轴法兰

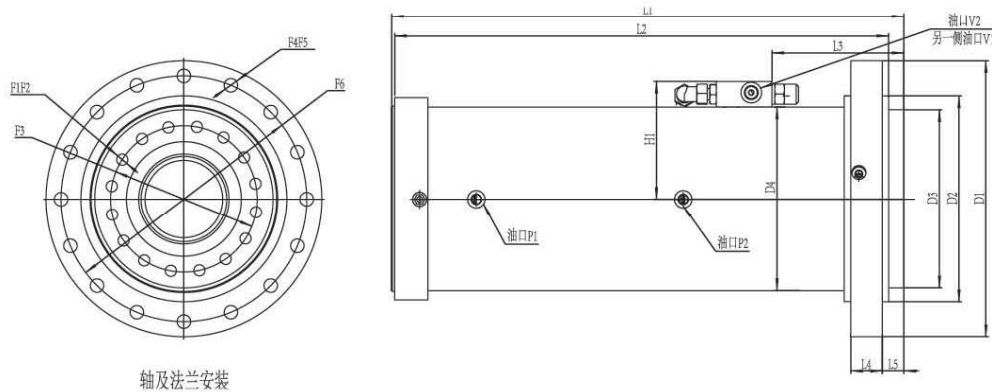
Z20 规格 / Size		4.5	8.2	15	25	30	39
扭矩 (A) / Torque (A)							
驱动扭矩 Drive Torque	In-lb@3000psi	4500	8200	15000	25000	30000	39000
	Nm@210bar	508	930	1690	2830	3390	4400
保持扭矩 Holding Torque	In-lb@3000psi	11800	21000	38720	62900	75000	93200
	Nm@210bar	1300	2400	4400	7100	8500	10530
弯矩能力 (B) / Moment Capacity (B)							
悬臂式安装 Cantilever Moment	In-lb	12000	22000	48000	100000		140000
	Nm	1356	2485	5420	11300		15820
骑跨式安装 Straddle Moment	In-lb	22500	40000	90000	145000	250000	280000
	Nm	2500	4500	10200	16400	28250	31600
径向负载 (C) / Radial Capacity (C)							
径向 Capacity	lb	3050	4700	9230	12300		21000
	kg	1380	2130	4190	5580		9530
轴向负载 (D) / Axial Capacity (D)							
轴向 Capacity	lb	1100	1500	2200	3100		3900
	kg	500	680	1000	1410		1770
排量 / Displacement							
180°	In³	8.05	14.3	26.6	44.6		65.7
	cc	176	234	436	726		1097
大约重量 / Approximate Weight							
180°	lb	27.0	37.0	66.0	113	169.6	169
	kg	12.2	16.8	29.9	51.3	77	76.7
D1 轴及端盖法兰直径 D1 Shaft and endcap flange diameter	in	4.13	4.65	5.63	6.70	7.165	7.70
	mm	104	116.8	142	170	182	196
D2 壳体直径 D2 Housing diameter	in	4.13	4.65	5.53	6.50	7.165	7.44
	mm	104	116.8	142	165	182	189
F1 轴法兰安装孔 F1 Mounting holes, shaft flange	英寸 / inch	3/8-16	3/8-16	1/2-13	3/4-10	3/4-10	3/4-10
	深度 / deep	0.54	0.54	0.75	1.13	1.13	1.25
	米制 / metric	M10*1.5	M10*1.5	M12*1.75	M20*2.5	M20*2.5	M20*2.5
	深度 / deep	12.7	15.2	19.1	30.0	30.0	28.0

Z20 规格 /Size		4.5	8.2	15	25	30	39
F2 轴法兰安装孔数量 F2 Number of mounting holes, shaft flange		6	8	8	8	8	10
F3 轴法兰螺栓圆直径 F3 Bolt circle diameter, shaft flange	in	2.125	2.625	3.375	4.000	4.33	4.750
	mm	54	65.0	85.0	102	110	121
F4 轴通孔直径 F4 Shaft through-hole diameter	英寸 /inch	3/4	1	1			
	米制 /metric	M20	M24	M24			
F5 地脚孔直径 F5 Foot hole diameter	in	5/8	3/4	1	1		1 1/4
	mm	M16	M20	M24	M24		M30
F6 轴中心孔尺寸 F6 Shaft center hole size	英寸 /inch				1-8		1 1/4-7
	深度 /deep				2.00		2.00
	米制 /metric				M24*3	M30*3.5	M25*3
	深度 /deep				25	45	20
F7 端盖法兰安装孔 F7 Mounting holes, endcap flange (S2)	英寸 /inch				1/2-13		5/8-11
	深度 /deep				0.75		0.94
	米制 /metric				M12*1.75	M16*2	M16*2
	深度 /deep				18	24	25
F8 端盖法兰安装孔量 F8 Number of mounting holes, endcap flange (S2)					8	8	10
F9 端盖法兰螺栓圆直径 F9 Bolt circle diameter, endcap flange (S2)	in				4.25	4.53	4.75
	mm				108	115	122
H1 整体高度 (不包括阀) H1 Overall height (excluding valve)	in	4.65	5.3	6.18	7.6		8.47
	mm	118	134.6	157	193		215.2
H2 到中心线高度 H2 Height to centerline	in	2.60	3.00	3.38	4.25		4.75
	mm	66.0	76.2	86	108		120.7
H3 底脚高度 H3 Foot height	in	1.35	1.5	1.75	2.50		2.75
	mm	34.3	38	44.5	63.5		70.0
H4 整体高度 (带阀) H4 Overall height (with valve)	in	5.85	6.48	7.36	8.7		9.66
	mm	148.5	164.7	187	221		245.3
L1 整体长度 L1 Overall length	in	7.40	8.50	9.75	11.75		13.25
	mm	188	216	248	298		337
L2 非转动部分整体长度 L2 Overall length, non-rotating	in	6.80	7.76	9.01	10.87		12.37
	mm	173	197	229	276		314
L3 轴法兰到平衡阀 L3 Shaft flange to counterbalance valve	in	1.26	1.36	1.76	1.92		1.93
	mm	30.3	33.2	44	49		49.0
L4 安装长度 L4 Mounting length	in	4.38	5.50	6.00	7.25		8.50
	mm	111	140	152	184		216
L5 轴法兰到安装孔 L5 Shaft flange to mounting hole	in	1.49	1.48	1.85	2.25		2.38
	mm	37.9	37.6	47.0	57		60.5
W1 安装宽度 W1 Mounting width	in	5.50	6.00	7.75	8.75		10.50
	mm	145	152	197	222		267
W2 整体宽度 W2 Overall width	in	7.00	7.50	9.75	11.00		13.00
	mm	178	191	248	279		330
P1, P2 壳体油口 P1, P2 Ports, housing V1, V2 阀油口 V1, V2 Ports, valve	英寸 inch 米制 metric	ISO-11926/SAE 系列油口。尺寸从 7/16。详情请参见图纸。 ISO-11926/SAE Series of ports. Sizes are 7/16. See drawings for details.					



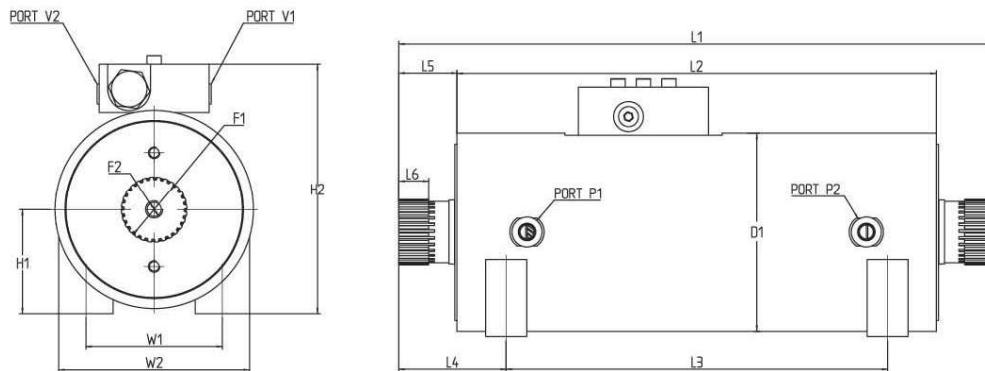
Z30 规格 / Size		17	25	42	65	95	125	165	215	250	380	1600
扭矩 (A) / Torque (A)												
驱动扭矩 Drive Torque	In-lb	17000	25000	42000	65000	95000	125000	165000	215000	250000	380000	1660000
	Nm	1920	2820	4750	7340	10700	14100	18600	24300	28500	42900	186000
保持扭矩 Holding Torque	In-lb	43600	60400	103000	162000	232000	306000	404000	520000	520000	936000	4500000
	Nm	4900	6800	12000	18000	26000	35000	46000	59000	59000	110000	500000
弯矩能力 (B) / Moment Capacity (B)												
悬臂式安装 Cantilever Mount	In-lb	45900	62500	105000	162500	261250	343750	495000	645000	650000	650000	650000
	Nm	5200	7100	11900	18400	29500	38800	55900	72900	73000	72900	72900
骑跨式安装 180° Straddle Mount 180°	In-lb	119000	150000	273000	423000	665000	875000	1155000	1105000	1105000	1105000	1105000
	Nm	13400	16900	30800	47800	75100	90900	130500	170000	170000	170000	170000
骑跨式安装 360° Straddle Mount 360°	In-lb	170000	218000	402000	630000	987000	1295000	1755000	2270000	2270000	1505000	1505000
	Nm	19200	24600	45400	71200	111500	146000	197700	256500	256500	170000	170000
径向负载 (C) / Radial Capacity (C)												
径向 Capacity	lb	4000	5000	8000	11000	15000	18000	22000	26000	26000	26000	
	kg	1800	2300	3600	5000	6800	8200	10000	11800	11800	11800	
轴向负载 (D) / Axial Capacity (D)												
轴向 Capacity	lb	3000	4000	6000	8000	10000	13000	15000	18000	18000	18000	
	kg	1400	1800	2700	3600	4500	5900	6800	8200	8200	8200	
排量 / Displacement												
180°	In ³	29.8	42.5	72.2	114	164	216	284	366	479	732	3750
	cc	481	692	1190	1870	2725	3540	4678	6000	7850	12000	61000
360°	In ³	60.0	85.0	144	228	327	432	569	732	925		
	cc	962	1384	2380	3740	5450	7080	9360	12300	15160		
大约重量 / Approximate Weight												
180°	lb	76.0	110	160	240	360	490	610	790	823	1020	
	kg	34.5	49.9	72.6	110	160	220	280	360	375	465	
360°	lb	100	140	220	310	450	630	810	1000	1032		
	kg	45.4	63.5	100	140	200	290	370	455	470		
D1 轴安装表面直径 D1 Shaft mounting	in	5.47	6.09	7.22	8.22	9.22	10.34	11.35	12.22	13	12.22	22.42
	mm	139	155	183	208.8	234	262.6	288	310	330	310	569.4
D2 壳体直径 D2 Housing Diameter	in	5.67	6.19	7.17	8.07	9.13	9.92	10.98	12.12	12.76	12	22.05
	mm	144	155	183	205	232	253	279	308	324	305	560
F1 轴法兰安装孔 F1 Mounting holes, shaft flange (F2: Quantity of mounting holes: 12)	英寸 / inch	1/2-13	5/8-11	3/4-10	7/8-9	1-8	1 1/8-7	1 1/8-7	1 1/4-7		1 1/4-7	
	深度 / deep	0.75	0.94	1.13	1.31	1.38	1.69	1.69	1.88		1.88	
	米制 / metric	M12*1.75	M16*2	M20*2.5	M22*2.5	M24*3	M27*3	M27*3	M30*3.5	M30*3.5	M30*3.5	M30*3.5
	深度 / deep	18.0	23.9	30.0	33.0	36.1	40.6	40.6	44.9	45	44.9	48

Z30 规格 /Size		17	25	42	65	95	125	165	215	250	380	1600
F3 轴法兰螺栓圆直径 F3 Bolt circle diameter, shaft flange	in	4.50	5.00	5.88	6.75	7.75	8.50	9.50	10.00	10.24	10.00	15.75
	mm	115	125	150	170	195	215	240	255	260	255	400
F4 端盖法兰安装孔 F4 Mounting holes, endcap flange, S2 (F5: Quantity of mounting holes: 12)	英寸 /inch	3/8-16	1/2-13	5/8-11	3/4-10	7/8-9	1-8	1-8	11/8-7		11/8-7	
	深度 /deep	0.56	0.75	0.94	1.13	1.31	1.50	1.50	1.69		1.69	
	米制 /metric	M10*1.5	M12*1.75	M16*2	M20*2.5	M22*2.5	M24*3	M24*3	M27*3	M27*3	M27*3	M30*3.5
F6 端盖法兰螺栓圆直径 F6 Bolt circle diameter, endcap flange S2	in	4.25	4.75	5.25	6.00	6.75	7.5	8.25	9.00	9.84	9.00	15.75
	mm	108	120	133	150	170	190	210	230	250	230	400
F7 底脚孔直径 F7 Foot hole diameter	in	5/8	3/4	7/8	1	11/8	11/4	11/2	11/2	11/2	11/2	11/4
	mm	M16	M20	M22	M24	M27	M30	M36	M36	M36	M36	M30
H1 整体高度 H1 Overall height (excluding valve)	in	6.15	7.34	8.35	9.45	10.86	11.99	12.88	14.25	14.25	14.25	24.8
	mm	156	186	212	240	277.5	304	327	362	362	362	630
H2 到中心线高度 H2 Height to centerline	in	3.15	3.74	4.25	4.80	5.51	6.06	6.50	7.25	7.25	7.25	12.6
	mm	80.0	95	108	122	140	154	165	184	184	184	320
H3 底脚高度 H3 Foot Height	in	1.89	2.75	3.07	3.47	4.13	4.33	4.73	5.32	5.32	5.32	2.36
	mm	48	70	78	88	105	110	120	135	135	135	60
H4 整体高度 H4 Overall Height (with valve)	in	7.5	7.91	8.90	10.68	11.16	12.21	13.15	14.40	13.54	14.40	24.8
	mm	179	202	227	254	285	310	334	366	344	366	630
L1 整体长度 180° L1 Overall length 180°	in	11.73	12.72	14.37	16.24	18.70	20.63	21.71	23.62		35.67	42.44
	mm	298	323	365	413	475	524	551	600	622	906	1078
L1 整体长度 360° L1 Overall length 360°	in	16.81	18.51	21.18	24.20	27.76	30.55	32.92	35.67			
	mm	426	470	538	615	705	776	834	906			
L2 非转动部分整体长度 180° L2 Overall length 180°	in	10.26	11.27	12.73	14.27	16.95	18.21	19.39	21.02	22.2	33.37	40.6
	mm	261	284	323	362	431	462	495	537	563	843	1031
L2 非转动部分整体长度 360° L2 Overall length 360°	in	15.44	17.05	19.54	22.23	26.01	28.13	30.49	33.19			
	mm	389	433	496	564	660	715	774	843			
L3 轴法兰到平衡阀 180° L3 Shaft flange to counterbalance 180°	in	2.96	5.27	5.61	5.12	6.00	7.27	7.73	8.69		14.71	11.54
	mm	79.5	134	143	128	152	188	194.5	226		374	293
L3 轴法兰到平衡阀 360° L3 Shaft flange to counterbalance 360°	in	5.85	6.19	7.75	9.15	10.50	12.13	13.32	14.71			
	mm	143.5	157	197	190	261	308	338	374			
L4 安装长度 180° L4 Mounting length 180°	in	9.02	9.76	11.06	12.36	14.73	15.75	16.77	18.11	19.17	30.16	27.56
	mm	229	248	281	314	374	400	426	460	487	766	700
L4 安装长度 360° L4 Mounting length 360°	in	14.09	15.55	17.87	20.32	23.78	25.67	27.88	30.16			
	mm	357	395	454	516	604	652	708	766			
L5 轴法兰到安装孔 L5 Shaft flange to mounting hole	in	1.50	1.73	1.97	2.24	2.36	2.92	2.99	3.15	3.22	3.15	7.44
	mm	38	44	50.0	57	60	75	76	80.0	82	80.0	189
W1 安装宽度 W1 Mounting width	in	7.48	9.06	10.24	11.81	13.39	14.96	16.14	17.72	18.11	17.72	25
	mm	190	230	260	300	340	380	410	450	460	450	635
W2 整体宽度 W2 Overall width	in	8.74	10.55	12.21	13.78	15.75	17.60	19.06	20.87	20.86	20.87	21.85
	mm	222	268	310	350	400	447	484	530	530	530	555
P1, P2 壳体油口 P1, P2 Ports, housing V1, V2 阀油口 V1, V2 Ports, valve	英寸 inch 米制 metric	ISO-11926/SAE 系列油口。尺寸从 7/16 到 3/4。详情请参见图纸。 ISO-11926/SAE Series of ports. Sizes vary from 7/16 to 3/4. See drawings for details. metric ISO91179-1/BSPP “G” 系列油口。尺寸从 1/4 到 1/2。详情请参见图纸。 ISO-1179-1/BSPP ‘G’ Series of ports. Sizes vary from 1/4 thru 1/2. See drawings for details.										



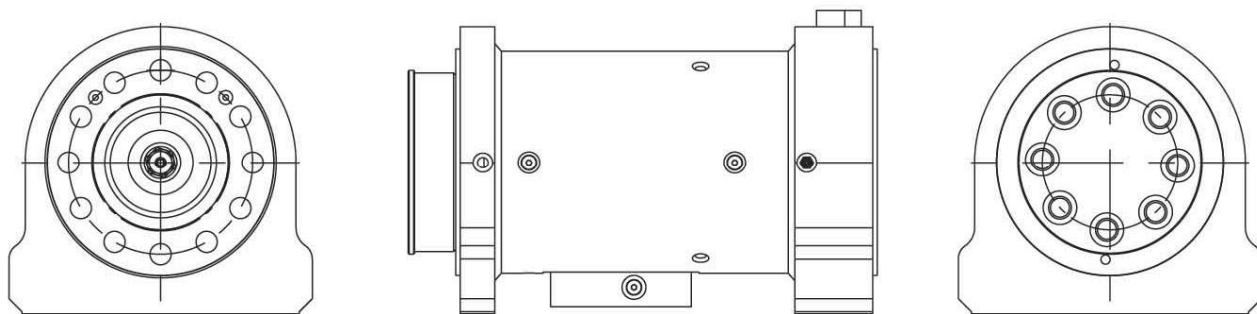
Z30 规格 / Size		17	25	42	65	80	95	HP125	125	165	215	250	380
扭矩 (A) / Torque (A)													
驱动扭矩 Drive Torque	In-lb	17000	25000	42000	65000	79600	95000	125000	125000	165000	215000	250000	380000
	Nm	1920	2820	4750	7340	9000	10700	14100	14100	18600	24300	28500	42900
保持扭矩 Holding Torque	In-lb	43600	60400	103000	162000	200000	232000	306000	306000	404000	520000	520000	936000
	Nm	4900	6800	12000	18000	22000	26000	35000	35000	46000	59000	59000	110000
弯矩能力 (B) / Moment Capacity (B)													
悬臂式安装 Cantilever Mount	In-lb	45900	62500	105000	162500	210000	261250	343750	343750	495000	645000	650000	650000
	Nm	5200	7100	11900	18400	18400	29500	38800	38800	55900	72900	73000	72900
骑跨式安装 180° Straddle Mount 180°	In-lb	119000	150000	273000	423000	423000	665000	875000	875000	1155000	1105000	1105000	1105000
	Nm	13400	16900	30800	47800	47800	75100	90900	90900	130500	170000	170000	170000
骑跨式安装 360° Straddle Mount 360°	In-lb	170000	218000	402000	630000	630000	987000	1295000	1295000	1755000	2270000	2270000	1505000
	Nm	19200	24600	45400	71200	71200	111500	146000	146000	197700	256500	256500	170000
径向负载 (C) / Radial Capacity (C)													
径向 Capacity	lb	4000	5000	8000	11000	11000	15000	15000	18000	22000	26000	26000	26000
	kg	1800	2300	3600	5000	5000	6800	6800	8200	10000	11800	11800	11800
轴向负载 (D) / Axial Capacity (D)													
轴向 Capacity	lb	3000	4000	6000	8000	8000	10000	10000	13000	15000	18000	18000	18000
	kg	1400	1800	2700	3600	3600	4500	4500	5900	6800	8200	8200	8200
排量 / Displacement													
180°	In ³	29.8	42.5	72.2	114	137	164	164	216	284	366	479	732
	cc	481	692	1190	1870	2250	2725	2688	3540	4678	6000	7850	12000
360°	In ³	60.0	85.0	144	228	274	327	327	432	569	732	925	
	cc	962	1384	2380	3740	4500	5450	5360	7080	9360	12300	15160	
大约重量 / Approximate Weight													
180°	lb	76.0	110	160	240		360		490	610	790	823	1020
	kg	34.5	49.9	72.6	110	110	160		220	280	360	375	465
360°	lb	100	140	220	310	450	450	610	630	810	1000	1032	
	kg	45.4	63.5	100	140	160	200	217	290	370	455	470	

Z30 规格 /Size		17	25	42	65	80	95		125	165	215	250	380
D1 安装法兰直径 D1 Installation flange diameter	in	7.87	9.25	11.02	12.40	11.02	13.98	13.7	15.60	17.40	18.70	13	18.70
	mm	200	235	280	315	280	355	348	396	435	475	330	475
D2 定位圆直径 D2 Pilot diameter	in	5.91	6.89	8.07	9.05	8.58	10.23	10.23	11.42	12.40	13.38	13.94	13.38
	mm	150	175	205	230	225	260	260	290	320	340	354	340
D3 轴及端盖法兰直径 D3 Shaft and endcap flange diameter	in	5.47	6.09	7.22	8.22	8.22	9.22	8.58	10.34	11.34	12.22	13	12.22
	mm	139	155	183	209	209	234	225	263	288	310	330	310
D4 壳体直径 D4 Housing diameter	in	5.67	6.19	7.17	8.07	8.07	9.01	9.13	9.96	10.98	12.12	12.76	12
	mm	144	157	180	205	205	229	232	253	279	308	324	305
F1 轴法兰安装孔 F1 Mounting holes, shaft flange (F2: Quantity of mounting holes: 12)	英寸 /inch	1/2-13	5/8-11	3/4-10	7/8-9	7/8-9	1-8	1-8	1 1/8-7	1 1/8-7	1 1/4-7		1 1/4-7
	深度 /deep	0.75	0.94	1.13	1.31	1.31	1.38	1.38	1.69	1.69	1.88		1.88
	精制 /metric	M12*1.75	M16*2	M20*2.5	M22*2.5	M22*2.5	M24*3	M16*2	M27*3	M27*3	M30*3.5	M30*3.5	M30*3.5
	深度 /deep	18.0	23.9	30.0	33.0	33.0	36.1	36.1	40.6	40.6	44.9	45	44.9
F3 轴法兰螺栓圆直径 F3 Bolt circle diameter, shaft flange	in	4.50	5.00	5.88	6.75	6.75	7.75	7.28	8.50	9.50	10.00	10.24	10.00
	mm	115	125	150	170	170	195	185	215	240	255	260	255
F4 端盖法兰安装孔 F4 Mounting holes, housing flange (F5: Quantity of mounting holes: 12)	英寸 /inch	3/8	1/2	5/8	3/4	3/4	7/8	7/8	1	1 1/8	1 1/4		1 1/4
	精制 /metric	M10	M12	M16	M20	M20	M22	M22	M24	M27	M30	M30*3	M30
F6 端盖法兰螺栓圆直径 F6 Bolt circle diameter, housing flange	in	6.90	8.10	9.65	10.83	9.84	12.21	12.21	13.85	14.96	16.14	16.14	16.14
	mm	175	206	245	275	250	310	310	345	380	410	410	410
H1 中心线到阀顶部 H1 Centerline to valve top	in	3.90	4.17	4.65	5.15	5.27	5.65	5.75	6.15	6.66	7.16	7.48	7.16
	mm	104.5	108	119	131	134	145	146	156	169	184	190	184
L1 整体长度 180° L1 Overall length 180°	in	11.73	11.73	14.37	16.24	20.1	18.70		20.63	21.71	23.62		35.67
	mm	298	323	365	413	510.5	475		524	551	600		906
L1 整体长度 360° L1 Overall length 360°	in	16.81	16.81	21.18	24.20	28.84	27.76	33.14	30.55	32.92	35.67	37.48	
	mm	427	470	538	615	732.5	705	841.1	776	834	906	952	
L2 非转动部分整体长度 180° L2 Overall length, non-rotating 180°	in	10.26	11.14	12.73	14.27	17.54	16.95		18.21	19.39	21.02		33.06
	mm	261	283	323	363	445.5	431		463	493	534		840
L2 非转动部分整体长度 360° L2 Overall length, non-rotating 360°	in	15.34	16.93	19.54	22.23	27.26	26.01	31.33	28.13	30.49	33.03	35	
	mm	390	430	496	565	692.5	661	795.8	715	786	839	889	
L3 轴法兰到平衡阀 180° L3 Shaft flange to counterbalance valve 180°	in	2.96	5.27	5.61	5.12	7.52	6.00		7.25	7.83	8.69		14.71
	mm	75.2	140	143	128	191	152		188	199	221		374
L3 轴法兰到平衡阀 360° L3 Shaft flange to counterbalance valve 360°	in	7.95	6.19	7.75	9.15	14.8	10.50	9.63	12.14	13.39	14.71	12.48	
	mm	143.5	157	202	232	376	261	244.5	308	340	322	317	
L4 安装法兰厚度 L4 Mounting flange thickness	in	0.99	1.02	1.22	1.30	2	1.58	1.57	1.65	1.81	2.05	2.05	2.05
	mm	25	26	32	32	51	40	40	42	50	51	51	51
L5 轴法兰到安装 L5 Shaft flange to mounting flange face	in	1.06	1.26	1.38	1.65	2.36	1.58	1.86	2.09	2.13	2.20	2.2	2.20
	mm	27	32	35	43	60	40	47.3	52	48	57	57	57
P1, P2 壳体油口 P1, P2 Ports, housing	英寸	ISO-11926/SAE 系列油口。尺寸从 7/16 到 3/4。详情请参见图纸。											
	inch	ISO-11926/SAE Series of ports. Sizes vary from 7/16 to 3/4. See drawings for details.											
V1, V2 阀油口 V1V2 Ports, valve	米制	metric ISO91179-1/BSPP “G” 系列油口。尺寸从 1/4 到 1/2。详情请参见图纸。											
	metric	ISO-1179-1/BSPP ‘G’ Series of ports. Sizes vary from 1/4 thru 1/2. See drawings for details.											

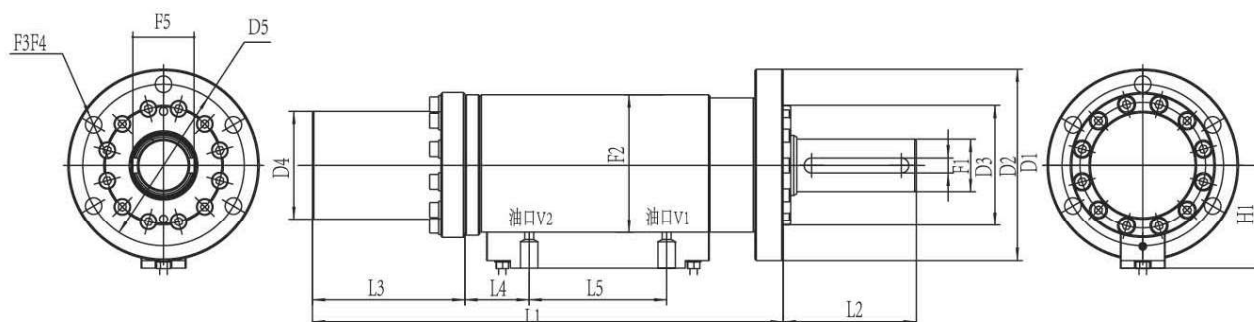


Z40 规格 /Size		25	27
扭矩 (A) / Torque (A)			
驱动扭矩 Drive Torque	In-lb@ 3,000 psi	25,000	27000
	Nm@ 210bsr	2830	3050
保持扭矩 Holding Torque	In-lb@ 3,000 psi	54,200	58536
	Nm@ 210bsr	6100	6590
旋转角度 Standard Rotation		220°	220°
弯矩能力 (B) / Moment Capacity (B)			
骑跨式安装 Straddle Mount	In-lb	37,500	40500
	Nm	4240	4575
径向负载 (C) / Radial Capacity (C)			
径向 Capacity	lb	4,500	4500
	kg	2 040	2040
轴向负载 (D) / Axial Capacity (D)			
轴向 Capacity	lb	4,500	4500
	kg	2 040	2040
排量 / Displacement			
	In ³	47.3	48.8
	cc	775	800
大约重量 / Approximate Weight			
	lb	74.0	72

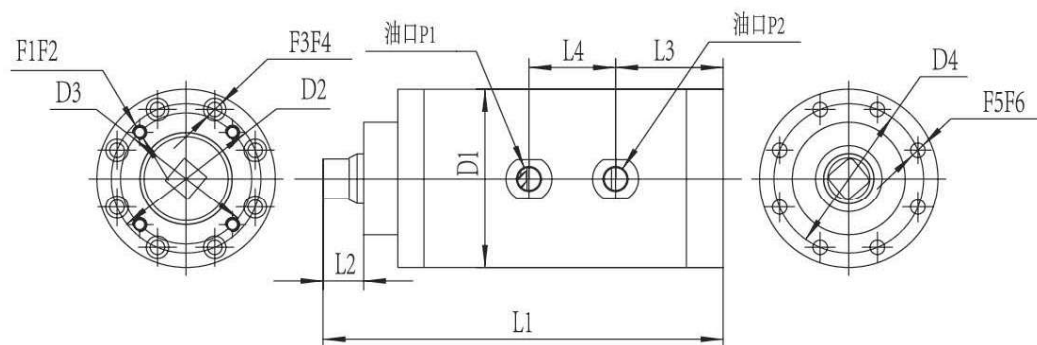
Z40 规格 /Size		25	27
D1 筒体直径 D1 Housing diameter	in	5.50	5.46
	mm	140	139
F1 轴端花键尺寸 F1 Shaft spline, both ends	英寸 /inch	Inch models comply with ANSI B92.1. See Drawings for specific details.	
	米制 /metric	Metric models comply with DIN5480. See Drawings for specific details.	
F2 轴端固定孔规格 (两端) F2 Shaft mounting hole size, both end	英寸 /inch	1/2-13	1/2-13
	深度 /deep	1.21	1.21
	米制 /metric	M12×1.75	M12×1.75
	深度 /deep	35.1	30.7
F3 地脚安装孔螺栓规格 F3 Foot hole diameter	英寸 /inch	5/8-11	5/8-11
	深度 /deep	1.00	0.78
	米制 /metric	M16×2	M16×2
	深度 /deep	19	19.8
H1 底面距中心线高 H1 Height to centerline	in	2.88	2.88
	mm	73.2	73
H2 总高度 H2 Overall height (excluding valve)	in	5.9	5.61
	mm	150	142
L1 总长度 L1 Overall length, rotating, with optional adapter	in	16.95	16.95
	mm	431	431
L2 不含旋转部分长度 L2 Overall length, rotating, without optional adapter	in	16.41	16.41
	mm	417	417
L3 地脚安装孔距 L3 Overall Length, non-rotating	in	13.20	13.2
	mm	335	335
L4 轴端面与安装孔距离 L4 Mounting length	in	10.50	10.95
	mm	265	278
L5 轴伸 L5 Mounting hole to end of shaft	in	2.96	1.61
	mm	75.1	40.8
L6 花键长 L6 Shaft extension	in	1.61	0.83
	mm	40.9	21.3
W1 底脚安装孔距 W1 Mounting width	in	4.25	4.25
	mm	104	104
W2 总宽度 W2 Overall foot width	in	5.25	5.25
	mm	133	133
P1, P2 壳体油口 英寸 ISO-1179-1/BSPP “G” 系列, 尺寸从 1/8 至 1/4, 详见图纸。 P1, P2 Ports, housing inch ISO-1179-1/BSPP 'G' Series of ports. Sizes vary from 1/8 thru 1/4. See drawings for details. V1, V2 阀体油口 米制 ISO-11926/SAE 系列, 尺寸为 7/16, 详见图纸。 V1V2 Ports, valve metric ISO-11926/SAE Series of ports. Sizes vary from 7/16. See drawings for details.			



Z50 规格 / Size		1.8	03	06	07	08	09	10	11	12
扭矩 (A) / Torque (A)										
驱动扭矩 Drive Torque	In-lb	8200	14400	25400	39000	63625	94020	130000	165305	221125
	Nm	927	1630	2870	4400	7190	10623	14688	18680	24987
保持扭矩 Holding Torque	In-lb	20000	39286	54000	82500	146000	230000	298100	380400	508700
	Nm	2260	4400	6100	9320	16500	25985	33700	43000	57500
大约重量 / Approximate Weight										
	lb	67	65	105	185	260	355	512	700	950
	kg	30	30	48	84	118	165	232	320	430
排量 / Displacement										
	In ³	14.6	26.7	41	62	115.7	118	162	216	277
	cc	239	438	672	1016	1897	1934	2655	3540	4539
旋转角度 / Standard Rotation										
	°	180	180	180	180	180	140	140	140	140
	°	180	180	180	180	180	140	140	140	140
最大机器重量 / Maximum machine weight										
	kg	3000	4000	5500	7000	10000	12000	20000	26000	34000



Z60 规格 /Size		6.5	13 (旋转角 240°)
扭矩 (A) /Torque (A)			
驱动扭矩	In-lb	5820	12000
Drive Torque	Nm	657	1350
弯矩能力 (B)/Moment Capacity (B)			
悬臂式安装	In-lb		
Cantilever Mount	Nm		
径向负载 (C) / Radial Capacity (C)			
径向	lb		
Capacity	kg	408	765
轴向负载 (D) /Axial Capacity (D)			
轴向	lb		
Capacity	kg	1429	1939
排量 /Displacement			
180°	In ³		
	cc		
360°	In ³		
	cc	280	389 (旋转角 240°)
大约重量 /Approximate Weight			
180°	lb		
	Kg		
360°	lb		
	Kg	15	24
L1	mm	315	318
L2	mm	89	119
L3	mm	102	73
L4	mm	43	74
L5	mm	92	40
D1	mm	φ 128	φ 149
D2	mm	φ 80f7	φ 100k6
D3	mm	φ 35k6	φ 42f7
D4	mm	φ 72	φ 90
D5	mm	φ 108	φ 130
F1	mm	10	12
F2	mm	92	118
F3	↑	5	7
F4	mm	φ 11	φ 11
F5	mm	41	48
H1	mm	69	90



Z70 系列		4
驱动扭矩	Nm	61
保持扭矩	Nm	150
L1	mm	152.5
L2	mm	15.5
L3	mm	41
L4	mm	33
D1	mm	φ68
D2	mm	φ57
D3	mm	φ50
D4	mm	φ57
F1		4
F2	mm	M5
F3		8
F4	mm	φ5.5
F5		8
F6	mm	φ5.5

产品展示

Product display



Z10 后法兰安装 (RF)



Z20 地脚安装 (FT)



Z20 马蹄铁安装 (CL)



Z30 前法兰安装 (FF)



Z30 后法兰安装 (RF)



Z30 地脚安装 (FT)



Z30 轨道法兰安装 (RL)



Z30 马蹄铁安装 (CL)



Z40 地脚安装 (FT)



Z50 地脚安装 (FT)



Z50 地脚安装 (FT)



Z60 前法兰安装 (FF)



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