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国家大型企业 NATIONAL LARGE ENTERPRISE

中国驰名商标
CHINA WELL-KNOWN
TRADEMARK

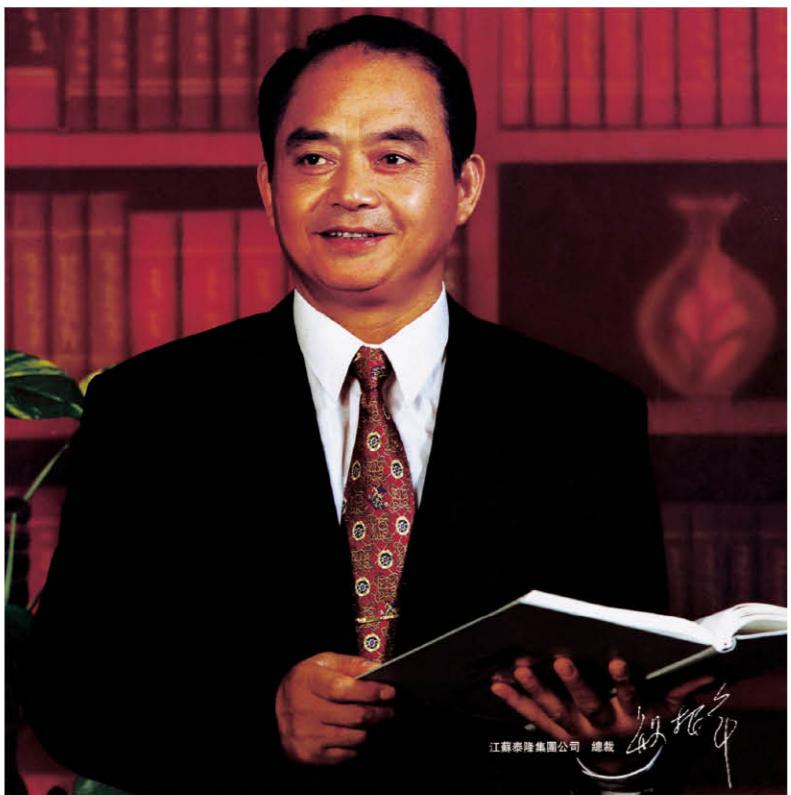
摆线针轮减速机

中国驰名商标
CHINA WELL-KNOWN
TRADEMARK**TAILONG**

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TAILONG
MACHINERY

江苏泰隆机械集团公司
JIANGSU TAILONG MACHINERY GROUP COMPANY
江苏泰隆减速机股份有限公司
JIANGSU TAILONG DECELERATOR MACHINERY CO.,LTD.



公司简介

泰隆集团地处扬子江畔的泰兴市区，是泰兴人引以为豪的国家大型企业。泰隆集团东临沪宁高速，西靠南京禄口机场，南有江阴大桥，交通便捷，物流畅通，具有得天独厚的区位优势。

集团在全国优秀企业家、江苏省劳动模范董事长殷根章的领导下，经过20多年的悉心经营，昂首迈进了中国机械工业500强，成为全国减速行业排头兵企业。集团现拥有总资产12.06亿元，固定资产6.92亿元，占地面积80万平方米，员工3162人，专业工程技术人员991人。拥有美国、德国、日本、俄罗斯、奥地利等国家引进的大型数控磨齿机、大型数控镗铣床、蜗杆磨床、加工中心、碳氮共渗炉等一批高精尖的生产设备和检测设备达48%。建立了全国同行业中检测功能最全、仪器最先进的2000kW测试中心，创建了江苏省技术中心、江苏省传动机械与控制工程技术研究中心、泰隆集团—哈工大工程技术研究中心、博士后科研工作站。公司的主导产品减速机在原有十几个系列，几十万种规格的基础上，采用先进的模块化、点线啮合等技术开发出了TL模块化齿轮减速电机、TXP行星模块化减速器、重载模块化齿轮减速器、点线啮合减速器、立式磨机及边缘传动磨机齿轮箱、铝治行业的联合开卷卷取齿轮箱、三环减速器、星轮减速器、风电齿轮箱、水力发电变速装置、核电循环水泵驱动变速装置等高新技术产品，以及各类特殊非标齿轮箱。泰隆工业园区已经成为国内最大的钢帘线设备生产基地，双叶、三叶罗茨风机及高温风机批量出口东南亚及欧美。

我们的产品成功应用于中华世纪坛、三峡大坝、嫦娥一号发射、杭州湾跨海大桥、北京奥体馆、上海世博会等国家重点工程。重点客户有宝钢集团、首钢集团、上海振华港机、燕山石化、葛洲坝集团、北京水工、中国铝业、伊拉克泵站、桂林橡塑、乐山成发、三一重工等。

公司现为全国减速机标准化技术委员会秘书处单位，荣获“全国首批守合同重信用企业”，“国家重点高新技术企业”、“全国机械工业质量效益型先进企业”、“全国机械工业质量管理奖”、“全国用户满意服务”、“全国机械工业质量管理小组活动优秀企业”等殊誉。在同行业中率先通过了国家AAAA标准化良好行为企业认证、一级安全质量标准化机械制造企业认证、GB/T19022-2003完善计量检测体系认证、ISO9001-2008质量体系认证、ISO14001-2004环境体系认证、OHSAS18001-1999职业健康安全认证。产品通过矿用产品安全标志认证、起重行业型式试验认可认证。泰隆牌商标被国家工商总局认定为中国驰名商标，泰隆牌减速机被评为中国名牌产品。

泰隆人将遵循自己一贯的质量承诺、服务承诺和信誉承诺，把顾客满意当作我们的最高追求！

Company Brief

Tailong Group, located in Taixing city along riverside of the Yangzi River, is a national giant enterprise which Taixing people are proud of. Tailong Group is east to Highway of Shanghai-Nanjing, west to Nanjing Lukou airport and south to the Jiangyin Bridge. Convenient transportation and smooth physical distribution build the unparalleled location advantages for Tailong Group.

With effortful operation for over 20 years, Tailong Group, under leadership of national outstanding entrepreneur, chairman Mr. Yin genzhang, a model worker of Jiangsu Province, has developed in one of top 500 machinery industrial enterprises in China, playing a leading role in domestic reducer/transmission industry.

At present, the group has total assets of RMB1206million, and fixed assets of RMB 692 million, and it covers an area of 800,000 square meters and more than 3000 employees, where professional technicians account for 991. 48% of our equipments are sophisticated and advanced manufacturing equipments and testing equipments such as large CNS gear grinding machine, large CNC boring and milling machine, worm grinder, machining centre, and carbonitriding furnace that are imported from USA, Germany, Japan, Russia, Australia and so on. Diameter of machining work piece reaches 5m to the maximum. Single reducer we produced reaches 120 tons to the maximum. We have established a 2000kW testing center with most complete testing function and most advanced instruments of the industry national wide, and established a provincial engineering technical center, mechanical transmission and control Engineering Research Center of Jiangsu Province, Tailong Group - Harbin Technology Engineering Research Center and a post-doctoral research station. The dominant product, the reducer is available in decades of series and several hundred thousand specifications. Equipped with advanced modular and dot line engagement technology, we have additionally developed series of high tech products such as TL modular gear retarded machine, TXP modular planet reducer, heavy load modular gear retarded machine, dot line engaged reducer, vertical grinder and edge drive grinder gearbox, joint, open-book, take-up gearbox used for aluminum metallurgy industry, three ring gear reducer, planetary wheel speed reducer, wind driven gearbox, transmission for hydro-power generation, nuclear circling pump driven gearbox, and various special non-standard gearboxes. Tailong Industrial Park has become the largest steel cord production base of national wide. Our two-vane and three-vane Roots blowers and high temperature blower are exported to South East Asia, Europe and America in batches.

Our products are successfully used in the China Millennium Monument, the Three Gorges Dam, the Chang'e launch, Hangzhou Bay Bridge, Beijing Olympic Gymnasium, the Shanghai World Expo and other national key projects. Key customers include Baosteel Group, Shougang Group, Shanghai Zhenhua Port Machinery, Yanshan Petrochemical, Gezhouba Group, Beijing hydraulic, China aluminium, Iraqi pump station, Guilin Rubber, Leshan Chengfa, Sany Heavy Industry and so on.

The company is now a secretariat unit for national technical committee for standardization of reducer. We are ever granted as “national first contract respecting and credit-keeping enterprise”, “national key high-tech enterprise”, “national high quality and efficiency unit in machinery industry”, “quality management award of national machinery industry”, “national custom satisfied service”, “excellent enterprise of quality management team activity of national machinery industry” and so on. We are certified as the good enterprise with better standardization with national AAAA certification and the first grade safety quality standardized machinery manufacturing enterprise and have passed such certifications as GB/T 19022-2003 perfect measurement test system, ISO 9001-2008 quality system, ISO 14001-2004 environment system, and OHSAS 18001-1999 occupational health and safety. Our products are certified with safety marks for mining products and recognized pass lifting industry type test. Tailong brand is recognized as the Chinese famous brand by national industrial and commercial bureau and Tailong reducer is awarded as the Chinese famous brand product.

Tailong people will keep to its persistent quality guarantee, service guarantee and credit, satisfying customer as our topmost pursuit.

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摆线针轮减速机

Cycloid Pin Wheel Decelerators

一、摆线针轮减速机的特点

Characteristic Of Cycloid Pin Wheel

Decelerators

摆线针轮减速机是参照JB/T2982-94采用摆线针齿啮合的、少齿差行星传动原理设计而成的一种新型传动机械，已广泛地应用到石油

化工、建筑、冶金矿山、起重运输、纺织印染、工程机械、食品工业、电子电视等各个领域，深受用户的信赖和一致好评。摆线针轮减速机有如下特点：

The cycloid pin wheel decelerator is a up-dated transmitting machine designed with the cycloid pin wheel clenching and less teeth engagement mechanism. The products have been widely used in Oil and chemical industry, building, mining and metallurgy, cranes, textile, dying, mechanics, foodstuff and electrical industry, and are well accepced by the customers.

The characteristics are as following:

1. 传动比大：单级传动比为9-87，双级传动比99-7569，多级串联时传动比可以更大；
 2. 传动效率高：单级传动效率均在90%以上；
 3. 结构紧凑：体积小，重量轻、高速轴和低速轴在同一轴线上，装拆方便；
 4. 运转平稳噪音低，能承受过载和冲击；
 5. 使用可靠，寿命长。
1. Large transmission ratio,for single transmission ratio range is 9-87, and for double 99-7569;
 2. High transmission efficiency. The single transmitting efficiency is over 90%;
 3. Structure well-knitted, small volume, light weight, and high speed axle and low speed axle remain in the same axle, which makes it convenient for installing and disassembling;
 4. Low noise when operating, overloading and heavy breaking sustainment;
 5. Long service life.

二、摆线针轮减速机的型号、规格 Type and spec of cycloid pin wheel decelerators

1. 型式 Type

<1>、B 系列摆线针轮减速机

BW 脚板式卧装双轴型摆线针轮减速机
Baseboard horizontal installed double axes type cycloid pin wheel decelerator

BL 法兰式立装双轴型摆线针轮减速机
Flange vertical installed double axes type cycloid pin wheel decelerator

BWY 脚板式卧装电动机直联型摆线针轮减速机
Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

BLY 法兰式立装电动机直联型摆线针轮减速机
Flange vertical installed motor direct-connection type cycloid pin wheel decelerator



2. 减速机型号、规格 Type and spec of decelerator

单级 single stage	B系列 B series	12	15	18	22	27		33	39	45	55	65	
	X系列 X series	2	3	4	5	6	7	8	9	10	11	12	
双级 double stage	B系列 B series	1512	1812	1815	2215	2218	2715	2718	3318	3322	3922	3927	4527
	X系列 X series	00	42		53		63	74	84	85	95		106
三级 three stage	B系列 B series	181512		271812		331812		332215		392215		452715	
	X系列 X series	420		742		842		853		953		1063	

输入功率(KW)

Input power

单级功率范围 Confine of single stage power				4P:0.18KW~18.5KW 6P:0.75KW~75KW				双级功率范围 Confine of double stage power				4P:0.18KW~15KW			
4P	0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5
6P	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	18.5	22	30	37	45

注：表中输入功率为电动机功率

Note: Input power in list is power of motor

可供传动比

Supplied transmission ratio

单级传动比 Transmission ratio of single stage													
9	11	17	21	23	25	29	35	43	47	59	71	87	

常用双级传动比 Usual transmission ratio of double stage

99	121	187	289	319	385	473	493	595	649	731	841	1003	1225	1505	1849	2065	2537	3045	3481	5133
(11x9)	(11x11)	(17x11)	(17x17)	(29x11)	(35x11)	(43x11)	(29x17)	(35x17)	(59x11)	(43x17)	(29x29)	(59x17)	(35x35)	(43x35)	(43x43)	(59x35)	(59x43)	(87x35)	(59x59)	(87x59)

备用双级传动比 Transmission ratio of double stage

153 (17x9)	207 (23x9)	253 (23x11)	391 (23x17)	531 (59x9)	595 (35x17)	667 (29x23)	805 (35x23)	957 (87x11)	989 (43x23)	1207 (71x17)	1247 (43x29)	1357 (59x23)								
1479 (87x17)	1633 (71x23)	1711 (59x29)	2001 (87x23)	2059 (71x29)	2485 (71x35)	2523 (87x29)	3741 (87x43)	4189 (71x59)	5041 (71x71)	6177 (87x71)	7569 (87x87)									

注：在双级减速机中各级传动比的组合，一高速端为传动比小的一端，低速端为传动比大的一端。
双级减速机传动比=低速级传动比×高速级传动比。

Note: Compounding of every stage transmission ratio of double stage decelerator is to select the smaller ratio for high-speed edge and larger ratio for low-speed edge.
Transmission ratio of double stage decelerator = ratio of low-speed stage X high-speed stage.

<2>、X 系列摆线针轮减速机

XW 脚板式卧装双轴型摆线针轮减速机
XW baseboard horizontal installed double axes type cycloid pin wheel decelerator

XL 法兰式立装双轴型摆线针轮减速机
XL flange vertical installed double axes type cycloid pin wheel decelerator

XWD 脚板式卧装电动机直联型摆线针轮减速机
XWD baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

XLD 法兰式立装电动机直联型摆线针轮减速机
XLD flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

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Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

Flange vertical installed motor direct-connection type cycloid pin wheel decelerator

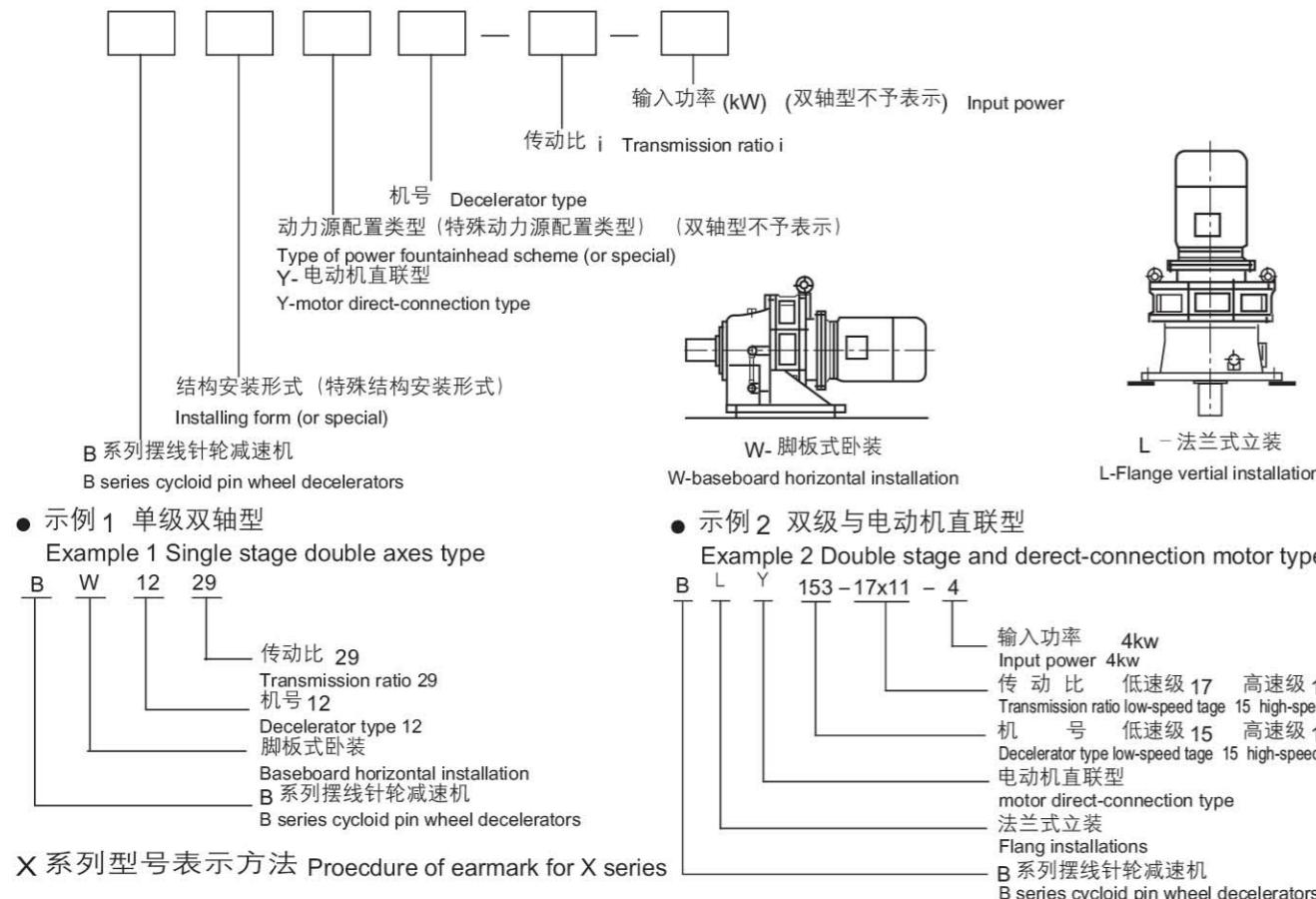
Flange vertical installed double axes type cycloid pin wheel decelerator

Baseboard horizontal installed double axes type cycloid pin wheel decelerator

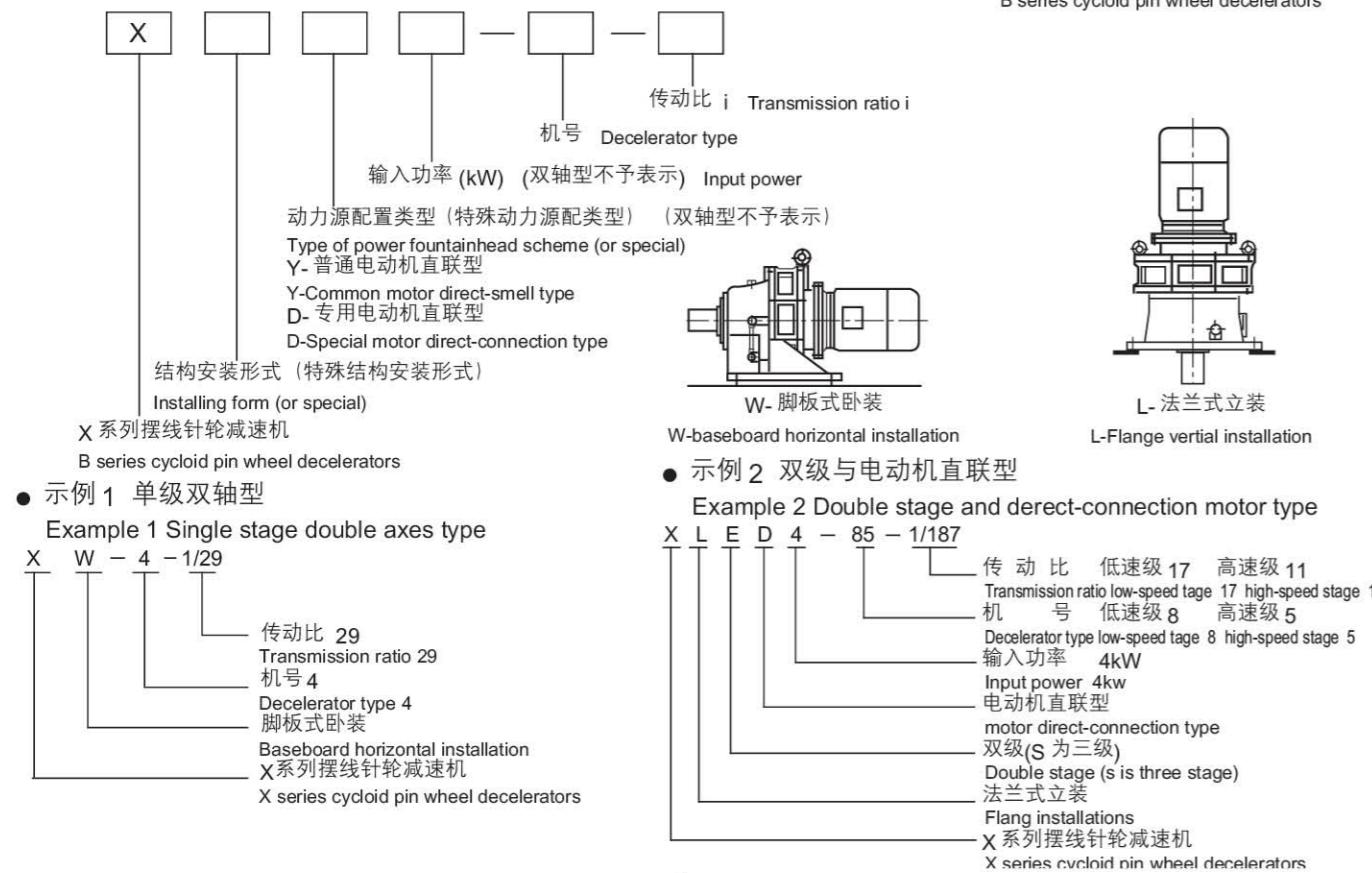
Baseboard horizontal installed motor direct-connection type cycloid pin wheel decelerator

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3. B 系列型号表示方法 Procedure of earmark for B series



X 系列型号表示方法 Procedure of earmark for X series



特殊动力源类型 Type of special power fountainhead

B	防爆电动机 Anti-explosive motor	T	调速电动机 Timing motor	M	油马达 Oil motor
Z	专用直流电动机 Special direct current motor	P	平面制动电动机 Plane brake motor	N	内锥式制动电动机 Inside wimble brake motor
S	低噪声电动机 Low noise motor		除此之外, 还有变频电动机, 船用电动机等, 请向技术部门咨询。 Else, frequency conversion motor, ship used motor should be contact our technical department please.		

特殊结构安装形式 Special installing form

C - 脚板式左侧装 C - Left baseboard installation	U - 脚板式右侧装 U - Right baseboard installation	S - 脚板式出轴向上侧装 S - Up shaft baseboard installation	X - 脚板式出轴向下侧装 X - Down shaft baseboard installation
Y - 脚板式仰装 Y - Backstroke baseboard installation	P - 法兰式水平装 P - Level flange installation	D - 法兰式倒立装 D - Down fallen flange installation	

注: 用户如无原则配置特殊动力源或采用特殊结构安装形式, 请与我厂技术部门联系, 并在合同中加以说明。

Note: Please show special installing form in the order then contract out technical department if it's needed.

4. 标准技术规格及使用条件 Standard spec and using condition

电动机 Motor	功率范围 Power scope	4P: 0.18~18.5kW 6P: 0.75~90kW	环境条件 Environmental condition	使用地点要求 Request of address	室内 Indoor
	电源 Electrical source	380V 50Hz		环境温度 Ambient temperature	-10°C~40°C
	绝缘 Insulation	B 级		环境湿度 Ambient humidity	85% 以下 Down 85%
	安装结构形式 Installing form	卧式 Horizontal: < 225 B5 > 250 B35 立式 Vertical: V ₁		周围气体 Ambient gas	通风, 远离腐蚀气体、易爆气体、蒸汽及尘埃。 Aeration, far away from caustic gas, explosive gas, smoke or mote
	工作方法 Working way	连续 Continuous S ₁		海拔 Altitude	1000 米以下 Below 1000 meter
	接法 Connect method	≤ 3kW Y 接法 > 4kW □ 接法		与驱动设备联接方法 Method of connect with driving equipment	联轴器、齿轮、链轮或皮带。 Coupling, gear, chain wheel or strap

(三)、单级摆线针轮减速机的传动比、输入功率和输出转矩表 (工况系数 k=1)

The Transmission Ratio, Input Power and Output Torque of Single stage cycloidal pin wheel decelerator. (service factors K=1)

机型号 type	12	15	18	22	27	33	39	45	55	65	
输入转速 (input speed) r/min	1500							1000			
传动比 (transmission ratio)	输入功率 kw (input power) / 輸出扭矩 N.m (output torque)										
9	40	123	222	387	617	1037	-	-	-	-	-
11	50	2.2	151	272	521	756	1280	2258	4373	5344	-
13	0.75	59	175	4	321	7.5	614	892	1510	2664	5160
15	67	141	372	712	1034	18.5	1751	3088	5624	7266	-
17	76	160	420	805	11	1168	1978	3490	6356	8211	-
21	68	1.5	199	289	683	1450	2455	3635	37	7890	55
23	74	217	316	779	1580	2677	18.5	3962	8600	11825	16125
25	81	236	343	810	1720	2890	4311	9357	12866	75	17544
29	94	1.1	199	398	893	1993	2737	4800	30	8133	14910
35	74	240	330	4	866	7.5	1658	3303	15	4907	22
43	0.37	91	190	1.5	380	3	811	1458	2955	4413	7408
47	99	202	405	884	1589	11	3221	4802	18.5	8075	37
59	0.25	87	0.55	186	1.1	380	2.2	811	4	1459	13674
71	-	0.37	151	0.75	357	1.5	610	3	1340	7.5	22108
87	-	-	0.55	281	748	2.2	1196	5.5	2742	5.5	55
								4109	9381	30	16546
								7.5	12233	37	22061
								4577	15	9178	18.5
									14904	22	14576
									12199	18.5	14990

双级双轴型摆线针轮减速机的传动比、输入功率和输出扭矩表 (工况系数 k=1)

The Transmission Ratio, Input Power and Output Torque of Double stage cycloidal pin wheel decelerator. (service factors K=1)

型号 type	1512	1812	1815	2215	2218	2715	2718	3318	3322	3922	3927	4527	5527	5533	6533
输入转速 input speed	1500r/min														
传动比 transmission ratio	输入功率 (kw) imput power														
99(11x9)	0.3	1.2	1.44	2.03	2.4	3.28	4.26	6	7.93	12.11	12.56				
121(11x11)	0.23	1.04	1.18	1.66	1.7	3.18	4	5.5	6.65	10.26	10.46				
187(17x11)	0.15	0.67	0.76	1.08	1.1	2.06	2.77	4	4.30	6.64	6.74	10.28	13.6	15.9	
289(17x17)	0.10	0.43	0.49	0.70	0.75	1.33	1.79	2.5	2.86	4.30	4.91	6.65	13.31	14.12	
319(29x11)	0.08	0.36	0.42	0.60	0.65	1.12	1.5	2.2	2.90	4.02	4.97	5.96	11.98	13.2	15
391(23x17)	0.07	0.32	0.37	0.51	0.52	0.98	1.32	1.6	1.70	3.17	3.18	4.92	9.84	11.5	13.41
473(43x11)	0.06	0.27	0.30	0.43	0.45	0.81	1.09	1.3	1.35	2.62	2.93	4.07	8.13	9.65	11.09
493(29X17)	0.05	0.24	0.27	0.38	0.4	0.74	0.92	1.03	1.21	2.41	2.61	3.72	7.26	8.50	9.62
595(35x17)	0.04	0.21	0.24	0.34	0.35	0.65	0.87	1	1.11	2.09	2.15	3.23	6.46	7.42	8.81
649(59X11)	0.03	0.16	0.21	0.30	0.32	0.58	0.8	0.95	1.02	1.96	2.01	2.98	6.02	6.98	8.01
731(43x17)		0.19	0.28	0.3	0.53	0.71	0.85	0.96	1.70	2.02	2.63	5.26	6.18	7.17	
841(29x29)		0.17	0.24	0.26	0.46	0.62	0.78	0.83	1.48	1.58	2.29	4.57	5.4	6.24	
1003(59x17)		0.14	0.21	0.23	0.40	0.52	0.65	0.66	1.28	1.43	1.99	3.97	4.68	5.41	
1225(35x35)		0.12	0.16	0.18	0.31	0.42	0.6	0.66	1.01	1.11	1.57	3.14	3.62	4.28	
1479(87x17)		0.1	0.14	0.16	0.28	0.36	0.52	0.60	0.9	1.01	1.42	2.84	3.29	3.88	
1505(43x35)		0.09	0.13	0.15	0.26	0.3	0.45	0.53	0.82	0.92	1.28	2.56	2.96	3.48	
1849(43x43)		0.08	0.11	0.13	0.21	0.25	0.4	0.43	0.67	0.76	1.04	2.08	2.4	2.84	
2065(59x35)		0.07	0.10	0.12	0.19	0.2	0.38	0.40	0.62	0.71	0.96	1.93	2.22	2.63	
2537(59x43)		0.06	0.08	0.1	0.16	0.18	0.3	0.33	0.51	0.56	0.78	1.57	1.81	2.14	
3045(87x35)		0.07	0.09	0.14	0.16	0.26	0.29	0.47	0.5	0.69	1.4	1.6	1.84		
3481(59x59)		0.06	0.08	0.12	0.15	0.22	0.25	0.39	0.41	0.60	1.20	1.38	1.64		
4189(71x59)		0.05	0.07	0.10	0.12	0.18	0.21	0.32	0.36	0.50	1.0	1.2	1.36		
5133(87x59)					0.08	0.1	0.15	0.17	0.26	0.30	0.41	0.81	0.93	1.11	
7569(87x87)							0.1	0.12	0.18	0.20	0.28	0.55	0.64	0.75	
输出扭矩 N.M (output torque)	245	540	540	1150	1150	2200	2200	4600	4600	7500	7500	11000	22000	22000	30000

双级摆线针轮减速机电机直联型的传动比、输入功率、输出轴许用扭矩、输出转速表
The transmission ratio,input power,allowed torque of output shaft,output speed list of double
stage cycloidal pin wheel decelerator with motor direc-connection type.

The transmission ratio, input power, allowed torque of output shaft, output speed list of double stage cycloidal pin wheel decelerator with motor direc-connection type.

注：1)在严格限制许可扭矩下“—”处输入功率可以采用表中该机号下的最小额定输入功率，输出轴许用扭矩为该机号下最小额定许用扭矩。
2)选用电机直联型减速机时，实际配置的电机功率应符合“配功率”范围，如果配置的电机功率大于许用输入功率时，本减速机只允许接规定的许用扭矩下使用。

Note: 1)Under strict limit permission torque which marked with “—”, the input power may use the min rated input power of model, and the permission torque is min. rated too.
2)When select motor direct linking reducer, the fitted motor's power in fact should fit for the power range, if bigger than the rated, the decelerator is only allowed to use under permitting torque.

三级摆线针轮减速机的传动比，输出轴许用扭矩，输出轴许用径向力表

The transmission ratio, allowed torque, allowed radial force of low-speed shaft list of three stage cycloidal pin wheel decelerators

机型号 Type	181512	271812	331812	332215	392215	452715	552718	6533225
低速轴许用径向力(kg) Allowed radial force of low-speed shaft	1000	1500	4000	4000	6000	7000	10000	18000
低速轴许用转矩(N.m) Allowed torque of low-speed shaft	490	2648	4413	4413	8825	11767	19612	29418
		传	动	比	transmission ratio			
9x11x59=5841	11x29x43=13717	17x35x43=25585	23x43x47=46483	23x47x87=94047				
9x23x29=6003	17x29x29=14297	25x25x43=26875	17x47x59=47141	43x47x47=94987				
9x25x29=6525	23x25x25=14375	23x25x47=27025	23x29x71=47357	23x59x71=96347				
11x17x35=6545	9x23x71=14697	11x35x71=27335	23x35x59=47495	29x47x71=96773				
9x17x43=6579	9x35x47=14805	9x35x87=27405	29x35x47=47705	35x47x59=97055				
9x21x35=6615	17x25x35=14875	9x43x71=27477	29x29x59=49619	29x59x59=100949				
17x17x23=6647	11x23x59=14927	11x29x87=27753	23x25x87=50025	25x47x87=102225				
11x21x29=6699	11x29x47=14993	17x23x71=27761	25x43x47=50525	47x47x47=103823				
11x25x25=6875	23x23x29=15341	11x43x59=27907	23x47x47=50807	25x59x71=104725				
9x11x71=7029	17x21x43=15351	17x35x47=27965	25x29x71=51475	17x71x87=105009				
9x9x87=7047	9x29x59=15399	23x35x35=28175	25x35x59=51625	35x35x87=106575				
11x11x59=7139	25x25x25=15625	21x23x59=28497	17x35x87=51765	35x43x71=106855				
9x17x47=7191	9x25x71=15975	21x29x47=28623	17x43x71=51901	29x43x87=108489				
17x17x25=7225	11x25x59=16225	23x29x43=28681	35x35x43=52675	43x43x59=109091				
9x23x35=7245	11x17x87=16269	17x29x59=29087	21x29x87=52983	23x71x71=115943				
11x23x29=7337	11x21x71=16401	25x25x47=29375	21x43x59=53277	35x47x71=116795				
9x29x29=7569	9x21x87=16443	29x29x35=29435	29x43x43=53621	23x59x87=118059				
9x25x35=7875	11x35x43=16555	9x47x71=30033	25x25x87=54375	29x47x87=118581				
11x25x29=7975	9x43x43=16641	17x25x71=30175	25x47x47=55225	43x47x59=119239				
11x17x43=8041	23x25x29=16675	11x47x59=30503	11x71x71=55451	29x59x71=121401				
11x21x35=8085	17x21x47=16779	25x35x35=30625	9x71x87=55593	35x59x59=121835				
9x21x43=8127	17x23x43=16813	17x21x87=31059	11x59x87=56463	25x71x71=126025				
17x21x23=8211	17x15x59=17051	25x29x43=31175	17x47x71=56729	25x59x87=128325				
17x17x29=8381	17x29x35=17255	23x23x59=31211	23x35x71=57155	17x87x87=128673				
11x11x71=8591	11x23x71=17963	9x59x59=31329	35x35x47=57575	47x47x59=130331				
9x11x87=8613	9x23x87=18009	23x29x47=31349	23x29x87=58029	35x43x87=130935				
11x17x47=8789	11x35x47=18095	17x43x43=31433	21x47x59=58233	43x43x71=131279				
11x23x35=8855	25x25x29=18125	21x35x43=31605	23x43x59=58351	23x71x87=142071				
9x21x47=8883	9x43x47=18189	11x35x87=33495	29x43x47=58609	35x47x87=143115				
9x23x43=8901	17x25x43=18275	11x43x71=33583	17x59x59=59177	43x47x71=143491				
17x23x23=8993	17x23x47=18377	9x43x87=33669	29x29x71=59711	29x71x71=146189				
9x17x59=9027	23x23x35=18515	23x25x59=33925	29x35x59=59885	35x59x71=146615				
9x29x35=9135	9x29x71=18531	17x23x87=34017	25x35x71=62125	29x59x87=148857				
11x29x29=9251	9x35x59=18585	25x29x47=34075	25x29x87=63075	43x59x59=149683				
11x25x35=9625	11x29x59=18821	17x43x47=34357	25x43x59=63425	25x71x87=154425				
9x25x43=9675	23x29x29=19343	23x35x43=34615	17x43x87=63597	47x47x71=156839				
9x23x47=9729	11x25x71=19525	17x29x71=35003	23x47x59=53779	43x43x87=160863				
17x23x25=9775	9x25x87=19575	17x35x59=35105	29x47x47=64061	47x59x59=163607				
11x21x43=9933	9x47x47=19881	29x35x35=35525	35x43x43=63715	23x87x87=174087				
17x17x35=10115	17x25x47=19975	21x29x59=35931	11x71x87=67947	43x47x87=175827				
17x21x29=10353	11x21x87=20097	29x29x43=36163	9x87x87=68121	43x47x87=175827				
11x11x87=10527	23x25x35=20125	11x47x71=36707	25x47x59=69325	35x71x71=176435				
9x25x47=10575	11x43x43=20339	9x47x87=36801	17x47x87=69513	29x71x87=179133				
17x25x25=10625	17x17x71=20519	25x25x59=36875	23x35x87=70035	35x59x87=179655				
11x21x47=10857	21x23x43=20769	17x25x87=36975	23x43x71=70735	43x59x71=180127				
9x17x71=10863	17x35x35=20825	17x47x47=37553	35x43x47=70735	25x87x87=189225				
11x23x43=10879	25x29x29=21025	23x23x71=37559	17x59x71=71213	47x47x87=192183				
9x35x35=11025	17x21x59=21063	25x35x43=37625	29x35x71=72065	47x59x71=196883				
11x17x59=11033	17x29x43=21199	9x59x71=37701	35x35x59=72275	59x59x59=205379				
9x21x59=11151	25x25x35=21875	23x35x47=37835	21x59x59=73101	35x71x87=216195				
11x29x35=11165	11x23x87=22011	11x59x59=38291	29x29x87=73167	43x71x71=216763				
9x29x43=11223	11x43x47=22231	21x43x43=38829	29x43x59=73573	29x87x87=219501				
17x23x29=11339	9x35x71=22365	23x29x59=39353	25x35x87=76125	43x59x87=220719				
11x25x43=11825	11x29x71=22649	29x29x47=39527	25x43x71=76325	47x71x71=236927				
11x23x47=11891	21x23x47=22701	23x25x71=40825	23x47x71=76751	47x59x87=241251				
23x23x23=12167	9x29x87=22707	25x35x47=41125	35x47x47=77315	59x59x71=247151				
9x23x59=12213	11x35x59=22715	11x43x87=41151	43x43x43=79507	35x87x87=264915				
9x29x47=12267	23x23x43=22747	17x35x71=42245	23x59x59=80063	43x71x87=265611				
17x25x29=12325	9x43x59=22833	23x43x43=42527	29x47x59=80417	47x71x87=290319				
17x17x43=12427	17x23x59=23069	25x29x59=42775	11x87x87=83259	59x71x71=297419				
17x21x35=12495	17x29x47=23171	35x35x35=42875	25x47x71=83425	59x59x87=302847				
11x25x47=12925	23x29x35=23345	17x29x87=42891	17x71x71=85697	43x87x87=325467				
23x23x25=13225	11x25x87=23925	17x43x59=43129	23x43x87=86043	47x87x87=355743				
9x25x59=13275	11x47x47=24299	21x35x59=43365	43x43x47=86903	71x71x71=357911				
11x17x71=13277	29x29x29=24389	29x35x43=43645	35x35x71=86975	59x71x87=36443				
9x17x87=13311	23x25x43=24725	25x25x71=44375	25x59x59=87025	71x71x87=438567				
9x21x71=13419	23x23x47=24863	11x47x87=44979	17x59x87=87261	59x87x87=446571				
11x35x35=13475	9x47x59=24957	9x71x71=45369	29x35x87=88305	71x87x87=537399				
9x35x43=134545	17x25x59=25075	23x23x87=46023	29x43x71=88537	87x87x87=658503				
17x17x47=13583	17x17x87=25143	11x59x71=46079	35x43x59=88795					
11x21x59=13629	17x21x71=25347	9x59x87=46197	25x43x43=96225					
17x23x35=13685	25x29x35=25375							

注：表中列出的传动比为单级标准机型中的各传动比组合方式。单级标准机型中具有可行性组合。

Note: The above transmission ratio is made up by concrete single stage standard reducers.

Note: The above transmission ratio is made up by separate single-stage standard reducers. The selection principle is as follows, to select the smaller value for high speed stage and

The selection principle is as follows, to select the smaller value for high-speed edge and larger value for low-speed edge.

(四)、摆线针轮减速机选用说明 The Instruction Sheet of Cycloid Pin Wheel Reducer

本系列摆线针轮减速机是在每日八小时单向连续运转，载荷平稳的条件下设计的，当减速机实际工作时间和载荷性质与上述设计条件不符时，应以工作情况系数 K_A 进行修正， K_A 按下表确定。

This series cycloid pin wheel reducer is designed in these conditions which daily service 8 hrs, one way continuous operation and uniform load. We should adjust it according to the working coefficient K_A when the actual hours is not agree with load character.

工作情况系数 K_A 表 Table for Working Coefficient K_A

原动机种类 Prime move	工况系数 Service factors	载荷性质 Load character	I 稳定 Uniform load			II 中等冲击 Medimn shock load			III 大的冲击 Heavy shock load		
			I 稳定 Uniform load	II 中等冲击 Medimn shock load	III 大的冲击 Heavy shock load	I 稳定 Uniform load	II 中等冲击 Medimn shock load	III 大的冲击 Heavy shock load	I 稳定 Uniform load	II 中等冲击 Medimn shock load	III 大的冲击 Heavy shock load
电动机 Motors	断续3小时/日 Continuous working 3hrs/24hrs	0.8	1.0	1.35							
	8-10 小时/日 8-10hrs/24hrs	1.0	1.2	1.5							
	24 小时/日 24hrs/24hrs	1.2	1.35	1.6							

注: (1)最大瞬时载荷或起动载荷不超过额定载荷的 160%。

(2)原动机为多缸发动机时，数据表中的工作条件与载荷性质，可选取 $K=1.0-1.7$ 。

(3)原动机为单缸发动机时，数据表中的工作条件与载荷性质可选取 $K=1.2-1.8$ 。

Note: (1) The max instantaneous load or the start load shouldn't exceed the rated load.

(2) The working condition and the load character of the data sheet could select $K=1.0-1.7$ when the prime mover is multicyinder engine.

(3) The working condition and the load character of the data sheet could select $K=1.2-1.8$ when the prime mover is one-cylinder motor.

减速机用途和载荷性质分类参考表 The Application and The Load Character Sorted Reference Table

用途 Application	载荷分类 Assort of load	用途 Application	载荷分类 Assort of load
搅拌器 Mixers	Pure liquid material	I	薄膜 Membrane
	Semiliquid material	II 塑料挤出机 Plastic extruders	棒材 Bar material
	液体(密度可变) Liquid		管材 Tubing
	离心式 Centrifugal type		吹塑机 Soft plastical
鼓风机 Blowers	叶片式 Leaf type	I 卷扬机(绞车) Hoists	重型的 Heavy-duty
	叶轮式 Impeller type		中型的 Light-duty
	离心式 Centrifugal type	II 轴承 Rolling bearing	辊道 Rolling bearing
	叶轮式 Impeller type		破碎机(矿石) Crushing machine(ore)
压缩机 Compressors	往复式 Reciprocator type	III 破碎机(矿石) Crushing machine(ore)	锤式粉碎机 Hammer crusher
	往复式 Reciprocator type		混凝土搅拌机 Concrete mixer truck
	板式 Apron type	I 石蜡滤机 Paraffin filter press	
	皮带式 Belt type		石油工业 Oil industry
运输机 (载荷稳定) Conveyers Uniformly load	门式 Bucket type		结晶品、冷冻器 Crystal Rafrigerator
	链式 Chain type(双缸)		*破胶机 Rubber breaker
	螺旋式 Screw type(单缸)		*混炼机 Muller
	板式 Apron type	II 橡胶与塑料工业 Rubber and plastic industry	*精炼机 Refiner
运输机 (重载荷非均匀送料) Conveyors (heavy load convey material with variable density)	皮带式 Belt type		*橡胶压延机 Rubber calander
	门式 Bucket type		织布机 Looms
	链式 Chain type(双缸)		梳棉(毛麻)机 Mangle
	往复式 Reciprocator type		轧布机 Spinner
	螺旋式 Screw type		纺纱机 Spinner
	振动式 Vibration type		洗涤机 Washer

注 Note: (1) I -- 稳定载荷 Uniform load; II -- 中等载荷 Medium shock load; III -- 大的冲击载荷 Heavy shock load;
(2)*-- 按每日 24 小时工作选取。Only on the basis of 24hrs daily service.

摆线针轮减速机的选用分如下几种情况

Selecting the cycloid pin wheel decelerators accorting to the following conditions.

1. 减速机输入轴转速等于标准减速机额定转速时按下式选择:

When the input rotate speed of reducer is equaled to the rated rotate speed, we should select as following:

$$P \times K_A / \square \leq P_{1p} \quad \text{式中 Where } P \text{——负载功率 Load power KW}$$

K_A ——工况系数 Service factor

\square ——减速机效率, 单级一般取 $\square=0.9 \sim 0.95$, 双级一般取 $\square=0.85 \sim 0.9$. Reducer efficiency, single-stage $\square=0.9 \sim 0.95$, double-stage $\square=0.85 \sim 0.9$.

P_{1p} ——所选机型的输入轴输入功率 KW

The input shaft power kW of selecting.

2. 按减速机输出轴转矩选择机型号时, 一般稳定载荷及短期瞬时载荷不超过稳定载荷的 160%, 应按以下式选择。We should select the reducer according to the output shaft torque. When general stable load and short term instantaneous load is less than 160%, We should select as following:

$$T \leq T_p \quad \text{式中 Where: } T \text{——负载工作转矩 Loading working torque N · m}$$

T_p ——所选机型减速机的输出轴许用转矩

The allowed torque of selecting reducer N · m

当减速机短期瞬时载荷超过稳定载荷的 160% 时, 应按尖峰载荷选择, 应保证 $T_{max}/1.6 \leq T_p$. T_{max} ——负载最大尖峰转矩 N · m When the short term instantaneous load is bigger than the stabile load 160%. Ensure meet $T_{max}/1.6 \leq T_p$, please select the peak load.

T_{max} -- The peak load torque N · m

3. 减速机输入转速不等于承载能力表中的额定转速时, 应先按 $T_c \leq T_p$ 选择机型号

When input rotate speed of reducer is not equal to the carrying capacity mom. Rotate speed, please select the code according to $T_c \leq T_p$

$$T_c = \left(\frac{n}{n_1}\right)^{1/\square} T \quad \text{式中 Where: } T_c \text{——计算工作转矩 Calculated the working torque N · m}$$

n ——输入实际转速 The input actual rotate speed r/min.

n_1 ——减速机输入轴额定转速 1500 或 1000

The input rated rotate speed 1500 or 1000.

\square ——转臂轴承寿命指数, 球轴承 $\square=3$ 、滚子轴承 $\square=10/3$

The crane life time index, ball bearing $\square=3$, roller bearing $\square=10/3$

T_p ——减速机在额定转速时的输出轴许用转矩 N · m

The allowed torque of output shaft at the Reducer's rotated speed N · m

T ——输出轴实际工作转矩 The actual torque of output shaft N · m

然后按下式验算 $T \leq T_{max}$ Then checking it accord to this formula $T \leq T_{max}$

若满足上式则所选减速机合适, 否则, 应据上式选较大型号

The reducer is suitable if it meets the formula or also you should select the major model.

4. 如果输入的转速是变化的 (当用变速电动机或变速装置驱动时) 应根据使用条件确定。若要求功率一定, 则应按最低转速选择机型号。若要求转矩一定, 则应按最高转速选择机型号 (选型时注意工况系数和效率损失)。

We should select it according the usage conditions if the imput rotate speed is variable. (when variable speed motor or change gear is used). You could select the model according to the lowest rotate speed if fixed power is required. You could select the model according to the highest rotate speed if fixed torque is required. (Pay attention to the service and the efficiency loss).

(五) 摆线针轮减速机的使用及润滑需知

The usage and lubrication of cycloid pin wheel decelerators

(I) 使用 Usage

- 1、本减速机适用于 24 小时连续工作制，并允许正反向运转。
- 2、单级减速机的输出轴转向与输入轴转向方向相反，双级减速机输出轴转向与输入轴转向相同。
- 3、本减速机无自锁作用。如用于升降装置等危险场合时，应选用制动电机或在输入端加配制动装置。
- 4、本减速机的输出轴不能承受轴向力，如需承受较大的径向力或轴向力，请予垂询。
- 5、在可能出现过载现象的使用场合，应安装过载保护装置。
- 6、脚板式卧装摆线针轮减速机要安装在没有振动、十分牢固的水平基础上，在必须进行倾斜安装的使用场合，减速机轴心线的倾斜度不得大于 15°。
- 7、法兰式立装摆线针轮减速机在安装时，输出轴垂直向下。
- 8、如需要采用除脚板式卧装和法兰式立装以外的其他特殊安装形式，必须采取相应的润滑和密封措施来保证减速机润滑充足和防止漏油。请与我厂技术部门联系。
- 9、采用油脂润滑的摆线针轮减速机安装角度自由。
- 10、减速机安装时，可用垫块进行调整，垫块在高度方向不超过三块，也可用楔铁进行调整，但减速机校准后必须换入平垫块。
- 11、在冲击、振动较大或起动频繁的使用场合，机座与基础除用 8.8 级高强度底脚螺栓进行联接之外，还需用定位销（自备）进行加固。
- 12、标准型摆线针轮减速机的输入轴和输出轴的轴伸端形式为圆柱形，采用普通平键联接。轴径尺寸公差根据 GB/T1801-2009《公差与配合》的规定。普通平键尺寸按 GB/T1096-2003《普通平键型式尺寸》的规定。联接法兰止口按 GB/T1801-2009 的(h9)的配合。
- 13、当采用联轴器把摆线针轮减速机与相配套的机械联接时，推荐用弹性联轴器。
- 14、减速机与相配套机械用联轴器联接时，两者轴心线的同心度不得超过联轴器所允许的范围。
- 15、当摆线针轮减速机与齿轮、链轮相联接时，必须保证两者轴心线的平行度。
- 16、当使用链轮来进行传动时，不要把齿链放得过松，否则在起动时会产生冲击力，箱体材料建议改为球铁或铸钢以加强箱体强度。
- 17、在把联轴器、齿轮、链轮等联接摆线针轮减速机的输出轴时，不得采用直接锤击的方法，应利用轴伸端螺孔旋入螺栓，通过压板压入或采用热套方式，并使其紧贴轴肩（紧固环端面）
- 18、安装后的减速机，正式使用前必须进行试运转。在空载运转正常的情况下，再逐渐加载运转。

1. This series reducers suits to continue using for 24 hours and allowed to run in positive and negative directions.
2. The change directions of single-stage output shaft and input shaft is opposition. The turn of double-stage reducer's output shaft and input shaft is the same.
3. The reducers haven't locked by oneselves, if applied in man-trap as exaltation, should select brake motor or configure brake soft on input.
4. This series reducer's output shaft couldn't accept the axial force. If load biggish radial or axial force, please contact us.
5. Over loading protect unit should be setted in the case of over loading phenomena.
6. Baseboard horizontal installed cycloid pin wheel decelerators should be in the level basic which is without librate and very firm. The incidence of axes should be less than 15 degree when it is used in lean.
7. The end of output shaft extension of flange vertical cycloid pin wheel decelerator should be

used in vertical down.

8. It must be take relevant measure to assure enough lubrication and preventing leak oil if other special installation form is needed except baseboard horizontal installation and flange vertical installation.
9. Installation degree of reducers lubricated with axunge is free.
10. It can be adjusted with cushion when reducers is installed. Not more than three cushion in height. It also can be adjusted with chock, but it must change level cushion from chock after reducers are adjusted.
11. We should use positioning dowel to reinforce except use foundation screw to connect machine base with foundation of there are high impact and high libration and frequent start-up.
12. Form of input shaft and output shaft extension of normal reducers is cylindrical, it is connected with common flat key. The tolerance of shaft diameter meets the requirement of GB/T1801-2009, diameter of common key meets the requirement of GB/T1096-2003, the tolerance of flange rabbet meets the requirement of h9 for GB/T1801-2009.
13. Stretch coupling is commended when the coupling is used to connect with reducers and relevant machines.
14. The axial lines must be concentric when the coupling is used to connect with working mechanism or motor. The installation error of decelerator should not exceed the allowable error of the coupling used.
15. It must assure level degree of they when reducers joint with gear, chain wheel.
16. Don't relax chain when driving with chain wheel otherwise, impact force will show in working. We suggest that economy material is changed into spheroidal graphite iron or cast steel to strengthen intension.
17. Direct hammering is prohibited when matching coupling, gear, chain wheel with reducers. It should be screw on screw from helix hole at shaft extension end, press with press board or assemble by hotup, make sure it get close to shaft shoulder (flangle of tighten ring)
18. After the installation of decelerator is finished the test run must be per formed before it is put into use formally. If free running is normal, the load can be added step by step.

(II) 润滑 Lubrication

1、摆线针轮减速机润滑方法。 Lubricating method of reducers

单级摆线针轮减速机润滑方法及贮油量 Lubricating method and oil reserve of single stage reducers

机号 Type	B系列 B series	油浴润滑 oil bath lubrication										
		12	15	18	22	27	33	39	45	55	65	
结构安装形式 及贮油量 Installation form and oil reserve	X系列 X series	2	3	4	5	6	7	8	9	10	11	12
	脚板式卧装 baseboard horizontal installation	油浴润滑 oil bath lubrication										
贮油量(L) oil reserve		0.4	0.5	0.7	1.4	1.7	2.2	4	7	14	30	56
法兰式立装 flange vertical installation		油浴润滑 oil bath lubrication				循环润滑 circulation lubrication						
贮油量(L) oil reserve		0.8	0.9	1.1	1.5	1.9	2.0	3.7	10	15	29	60

油浴润滑或循环润滑双级摆线针轮减速机润滑方法及贮油量

Lubricating method and oil reserve of oil bath and circulation lubrication for double stage reducers

机号 Type	B系列 B series	1512	1812	1815	2215	2218	2715	2718	3318	3322	3922	3927	4527	5527	6533
结构安装形式 及贮油量 Installation form and oil reserve	X系列 X series	00	42		53		63	74	84	85		95	106	117	128
脚板式仰装 baseboard horizontal installation															
油浴润滑 oil bath lubrication															
贮油量(L) oil reserve	1.2	1.4	1.6	2	2.2	3.3	5.5	6	9	10	16	35	70		
法兰式立装 flange vertical installation	油浴润滑 oil bath lubrication				循环润滑 circulation lubrication										
贮油量(L) oil reserve	1.2	1.4	1.5	1.8	1.9	2.2	4	4	10	10	15	20	60		

法兰式立装摆线针轮减速机的润滑油泵见下表，如有特殊要求请与本厂的技术部门联系。

Lubricating oil pump of flange vertical cycloid pin wheel decelerators see the list. Please contact us if you have special request.

摆线针轮减速机 Cycloidal pin wheel decelerator		润滑油泵 Lubricating oil pump			
B系列 B series	X系列 X series	型号 Type	电动机 Motor	电动机 Motor	电动机 Motor
27~39	6~9	CB-08	40W	380V	50HZ
45	10		120W	380V	50HZ
55、65	11、12	CB-B10	550W	380V	50HZ

说明：防爆电动机直联型摆线针轮减速机采用带防爆电动机的润滑油泵。

Note: Lubricating oil pump with anti-explosive motor is used for anti-explosive motor direct-connection type cycloid pin wheel decelerators.

3、本减速机在使用前必须注入润滑油，出厂时的减速机为了便于装卸和运输，一般都不注入润滑油。

4、若采用油脂润滑的减速机在出厂前已注入润滑脂。

5、普通用途的摆线针轮减速机，在常温下推荐使用N150极压工业齿轮油。本机适用于环境温度-10℃ ~ 40℃。低于0℃时，选用N68润滑油，并预热；高于30℃，选用N220润滑油。

6、当摆线针轮减速机在工作条件恶劣、启动-停止频繁和高温或低温的场合中工作时，应与我厂技术部门联系。

7、当减速机采用油脂进行润滑时，推荐使用特种润滑-2、二硫化钼-2或ZL-2锂基润滑脂等油脂。

8、加注润滑油时，油位高度应在油标或示油器的居中位置。

9、润滑脂的注入量应为减速机内容积的1/3-1/2，油脂不宜加得过多，以避免产生搅拌热。

10、润滑油更换周期：

减速机应在初次运转300小时后须进行第一次更换润滑油，更换时，应去除残留污油。初次换油后，以后每天连续工作10小时以上的减速机，应每隔3个月更换一次润滑油，每天工作不超过10小时的减速机，应每隔6个月更换一次。

11、油脂更换周期：每隔6个月更换一次。

12、已经长期没有使用的减速机(一般在12个月以上)在重新使用前，必须更换润滑油或润滑脂。

13、加油时旋开减速机上部的通气帽即可加油，放油时旋开减速机下部的放油螺塞即可放出污水。

14、不允许注入不清洁或带腐蚀性的润滑油。

15、立式BL27和XL7以上均用循环润滑。采用循环润滑的法兰式立装减速机，在使用前先启动微电动机，视油泵是否供油，否则应将微电动机接线换相，因油泵是按指定方向运转的，油泵处于正常工作后应使油面高度保持在圆形油标中线位置。

3. The sufficient lubrication oil must be added before using. The machine isn't usual supplied with lubrication oil when leaving the factory for easy to load and unload or transport.

4. The machine that supplied with lubricating grease is already supplied with lubricating grease.

5. We commend N150 in normal temperature for normal using cycloid pin wheel decelerators. This machine suits ambient temperature -10 °C ~ 40 °C . When low than 0 °C , we should select N68 lubrication and warm-up. When exceed 30 °C , we should select N220 lubrication.

6. Please contact us when the machine works in the condition that have dicky condition, frequent start-up, high or low temperature.

7. The recommended lubricating grease includes special grease-2, supramoly-2 and ZL-2 lithium grease when machine is supplied with lubricating grease.

8. Oil height should in the middle of oil seal when lubricating oil is added.

9. The lubricating grease storage infused should be 1/3 ~ 1/2 of inside the reducer cubage. The lubricating grease shouldn't infuse much, so that avoiding bringing mixxing temperature.

10. Periods of lubrication for replaced:

After running for 300 hours for the first time. Oil must be replaced with fresh oil and oily soil must be rinses away. After wards, oil must be replaced every 3 months for continuous working for over 10 hours, oil must be replaced every 6 months for working for less than 10 hours.

11. Periods of lubricating grease replaced is one time every 6 months.

12. Decelerator stopped for long time cover 12 months must be replace lubrication or lubricating grease before work again.

13. You could add up the oil after unscrewing the breather plug of machine, you could leave the duty oil after unscrewing the screw under the machine.

14. It shouldn't put duty or caustic lubrication oil.

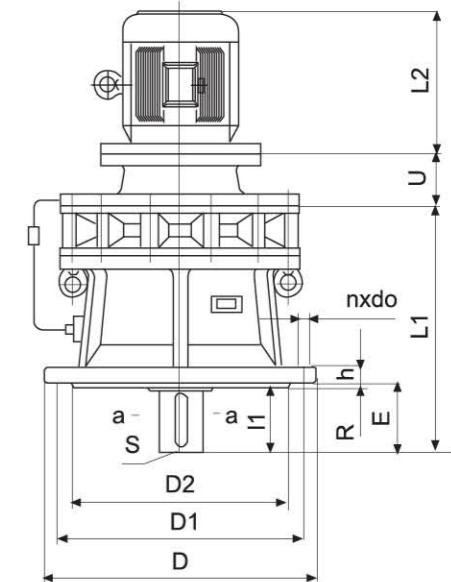
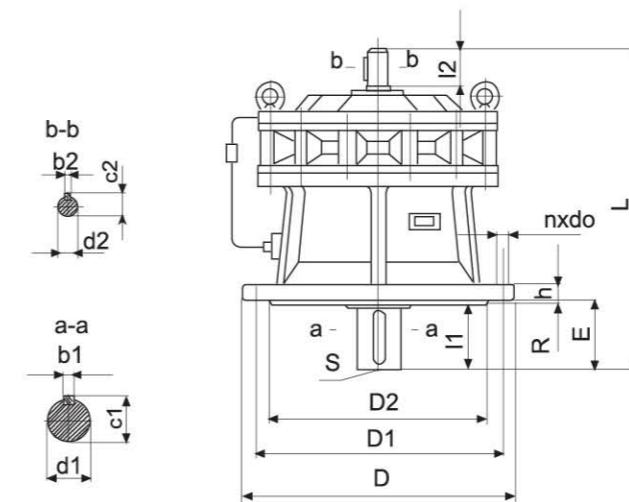
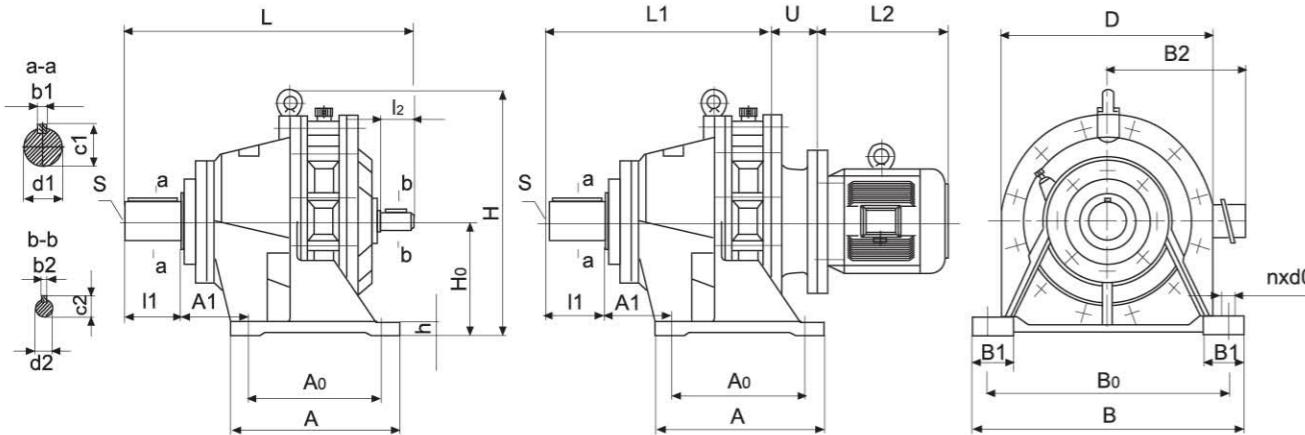
15. It has oil-pump to circulation lubrication above vertical BL27 and XL7. We should start the micro-motor of oil pump first and see if it is feeding oil before driving the flange vertical reducer or we should change the phase of micromotor because the oil pump is running in the specific direction. The oil level should be kept in the midline of round oil-mark when the oil pump is in normal operation conditions.

(六) 摆线针轮减速机的外形及安装尺寸

The Contour and Installation Dimension of Cycloid Pin Wheel Reducer

BW(Y)单级摆线针轮减速机的外形及安装尺寸

Contour And Installment Size Of BW(Y) Single-stage Cycloidal Pin Wheel Reducer

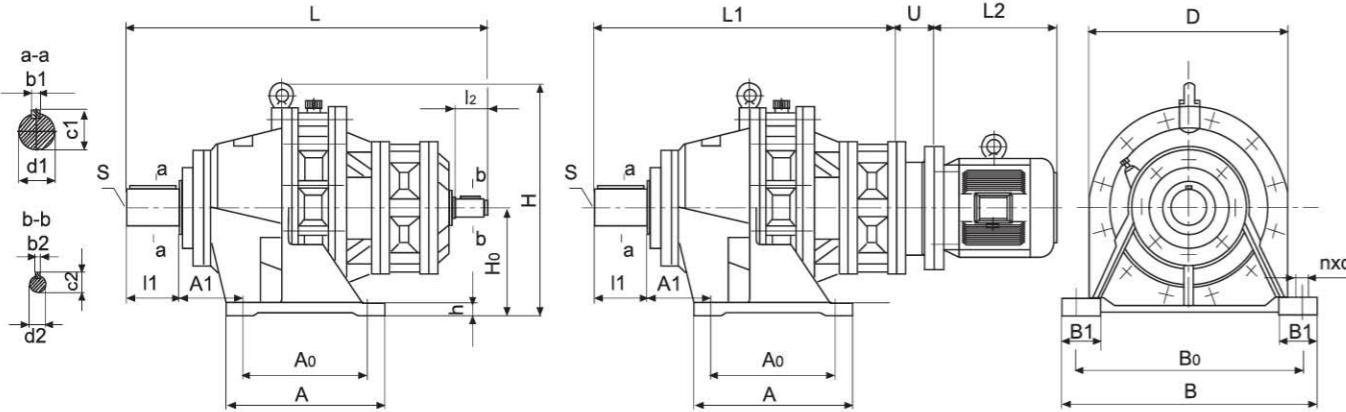


机型号 type	中心高 H ₀ center height	安装尺寸 installation size						轴伸联接尺寸 size of coupling shaft end						外形尺寸 contour size						出轴 中心孔 center hole diameter	双轴型 重量 double shaft weight (kg)				
		A ₁	A ₀	B ₁	B ₀	h	地脚 螺栓 foundation screw		输出轴			输入轴			H	B	D	A	双轴 型 double shaft type		直联型 direct coupling type				
							n	d ₀	d ₁ (h6)	b ₁	c ₁	l ₁	d ₂ (h6)	b ₂	c ₂	l ₂	L	L ₁	L ₂	B ₂	U	S			
12	0 100-0.5	63	90	28	150	15	4	M10	30	8	33	35	15	5	17	22	200	185	168	120	213	164	按电动机长 according to electric machine P27 - P28 页 see at.	M8	15
15	0 120-0.5	80	110	55	240	20	4	M12	35	10	38	58	18	6	20.5	36	270	280	200	160	278	208		M8	30
18	0 150-0.5	95	145	60	290	22	4	M16	45	14	48.5	82	22	6	24.5	36	318	330	240	195	352	276		M10	45
22	0 160-0.5	113	150	75	370	25	4	M16	55	16	59	82	30	8	33	58	360	410	300	238	422	316		M10	95
27	0 200-0.5	35	275	80	380	30	4	M20	70	20	74.5	105	35	10	38	58	435	430	360	335	490	383		M12	150
33	0 250-0.5	35	380	85	480	35	4	M24	90	25	95	130	45	14	48.5	82	542	530	435	440	629	464	见附表 P27 - P28 页 see at.	M16	250
39	0 290-0.5	45	480	90	560	40	4	M24	100	28	106	165	50	14	53.5	82	619	620	510	560	736	556		M20	400
45	0 325-0.5	80	500	105	630	45	4	M24	110	28	116	165	55	16	59	82	706	690	580	600	783	594		M24	570
55	0 420-0.5	122	330x2	140	800	50	6	M33	130	32	137	200	70	20	74.5	105	880	880	705	810	966	733		M30	1200
65	0 490-1	114	375x2	170	920	55	6	M36	160	40	169	240	80	22	85	130	1008	1030	820	900	1120	852		M36	2410

机 型 号 type	安装尺寸 installation size						轴伸联接尺寸 size of coupling shaft end							外形尺寸 contour size					出轴 中心孔 centre hole diameter	双轴 型重 量 double shaft weight (kg)			
	D ₁	D ₂	E	h	R	安装 螺钉 screw instalment		输出轴 output shaft				输入轴 import shaft				D	双轴 型 double shaft type	直联型 direct coupling type					
						n	d ₀	d _{1(h6)}	b ₁	c ₁	l ₁	d _{2(h6)}	b ₂	c ₂	l ₂			L	L ₁	L ₂	B ₂	u	S
12	160	140h9	39	11	4	4	M10	30	8	33	35	15	5	17	22	190	213	164		M8	14		
15	200	170h9	69	16	4	6	M10	35	10	38	58	18	6	20.5	36	230	278	208	按电动机长 see att. P27 P28 Page according to electric machine	M8	28		
18	230	200h9	89	20	4	6	M12	45	14	48.5	82	22	6	24.5	36	260	352	276		M10	40		
22	310	270h9	89	22	4	6	M12	55	16	59	82	30	8	33	58	340	422	316		M10	95		
27	360	316h9	114	26	5	8	M16	70	20	74.5	105	35	10	38	58	400	490	383		M12	140		
33	450	400h9	140	30	6	12	M20	90	25	95	130	45	14	48.5	82	490	629	464		M16	240		
39	520	455h9	177	35	8	12	M20	100	28	106	165	50	14	53.5	82	580	736	556		M20	380		
45	590	520h9	180	40	10	12	M24	110	28	116	165	55	16	59	82	650	783	594		M24	570		
55	800	680h9	215	45	10	12	M30	130	32	137	200	70	20	74.5	105	880	966	733		M30	1200		
65	920	760h9	255	45	10	12	M30	160	40	169	240	80	22	85	130	1000	1121	852		M36	2410		

BW(Y)双级摆线针轮减速机的外形及安装尺寸

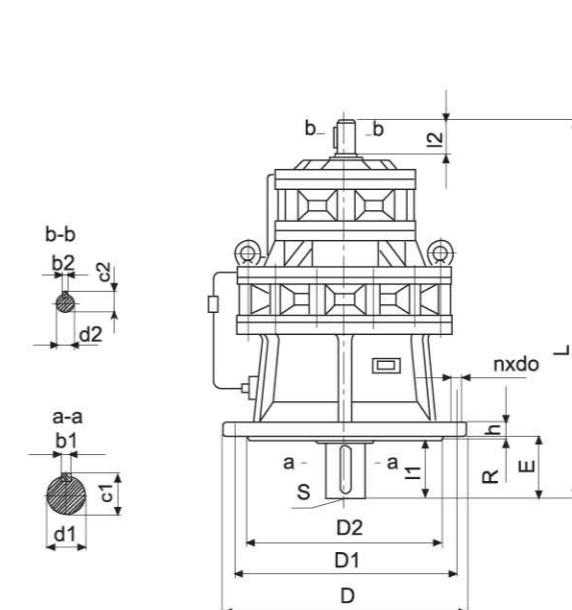
Contour And Installment Size Of BW(Y) Double-stage Cycloidal Pin Wheel Reducer.



机型 型号 type	中 心 高 H ₀ center height	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 double shaft weight (kg)						
		A ₁	A ₀	B ₁	B ₀	h	地脚螺 栓 foundation screw	输出轴 output shaft			d _{1(h6)}	b ₁	c ₁	I ₁	d _{2(h6)}	b ₂	c ₂	I ₂						
n	d ₀	d _{1(h6)}	b ₁	c ₁	I ₁	d _{2(h6)}	b ₂	c ₂	I ₂											S				
1512	0 120-0.5	80	110	55	240	20	4	M12	35	10	38	58	15	5	17	22	270	280	200	160	336	286	M8	40
1812	0 150-0.5	95	145	60	290	22	4	M16	45	14	48.5	82	15	5	17	22	318	330	240	195	414	364	M10	50
1815	0 150-0.5	95	145	60	290	22	4	M16	45	14	48.5	82	18	6	20.5	36	318	330	240	195	434	364	M10	60
2215	0 160-0.5	113	150	75	370	25	4	M16	55	16	59	82	18	6	20.5	36	360	410	300	238	473	407	M10	105
2218	0 160-0.5	113	150	75	370	25	4	M16	55	16	59	82	22	6	24.5	36	360	410	300	238	506	430	M10	138
2715	0 200-0.5	35	275	80	380	30	4	M20	70	20	74.5	105	18	6	20.5	36	435	430	360	335	540	474	M12	165
2718	0 200-0.5	35	275	80	380	30	4	M20	70	20	74.5	105	22	6	24.5	36	435	430	360	335	573	497	M12	180
3318	0 250-0.5	35	380	85	480	35	4	M24	90	25	95	130	22	6	24.5	36	542	530	435	440	658	582	M16	270
3322	0 250-0.5	35	380	85	480	35	4	M24	90	25	95	130	30	8	33	58	542	530	435	440	706	601	M16	290
3922	0 290-0.5	45	480	90	560	40	4	M24	100	28	106	165	30	8	33	58	619	620	510	560	796	691	M20	420
3927	0 290-0.5	45	480	90	560	40	4	M24	100	28	106	165	35	10	38	58	619	620	510	560	813	706	M20	520
4527	0 325-0.5	80	500	105	630	45	4	M24	110	28	116	165	35	10	38	58	706	690	580	600	856	749	M24	620
5527	0 420-1	122	330x2	140	800	50	6	M33	130	32	137	200	35	10	38	58	880	880	705	810	998	891	M30	1250
5533	0 420-1	122	330x2	140	800	50	6	M33	130	32	137	200	45	14	48.5	82	880	880	705	810	1079	914	M30	1400
6533	0 490-1	114	375x2	170	920	55	6	M36	160	40	169	240	45	14	48.5	82	1008	1030	820	900	1205	1040	M36	2510

BL(Y)双级摆线针轮减速机的外形及安装尺寸

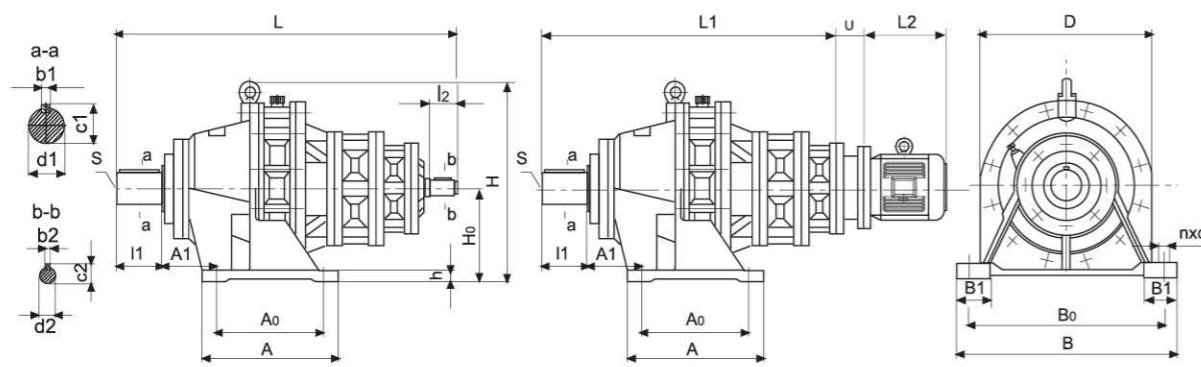
Contour and Installment Size of BL(Y) Double-Cyclo Pin Wheel Decelerators



机型 型号 type	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 double shaft weight (kg)			
	D ₁	D ₂	E	h	R	安装螺钉 screw instalment					输出轴 output shaft			输入轴 input shaft			D	双轴 型 double shaft type	直联型 direct coupling type	
n	d ₀	d _{1(h6)}	b ₁	c ₁	I ₁	d _{2(h6)}	b ₂	c ₂	I ₂										S	
1512	200	170h9	69	16	4	6	M10	35	10	38	58	15	5	17	22	230	336	286	M8	40
1812	230	200h9	89	20	4	6	M12	45	14	48.5	82	15	5	17	22	260	414	364	M10	49
1815	230	200h9	89	20	4	6	M12	45	14	48.5	82	18	6	20.5	36	260	434	364	M10	60
2215	310	270h9	89	22	4	6	M12	55	16	59	82	18	6	20.5	36	340	473	407	M10	105
2218	310	270h9	89	22	4	6	M12	55	16	59	82	22	6	24.5	36	340	506	430	M10	138
2715	360	316h9	114	26	5	8	M16	70	20	74.5	105	18	6	20.5	36	400	540	474	M12	165
2718	360	316h9	114	26	5	8	M16	70	20	74.5	105	22	6	24.5	36	400	573	497	M12	180
3318	450	400h9	140	30	6	12	M20	90	25	95	130	22	6	24.5	36	490	658	582	M16	270
3322	450	400h9	140	30	6	12	M20	90	25	95	130	30	8	33	58	490	706	601	M16	290
3922	520	455h9	177	35	8	12	M20	100	28	106	165	30	8	33	58	580	796	691	M20	420

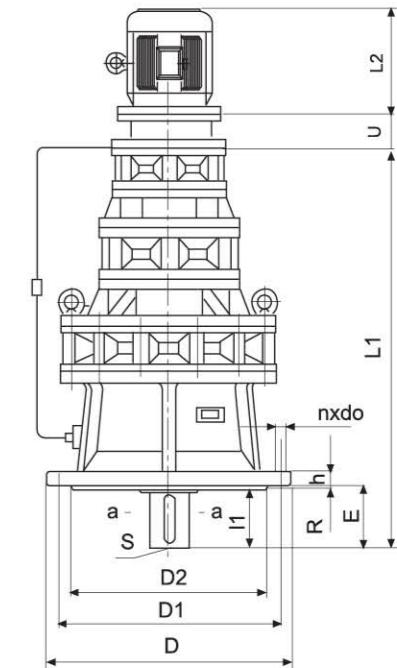
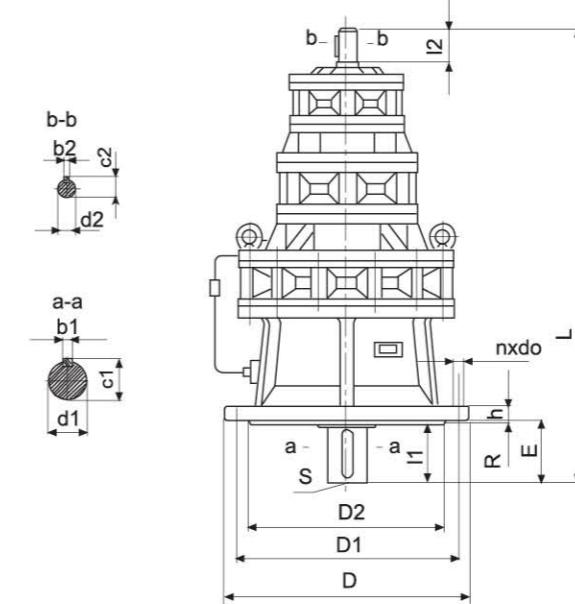
BW(Y)三级摆线针轮减速机的外形及安装尺寸

Contour and Installment Size of BW(Y) 3-stage Cycloidal Pin Wheel Reducer



BL(Y)三级摆线针轮减速机的外形及安装尺寸

Contour and Installment Size of BL(Y) 3-stage Cycloidal Pin Wheel Reducer



机型 型号 type	中心 高 H ₀ center height	安装尺寸 Installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh		
		A ₁	A ₀	B ₁	B ₀	h	输出轴 output shaft					输入轴 input shaft								
							n	d ₀	d _{1(h6)}	b ₁	c ₁	I ₁	d _{2(h6)}	b ₂	c ₂	I ₂				
181512	0 150-0.5	95	145	60	290	22	4	M16	45	14	48.5	82	15	5	17	22	318 330 240 195 455 410	M10	59	
271812	0 200-0.5	35	275	80	380	30	4	M20	70	20	74.5	105	15	5	17	22	435 430 360 335 634 584	M12	201	
331812	0 250-0.5	35	380	85	480	35	4	M24	90	25	95	130	15	5	17	22	542 530 435 440 719 669	M16	278	
332215	0 250-0.5	35	380	85	480	35	4	M24	90	25	95	130	18	6	20.5	36	542 530 435 440 762 692	M16	352	
392215	0 290-0.5	45	480	90	560	40	4	M24	100	28	106	165	18	6	20.5	36	619 620 510 560 852 782	M20	478	
452715	0 325-0.5	80	500	105	630	45	4	M24	110	28	116	165	18	6	20.5	36	708 690 580 600 907 837	M24	667	
552718	0 420-1	122	330X2	140	800	50	6	M33	130	32	137	200	22	6	24.5	36	880 880 705 810 1082 1006	M30	1315	
653322	0 490-1	114	375X2	170	920	55	6	M36	160	40	169	240	30	8	33	58	1008 1030 820 900 1281 1177	M36	2805	

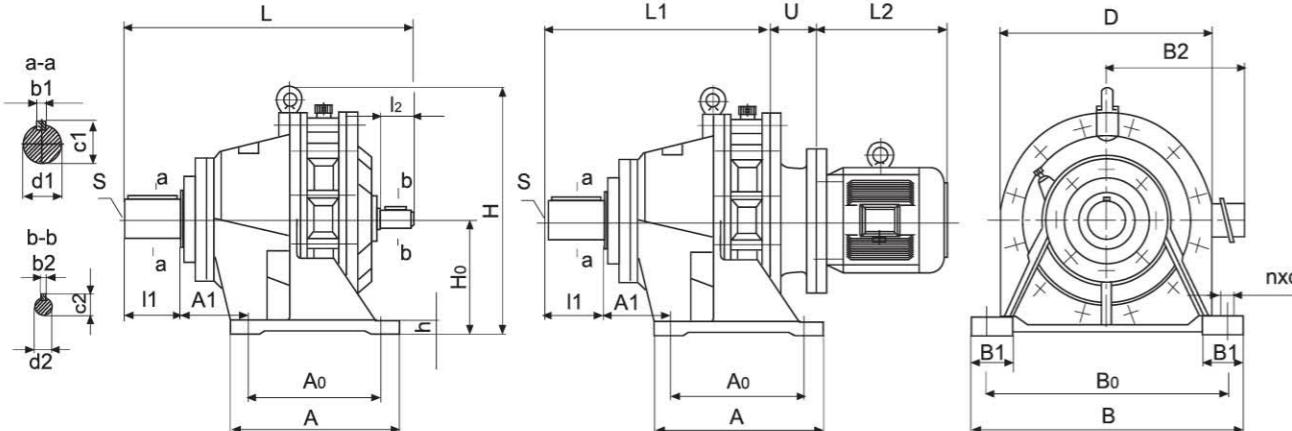
机型 型号 type	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh		
	D ₁	D ₂	E	h	R	安装螺钉 screw instalment					输出轴 output shaft								
						n	d ₀	d _{1(h6)}	b ₁	c ₁	I ₁	d _{2(h6)}	b ₂	c ₂	I ₂				
181512	230	200h9	89	20	4	6	M12	45	14	48.5	82	15	5	17	22	260 455 410	M10	54	
271812	360	316h9	114	26	5	8	M16	70	20	74.5	105	15	5	17	22	400 634 584	M12	201	
331812	450	400h9	140	30	6	12	M20	90	25	95	130	15	5	17	22	495 719 669	M16	278	
332215	450	400h9	140	30	6	12	M20	90	25	95	130	18	6	20.5	36	495 762 692	M16	352	
392215	520	455h9	177	35	8	12	M20	100	28	106	165	18	6	20.5	36	580 852 782	M20	478	
452715	590	520h9	180	40	10	12	M24	110	28	116	165	18	6	20.5	36	650 907 837	M24	667	
552718	800	680h9	215	45	10	12	M30	130	32	137	200	22	6	24.5	36	880 1082 1006	M30	1315	
653322	920	760h9	255	45	10	12	M30	160	40	169	240	30	8	33	58	1000 1281 1177	M36	2805	

七、X系列摆线针轮减速机的外形及安装尺寸

Contour and Installing Size Of X Cycloidal Pin Wheel Decelerators Contracted

XW(D)型单级摆线针轮减速机的外形及安装尺寸

Contour and installing size of XW(D) single-stage cycloidal pin wheel decelerator



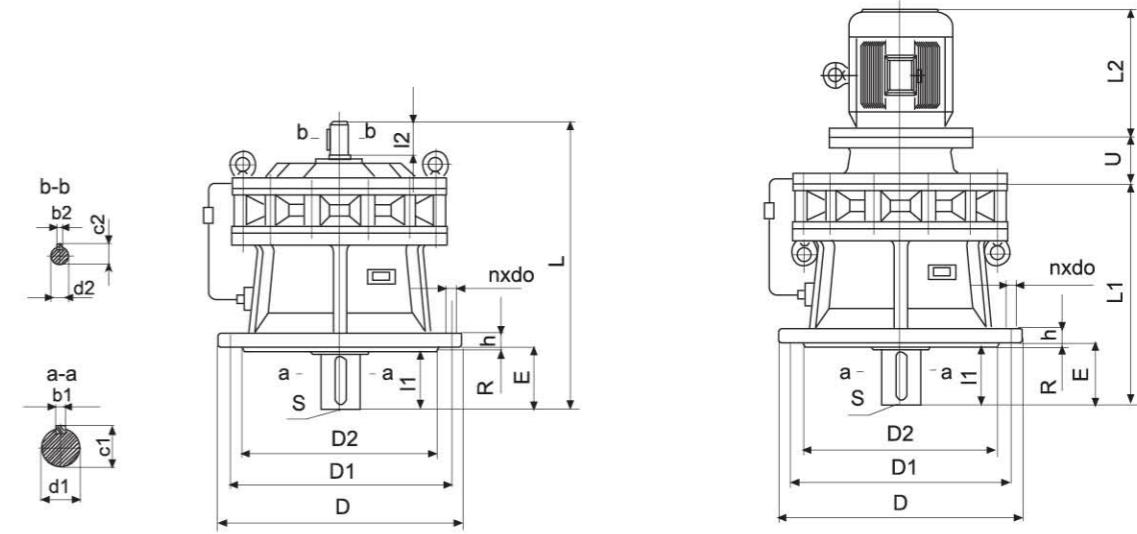
尺寸 Size	中心高 center height	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴中心孔 center hole diameter	双轴型 double shaft type	直联型 direct coupling type	重量 (kg) double shaft weight				
		H ₀	A ₁	A ₀	B ₁	B ₀	h	地脚孔 foundation hole diameter	输出轴 output shaft		输入轴 input shaft			B	D	A	H	L ₁	L ₂	u	S			
型号 Type								n-d ₀	d ₁ (h6)	b ₁	c ₁	I ₁	d ₂ (h6)	b ₂	c ₂	I ₂	L							
2	100	67	90	45	180	15	4-12	25	8	28	34	15	5	17	25	210	168	120	200	216	163	M8	13	
3	140	96	100	55	250	20	4-16	35	10	38	55	18	6	20.5	35	290	200	150	270	275	204	按见附表 according to electric machine see att. page P27-P28	M8	26
4	150	95	145	60	290	22	4-19	45	14	48.5	74	22	6	24.5	40	330	240	195	318	348	268	M10	38	
5	160	115	150	75	370	25	4-19	55	16	59	91	30	8	33	45	420	300	260	360	419	327	M10	93	
6	200	36	275	75	380	30	4-22	65	18	69	89	35	10	38	54	430	360	335	435	471	368	M12	138	
7	220	36	320	85	420	30	4-22	80	22	85	109	40	12	43	65	470	360	380	502	507	387	M12	160	
8	250	35	380	85	480	35	4-28	90	25	95	120	45	14	48.5	70	530	435	440	542	607	453	M16	240	
9	290	45	480	120	560	40	4-28	100	28	106	141	50	14	53.5	80	620	510	560	619	710	532	M20	370	
10	325	80	500	120	630	45	4-28	110	28	116	150	55	16	60	100	690	580	600	706	788	579	M24	622	
11	420	122	330x2	160	800	50	6-38	130	32	137	202	70	20	74.5	120	880	710	810	880	1052	814	M30	1229	
12	540	155	420x2	200	1050	60	6-45	180	45	190	330	90	25	95	150	1160	990	1040	1137	1462	1174	M42	2420	

注：本厂生产的X系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

XL(D)型单级摆线针轮减速机的外形及安装尺寸

Contour and installing size of XL(D) single-stage cycloidal pin wheel decelerator



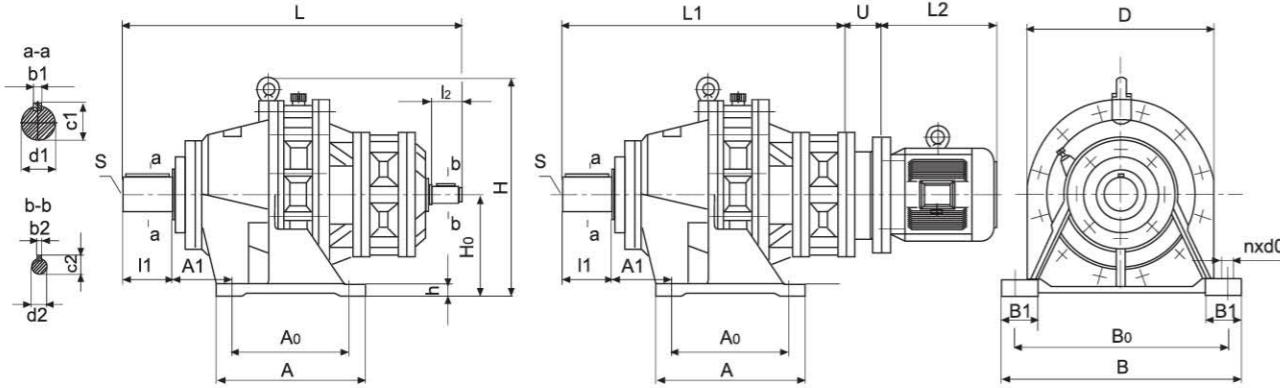
尺寸 Size	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴中心孔 center hole diameter	双轴型 double shaft type	直联型 direct coupling type	重量 (kg) double shaft weight	
	D ₁	D ₂	E	h	R	安装孔 foundation hole diameter	输出轴 output shaft		输入轴 input shaft			D	双轴型 double shaft type		直联型 direct coupling type	L	L ₁	L ₂	u	S
型号 Type						n-d ₀	d ₁ (h6)	b ₁	c ₁	I ₁	d ₂ (h6)	b ₂	c ₂	I ₂						
2	160	130	42	12	3	6-12	25	8	28	34	15	5	17	25	180	219	168	按见附表 according to electric machine see att. page P27-P28	M8	13
3	200	170	50	15	4	6-12	35	10	38	45	18	6	20.5	35	230	258	187		M8	26
4	230	200	79	20	4	6-15	45	14	48.5	63	22	6	24.5	40	260	346	266		M10	38
5	310	270	93	22	4	6-15	55	16	59	79	30	8	33	45	340	412	320		M10	93
6	360	316	92	26	5	8-19	65	18	69	80	35	10	38	54	400	464	361		M12	138
7	390	345	114	26	5	8-19	80	22	85	98	40	12	43	65	430	507	382		M12	160
8	450	400	112	30	6	12-24	90	25	95	110	45	14	48.5	70	490	589	435		M16	240
9	520	455	170	35	8	12-24	100	28	106	129	50	14	53.5	80	580	728	550		M20	370
10	590	520	174	40	10	12-28	110	28	116	140	55	16	60	100	650	797	588		M24	622
11	800	680	210	45	10	12-37	130	32	137	184	70	20	74.5	120	880	1053	815		M30	1229
12	1020	900	355	60	10	8-39	180	45	190	320	90	25	95	150	1160	1462	1174		M42	2420

注：本厂生产的X系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

XWE(D)型双级摆线针轮减速机的外形及安装尺寸

Contour and installing size of XWE(D) double-stage cycloidal pin wheel decelerator



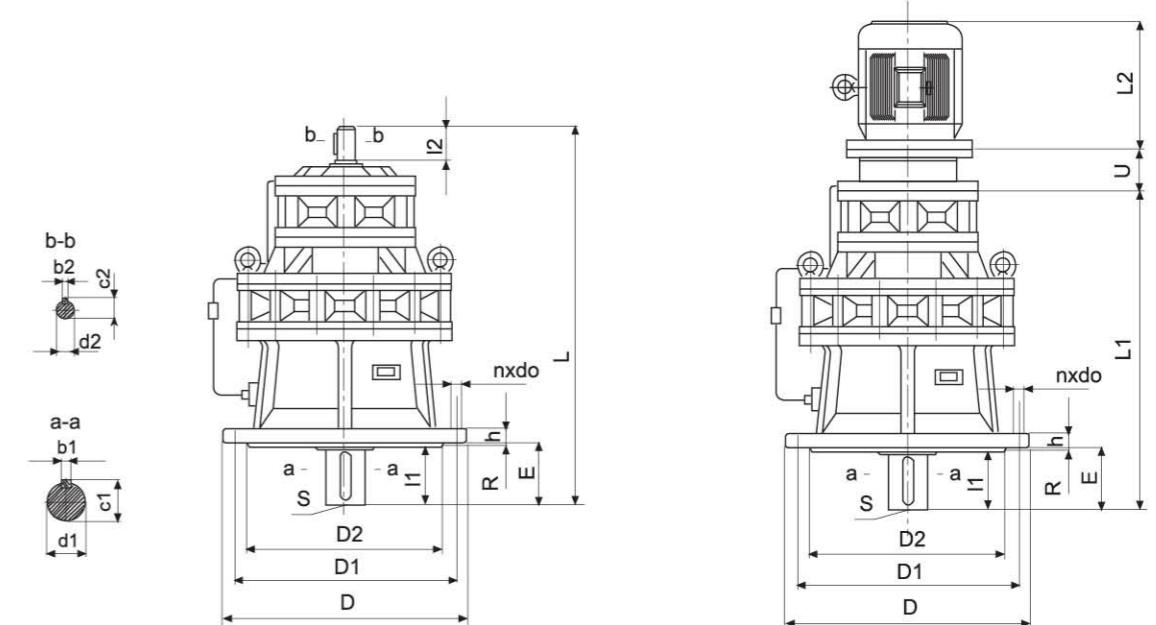
尺寸 Size	中心高 center height	安装尺寸 installation size						轴伸联接尺寸 size of coupling shaft end						外形尺寸 contour size						出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh			
		H ₀	A ₁	A ₀	B ₁	B ₀	h	地脚孔 foundation hole diameter	输出轴 output shaft			输入轴 input shaft			B	D	A	H	双轴 型 double shafts type L	直联型 direct coupling type	L ₁	L ₂	U	S
型号 Type	n-d ₀	d ₁ (h6)	b ₁	c ₁	l ₁	d ₂ (h6)	b ₂	c ₂	l ₂	B	D	A	H	L ₁	L ₂	U	S							
00	80	16	60	-	120	10	4-10	14	5	16	20	10	4	11.5	15	144	113	84	146	166	125			13
20	100	67	90	45	180	15	4-12	25	8	28	34	10	4	11.5	15	210	168	120	178	242	205	M8	21	
42	150	95	145	60	290	22	4-19	45	14	48.5	74	15	5	17	25	330	240	195	318	408	355	M10	75	
53	160	115	150	75	370	25	4-19	55	16	59	91	18	6	20.5	35	420	300	260	360	489	418	M10	105	
63	200	36	275	75	380	30	4-22	65	18	69	89	18	6	20.5	35	430	360	335	435	549	478	M12	149	
74	220	36	320	85	420	30	4-22	80	22	85	109	22	6	24.5	40	470	360	380	502	581	501	M12	193	
84	250	35	380	85	480	35	4-28	90	25	95	120	22	6	24.5	40	530	435	440	542	651	571	M16	270	
85	250	35	380	85	480	35	4-28	90	25	95	120	30	8	33	45	530	435	440	542	682	590	M16	280	
95	290	45	480	120	560	40	4-28	100	28	106	140	30	8	33	45	620	510	560	619	759	667	M20	461	
106	325	80	500	120	630	45	4-28	110	28	116	150	35	10	38	54	690	580	600	706	837	734	M24	650	
117	420	122	330x2	160	800	50	6-38	130	32	137	202	40	12	43	65	880	700	810	880	1087	972	M30	1260	
128	540	155	420x2	200	1050	60	6-45	180	45	190	330	45	14	48.5	70	1160	990	1040	1137	1520	1370	M42	2742	

注：本厂生产的×系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

XLE(D)型双级摆线针轮减速机的外形及安装尺寸

Contour and installing size of XLE(D) double-stage cycloidal pin wheel decelerator



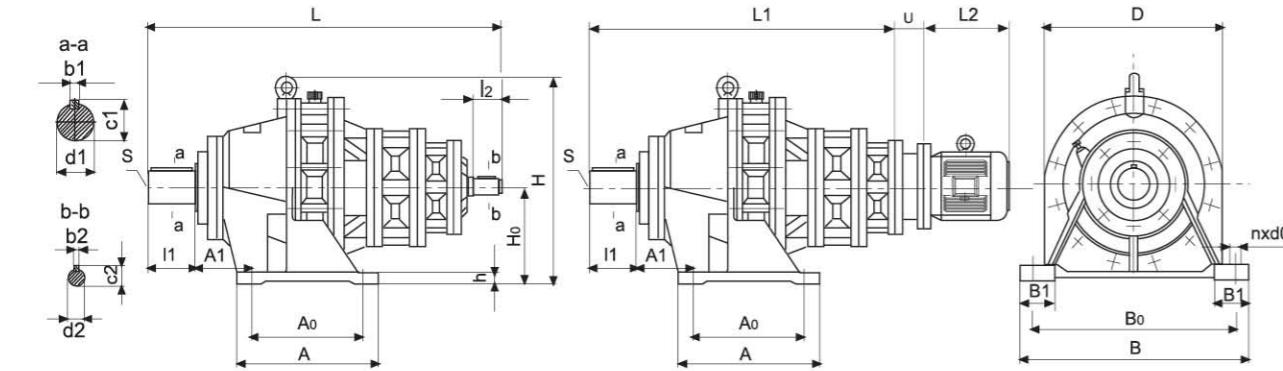
尺寸 Size	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end								外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh
	D ₁	D ₂	E	h	R	安装孔 foundation hole diameter	输出轴 output shaft				输入轴 input shaft				D	双轴 型 double shaft type	直联型 direct coupling type			
Type							n-d ₀	d ₁ (h6)	b ₁	c ₁	l ₁	d ₂ (h6)	b ₂	c ₂	l ₂		L	L ₁	L ₂	u
00	102	80	29	8	3	6-10	14	5	16	20	10	4	11.5	15	120	166	127	-	13	按电动机长 according to length of electric machine 见附表P27-P28页 See P27-P28 pages
20	160	130	42	12	3	4-12	25	8	28	34	10	4	11.5	15	180	242	203	M8	21	
42	230	200	79	20	4	6-15	45	14	48.5	63	15	5	17	25	260	406	353	M10	69	
53	310	270	93	22	4	6-15	55	16	59	79	18	6	20.5	35	340	482	411	M10	105	
63	360	316	92	26	5	8-19	65	18	69	80	18	6	20.5	35	400	523	452	M12	149	
74	390	345	114	26	5	8-19	80	22	85	98	22	6	24.5	40	430	576	496	M12	193	
84	450	400	112	30	6	12-24	90	25	95	110	22	6	24.5	40	490	633	553	M16	270	
85	450	400	112	30	6	12-24	90	25	95	110	30	8	33	45	490	664	572	M16	280	
95	520	455	170	35	8	12-24	100	28	106	129	30	8	33	45	580	777	685	M20	461	
106	590	520	174	40	10	12-28	110	28	116	140	35	10	38	54	650	846	743	M24	650	
117	800	680	210	45	10	12-37	130	32	137	184	40	12	43	65	880	1081	966	M30	1260	
128	1020	900	355	60	10	8-39	180	45	190	320	45	14	48.5	70	1160	1520	1370	M42	2742	

注：本厂生产的X系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

XWS(D)型三级减速机的外形及安装尺寸

Contour and installing size of XWS(D) three-stage decelerator



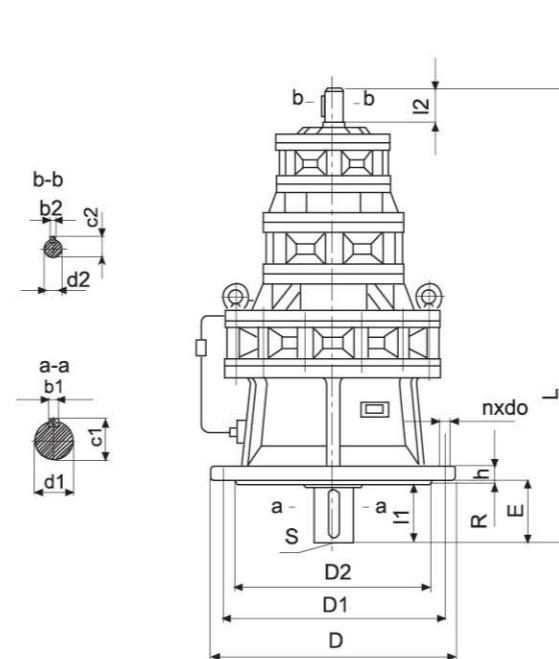
尺寸 Size	中心 高 center height	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh						
		H ₀	A ₁	A ₀	B ₁	B ₀	h	地脚孔 foundation hole diameter	输出轴 output shaft		输入轴 input shaft			B	D	A	双轴 型 double shafts type	直联型 direct coupling type	L ₁	L ₂	u	S		
型号 Type								n-d ₀	d ₁ (h6)	b ₁	c ₁	I ₁	d ₂ (h6)	b ₂	c ₂	I ₂								
420	150	95	145	60	290	22	4-19	45	14	48.5	74	10	4	11.5	15	330	240	195	453	407	M10			
742	220	36	320	85	420	30	4-22	80	22	85	109	15	5	17	25	470	360	380	636	583	M12	按电动机长 according to length of electric machine 见附表 P27-P28 页 see at page		
842	250	35	380	85	480	35	4-28	90	25	95	120	15	5	17	25	530	435	440	693	640	M16			
853	250	35	380	85	480	35	4-28	90	25	95	120	18	6	20.5	35	530	435	440	734	663	M16			
953	290	45	480	120	560	40	4-28	100	28	106	141	18	6	20.5	35	620	510	560	847	776	M20			
1063	325	80	500	120	630	45	4-28	110	28	116	150	18	6	20.5	35	690	580	600	902	831	M24			
1174	420	122	330X2	160	800	50	6-38	130	32	137	202	22	6	24.5	40	880	700	810	1161	1081	M30			
1285	540	155	420X2	200	1050	60	6-45	180	45	190	330	30	8	33	45	1160	990	1040	1634	1543	M42			

注：本厂生产的X系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

XLS(D)型三级减速机的外形及安装尺寸

Contour and installing size of XLS(D) three-stage decelerator



尺寸 Size	安装尺寸 installation size					轴伸联接尺寸 size of coupling shaft end					外形尺寸 contour size					出轴 中心孔 center hole diameter	双轴 型 重量 (kg) double shaft weigh				
	D ₁	D ₂	E	h	R	安装孔 foundation hole diameter	输出轴 output shaft		输入轴 input shaft			D	双轴 型 double shafts type	直联型 direct coupling type	L	L ₁	L ₂	u	S		
型号 Type						n-d ₀	d ₁ (h6)	b ₁	c ₁	I ₁	d ₂ (h6)	b ₂	c ₂	I ₂							
420	230	200	79	20	4	6-15	45	14	48.5	63	10	4	11.5	15	260	453	407	按电动机长 according to length of electric machine 见附表 P27-P28 页 see at page	M8		
742	390	345	114	26	5	8-19	80	22	85	98	15	5	17	25	430	636	583	M12			
842	450	400	112	30	6	12-24	90	25	95	110	15	5	17	25	490	693	640	M16			
853	450	400	112	30	6	12-24	90	25	95	110	18	6	20.5	35	490	734	663	M16			
953	520	455	170	35	8	12-24	100	28	106	129	18	6	20.5	35	580	847	776	M20			
1063	590	520	174	40	10	12-28	110	28	116	140	18	6	20.5	35	650	902	831	M24			
1174	800	680	210	50	10	12-37	130	32	137	184	22	6	24.5	40	880	1161	1081	M30			
1285	1020	900	355	60	10	8-39	180	45	190	320	30	8	33	45	1160	1634	1543	M42			

注：本厂生产的X系列尺寸除地脚孔尺寸有小差距外，其余与天津减速机总厂样本一致。

Note: The dimensions of X series are consistent with TianJin speed reducer head quarter, except some difference about foundation hole.

BWY、BLY、XWD、XLD 型摆线针轮减速机专用电机尺寸 (附表一)

Dimension of special motor for BWY、BLY、XWD、XLD cycloid pin wheel decelerator(附表一)

机号 Type B系列 B series	X系列 X series	尺寸 Dimension	输入功率(kW) Input power											
			0.18	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	
12、1512 1812	2、42	U L2 电机重量(kg) Weight	0 220 10	0 220 10	0 220 11	0 230 11	0 230 11	0 230 11	0 230 11	0 230 11	0 230 11	0 230 11	0 230 11	
15、1815 2215、2715	3、53 63	U L2 电机重量(kg) Weight	0 230 17	0 245 19	0 245 20	0 245 25	0 245 28	0 260 30	0 260 30	0 285 30	0 285 30	0 285 30	0 320 320	0 320 320
18、2218 2718、3318	4、74 84	U L2 电机重量(kg) Weight	0 250 21	0 265 26	0 265 29	0 265 29	0 265 29	0 290 29	0 290 29	0 325 325	0 325 325	0 325 325	0 325 325	0 325 325
22、3322 3922	5、85 95	U L2 电机重量(kg) Weight	0 265 26	0 290 29	0 290 38	0 290 38	0 325 38	0 325 40	0 345 40	0 345 47	0 345 74	0 345 86	0 400 86	0 400 400
27、3927	6、7	U L2 电机重量(kg) Weight	0 345 45	0 345 45	0 345 51	0 345 51	0 345 51	0 400 80	0 400 96	0 445 80	0 445 96	0 505 138	0 505 138	0 505 138

注：上表仅供参考，L2=U+J

Note:The above is just for reference.L2=U+J

BWY、BLY、XWD、XLD 型摆线针轮减速机普通电动机尺寸 (附表二)

Dimension of common motor for BWY、BLY、XWD、XLD cycloid pin wheel decelerator (att.table 2)

机号 Type B系列 B series	X系列 X series	尺寸 Dimension	输入功率(kW) Input power											
			0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5	11	15	
12、1512 1812	2、42	U L2 电机重量(kg) Motor weight	57	57	81	81	81	81	81	81	81	81	81	81
15、1815 2215、2715	3、53 63	U L2 电机重量(kg) Motor weight	19	245	245	260	285	285	285	285	285	285	285	285
18、2218 2718、3318	4、74 84	U L2 电机重量(kg) Motor weight	55	55	65	65	75	75	75	75	75	75	75	75
22、3322 3922	5、85 95	U L2 电机重量(kg) Motor weight	67	67	67	67	77	77	77	77	77	77	77	77
27、3927、 4527、5527、 6533、	6、106 7、117 8、128	U L2 电机重量(kg) Motor weight	77	77	77	77	77	77	77	77	77	77	77	77
39	9	U L2 电机重量(kg) Motor weight	76	76	76	76	101	101	129	129	129	129	129	129
45	10	U L2 电机重量(kg) Motor weight	320	320	340	340	395	395	435	435	490	490	535	535
55	11	U L2 电机重量(kg) Motor weight	37	39	45	72	84	130	145	180	180	180	180	180
65	12	U L2 电机重量(kg) Motor weight	136	136	166	166	166	166	166	166	166	166	166	166
			136	136	166	166	166	166	166	166	166	166	166	166
			665	665	665	665	665	665	665	665	665	665	665	665
			195	220	250	292	408	408	408	408	408	408	408	408

注：上表仅供参考，L2=U+J

Note:The above is just for reference.L2=U+J

八、摆线针轮减速机各种系列标准相应机型对照表

The check list of type and series of cycloidal pin wheel reducer

B系列(泰隆标) B series (Tailong normal)	12	15	18	22	27	--	33	39	45	55	65	
X系列(天津标) X series (Tianjin normal)	2	3	4	5	6	7	8	9	10	11		12
B系列(上海标) B series (Shanghai normal)	B10	B11A B11	B12B B12	B13B B13	B14	B14A	B15	B16B B16	B17	B18		B19
B系列(化工部标) B series (Chemical normal)	B0	B1	B2	B3	B4	--	B5	B6	B7	B8	B9	
Z系列(机械部标) JB/T2982-94 Z series (Machinery normal)	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A		12A

B系列(泰隆标) B series (Tailong normal)	1512	1812	1815	2215	2218	2715	2718	3318	3322	3922	3927	4527	5527	5533	6533
X系列(天津标) X series (Tianjin normal)	00	42	-	53	-	63	74	84	85	95	-	106	117	-	128
B系列(上海标) B series (Shanghai normal)	-	B120A	-	B131A	-	B141A	B142A	B152	B153	B163	-	B174	B184A	-	B195
B系列(化工部标) B series (Chemical normal)	20	-	31	-	41	42	52	53	63	-	74	84	-	95	
Z系列(机械部标) JB/T2982-94 Z series (Machinery normal)	42A		53A		63A	74A	84A	85A	95A		106A	117A		128A	
B系列(机械部标) B series (Machinery normal)	181512		271812		331812		332215		392215						
X系列(天津标) X series (Tianjin normal)	420		742		842		853		953						
B系列(机械部标) B series (Machinery normal)	452715		552718		653322										
X系列(天津标) X series (Tianjin normal)	1063		1174						1285						

注：上表四大系列摆线针轮减速机本公司均可生产，其传动原理和结构特点都是一样，只是输出轴尺寸和安装尺寸略有差异。

Note: The above four series of cycloidal pin wheel decelerators can all be produced in our company with the same driving mechanism and structure. The difference lies in the output shaft size and installing size.

特殊摆线针轮减速机系列

Special series of cycloidal pin wheel decelerator

我公司根据各行业要求，设计了多种特殊用途的减速机，其内部参数等同于同规格的摆线针轮减速机，性能、指标达到 JB/T53324-1997 的要求，欢迎各行业厂家来公司合作，本公司为您提供各种非标产品的设计、制造。

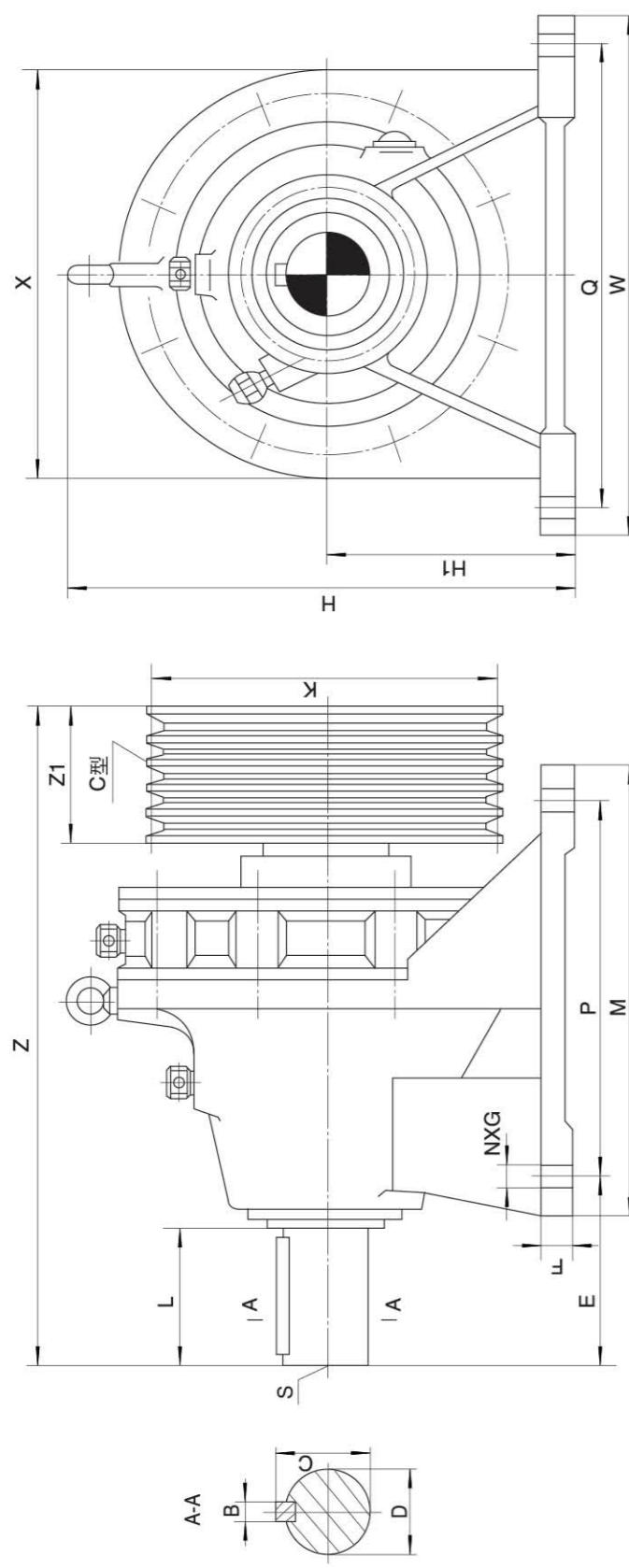
Besides we can design special decelerator under standard of JB/T53324-1997 with the same specs with other normal reducers. Any industrial works are welcomed.

(一)、TSW型减速机 TSW decelerator

TSW型摆线针轮减速机是为水泥成球盘机械配套设计制造的，性能、指标符合该行业使用要求，其输入部分为C型三角带轮。性能参数如下表：

The TSW cycloidal pin wheel decelerator is designed for cement ball-plater. The tech dates conform to national standard. The input part applies C triangle belt wheel. The parameters are as follows.

机型 Type	许用转矩 Nm Allowed torque	减速机中心高 Center height	输出轴轴径 D (h6) Output shaft diameter	传动比 Transmission ratio
TSW27	1600	200	70	
TSW33	3000	240	90	11, 17, 23, 29
TSW39	5000	280	100	35, 43, 59, 71, 87
TSW45	10000	325	110	

TSW 型外形及安装联接尺寸
Contour and installing size of TSW decelerator

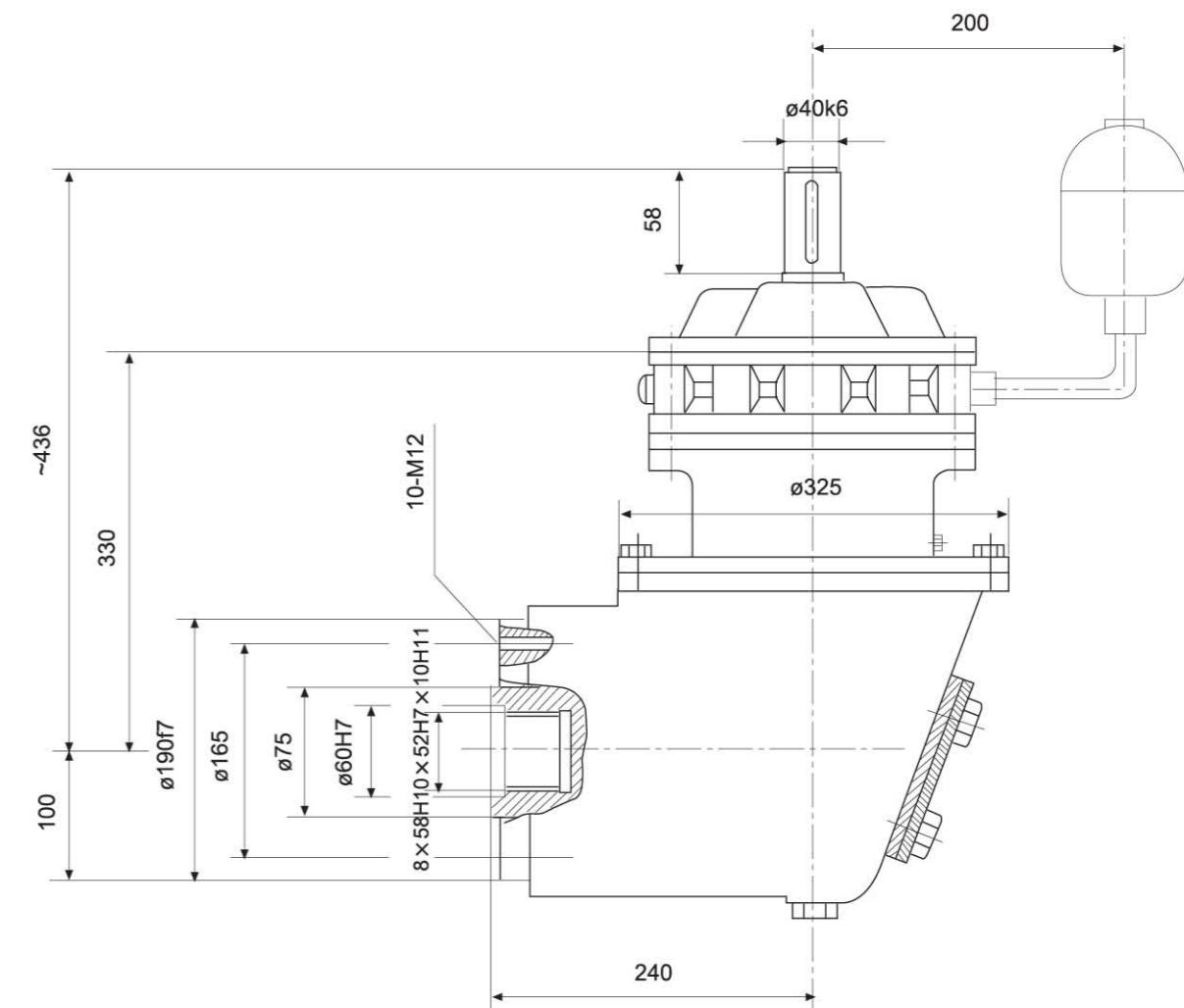
机号 Type	许用扭矩 N·m	Z	M	W	H	X	H ₁	E	F	P	Q	S	K	NXG	B	C	D	L	Z ₁
TSW27	1600	525	320	430	435	360	200	206	25	260	380	M12	260	4×ø22	20	74.5	70	113	82
TSW33	3000	655	400	490	520	435	240	173	25	340	440	M16	380	4×ø22	25	95	90	119	138
TSW39	5000	735	520	560	609	510	280	201	35	440	500	M20	380	4×ø26	28	106	100	138	138
TSW45	10000	804	600	690	706	580	325	245	45	500	630	M24	380	6×ø28	28	116	110	165	138

(二)垂直摆线减速机 QJ9907-57 安装尺寸:

Installation dimension of vertical cycloidal pin wheel decelerator QJ9907-57

该减速机是专为钢厂配套的组合减速机，高速级采用一级弧齿锥齿轮传动，低速级采用摆线针轮传动，输入功率 $P = 7.5\text{KW}$ ，传动比为 $14.29 (9 \times \frac{27}{17})$

The reducer is combined machine special for steel factory, it drives with one stage are tooth taper gear in high-speed stage, with cycloidal pin wheel in low-speed stage. Input power $P=7.5\text{KW}$, transmission ratio is 14.29.



(三) 加长型摆线针轮减速机

Lengthen type of cycloid pin wheel decelerator

加长型摆线针轮减速机除具有标准型减速机的特点外,由于输出轴的两支承点距离加长,同时还能承受足够的轴向力,故能专配于各种搅拌装置作驱动,我厂还配套生产各种搅拌装置,加长型摆线针轮减速比9~87,功率4极电机0.55~22kw,6极电机5.5~55kw.

Lengthen type of cycloid pin wheel decelerator not only has standard's characteristics, but also can load enough axial force. Because the distance between two supporting points is lengthened, special for driving of diversified churn-dasher devices, and we supply multi-type churn-dasher devices too. The transmission rate range from 9 to 87, fit for 6-pole motor 0.55~22kw, 4-pole 5.5~55kw.

(Ⅰ)、型号表示方法:

1、机型代号BLA,其意义为摆线针轮减速机系列派生产品,可作为各种搅拌轴的驱动装置,以下简称为BLA型.

2、机型号:

"15"、"18"、"22"、"27"、"33"、"39"、"46"、"56"、共8种

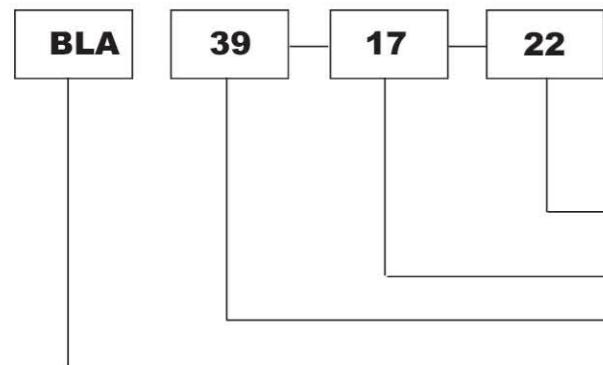
(Ⅰ) Type Illustration

1.BLA is signed for decelerator type, means that it is derivative product of cycloid pin wheel decelerator series, can used for driving device of various milling axle. short for BLA type in following.

2.Decelerator type

"15"、"18"、"22"、"27"、"33"、"39"、"46"、"56" 8 classes in all.

3、表示方法如下:Symbol



电机功率为22kw Motor power:22kw
6极电机加注"/6" 6-pole motor should add "/6"
速比为17 Transmission ratio:17
机座号为39# Pedestal no:39#
加长型摆线减速机
Lengthen type of cycloid pin wheel decelerator

(Ⅱ)、BLA型摆线针轮减速机的选用:

1、BLA型摆线针轮减速机一般均采用Y系列防腐电机配套, 用户订货时, 均应对配套电机提出防腐等级或其它特殊要求.

2、BLA型摆线针轮减速机的润滑:所有机座号均为油泵润滑, 机座号15#~39#油泵电机功率不大于0.15kw, 机座号46#、56#油泵电机功率为0.55kw.

3、BLA型摆线针轮减速机按标准型减速机选择方法选机型号, 其具体型号、规格见表

(Ⅱ) Select

1.BLA type is fitted antisepsis motor in usual. when ordered, customer should eliminate antisepsis class or other special requirements for motor.

2.Lubrication of BLA type:adopt oil pump all, pedestal no 05#-39# adopt pump which power is less than 0.15kw, the other 46#,56# for 0.55kw.

3.Selecting method of BLA type is same to standard's see detail type,spec. in following table.

加长型摆线减速机 机型号及规格 Type and spec of lengthen cycloid pin wheel decelerator	电动机 Motor		机 型 号 Reducer type	输出轴转速(转/分) The rotation of output shaft(r/min)														公称 扭矩 (N.m) Nominal torque			
	型号 Type	功率 (kw) Power		161 132 112 97 85 69 63 58 50 41 34 31 28 25 20 17																	
				9	11	13	15	17	21	23	25	29	35	43	47	51	59	71	87		
BLA15-i-0.55 BLA15-i-0.75 BLA15-i-1.1 BLA15-i-1.5 BLA18-i-0.55 BLA18-i-0.75 BLA18-i-1.1 BLA18-i-1.5 BLA18-i-2.2 BLA18-i-3 BLA22-i-1.1 BLA22-i-1.5 BLA22-i-2.2 BLA22-i-3 BLA22-i-4 BLA22-i-5.5 BLA22-i-7.5 BLA27-i-2.2 BLA27-i-3 BLA27-i-4	Y801-4 Y802-4 Y90S-4 Y90L-4 Y801-4 Y802-4 Y90S-4 Y90L-4 Y100L1-4 Y100L2-4 Y90S-4 Y90L-4 Y100L1-4 Y100L2-4 Y100L2-4 Y100L2-4 Y100L1-4 Y100L1-4 Y100L2-4 Y112M-4 Y132S-4	0.55 0.75 1.1 1.5 0.55 0.75 1.1 1.5 2.2 3 1.1 1.5 2.2 3 4 5.5 7.5 2.2 3 4	15	○	○	○	○	○	○	○	○	○	○	○	○	○	△			180	
				○	○	○	○	○	○	○	○	○	○	○	○	○	△			180	
				○	○	○	○	○	○	○	○	○	○	○	○	○	△			370	
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	△			370
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	△			740
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	△			740
BLA22-i-1.1 BLA22-i-1.5 BLA22-i-2.2 BLA22-i-3 BLA22-i-4 BLA22-i-5.5 BLA22-i-7.5 BLA27-i-2.2 BLA27-i-3 BLA27-i-4	Y90S-4 Y90L-4 Y100L1-4 Y100L2-4 Y100L2-4 Y100L2-4 Y100L2-4 Y100L2-4 Y112M-4 Y132S-4	1.1 1.5 2.2 3 4 5.5 7.5 2.2 3 4	22	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	1480
BLA27-i-5.5 BLA27-i-7.5 BLA27-i-11 BLA33-i-4 BLA33-i-5.5 BLA33-i-7.5 BLA33-i-11 BLA33-i-15 BLA33-i-18.5 BLA39-i-5.5 BLA39-i-7.5 BLA39-i-11 BLA39-i-15 BLA39-i-18.5 BLA39-i-22 BLA39-i-30	Y132M-4 Y160M-4 Y160L-4 Y180M-4 Y132S-4 Y132M-4 Y160M-4 Y160L-4 Y180M-4 Y132S-4 Y132M-4 Y160M-4 Y160L-4 Y180M-4 Y180L-4 Y200L-4	5.5 7.5 11 4 5.5 7.5 11 15 18.5 5.5 7.5 11 15 18.5 22 30	27	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△	1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480
				○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	△		1480

加长型摆线减速机型号及规格 Type and spec of lengthen cycloid pin wheel decelerator	电动机 Motor		机型 Reducer type	输出轴转速(转/分) The rotation of output shaft(r/m)															公称扭矩(N.m) Nominal torque	
	型号 Type	功率(kw) Power		98	81	70	58	47	43	39	34	28	23	21	19	17	14	11		
				9	11	15	17	21	23	25	29	35	43	47	51	59	71	87		
BLA39-i-5.5	Y132M2-6	5.5																	4550	
BLA39-i-7.5	Y160M-6	7.5																	4550	
BLA39-i-11	Y160L-6	11																	4550	
BLA39-i-15	Y180L-6	15																	4550	
BLA39-i-18.5	Y200L1-6	18.5																	4550	
BLA39-i-22	Y200L2-6	22																	4550	
BLA46-i-11	Y160L-6	11																	4550	
BLA46-i-15	Y180L-6	15																	4550	
BLA46-i-18.5	Y120L1-6	18.5																	4550	
BLA46-i-22	Y200L2-6	22																	4550	
BLA46-i-30	Y225M-6	30																	4550	
BLA46-i-37	Y250M-6	37																	4550	
BLA46-i-45	Y280S-6	45																	4550	
BLA46-i-55	Y280M-6	55																	4550	
BLA56-i-18.5	Y200L1-6	18.5																	4550	
BLA56-i-22	Y200L2-6	22																	4550	
BLA56-i-30	Y225M-6	30																	4550	
BLA56-i-37	Y250M-6	37																	4550	
BLA56-i-45	Y208S-6	45																	4550	
BLA56-i-55	Y280M-6	55																	4550	

说明：1.“○”标准产品电机允许全容量使用。

2.“△”标准产品，电机不允许全容量使用，必须按减速机输出扭矩选用。

3.选用时请考虑工况系数。

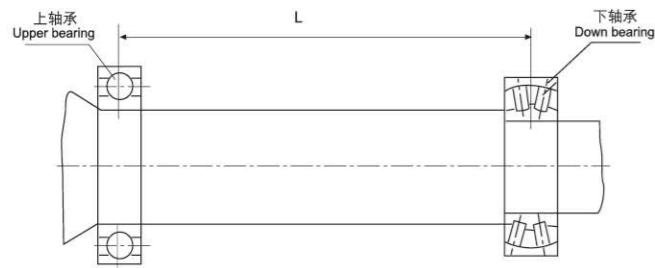
Note: 1. Marked “○”, permit to apply motor full capacitance.

2. Marked “△”, don't permit full capacitance, should select by output torque.

3. Please take working factor into consideration in selecting.

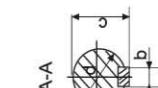
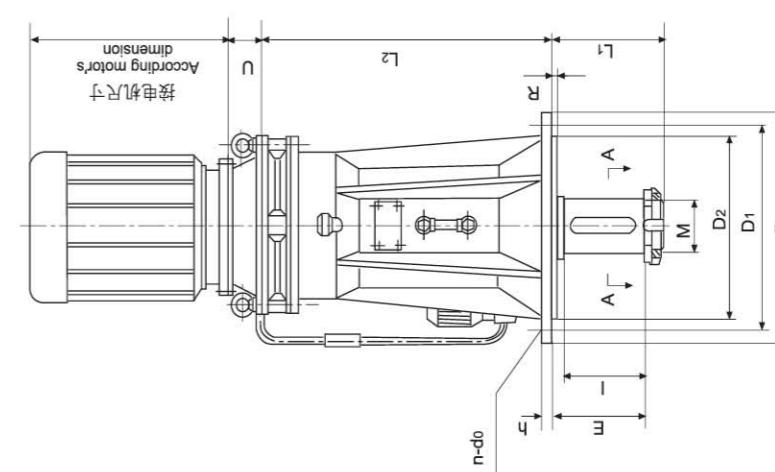
(III) BLA型摆线针轮减速机的外形及安装尺寸: The contour and installation size of BLA

机型号 Reducer type	D	D1	D2	M	d(h)	b	c	E	I	R	h	n	d0	L1	L2	u
BLA15	230	200	170	M33x1.5	35	10	38.5	65	58	4	16	6	12	83	425	见 P28
BLA18	260	230	200	M42x1.5	45	14	48.5	89	82	4	20	6	14	107	486	见 P28
BLA22	340	310	270	M52x1.5	55	16	59	89	82	4	22	6	14	110	515	见 P28
BLA27	400	360	316	M68x2	70	20	74.5	114	105	5	25	8	18	134	585	见 表
BLA33	490	450	400	M85x2	90	25	95	140	130	6	30	12	18	168	690	(二)
BLA39	580	520	455	M95x2	100	28	106	177	165	8	35	12	23	202	832	

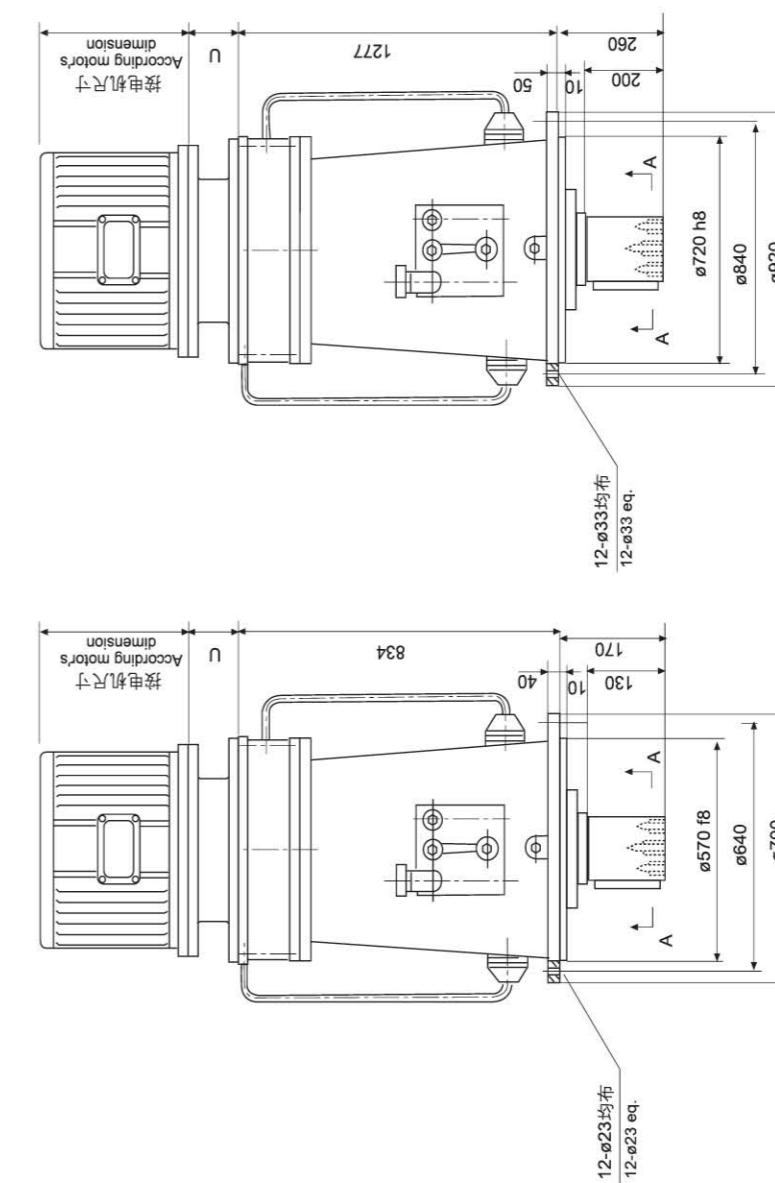


机型号 Reducer type	L	上轴承型号 Type of upper bearing	下轴承型号 Type of down bearing	参考重量(kg) Reference weight
BLA15	316	6210	22208	30
BLA18	350	6212	22311	52
BLA22	395	6315	22213	110
BLA27	442	6318	22217	170
BLA33	525	6322	22220	300
BLA39	615	6324	22222	495
BLA46	646	NJ228	23126	800
BLA56	800	NJ232	23130	1870

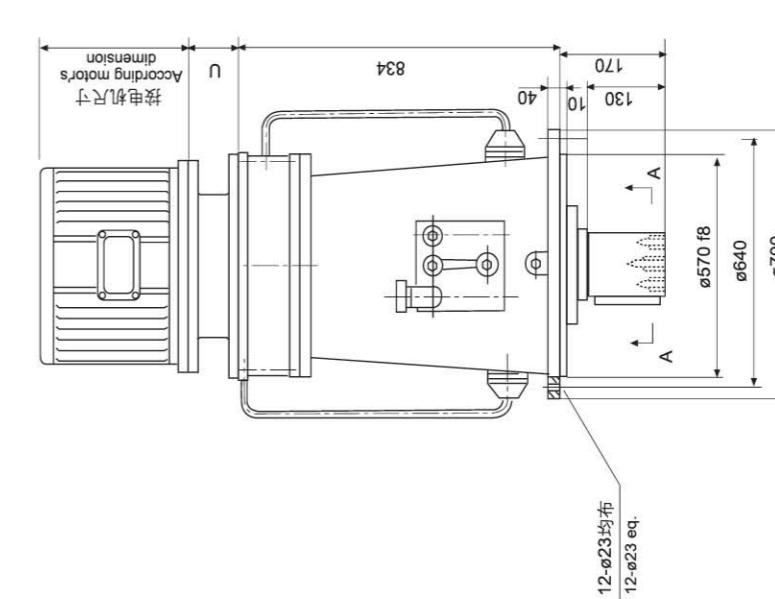
BLA15—39型摆线针轮减速机外形安装图
Installation contour dia.of BLA15-39



BLA15—39型摆线针轮减速机外形安装图
Installation contour dia.of BLA15-39



BLA46型摆线针轮减速机外形安装图
Installation contour dia.of BLA46



BLA56型摆线针轮减速机外形安装图
Installation contour dia.of BLA56

(四)立式摆线针轮减速机配套机架

The Accessory Frame of Vertical Cycloid Pin Wheel Reducer

机架系列及选用原则 The Series Frames and Selection Principle.

1. 机架的选用，原则上是根据减速机输出轴径的大小来确定机架型号，只要接口形式及安装尺寸相符，减速机的输出轴大小在一定范围内可以对机架型号上下浮动。若选用带接板机架，减速机的安装尺寸与机架不符，在一定范围内我厂也可以对接板进行调整与减速机联接，满足用户要求。

2. 无支点机架。机架本身无轴的支承点，搅拌轴是以减速机输出轴的两个支承轴为受力支点，可用于传递小功率、不受或只受较小轴向负荷、搅拌不太强烈的搅拌装置。搅拌轴与减速机联接必须用刚性联轴器，特别是以 JQ 型夹壳联轴器为最佳。

3. 单支点机架。具备下列条件之一者，选用单支点机架为最佳。

(1) 搅拌容器设置底轴承，作为一个受力支点；

(2) 轴封本体设有轴承（包括刚性衬套），作为一个受力支点（受力程度按轴封要求规定）；

(3) 搅拌容器内，轴中部设有导向轴承，作为一受力支点（即中间轴承）。

当具备上述条件的搅拌轴，在选用单支点机架时，搅拌轴与减速机之间的联轴器须选用 HL 型弹性柱销联轴器。

在实际应用中常用刚性联轴器代替弹性柱销联轴器联接搅拌轴与减速机出轴、取消底轴承或中间轴承等支点。这样使用，简化了单支点支架的应用条件，但只适宜于搅拌不强烈、功率较小，对轴承负荷较小的场合。这时联轴器应选用 GT 型刚性凸缘联轴器，以利轴向尺寸方面的微量调整；原则上不能用 JQ 型夹壳联轴器，若采用夹壳联轴器，则必须对支点的轴承结构进行变动，采用带紧定套的锥孔调心滚子轴承，或者取掉夹壳联轴器中的悬吊环，使搅拌轴的轴向位置有适当调整的余地。

4. 双支点机架。不宜于选用无支点、单支点机架时，应选用双支点机架。但选用的双支点机架下支点轴承结构带紧定套的锥孔调心滚子轴承便利于安装维修，且搅拌轴与减速机之间的联接必须选用 HL 型弹性柱销联轴器。

1. The principle of selection frame. In principle we could choose the frame type of output shaft diameter according to the interface mode and the installation dimensions. The output shaft could float according to the frame type. In order to meet the customers' requirement we could adjust the joining of the panel and the reducer at some range if the installation size is not matched with the frame when select the frame with Plug-board.

2. The frame without support. There is no supporting points of the reducer's own frame. The mixer axle which is supported by the two supporting bearings of the reducer's output shaft could be used in transmitting the small power, not accepted or minor accepted the with axial load.

3. Single-support frame. You'd better select the single-support frame when the condition is as following:

(1). The agitator tank is set up a bearing as a supporting point.

(2). The reality gland seal (including the rigidity shell) is set up a bearing as a force supporting. (the forcing degree is sized according to the gland seal requirement).

(3). There is setting a lower shoe bearing at the center axial as a forcing support (namely center bearing).

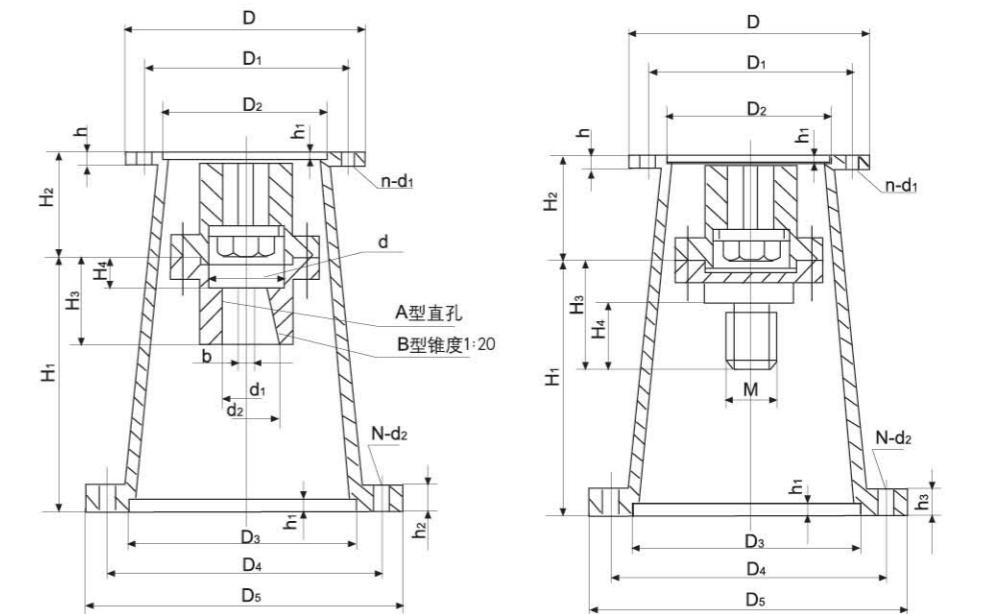
The mixer shaft and the reducers' coupling should select the HL type elastic pin coupling when we use the single point frame which meet the above conditions' mixer shaft.

In practical application, the rigid coupling is usually used to connect mixing shaft to output shaft instead of elastic pin coupling, cancel support such as down bearing or middle's. So that, it simplify the application undition of single support frame, but limited to moderate mix, small power and small bearing load and so. Here it should adopt GT type of rigid coupling, which benefit for the micw-adjustmet of axial direction size. In principle, don't adopt JQ type of split coupling, if select this type, it has to change bearing structure of support, adopt tapered are self-aligning roller bearing added adapter sleeve or take off suspending ring of split coupling, in order to enable adjustment leeway fagitator axle in axial direction.

4. Double-support frame, when the frame without support and single-support frame is not suitable, should select double-support frame. But the down bearing of the double-support frame should be tapered core self-aligning roller bearing added adapter sleeve which vail for assembly and main tenance, and also select HL type of elastic pin coupling to connect mixing shaft and decelerator.

(一)JA型通用机架 General stand type frame JA

JA 大法兰机架<厂标> JA type frame JA II <69标>机架 JA II type 69 standard frame



JA型<大法兰>机架 JA type frame

JA II型 69 标机架 JA II type 69 standard frame

JA(厂标)无支点机架主要参数及尺寸 Primary meters and sizes of JA frame without support

机架 型号 frame type	减速机 型号 reducer type	输入端接口 inlet edge					输出端接口 outlet edge					H ₁	H ₂	H ₃	H ₄	d	A型直孔 A type straight hole		B型锥孔 B type cone-socket 1:20	
		D	D ₁	D ₂	h	h ₁	n-d ₁	D ₃	D ₄	D ₅	h ₂						d ₁	b	d ₂	b
JA0	B12	190	160	140	16	5	4-12	165	210	250	16	6-12	205	55	55	18	45	30	8	
JA1	B15	230	200	170	16	5	6-12	215	260	290	16	8-12	200	101	75	25	50	35	10	
JA2	B18	260	230	200	20	6	6-14	290	350	380	20	8-14	250	116	90	30	70	45	14	
JA3	B22	340	310	270	22	6	6-14	360	440	480	22	8-18	300	134	110	30	80	55	16	
JA4	B27	400	360	316	25	7	8-18	440	535	580	25	8-22	380	138	130	40	90	70	20	
JA5	B33	490	450	400	25	7	12-22	500	560	620	25	8-24	486	149	150	48	110	90	25	
JA6	B39	580	520	455	25	9	12-22	480	560	600	30	16-23	455	195	170	45	120	100	28	
JA7	B45	650	590	520	30	11	12-27	560	650	700	30	16-27	503	221	185	45	130	110	28	
JA8	B55	880	800	680	30	11	12-37	720	810	880	37	20-27	569	249	245	45	150	130	32	

本机架适用于摆线针轮减速机的联接，配刚性联轴器，上联轴器装 A 型直孔或 B 型锥孔，锥度为 1:20 的联轴器。该机架无支承适用于反应器传来的轴向力不大时使用。

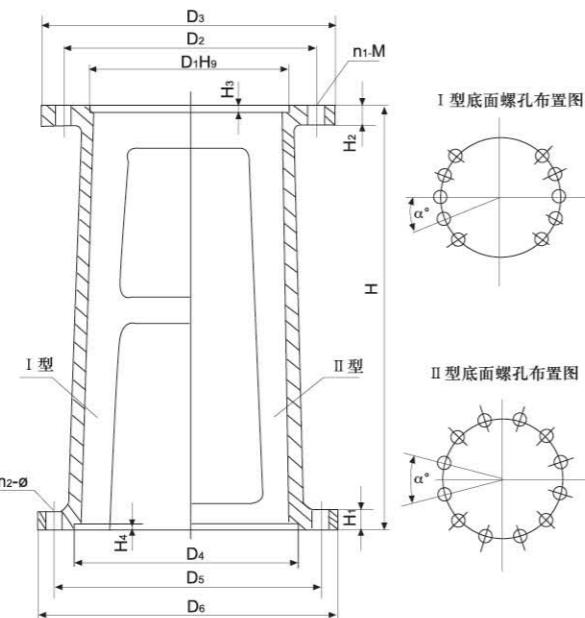
The frame is applied in connecting cycloid pin wheel decelerator with rigidity coupling upper coupling is joined with A type straight hole or B type cone-socket, subulate degree is 1:20. The frame without support is the same with less axial force be from reactor.

JA II (69 标) 无支点机架，配螺纹联轴器主要参数及尺寸 Primary meters and sizes of JA II (69 standard) frame without support

机架 型号 frame type	减速机 型号 reducer type	输入端接口 inlet edge					输出端接口 outlet edge					H ₁	H ₂	H ₃	H ₄	M	反应罐容积 Volume (升)	
		D	D ₁	D ₂	h	h ₁	n-d ₁	D ₃	D ₄	D ₅	h ₂						d ₁	b
JA II1	B15	230	200	170	16	5	6-12	215	260	290	16	4-12	226	84	93	50	M33x2	50-100
JA II2	B18	260	230	200	20	6	6-14	230	300	345	20	3-18	243	107	120	60	M42x3	200
JA II3	B22	340	310	270	22	6	6-14	320	400	460	22	4-20	323	117	120	80	M48x3	500
JA II4	B27	400	360	316	22	7	8-18	440	530	580	25	8-22	392	129	130	80	M60x4	1000
JA II5	B33	490	450	400	25	7	12-22	450	550	600	28	8-22	385	155	130	80	M78x4	2000

(二)WJ、LWJ型无支点机架尺寸

Dimension of WJ, LWJ type frame without support



WJ、LWJ型无支点机架 WJ, LWJ type frame without support

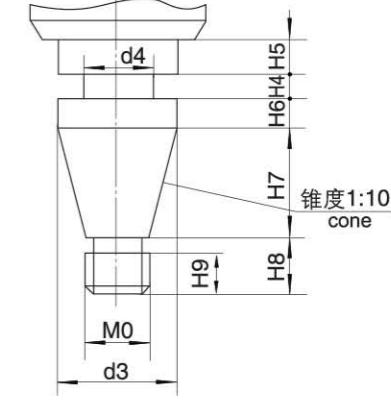
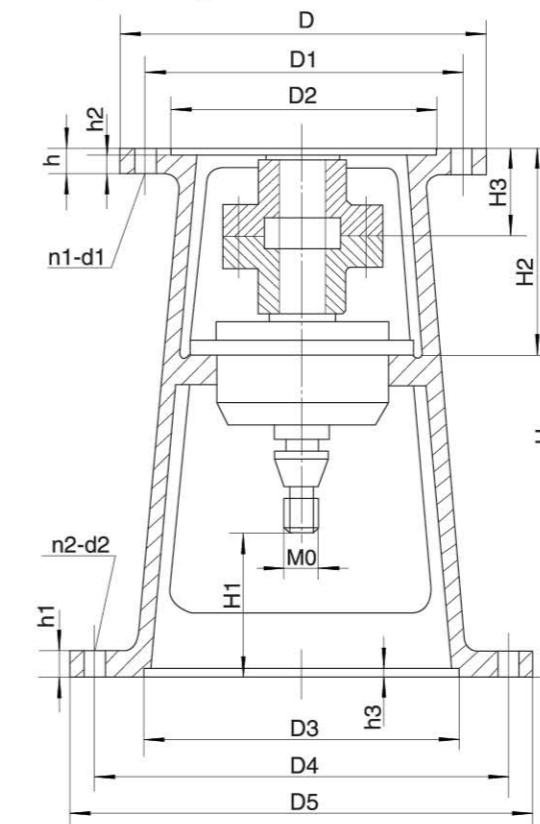
机架型号 frame type	H ₁	H ₂	H ₃	H ₄	输入端接口 inlet edge				输出端接口 outlet edge				WJ型 WJ type		LWJ型 LWJ type			
					D ₁	D ₂	D ₃	n ₁ -M	D ₄	D ₅	D ₆	α°	n ₂ -Ø	H	重量(kg) weight	H	重量(kg) weight	
WJ 30 A	20	15	4	6	140	160	190	4-M10	240	285	315	I20	10-Ø14	450	34	600	43	
LWJ 30 B					170	200	230	6-M10				II30	12-Ø14					
WJ 35 A	24	15	5	6	170	200	230	6-M10	260	320	360	I20	10-Ø14	500	46	650	54	
LWJ 35 A												II30	12-Ø14					
WJ 40 A	24	15	4	6	200	230	260	6-M12	260	320	360	I20	10-Ø14	500	46	650	54	
LWJ 40 A												II30	12-Ø14					
WJ 45 A	24	15	5	6	200	230	260	6-M12	260	320	360	I20	10-Ø14	500	49	650	57	
LWJ 45 A												II30	12-Ø14					
WJ 55 A	30	20	6	6	270	310	340	6-M12	325	400	435	30	12-Ø14	540	75	690	83	
LWJ 55 B																		
WJ 65 A	34	20	6	6	316	360	400	8-M16	350	420	460	30	12-Ø18	600	96	750	107	
LWJ 65 A																		
WJ 70 A	34	20	6	6	316	360	400	8-M16	350	420	460	30	12-Ø18	600	96	750	107	
LWJ 70 B																		
WJ 80 A	38	25	6	8	345	390	430	8-M16	380	455	495	30	12-Ø18	640	130	790	139	
LWJ 80 B																		
WJ 90 A	40	25	7	8	400	450	490	12-M20	430	510	555	30	12-Ø23	660	168	860	183	
LWJ 90 B																		
WJ 100 A	120	A	40	25	9	10	455	520	580	12-M20	480	560	600	22.5 16-Ø23	700	205	900	224
LWJ 100 B																		
WJ 110 A	120	A	40	30	11	10	520	590	650	12-M24	560	650	700	22.5 16-Ø27	800	257	1000	274
LWJ 110 B																		
WJ 130 A	140	A	44	30	11	10	680	800	880	12-M30	720	810	880	18 20-Ø27	900	318	1200	365
LWJ 130 B																		
WJ 150 A	160	A	50	35	14	12	760	920	1020	12-M30	840	940	1020	22.5 16-Ø33	1000	420	1300	480
LWJ 150 B																		
WJ 180 A	180	B	55	40	14	12	900	1020	1160	8-M36	970	1080	1160	18 20-Ø33	1100	560	1400	630
LWJ 180 B																		

注：增高后的 LWJ 型机架，其内部中间高度可同时容纳 207 型双端面机械封及 SF 型三分式联轴器。

Note: After LWJ type frame is heightened, it can float 207 type double-face mechanical seal and SF type trichotomy coupling in middle height at one time.

(三)JB型(79标)机架尺寸

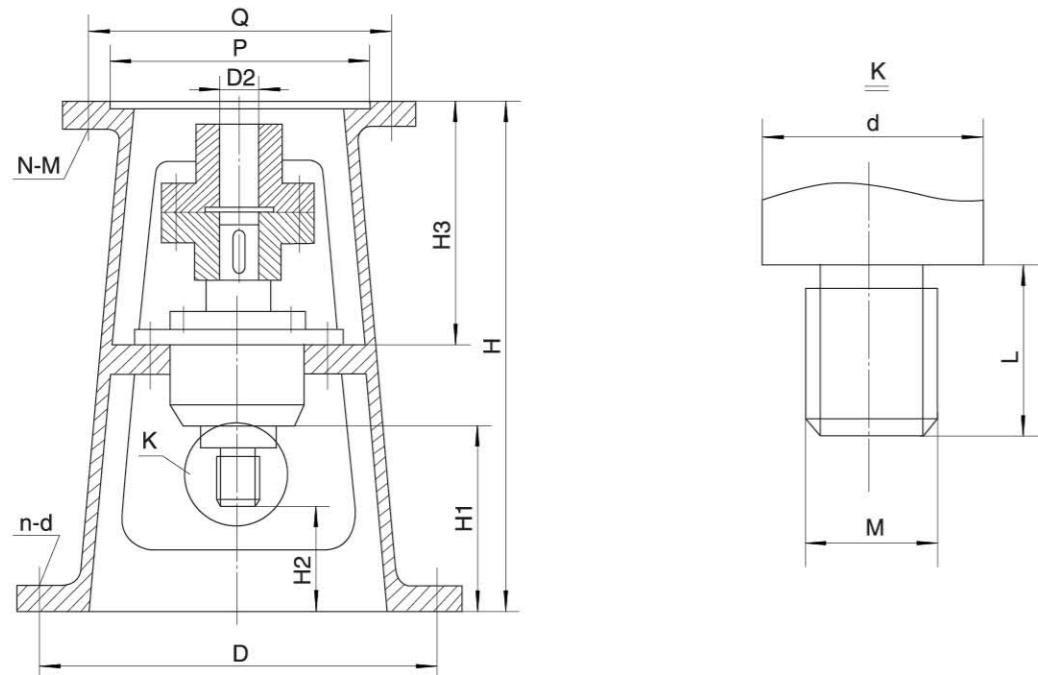
Frame size of JB type (79 standard)



机架型号 frame work type	减速机 (BLY)	输入端接口 Inlet edge				输出端接口 Outlet edge				尺寸 dimension								反应罐容积(升) volume (L)									
		D	D ₁	D ₂	h	h ₁	h ₂	n ₁ -d ₁	D ₃ (H ₉)	D ₄	D ₅	h ₃	h ₁	n ₂ -d ₂	H	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	H ₇	H ₈	H ₉	d ₃	M ₀	
JBT ₁	15	230	200	170	18	5	6-Ø12	220	270	305	7	20	4-Ø24	514	157	175	77	4	40	6	33	34	28	30	24	M24X3	50-100
JBT ₂	15	230	200	170	18	5	6-Ø12	250	300	335	7	20	4-Ø24	517	150	175	77	5	40	6	44	32	26	39	32	M33X3.5	200
JBT _{2-2#}	18	260	230	200	18	5	6-Ø14	250	300	335	7	20	4-Ø24	530	134	209	93	5	40	6	44	32	26	39	32	M33X3.5	200
JBT _{3-2#}	18	260	230	200	20	5	6-Ø14	295	350	392	7	23	4-Ø24	560	164	209	93	5	45	6	47	34	28	39	32	M33X3.5	300-500
JBT ₃	22	340	310	270	20	6	6-Ø14	295	350	392	7	23	4-Ø24	560	165	209	97	5	45	6	47	34	26	39	32	M33X3.5	300-500
JBT ₄	22	340	310	270	20	6	6-Ø14	345	400	442	7																

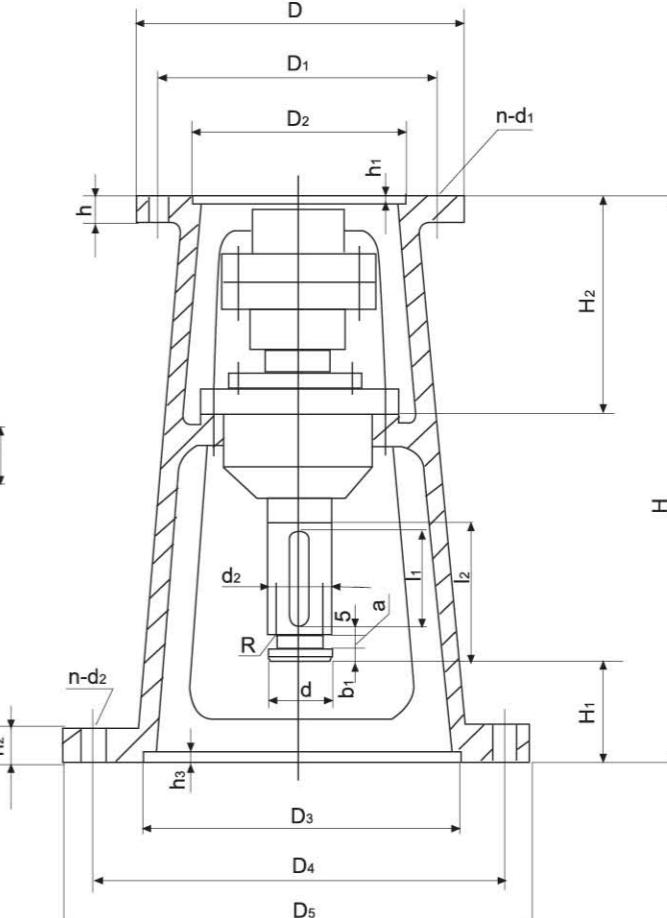
(四) HG5-251-69 标准反应罐配套摆线针轮减速机传动机架尺寸

Frame size of cycloidal pin wheel decelerator for HG5-251-69 standard reactor



机架型号 frame work type	反应罐 (立升) reactor (l)	减速机 reducer (BLY)	反应罐连接处 reactor connection				搅拌轴连接处 stirring shaft connection		减速机连接处 reducer connection						
			H	H ₂	H ₁	H ₃	M	L	d	p	N-M	D ₂	Q		
TB ₁	50 100	15	220	3-ø14	514	110	268	175	M33X2	50	45	170	6-ø12	35	200
TB ₂	200	15	280	3-ø14	514	140	268	175	M42X3	60	55	170	6-ø12	35	200
TB ₃	300	18	300	3-ø18	530	190	264	209	M42X3	65	50	200	6-ø14	45	230
TB ₃	500	18	300	3-ø18	530	190	264	209	M48X3	65	55	200	6-ø14	45	230
TB ₄	1000	22	400	4-ø26	675	200	356	215	M60X4	80	70	270	6-ø14	55	310
TB ₄	1500	22	400	4-ø26	675	200	356	215	M65X4	85	75	270	6-ø14	55	310
TB ₄	2000	22	400	4-ø26	675	200	356	215	M78X4	90	89	270	6-ø14	55	310
TB ₅	3000	22	400	4-ø26	675	200	356	215	M78X4	90	89	270	6-ø14	55	310
TB ₅	3000	27	400	4-ø26	720	200	398	253	M78X4	90	89	316	8-ø18	70	360
TB ₆	5000	27	500	4-ø30	736	200	393	253	M78X4	100	89	316	8-ø18	70	360

(五) TJQ 型机架 TJQ type frame



TJQ型机架 TJQ type frame

TJQ 型机架下装 JQ、JJQ 型夹壳式联轴器主要参数及尺寸

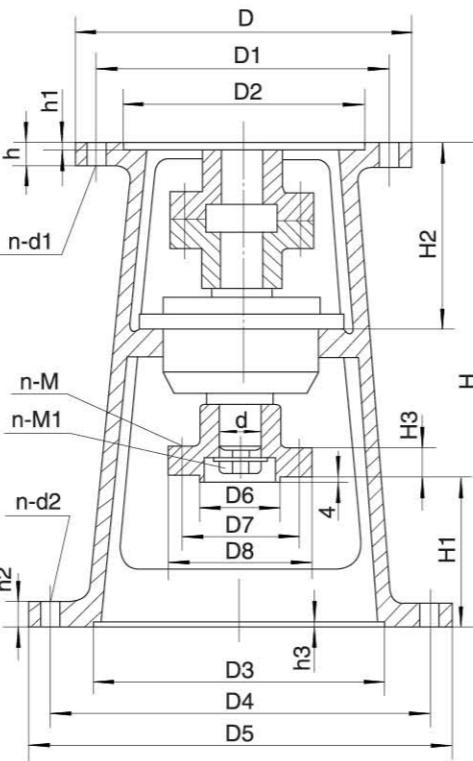
Primary parameter and dimension of installed down JQ, JJQ type split coupling for TJQ type frame

机架 型号 frame type	减速 机型 reducer type	输出 轴d output shaft (h7)	输入端接口 inlet edge				输出端接口 outlet edge				H	H ₁	H ₂	I ₁	I ₂	a (H ₁₁)	b ₁	d ₂ (h ₁₁)	b	t				
			D	D ₁	D ₂	h	h ₁	n-d ₁	D ₃	D ₄	D ₅	h ₂	h ₃	n-d ₂										
TJQ2	B15	35	230	200	170	18	5	6-12	250	300	335	20	7	4-24	517	173	175	55	85	5	4	30	10	30
TJQ3	B18	45	260	230	200	20	6	6-14	295	350	392	23	7	4-24	560	196	209	70	100	6	5	37	14	39.5
TJQ4	B22	55	340	310	270	20	6	6-14	345	400	442	24	7	4-24	635	246	215	70	100	6	5	47	16	49
TJQ5	B22	55	340	310	270	20	6	6-14	390	450	498	25	7	4-30	680	271	250	70	100	6	5	47	16	49
TJQ6	B27	70	400	360	316	22	6	8-18	435	500	548	26	7	8-30	736	253	253	100	130	8	6	60	20	62.5
TJQ7	B33	90	490	450	400	25	7	12-22	440	550	600	28	10	12-22	805	195	341	140	170	10	8	80	25	81
TJQ8	B39	100	580	520	455	26	10	12-22	500	550	600	30	10	12-22	820	186	358	140	170	10	8	90	28	90
TJQ9	B45	110	650	590	520	30	12	12-27	560	650	700	35	10	16-27	1100	326	455	160	200	12	10	100	28	100
TJQ10	B55	130	880	800	680	38	12	12-37	720	810	880	40	10	20-27	1200	384	460	180	225	14	12	118	32	119

(六) TJ型机架下装 JA型联轴器

主要参数及尺寸

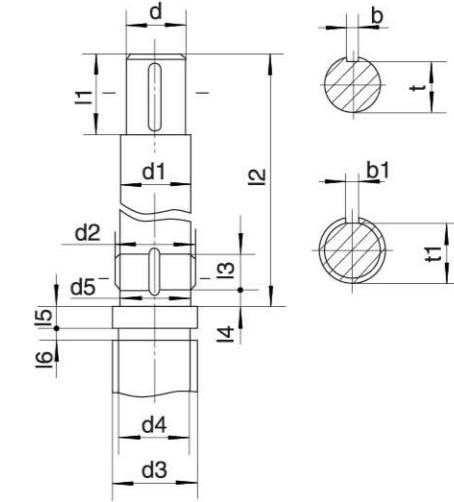
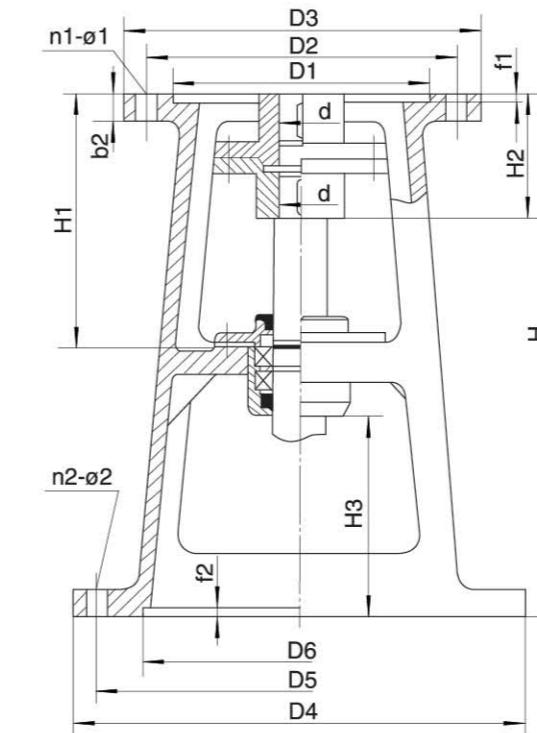
JA connector para meters and size of TJ frame



机架型号 frame wrok type	减速机 decelerator (BLY)	输入端接口 Inlet edge						输出端接口 Outlet edge						H	H ₁	H ₂	H ₃	d	D ₆	D ₇	D ₈	n-M	n-M ₁
		D	D ₁	D ₂	h	h ₁	n-d ₁	D ₃	D ₄	D ₅	h ₂	h ₃	n-d ₂										
TJ1	15	230	200	170	20	6	6-ø12	220	270	305	22	7	4-ø24	514	201	175	15	35	60	115	140	4-M12	1-M10
TJ2	15	230	200	170	18	5	6-ø12	250	300	335	20	7	4-ø24	517	197	175	15	35	60	115	140	4-M12	1-M10
TJ2	18	260	230	200	22	6	6-ø14	250	300	335	25	7	4-ø25	530	176	209	20	45	85	120	160	4-M12	1-M12
TJ3	18	260	230	200	20	6	6-ø14	295	350	392	23	7	4-ø24	560	206	209	20	45	85	120	160	4-M12	1-M12
TJ3	22	340	310	270	20	6	6-ø14	295	350	392	23	7	4-ø24	560	191	210	20	45	85	120	160	4-M12	1-M12
TJ4	22	340	310	270	20	6	6-ø14	345	400	442	23	7	4-ø24	635	245	215	22	55	100	150	180	4-M16	1-M16
TJ5	22	340	310	270	22	6	6-ø14	390	450	498	26	7	4-ø24	680	250	250	22	55	100	150	180	4-M16	1-M16
TJ6	27	400	360	316	22	6	8-ø18	435	500	548	24	7	8-ø30	736	276	253	28	70	110	165	200	4-M16	1-M16
TJ7	33	490	450	400	25	7	12-ø22	440	550	600	26	10	12-ø22	805	261	341	36	90	150	190	230	4-M16	2-M12
TJ8	39	580	520	455	26	10	12-ø22	500	550	600	28	10	12-ø22	820	209	358	36	100	160	230	280	6-M16	2-M16
TJ9	45	650	590	520	30	12	12-ø27	560	650	700	35	10	16-ø27	1100	355	455	36	110	170	245	290	8-M18	3-M16
TJ10	55	880	800	680	38	12	12-ø37	720	810	880	40	12	20-ø27	1200	378	460	38	130	180	275	330	8-M18	3-M16

(七)JXLD型机架尺寸

Frame size of JXLD type decelerator



机架型号 frame work type	减速机输入端接口 reducer inlet edge						输出端接口 outlet edge						I型 type			II型 type		
	D ₁ (H ₈)	D ₂	D ₃	f ₁	b ₂	n ₁ -Ø ₁	D ₄	D ₅	D ₆ (H ₈)	f ₂	b ₃	n ₂ -Ø ₂	H	H ₃	重量kg weight	H	H ₃	重量kg weight
JXL D3-35	170	200	230	6	15	6-Ø12	410	360	300	6	18	6-Ø18	520	163	55	610	253	60
JXL D4-45	200	230	260	6	15	6-Ø12	450	400	335	6	18	6-Ø18	570	168	80	670	268	86
JXL D5-55	270	310	340	6	20	6-Ø15	500	450	385	6	22	8-Ø18	650	163	110	750	263	120
JXL D6-65	316	360	400	6	22	8-Ø19	530	480	410	8	24	12-Ø18	660	192	130	760	292	145
JXL D7-80	345	390	430	8	22	8-Ø19	565	510	430	8	24	12-Ø22	740	201	160	860	321	178
JXL D8-90	400	450	490	8	25	12-Ø24	565	510	430	8	28	12-Ø22	800	206	208	920	326	230
JXL D9-100	455	520	580	10	28	12-Ø24	580	520	455	10	30	12-Ø22	810	210	235	920	320	262
JXL D10-110	520	590	650	12	30	12-Ø28	650	590	520	12	30	12-Ø22	830	218	300	950	338	345
JXL D11-130	680	800	880	12	30	12-Ø37	880	800	680	12	35	12-Ø37	850	184	480	970	304	538
JXL D12-180	900	1020	1160	12	40	8-Ø39	1160	1020	900	12	46	12-Ø39	1200	235	857	1350	385	913

机架型号 frame work type	搅拌轴轴端尺寸 stiring shaft edge size																	
	d	d ₁	d ₂	d ₃ (k ₆)	d ₄	d ₅	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	b	t	b ₁	t ₁	H ₁	H ₂
JXLD3-35	35k6	40	M45X1.5	45	42.5 ⁰ _{-0.25}	42.8	60	215	12	3	18	1.7 ^{+0.14} ₀	10	30	6	41	294	139
JXLD4-45	45k6	50	M55X2	55	52 ⁰ _{-0.30}	52	75	235	14	4	19	2.2 ^{+0.14} ₀	14	39.5	8	51	331	171
JXLD5-55	55m6	60	M65X2	65	62 ⁰ _{-0.30}	62	75	302	14	4	21	2.7 ^{+0.14} ₀	16	49	8	61	405	178
JXLD6-65	65m6	70	M75X2	75	72 ⁰ _{-0.30}	72	90	277	16	4	23	2.7 ^{+0.14} ₀	18	58	10	70	384	197
JXLD7-80	80m6	85	M90X2	90	86.5 ⁰ _{-0.35}	87	105	316	24	4	28	2.7 ^{+0.14} ₀	22	71	12	84	442	231
JXLD8-90	90m6	95	M100X2	100	96.5 ⁰ _{-0.35}	97	125	320	24	4	32	2.7 ^{+0.14} ₀	25	81	12	94	486	291
JXLD9-100	100m6	105	M110X2	110	106 ⁰ _{-0.54}	107	125	308	24	4	36	3.2 ^{+0.14} ₀	28	90	14	104	488	305
JXLD10-110	110m6	115	M120X2	120	116 ⁰ _{-0.54}	117	155	267	28	4	38	3.2 ^{+0.14} ₀	28	100	14	114	488	376
JXLD11-130	130m6	135	M140X2	140	136 ⁰ _{-0.63}	137	155	296	30	4	40	3.2 ^{+0.14} ₀	32	119	14	132	530	389
JXLD12-180	180m6	185	M190X3	190	185 ⁰ _{-0.60}	187	310	412	38	4	55	3.2 ^{+0.16} ₀	45	165	16	179	792	690

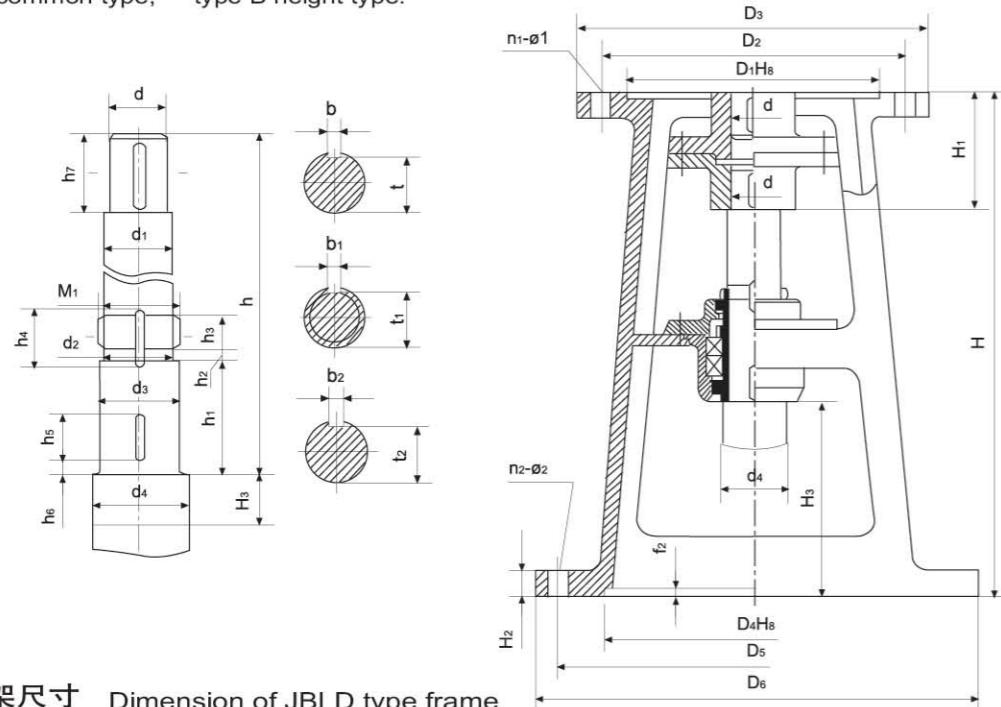
注：本机架适用于与 XLD 型摆线针轮行星减速机联接，I 为普通型，II 为增高型。

Note: The frame is used to connect with XLD type cycloidal pin wheel decelerator. I is common type, II is height type.

(八)JB LD型机架尺寸 Dimension of JB LD type frame

该支架适用于与BLY型摆线减速机连接，为使搅拌轴与轴承室装配、维修方便，对JB型机架的轴承室结构进行改进设计，将轴承室加大，使之与较粗的搅拌轴相一致。其中I型为普通型，II型为增高型。

The frame is used to connect with BLY type cycloidal reducer, for be prone to install and service for mixed shaft and bearing house, we increase bearing house of JB type frame, so that make coherence with thick mixed shaft, there into type I is common type, II type B height type.



JB LD型机架尺寸 Dimension of JB LD type frame

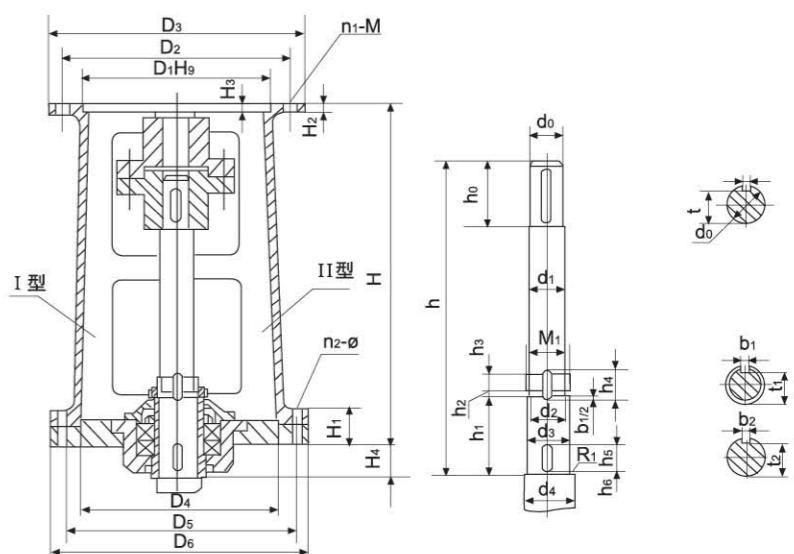
机架型号 frame type	减速机型号 reducer type	输入端接口 inlet edge				输出端接口 outlet edge						I型 I type			II型 II type			
		D ₁ (H8)	D ₂	D ₃	n ₁ -M ₁	D ₄ (H8)	D ₅	D ₆	n ₂ -Ø2	H ₁	H ₂	f ₂	H	H ₃	重量kg weight	H	H ₃	重量kg weight
JB LDJ1	B15	170	200	230	6-ø12	300	360	410	6-ø18	138	18	6	520	158	55	610	248	60
JB LDJ2	B18	200	230	260	6-ø14	335	400	450	6-ø18	182	18	6	570	167	84	670	267	90
JB LDJ3	B22	270	310	340	6-ø14	385	450	500	8-ø18	220	24	8	650	167	115	750	267	125
JB LDJ4	B27	316	360	400	8-ø18	410	480	530	12-ø18	257	24	8	660	161	138	760	262	158
JB LDJ5	B33	400	450	490	12-ø22	430	510	565	12-ø22	306	28	8	800	199	208	920	319	230
JB LDJ6	B39	455	520	580	12-ø22	455	520	580	12-ø22	332	30	10	810	203	235	920	313	262
JB LDJ7	B45	520	590	650	12-ø27	520	590	650	12-ø22	350	30	12	830	252	300	950	372	345
JB LDJ8	B55	680	800	880	12-ø37	680	800	880	12-ø37	400	45	12	860	200	480	980	320	538

机架型号 frame type	搅拌轴轴端尺寸 axes edge dimension of mixed axes																	配联轴器型号 coupling type				
	d	d ₁	M ₁	d ₂	d ₃ (k6)	d ₄	R ₁	b	t	b ₁	t ₁	b ₂	t ₂	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇	h	
JB LDJ1	35	42	M45X1.5	42.8	45	50	1	12	35	6	41	6	41.5	113	3	15	22	40	3	58	282	GT35X65
JB LDJ2	45	57	M60X2	57	60	65	1	14	44.5	8	56	8	56	118	4	15	28	40	3	74	295	GT45X87
JB LDJ3	55	71	M75X2	72	75	80	1	16	58	10	69	10	70	143	4	18	32	50	3	92	355	GT55X102
JB LDJ4	70	81	M85X2	82	85	90	1.5	22	71	10	79	10	80	163	4	18	32	60	3	115	357	GT70X125
JB LDJ5	90	91	M95X2	92	95	110	1.5	25	81	12	89	12	90	168	4	20	36	60	3	145	440	GT90X150
JB LDJ6	100	112	M115X2	112	115	125	2	28	90	14	109	14	109.5	178	4	24	42	60	3	165	425	GT100X170
JB LDJ7	110	112	M115X2	112	115	125	2	28	100	14	109	14	109.5	178	4	24	42	60	3	165	393	GT110X170
JB LDJ8	130	135	M140X2	137	140	150	2	32	119	14	132	14	134.5	208	4	28	46	70	3	180	440	GT130X210

(九)DXJ型机架 DXJ type frame

I型底面孔布置图
I type underside hole collocation figure

II型底面孔布置图
II type underside hole collocation figure

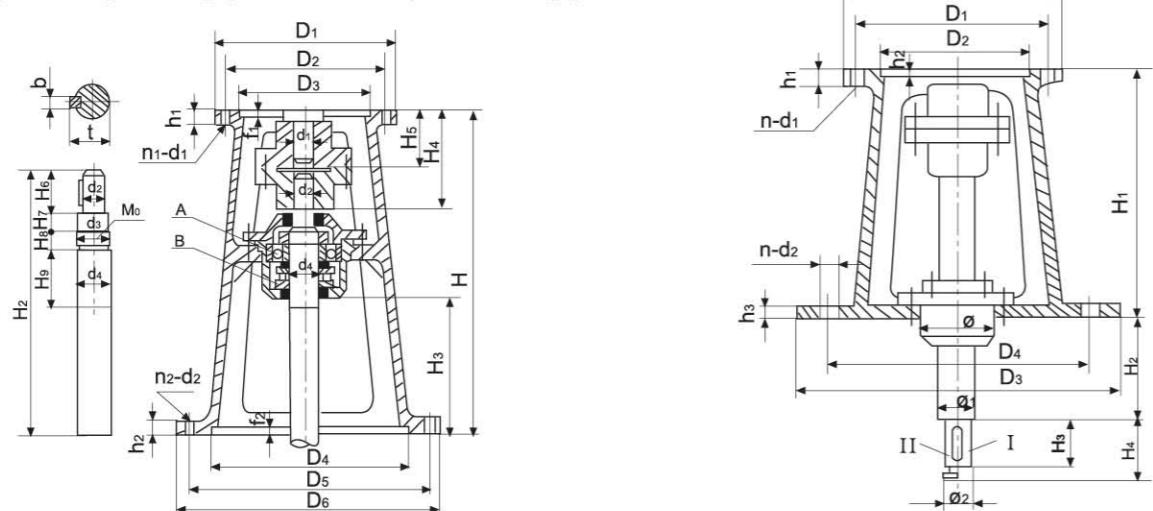


DXJ型单支点机架主要参数及尺寸 Primary parameter and dimension of DXJ type single-support frame

机架代号 frame code	H	H ₁	H ₂	H ₃	H ₄	输入端接口 inlet edge					输出端接口 outlet edge				
						D ₁	D ₂	D ₃	n ₁ -M	D ₄	D ₅	D ₆	α°	n ₂ -Ø	
DXJ30 A	470	40	15	4	45	140	160	190	4-M10	240	285	315	120	10-Ø 14	
DXJ35 A	524	48	15	5	47	170	200	230	6-M10	260	320	360	120	10-Ø 14	
DXJ40 A	524	48	15	4	47	200	230	260	6-M12	260	320	360	120	10-Ø 14	
DXJ45 A	524	48	15	5	49	200	230	260	6-M12	260	320	360	120	10-Ø 14	
DXJ55 A	570	60	20	6	47	270	310	340	6-M12	325	400	435	30	12-Ø 14	
DXJ65 A	634	68	20	6	58	316	360	400	8-M16	350	420	460	30	12-Ø 18	
DXJ70 A	634	68	20	6	58	316	360	400	8-M16	350	420	460	30	12-Ø 18	
DXJ80 A	678	76	25	6	70	345	390	430	8-M16	380	455	495	30	12-Ø 18	
DXJ90 A	700	80	25	7	72	400	450	490	12-M20	430	510	555	30	12-Ø 23	
DXJ100 A	740	80	25	9	76	455	520	580	12-M20	480	560	600	22.5	16-Ø 23	
DXJ110 A	840	80	30	11	76	520	590	650	12-M20	560	650	700	22.5	16-Ø 27	
DXJ120 A	840	80	3												

(十)J型单支点机架、DXJA型机架

J type single-support frame, DXJA type frame



J型单支点机架 J type single-support frame

J型单支点机架主要参数与尺寸 Primary parameter and dimension of J type single-support frame

机架型号 frame type	减速机型号 reducer type	D ₁	D ₂	D ₃ (H ₉)	D ₄ (H ₉)	D ₅	D ₆	n ₁ -d ₁	n ₂ -d ₂	H	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	H ₇	H ₈	H ₉	H ₁₀
机架型号 frame type	减速机型号 reducer type	d ₁	d ₂	d ₃	M0	d ₄ (k6)	b	t	f1	f2	h1	h2								
J2	B18	260	230	200	295	350	392	6-14	4-24	568	301	159	89	74	20	17	70	483		
J3	B22	340	310	270	345	400	442	6-14	4-24	675	358	178	101	81	37	20	82	578		
J4-A	B27	400	360	316	350	420	460	8-18	6-20	720	384	211	123	92	19	22	83	601		
J4	B27	400	360	316	435	500	548	8-18	8-30	736	384	215	123	92	25	28	120	613		
J5	B33	490	450	400	440	550	600	12-22	12-22	835	363	280	150	130	44	40	142	685		
J6	B39	580	520	455	500	550	600	12-22	12-22	928	380	350	187	163	46	40	156	739		
机架型号 frame type	减速机型号 reducer type	d ₁	d ₂	d ₃	M0	d ₄ (k6)	b	t	f1	f2	h1	h2								
J2	B18	45	45	43	M50x2	50	14	48.5	6	5	20	23								
J3	B22	55	55	63	M65x2	65	16	59	6	5	20	24								
J4-A	B27	70	65	68	M70x2	70	20	74.5	7	5	22	24								
J4	B27	70	70	72	M75x2	75	20	74.5	7	5	22	26								
J5	B33	90	90	95	M100x2	100	25	95	8	7	26	28								
J6	B39	100	100	105	M100x2	110	28	106	10	7	28	30								

DXJA型单支点机架主要参数与尺寸 Primary parameter and dimension of DXJA type single-support frame

机架型号 frame type	减速机型号 reducer type	输入端接口 inlet edge				输出端接口 outlet edge				Ø	Ø ₁	Ø ₂	H ₁	H ₂	H ₃	H ₄	A		
		D	D ₁	D ₂ (H ₉)	h ₁	h ₂	n-d ₁	D ₃	D ₄										
DXJA0	B12	190	160	140	16	5	4-12	250	210	3-12	16	105	45	30	260	200	34	70	38
DXJA1	B15	230	200	170	16	5	6-12	290	260	4-12	16	105	45	35	310	200	47	85	38
DXJA2	B18	260	230	200	20	6	6-14	345	300	3-18	20	116	50	45	350	200	57	100	39
DXJA3	B22	340	310	270	22	6	6-14	440	400	4-20	22	134	60	55	440	250	77	100	43
DXJA4	B27	400	360	316	22	7	8-18	440	400	6-20	22	160	75	70	521	250	87	130	46
DXJA5	B33	490	450	400	25	7	12-22	600	550	8-22	28	236	100	90	540	300	107	170	62
DXJA6	B39	580	520	455	28	10	12-22	600	560	12-22	30	250	110	100	624	350	130	170	
DXJA7	B45	650	590	520	30	12	12-27	700	650	12-22	30	275	120	110	724	400	142	200	
DXJA8	B55	880	800	680	30	12	12-37	880	810	20-27	37	310	140	130	818	450	202	225	

注：1. I型为JA型联轴器联接

I type is JA type coupling connection

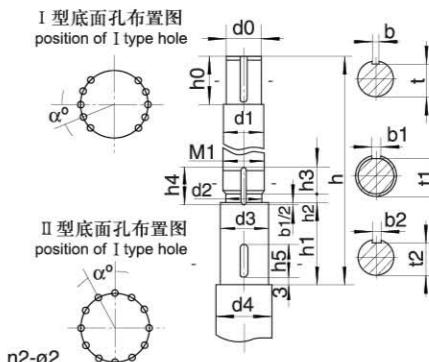
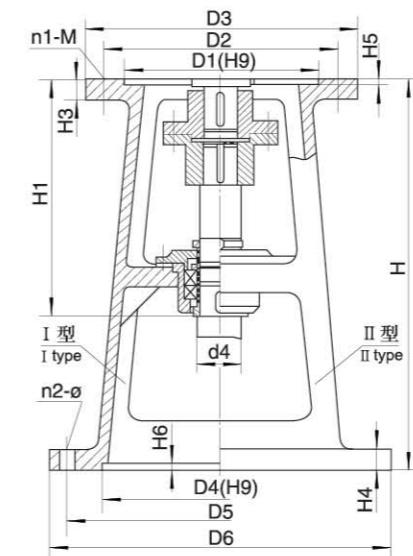
2. II型为夹壳式联轴器联接

II type is split coupling connection

3. 如用户对输出轴长度有特殊要求，请在订货时说明

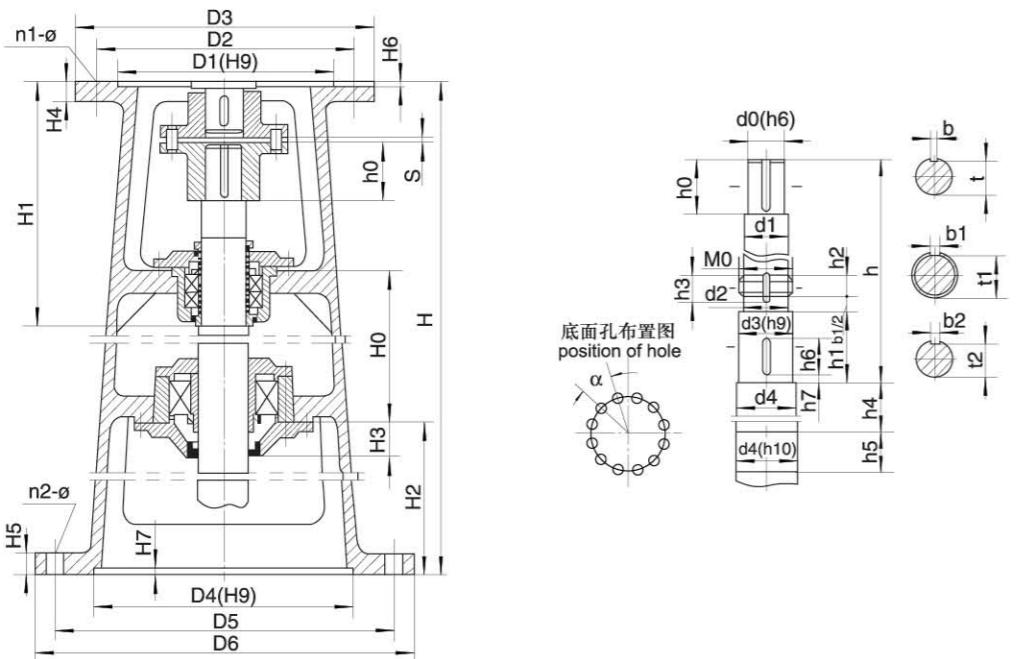
Please show in order if you have special request to output shaft length

(十一)DJ、LDJ型机架尺寸 Frame size of DJ、LDJ type decelerator



机架型号 frame work type	减速机型号 reducer type	减速机输入端接口 reducer inlet edge								输出端接口 outlet edge								H ₁	H ₃	H ₄	H ₅	H ₆
		D ₁	D ₂	D ₃	n ₁ -M	D ₄	D ₅	D ₆	a	n - ø	D ₁	D ₂	D ₃	n ₁ -M	D ₄	D ₅	D ₆					
DJ(LDJ)30 ^A B	B12 B15	140 170	160 200	190 230	4-M10 6-M10	240	285	315	I 20 II 30	10-ø14 12-ø14	320	15	20	6	6							
DJ(LDJ)35A	B15	170	200	230	6-M10	260	320	360	I 20 II 30	10-ø14 12-ø14	334	15	20	6	6							
D																						

(十二) SJ、LSJ型机架尺寸 Frame size of SJ、LSJ type decelerator



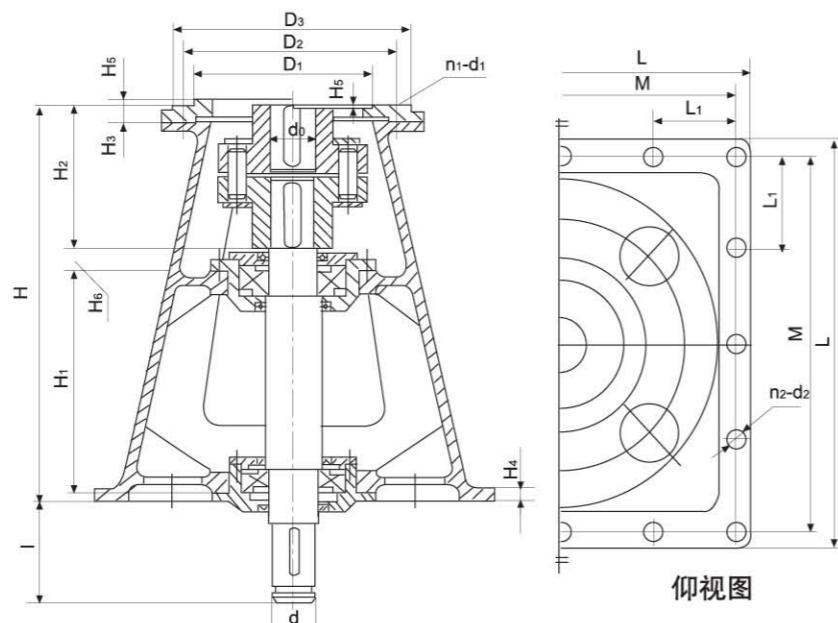
机架型号 frame work type	减速机 type	减速机输入端接口 reducer inlet edge			输出端接口 outlet edge			α°	s	H ₀	H ₁	H ₂	H ₃	H ₄	H ₅	H ₆	H ₇	搅拌轴轴端尺寸 stirring shaft edge size			
		D ₁	D ₂	D ₃	n ₁ -Ø	D ₄	D ₅											d ₀ (h ₁)	d ₁	d ₂	
SJ(LSJ)35	B15	170	200	230	6-M10	260	320	360	30	12-Ø14	2	388	335	43	18	22	18	6	35	42	42.8
SJ(LSJ)45	B18	200	230	260	6-M12	260	320	360	30	12-Ø14	2	388	338	56	18	22	18	6	45	47	47.8
SJ(LSJ)55A	B22	270	310	340	6-M12	325	400	435	30	12-Ø14	2	425	402	58	20	24	6	6	55	57	57
SJ(LSJ)65A	B27	316	360	400	8-M16	350	420	460	30	12-Ø18	3	428	487	58	22	24	6	6	65	72	72
SJ(LSJ)70A	B27	316	360	400	8-M16	350	420	460	30	12-Ø18	3	428	487	58	22	24	6	6	70	72	72
SJ(LSJ)80 ^A _B	B27	316	360	400	8-M16	380	455	495	30	12-Ø23	3	428	545	60	25	28	7	8	80	81	82
SJ(LSJ)90A	B33	400	450	490	12-M20	430	510	555	30	12-Ø23	3	567	569	69	25	35	7	8	90	91	92
SJ(LSJ)100A	B39	455	520	580	12-M20	480	560	600	22.5	16-Ø23	3	563	685	78	30	40	10	10	100	111	112
SJ(LSJ)110A	B45	520	590	650	12-M24	560	650	700	22.5	16-Ø27	4	557	685	78	36	42	11	10	110	111	112
SJ(LSJ)120A	B45	520	590	650	12-M24	560	650	700	22.5	16-Ø27	4	557	685	84	36	42	11	10	120	122	122
SJ(LSJ)130A	B55	680	800	880	12-M30	720	810	880	18	20-Ø27	4	596	761	81	40	43	11	10	130	135	137
SJ(LSJ)140A	B55	680	800	880	12-M30	720	810	880	18	20-Ø27	4	596	761	90	40	43	11	10	140	145	147
SJ(LSJ)150A	B65	760	920	1000	12-M30	840	940	1020	22.5	16-Ø33	4	650	761	66	45	45	14	10	150	155	156
SJ(LSJ)160A	B65	760	920	1000	12-M30	840	940	1020	22.5	16-Ø33	4	650	780	71	50	50	14	12	160	165	166
SJ(LSJ)180	X12	900	1020	1160	8-M36	970	1080	1160	18	20-Ø33	4	650	910	71	50	50	14	12	180	185	186

机架型号 frame work type	搅拌轴轴端尺寸 stirring shaft edge size												SJ型 type		LSJ型 type									
	d ₃	d ₄	h	h ₀	h ₁	h ₂	h ₃	h ₄	h ₅	h ₆	h ₇	M ₀	t	b	t ₁	b ₁	t ₂	b ₂	H	H ₂	重量kg weight	H	H ₂	重量kg weight
SJ(LSJ)35	45	50	261	58	113	15	24	291	85	40	3	M45X1.5	30	10	41	6	41.5	8	970	316	130	1120	466	150
SJ(LSJ)45	50	65	245	74	113	15	28	288	100	40	3	M50X1.5	39.5	14	46	8	46	8	970	316	150	1120	466	170
SJ(LSJ)55A	60	65	303	80	118	15	24	296	130	40	3	M60X2	49	16	56	8	56	8	1070	312	170	1220	462	186
SJ(LSJ)65A	75	80	370	95	143	18	32	284	135	50	3	M75X2	58	18	69	10	70	10	1140	307	261	1290	457	277
SJ(LSJ)70A	75	80	370	95	143	18	32	284	135	50	3	M75X2	62.5	20	69	10	70	10	1140	307	261	1290	457	277
SJ(LSJ)80 ^A _B	85	90	428	95	163	18	32	260	145	60	3	M85X2	71	22	79	10	80	10	1230	354	372	1380	504	388
SJ(LSJ)90A	95	110	426	115	168	20	36	390	162	60	3	M95X2	81	25	89	12	90	12	1400	363	427	1550	513	447
SJ(LSJ)100A	115	125	500	135	178	24	42	370	182	60	3	M115X2	91	28	109	14	109.5	14	1510	367	515	1710	567	542
SJ(LSJ)110A	115	125	497	145	178	24	42	366	182	60	3	M115X2	100	28	109	14	109.5	14	1510	373	621	1710	573	642
SJ(LSJ)120A	125	140	497	145	178	24	42	354	192	60	3	M125X2	109	32	119	14	119.5	14	1510	373	641	1710	573	662
SJ(LSJ)130A	140	150	531	205	208	28	46	364	205	70	3	M140X2	119	32	132	14	134.5	14	1610	374	994	1810	574	1021
SJ(LSJ)140A	150	160	531	205	208	28	46	370	205	70	3	M150X2	128	36	142	16	144	16	1610	374	1020	1810	574	104

(十四)FZ型双支点方底板机架 FZ type double-support quadrate frame

本系列机架适用于常压容器，轴出端接口为方形底板，尺寸较大安装坚固、平稳。标定型号以减速机输出轴直径为主参数，A表示与摆线针轮减速机相配，B表示与齿轮减速机相配。机座供货时含短轴和联轴器。

The series frame is used for normal pressure case. Outlet edge is quadrate, big dimension firm and balanced installation. Primary parameter of type is output shaft diameter. A is for cycloidal pin wheel decelerator, B is for gear reducer supplied frame includes short shaft and coupling.

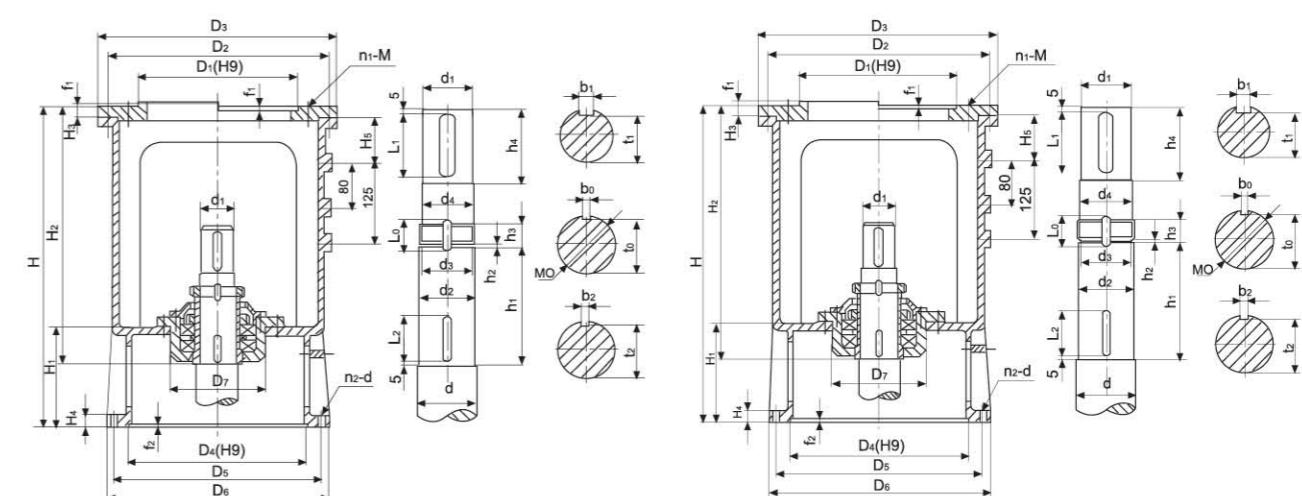
**FZ型双支点底板机架主要参数及尺寸 Primary parameter and dimension**

型号 type	通用尺寸 normal dimension						输入端接口 inlet edge			输出端接口 outlet edge																		
	H ₂	H ₃	H ₄	H ₅	H ₆	I	D ₁	D ₂	D ₃	d ₀	n ₁ -d ₁	L	L ₁	M	d	n ₂ -d ₂	H	H ₁	重量 weight	H	H ₁	重量 weight						
FZ25A				4			130	160	180	25	6-M8						30											
FZ30A B	130	20	25	5	80		140	160	190	30	4-M10						35	8-14	630	380	167	800	550	198				
FZ35A				4		100	200	230	260	30	6-M12	400	170	340														
FZ40B	180			5	30		170	200	230	35	6-M10						40											
FZ45A				4			230	260	290	40	6-M12						45											
FZ50B				5			200	230	260	45	6-M10						50											
FZ55A B	220	20	30	6	45	130	270	305	340	50	8-M16	585	175	525	55	12-18	750	440	383	950	640	460						
FZ65A				5			270	310	340	55	6-M10						60											
FZ70A B	280	25	30	6	50	200	316	360	400	65	8-M12	800	240	720	75	12-22	900	520	547	1100	720	656						
FZ80A B				5			316	360	400	70	8-M12						70											
FZ90A				6			320	360	400	80	8-M16																	
FZ95A				6			345	390	430	80	8-M16																	
FZ100A B	340			5	95		360	410	460	80	8-M20						85											
FZ110A				7			400	450	490	90	12-M16	1060	250	1000	95	16-22	1060	600	980	1360	900	1100						
FZ130A B				9	35	250	455	520	580	95						100												
FZ140	400	30	40	9			455	520	580	100	12-M20						110											
FZ150				9			470																					
FZ160				11																								
FZ180	580	50	55	10	60	370	1470	350	1400	180	20-27	1400	780	2000	1800	980	2395	1670	400	1600	200	20-33	1600	900	2500	2000	1100	2800

(十五)XD、XS型机架 (HG21566、21567-95)**XD, XS type frame (HG21566, 21567-95)**

本系列机架是化工行业最新标准机架，是为搅拌传动装置 (HG21563-95) 配套的机架，XD型为单支点机架，减速机出轴用 DF 型联轴器与搅拌轴联接。XS型为双支点机架，减速机出轴用 HL型联轴器联接，两支点间用 DF 型联轴器联接，机架分 A型（轴封采用 2001、2003、2004、2006型机械密封）和 B型（轴封采用 2002、2005、2007型机械密封或 506、516、606、616型填料箱）。机架输出端接口可与第 I部分 (二) 节所列的安装底盖及釜口法兰联接。本系列机架通用性强，由于选用 DF型联轴器及安装底盖的搁轴装置，所以在不拆除减速机和机架的条件下，在机架的侧面窗口中就可以拆出带短节联轴器、轴承室及机械密封或填料箱。

This series frame which matched with the mixers device (HG21563-94) is the latest standard of chemical lines. The XD type is a single support frame and the extend shaft of decelerator is coupling with mixer. The XS type is a double supporter shelf and the decelerator's shaft end is coupling with HL type and the two support point is coupling with DF. The shelves have A type (the shaft is sealed in 2001, 2003, 2004, 2006 or 2008 type machinery sealing) and B type (the shaft is sealed in 2002, 2005, 2007 type machinery sealing or 506, 516, 606, 616 type add-material machine). The output frame junction point could be coupling mounted and the cauldron flange. This series frames have strong common used. We selected DF coupling and the shaft mounted low head. So we could take out the short coupling without removing reducers and shelf bearing housing.

**XD型单支点机架**

公称直径为 200、250、300mm 的 A型和 B型

A and B type of XD type single-support frame

Nominal diameter is 200, 250, 300mm

XD型单支点机架

公称直径为 400、500、700、900mm 的 A型和 B型

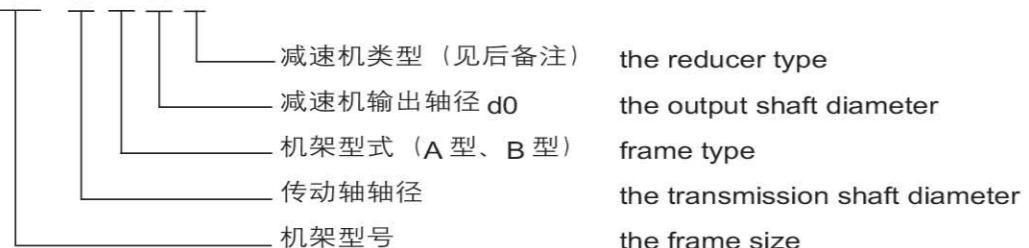
A and B type of XD type single-support frame

Nominal diameter is 400, 500, 700, 900mm

型号标注方法及示例： Method and example of earmark

例1 XD3 - 60 A 40 C

例2 XS4 - 90 B 65 Z



XD型单支点机架主要参数及尺寸 (公称直径 200、250、300)

Primary parameter and dimension of XD type single-support frame (nominal diameter 200, 250, 300)

机架 型号 frame type	机架 公称 直径 nominal diameter	传动轴 轴 径 d shaft diameter	传动轴 上端轴 径 d ₁ ascending shaft diameter	减速机 输出轴 径 d ₀ output shaft diameter	输入 端接 口 inlet edge	输出端接口 outlet edge		外形及其它尺寸 shape and other dimension						轴承 型号 bearing type	重量 weight					
						D ₄ H ₉	D ₅	D ₆	n ₂ -d	f ₂	A型		B型		H ₃	H ₄	H ₅	D ₇		
XD1	200	30	20	12	见后表 see next list	245 295 340 8-22 6 575 220	415	730	495	17 24 85 180	46209 57 61					见后表 see next list	55 65 70 65 80 65 100 85 70 80 65 100 85 70 80 70 110 90 80 90 90 120 100 90 100 95 130 110 100 110 90 120 100 95 100 95 130 110 100 110 100 140 120 110 120 120 160 140 130 140 100 140 140 180 160 150 160 160 200 180 170 180	691	806	46222 251 265
		40	30	14			415	495	17 24 85 180	46209 57 61	415 515 565 16-26 6	890	310	1105 420	25 35 100 310			46222 256 270		
				18										691	806			46224 409 435		
	250	50	40	30			556	681			46214 106 116			821	946			46224 405 431		
				35														30 40 140 335		
		60	45	40			290 350 395 12-22 6 750 268 556 995 388 681 20 30 100 245 46214 107 117	46214 107 117											46228 401 427	
XD2	300	70	55	45			565	690			46216 104 114								46228 395 421	
				50															46228 729 766	
		60	45	45			595	720			46217 153 164								46228 721 758	
	45	70	55	50			320 400 445 12-22 6 795 279 595 1040 399 720 20 30 100 280 46216 150 161	46216 150 161											46234 697 734	
				55															46232 985 874	
		60	45	40			606	731			46216 149 160								46234 1000 889	

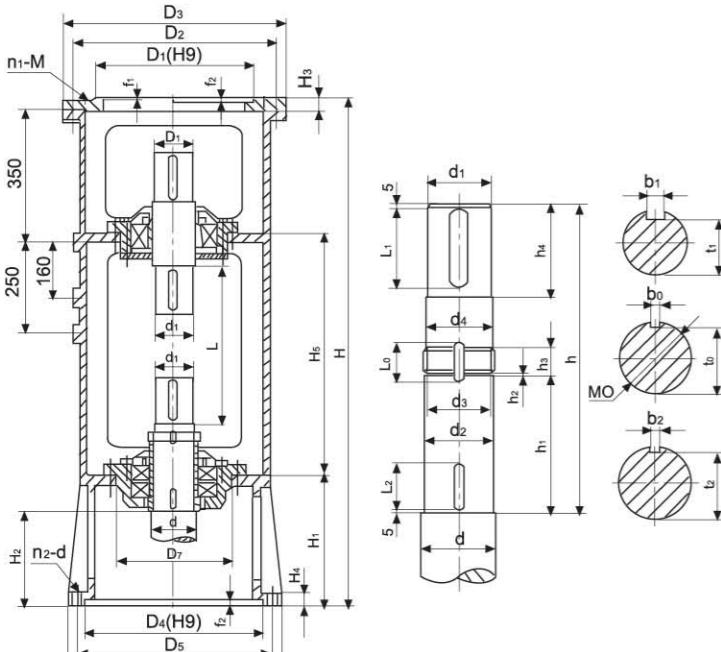
机架 型号 frame type	机架公 称直 径 nominal diameter	传动轴 轴 径 d shaft diameter	传动轴上 端轴径 d ₁ ascending shaft diameter	传动轴轴端尺寸 shaft end dimension of drive shaft																
				M ₀	d ₂ (h ₉)	d ₃	d ₄	h ₁	h ₂	h ₃	h ₄	L ₁	L ₀	L ₂	b ₂ (N _g)	b ₀	b ₂ (N _g)	t ₁	t ₀	t ₂
XD1	200	30	20k6	M25x1.5	25	22.8	22	97	3	15	48	40	23	30	6	5	5	16.5	21	22
		40	30k6	M35x1.5	35	32.8	32	97	3	15	48	40	24	30	8	6	6	26	31	31.5
		50	40k6	M45x1.5	45	42.8	42	105	3	15	58	50	24	30	12	6	6	35	41	41.5
XD2	250	60	45k6	M55x2	55	52	50	115	4	18	68	60	30	40	14	8	8	39.5	51	51
		70	55m6	M65x2	65	62	60	125	4	18	83	75	30	40	16	8	8	49	61	61
		60	45k6	M55x2	55	52	50	125	4	18	68	60	30	40	14	8	8	39.5	51	51
XD3	300	70	55m6	M65x2	65	62	60	125	4	18	83	75	30	40	16	8	8	49	61	61
		80	65m6	M75x2	75	72	70	139	4	18	98	90	32	50	18	10	10	58	69	70

XD型单支点机架主要参数及尺寸 (公称直径 400、500、700、900)

Primary parameter and dimension of XD type single-support frame (nominal diameter 400, 500, 700, 900)

机架 型号 frame type	机架公 称直 径 nominal diameter	传动轴 轴 径 d shaft diameter	传动轴上 端轴径 d ₁ ascending shaft diameter	减速机 输出轴 径 d ₀ output shaft diameter	输入 端接 口 inlet edge	输出端接口 outlet edge					外形及其它尺寸 shape and other dimension					轴承 型号 bearing type	重量 weight

机架 型号 frame type	机架公 称直径 nominal diameter	传动轴 轴径 d shaft diameter	传动轴上 端轴径 d1 ascending shaft diameter	传动轴轴端尺寸 shaft end dimension of drive shaft																
				M ₀	d _{2(h_g)}	d ₃	d ₄	h ₁	h ₂	h ₃	h ₄	L ₁	L ₀	L ₂	b _{1(N_g)}	b ₀	b _{2(N_g)}	t ₁	t ₀	t ₂
XD4	400	90	75m6	M85x2	85	82	80	162	4	18	108	100	32	50	20	10	10	67.5	79	80
		100	85m6	M95x2	95	92	90	166	4	22	118	110	38	50	22	12	12	76	89	90
XD5	500	100	85m6	M95x2	95	92	90	166	4	22	118	110	38	50	22	12	12	76	89	90
		110	90m6	M100x2	100	97	95	166	4	22	118	110	38	50	25	12	12	81	94	95
XD6	700	120	100m6	M110x2	110	107	105	177	4	22	128	120	40	60	28	14	14	90	104	104.5
		130	110m6	M120x2	120	117	115	177	4	26	138	130	44	70	28	14	14	100	114	114.5
XD7	900	120	100m6	M110x2	110	107	105	177	4	22	128	120	40	60	28	14	14	90	104	104.5
		130	110m6	M120x2	120	117	115	177	4	26	138	130	44	70	28	14	14	100	114	114.5
XD7	900	140	120m6	M130x2	130	127	125	197	4	26	153	145	44	70	32	14	14	109	122	124.5
		160	140m6	M150x2	150	147	145	207	4	30	168	160	50	70	36	16	16	128	142	144
XD7	900	140	120m6	M130x2	130	127	125	197	4	26	153	145	44	70	32	14	14	109	122	124.5
		160	140m6	M150x2	150	147	145	207	4	30	168	160	50	70	36	16	16	128	142	144
XD7	900	180	160m6	M170x3	170	166	165	227	4	32	198	190	52	80	40	16	16	157	162	164
		200	180m6	M190x3	190	186	185	242	4	32	230	230	54	90	45	18	18	175	180	182

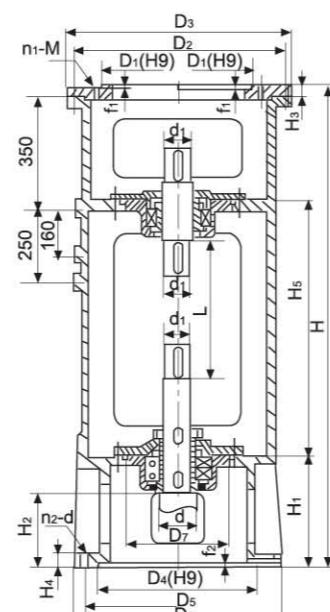


XS型双支点机架

公称直径为 300mm 的 A 型和 B 型

XS type double-support frame

A and B type of 300mm nominal diameter



XS型双支点机架

公称直径为 400、500、700、

900mm 的 A 型和 B 型

XS type double-support frame

A and B type of 400, 500, 700,
900mm nominal diameter

XS型双支点机架 XS type double-support frame

主要参数及尺寸 (公称直径 300、400、500、700、900)

Primary parameter and dimension (Nominal diameter 300, 400, 500, 700, 900)

机架 型号 frame type	机架公 称直径 nominal diameter	传动轴 轴径 d shaft diameter	传动轴上 端轴径 d ₁ ascending shaft diameter	输出端接口 outlet edge					外形及其它尺寸 shape and other dimension								轴承型号 bearing type	重量 weight								
				D ₄ H ₉	D ₅	D ₆	n _{2-d}	f ₂	H	H ₁	H ₂	H ₅	L	H	H ₁	H ₂	H ₅	L	H ₃	H ₄	D ₇	上部	下部	A 型	B 型	
XS3	300	60	45m6	M55x2	55	52	50	322	4	68	15	60	27	40	14	8	8	39.5	51	51						
		70	55m6	M65x2	65	62	60	278	125	4	83	15	75	27	40	16	8	8	49	61	61					
XS4	400	80	65m6	M75x2	75	72	70	264	139	4	98	18	90	32	50	20	10	10	58	69	70					
		90	75m6	M85x2	85	82	80	322	162	4	108	18	100	32	50	20	10	10	67.5	79	80					
XS5	500	100	85m6	M95x2	95	92	90	317	166	4	118	22	110	38	50	22	12	12	76	89	90					
		110	90m6	M100x2	100	97	95	420	166	4	118	22	110	38	50	25	12	12	81	94	95					
XS6	700	120	100m6	M110x2	110	107	105	413	177	4	128	22	120	40	60	28	14	14	90	104	104.5					
		130	110m6	M120x2	120	117	115	370	177	4	138	26	130	44	70	28	14	14	100	114	114.5					
XS7	900	120	100m6	M110x2	110	107	105	508	177	4	128	22	120	40	60	28	14	14	90	104	104.5					
		130	110m6	M120x2	120	117	115	465	177	4	138	26	130	44	70	28	14	14	100	114	114.5					
XS6	700	140	120m6	M130x2	130																					

XD、XS型机架输入端接口尺寸

Inlet edge dimension of XD, XS type frame

减速机输出轴径 d_o Output shaft diameter	减速机类别代号 Reducer type	D1	D2	D3	n1-M	f1
12	Z	65	100	120	4-M6	3
14	Z	85	120	140	4-M8	3
18	Z	100	134	160	4-M8	4
25	Z	130	160	180	6-M8	4
	C	170	200	230	6-M10	3
30	C	200	230	260	6-M12	4
35	Z	170	200	230	6-M10	5
	C	230	260	290	6-M12	4
40	Z	170	200	230	6-M10	5
	C	230	260	290	6-M12	4
45	Z	200	230	260	6-M10	5
	C	230	260	290	6-M12	4
50	Z	200	230	260	6-M10	5
	C	270	305	340	8-M16	5
55	Z	270	310	340	6-M10	5
	C	270	305	340	8-M16	5
60	C	320	360	400	8-M16	5
	Z	316	360	400	8-M12	6
65	Z1	270	310	340	6-M10	5
	C	320	360	400	8-M16	5
70	Z	316	360	400	8-M16	6
	C	320/316	360	400	8-M16	5
	Z	345	390	430	8-M16	6
80	Z1	316	360	400	8-M12	6
	C	360	410	460	8-M20	6
90	Z	400	450	490	12-M16	8
	C	360	410	460	8-M20	6
95	Z	400	450	490	12-M16	8
	Z1	455	520	580	12-M20	10
100	Z	455	520	580	12-M20	10
	C	470	520	580	12-M20	6
110	Z	520	590	650	12-M20	12
	C	470	520	580	12-M20	6
120	Z	520	590	650	12-M20	12
	C	550	600	660	12-M20	6
130	Z	680	800	880	12-M30	12
	C	680	800	880	12-M30	8
140	Z	680	800	880	12-M30	12

注： 1. 减速机类别代号 Z 为 X 系列、B 系列的摆线针轮减速机及 CFL 型行星齿轮减速机; C 为 LC 型、DC 型齿轮减速机。
2. 其它类型减速机由我公司对接口加以调整后也可配套。

Note: 1. The code name Z is X series reducers. B series cycloid gear reducer. The C series are LC type, DC type gear reducer.
2. Another reducer could also be assembled after adjusting the connection.

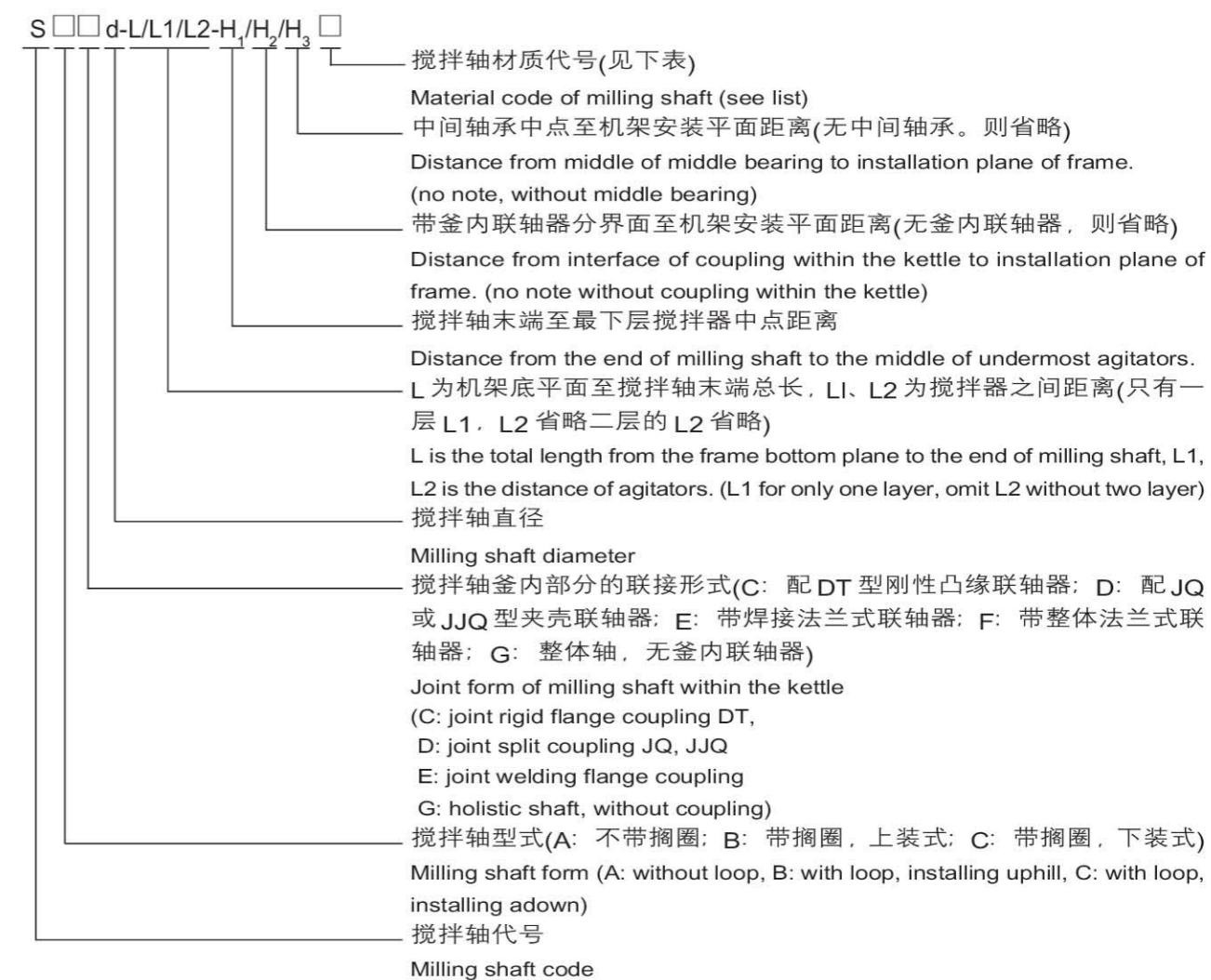
五、搅拌装置部件

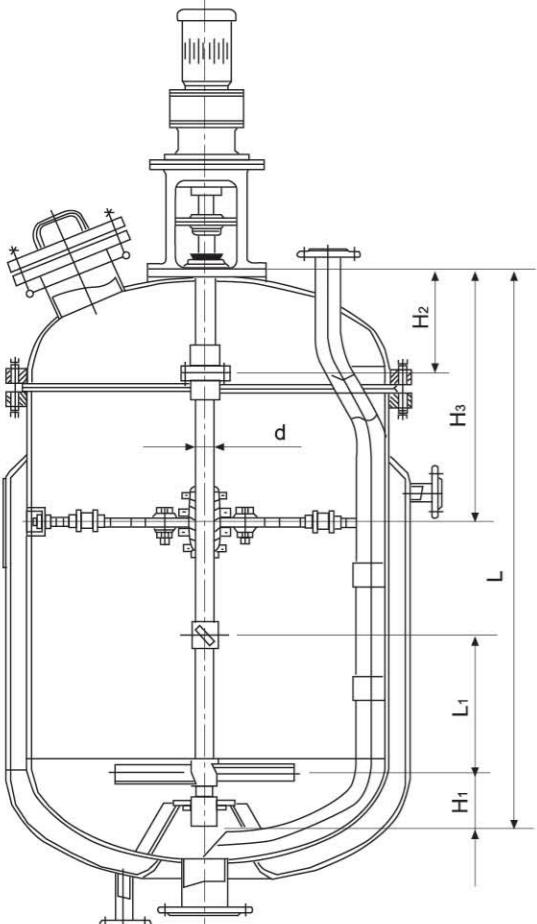
Parts of chum-dasher

为方便设计和安装调试，在选用减速机、机架、联轴器、机械密封或填料箱、搅拌器后，可根据搅拌轴主参数 d 和 L 来选择搅拌轴，机架安装底平面以上的搅拌轴尺寸由我公司根据所选机架来协调，无须设计单位出图。

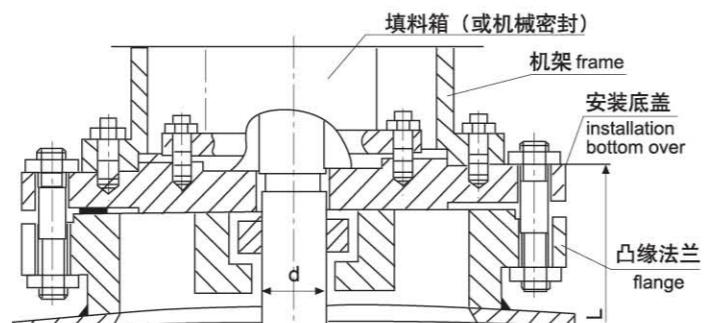
For be prone to design and install and debug decelerator, you can select milling shaft according to its primary parameter d and L , after selecting decelerator, frame, coupling, mechanical seals or packing box, agitators. The dimension of milling shaft over the installation bottom plane is harmonized by us according to the selected frame. It needn't design drawing by design department.

标注示例 Example of earmark

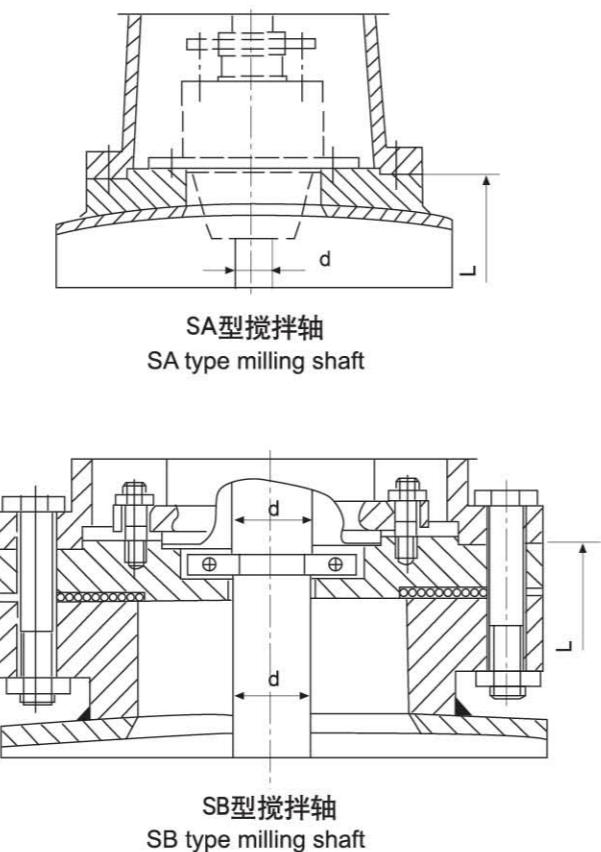




搅拌装置及SA型搅拌轴
Chum-dasher and SA type milling shaft

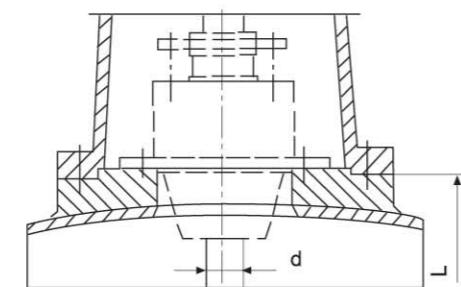


SC型搅拌轴
SC type milling shaft

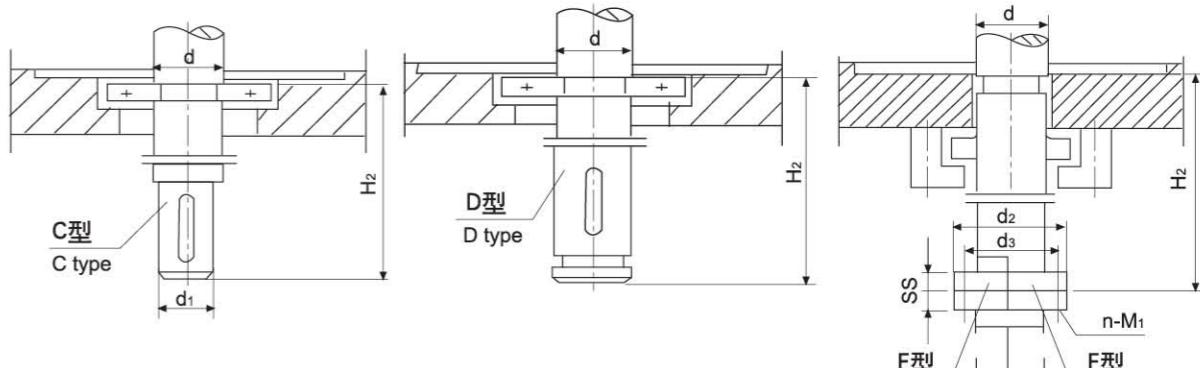


SA型搅拌轴
SA type milling shaft

SB型搅拌轴
SB type milling shaft



一、搅拌轴 Milling shaft



C型釜内轴头
C type shaft end within kettle

D型釜内轴头
D type shaft end within kettle

E、F型釜内轴头
E,F type shaft end within kettle

釜内轴头尺寸表 肢 The list of shaft end within kettle

d	30	35	40	45	50	55	60	65	70	80	90	95	100	110	120	125	130	140	160	
d1	25	30	35	04	45	50	55	60	65	75	85	90	90	100	110	115	120	125	140	
d2	105	105	110	120	130	140	145	150	170	185	195	200	220	240	280	285	290	310	340	
d3	70	70	755	85	95	105	110	115	125	140	150	155	170	190	210	215	220	235	265	
S	25	25	25	25	25	30	30	30	35	35	35	35	40	40	45	45	45	50	60	
n-M1	6-M12				6-M16				6-M20				8-M20				8-M24		8-M30	8-M36
H2	250	250	250	250	350	350	480	480	480	550	580	580	650	700	750	800	800	900	1000	

材料牌号表 The list of material sign

代号 code	S1	S2	S3	S4
材料牌号 material sign	0Cr18Ni11Ti(321)(1Cr18Ni9Ti)	0Cr17Ni10Mo2(316)	0Cr19Ni9(304)	00Cr19Ni11(304L)
代号 code	S5	S6	S7	S8
材料牌号 material sign	00Cr17Ni14Mo2(316L)	0Cr18Ni12Mo2Ti(316Ti)	0Cr18Ni14Mo2Cu(316Cu)	0Cr19Ni13Mo3(317)
代号 code	T1	T2	T3	T4
材料牌号 material sign	Q235-A	20-35	20R 20g	45(c.s)
代号 code	T5	T6	T7	T8
材料牌号 material sign	16Mng 16ZMnR	15MnVg 15MnVR	20Cr	40Cr
代号 code	T9	T10	-	-
材料牌号 material sign	HT200	ZG35	-	-
代号 code	LP	LR	LF	LG
材料牌号 material sign	喷 PO	衬橡胶	衬聚四氟乙稀	衬玻璃钢
代号 code	LF	TA	-	-
材料牌号 material sign	搪玻璃	Ti(钛材)	-	-
代号 code	F4	R	CF	BF
材料牌号 material sign	聚四氟乙稀	柔性有墨	碳纤维	芳纶纤维
代号 code	AE	AF	-	-
材料牌号 material sign	油浸石棉	石棉浸渍四氟	-	-

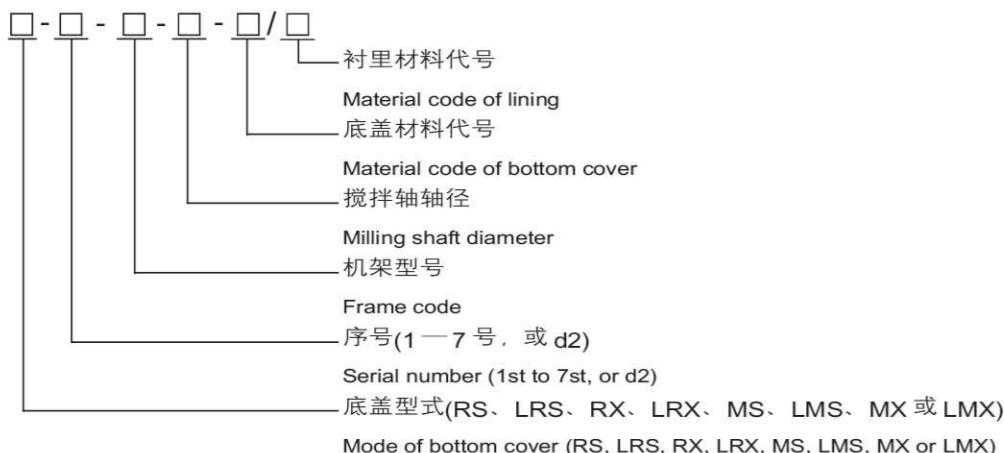
二、安装底盖与凸缘法兰 Installation bottom cover and male flange

本系列安装底盖可与 XD 型、XS 型机架及 2000 系列机械密封或 506、516、606、616 型填料箱相配套，底盖下面与 R 型、LR 型、M 型、LM 型凸缘法兰相配套，用户可根据 XD 型、XS 型机架及凸缘法兰的规格选择相应的安装底盖，若配用其他型号机架、机械密封、填料箱，只须将以下标记中序号换成外径 d_2 ，注上相应机架型号即可。

The series of installation bottom covers have been collocated with frame XD, XS and 2000 series mechanical seal or packing box 506, 516, 606, 616, collocated with male flange R, LR, M, LM under it. User can select relevant cover according to the size of frame XD, XS and male flange. It must only be changing outer diameter d_2 from the serial number next earmark, and note the relevant type of frame, if collocated other frame.

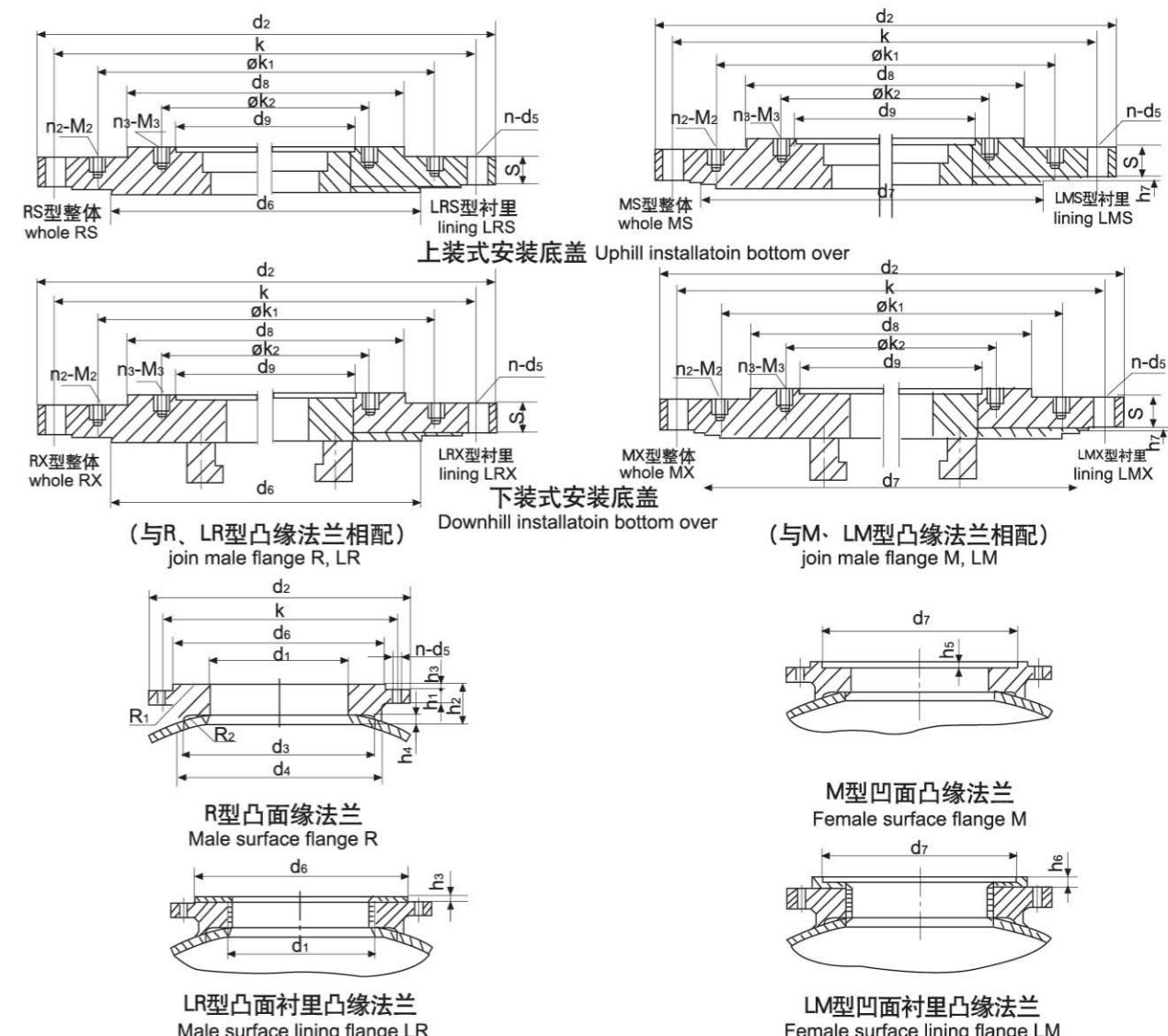
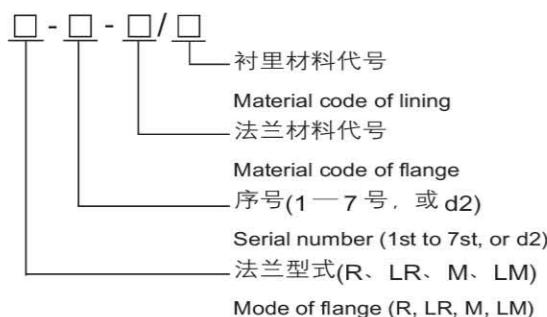
安装底盖标记示例：

Example of earmark installation bottom cover



凸缘法兰标记示例：

Example of earmark male flange



凸缘底盖厚度表(S) List of flange bottom cover ply

序号 No.	d_1	d_2	k	d_3	d_4	h_1	h_2	h_4	$n-d_5$	d_6	d_7	h_3	h_5	s	h_6	h_7	$\square k_1$	n_2-M_2	d_8	机架型号 frame type	搅拌轴直径d milling shaft diameter	d_9	$\square k_2$	n_3-M_3						
1	200	340	295	220	245	34	65	2	8-[22	266	250	4	4.5	40	10	5.5	-	-	245	XD1 XS1	30,35,40	110	145	4-M16						
2	245	395	350	280	300	36	65	2	12-[22	320	304	4	4.5	40	10	5.5	-	-	290	XD2 XS2	45,50,55,60,65,70	176	210	8-M16						
3	280	445	400	325	350	36	65	2	12-[22	370	354	4	5	50	10	6	-	-	320	XD3 XS3	70,80,85	204	240	8-M20						
4	410	565	515	430	455	42	85	2	16-[27	481	462	4	5	50	12	6	400	12-M20	320	XD3 XS3	350 12-M20	290	XD2 XS2	90,95,100	234	270	8-M20			
5	430	670	620	520	560	46	90	5	20-[27	585	566	4	5	65	12	12	515	16-M24	415	XD4 XS4	400 12-M20	320	XD3 XS3	-	-	520	XD5 XS5			
6	530	830	780	670	720	60	100	8	28-[27	745	725	4	5.5	82	12	6.5	515	16-M24	415	XD4 XS4	400 12-M20	320	XD3 XS3	620 20-M24	520	XD5 XS5	-	-	670	XD6 XS6
7	720	1045	990	800	920	68	110	15	36-[30	945	925	4	5.5	100	12	6.5	620	20-M24	520	XD5 XS5	515 16-M24	415	XD4 XS4	780 28-M24	670	XD6 XS6	-	-	-	-

注：若配用其他型号机架及机械密封或填料箱，与其连接的相关尺寸： $\square k_1$ 、 d_8 、 $\square k_2$ 、 d_9 、 n_2-M_2 、 n_3-M_3 ，由我公司调整配套。 Note: The relevant joint dimension $\square k_1$, d_8 , $\square k_2$, d_9 , n_2-M_2 , n_3-M_3 is adjusted by us, if selecting other frame mode and mechanical seal or packing box.

(三)U系列及V系列凸缘底盖 Flange bottom cover U and V

凸缘底盖将通常的凸缘法兰和安装底盖合二为一，直接作为容器与搅拌装置的接口，结构简单紧凑，节约材料，减轻重量，特别是分体凸缘底盖。内外凸缘可分别用不同材质，在大型设备中，明显节约了投资。实际中应用广泛、另外凸缘下面开有排液孔，有利于机封等部件的清洗和维护。凸缘底盖还可以根据搅拌轴搁轴的需要，制成上装式和下装式。

Flange bottom cover is united by usual flange and installation bottom cover, as interface of case with chum-dasher. Simple achieve structure, retrench material, lighten weight, especially fissile flange bottom cover and inside and outside flange can be selected different material apart. It is obvious to retrench investment about large equipments. It has broad application in practice. Otherwise hole letted liquid under the male edge is make for cleanouting and maintenance seal etc. Flange bottom cover can be made into installation [uphill and downhill] as required of milling shaft, too.

凸缘底盖标记方法 Earmark procedure

凸缘底盖外径(根据机架底法兰外圆直径而定)
Outer diameter of flange bottom cover (confirm as circle diameter of frame bottom flange)

凸缘底盖分类代号：整体平底(UA)，整体凹底(UB)，衬里整体平底(UC)，衬里整体凹底(UD)，分体平底(VA)，分体凹底(VB) 若制成上装式，则各成：UAS, UBS, UCS, UDS, VAS, VBS。若制成下装则各成：UAX, UBX, UCX, UDX, VAX, VBX。

Code of flange bottom cover:

holistic even bottom (UA), holistic female bottom (UB), holistic even bottom with lining (UC), holistic female bottom with lining (UD), fissile even bottom (VA), fissile female bottom (VB). If be made into uphill installation, it is UAS, UBS, UCS, UDS, VAS, VBS. If be made into downhill installation, it is UAX, UBX, UCX, UDX, VAX, VBX.

选用说明 Instruction for selection

1. 若配套本公司减速机、机械密封，只须按标记方法表示，及提供工艺操作的条件与容器封头的尺寸规格。也可以提供如图各尺寸数据及要求，委托我方加工生产。

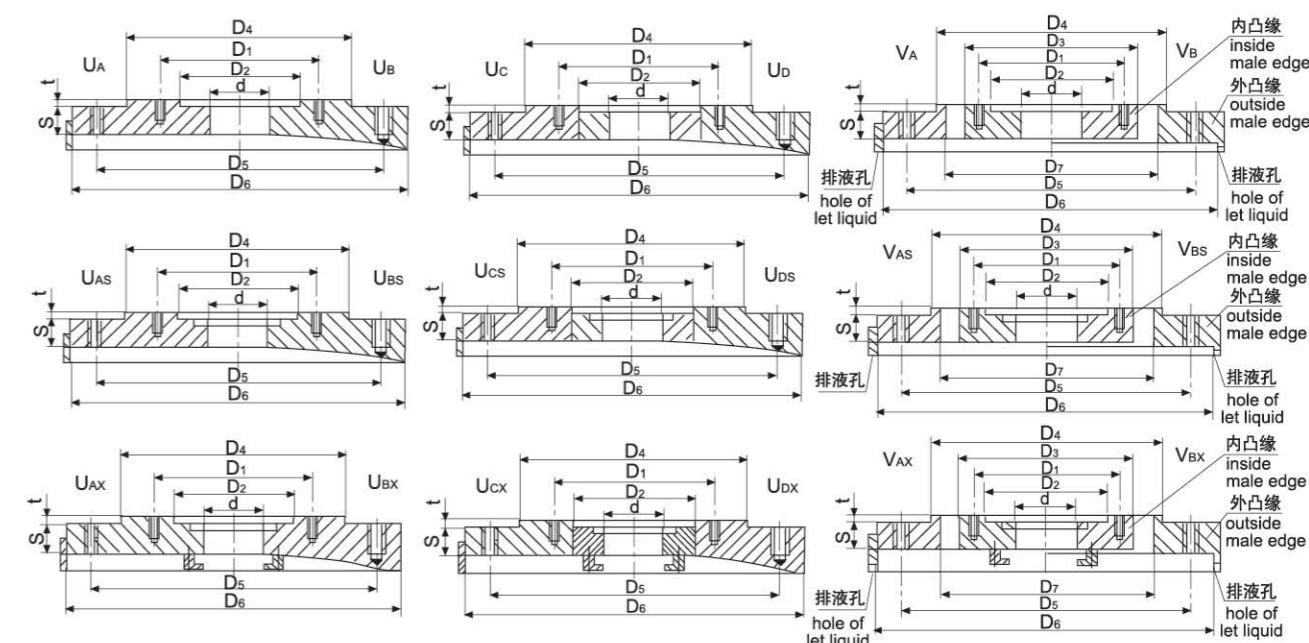
2. 在容器上焊接凸缘底盖时须保证其安装面和容器轴心线的垂直度，采用分体凸缘时先校正好外凸缘位置精度再焊接，待安装上支架等整体搅拌装置后，校正内凸缘位置，点焊固定后运转无误再按工艺要求焊接。

1. If joint with our decelerator and mechanical seal, it only is clenoted as earmark procedure, supply condition of technics working and size of case seal, or supply diameter data and request as figure to leave us producing.

2. It must assure plumb degree of installation surface and axes line of case when welding flange bottom cover in case. First proofreading place precision of male edge then welding. After frame and whole chum-dasher is installed, we proofread male edge place. We weld as technics request without error working after welding for fixation.

凸缘底盖厚度表(S) List of flange bottom cover ply

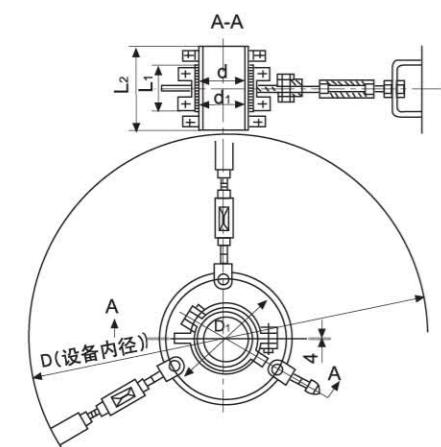
凸缘外径 outer diameter 公称压力 nominal pressure	>300~400	>400~600	>600~800	>800~900	>900~1200	>1200~1500
-1~0.1MPa	30	30	40	50	60	80
<0.6MPa	35	40	50	65	80	100
<0.16MPa	40	50	60	82	100	120

**(四)中间轴承 Middle bearing**

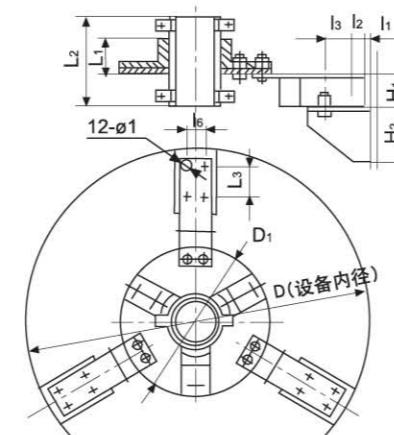
SL、SC、JC、SD型主要尺寸 Primary dimension of SL, SC, JC, SD type

d	d1	L ₁	L ₂	L ₃	D ₁	H ₁	H ₂	I ₁	I ₂	I ₃	I ₄	I ₅	I ₆	I ₇	□1	□2	□3	重量 weight			
																		SL	SC	JC	SD
40	60	92	200	60	260	50	100	10	16	50	30	270	40	90	12	14	14	36	82	183	60
50	70	92	200	60	260	50	100	10	16	50	30	270	40	90	12	14	14	38	85	186	62
60	80	92	200	60	260	60	120	12	16	60	40	290	40	96	12	14	14	39	87	189	64
65	85	92	200	60	260	60	120	12	16	60	40	290	40	96	12	14	14	40	90	194	66
70	90	92	200	60	260	60	120	12	16	60	40	290	40	96	12	14	14	42	93	197	68
75	95	92	200	60	260	60	120	12	16	60	40	290	40	96	12	14	14	43	95	199	70
80	100	112	220	80	300	80	160	15	20	80	50	350	50	116	14	18	18	46	146	303	90
90	110	112	220	80	300	80	160	15	20	80	50	350	50	116	14	18	18	48	153	310	95
95	115	112	220	80	300	80	160	15	20	80	50	350	50	116	14	18	18	52	160	316	100
100	120	112	220	80	300	80	160	15	20	80	50	350	50	116	14	18	18	55	163	323	108
110	140	142	250	100	350	100	200	20	25	90	60	360	60	120	18	22	22	63	178	365	115
120	150	142	250	100	350	100	200	20	25	90	60	360	60	120	18	22	22	65	189	370	120
125	155	142	250	100	350	100	200	20	25	90	60	360	60	120	18	22	22	66	196	375	130
140	170	160	280	120	380	120	200	20	25	120	80	430	80	216	18	22	22	73	232	452	140
150	180	160	280	120	380	120	200	20	25	120	80	430	80	216	18	22	22	76	238	458	150
160	190	160	280	120	380	120	200	20	25	120	80	430	80	216	18	22	22	80	243	464	160
180	215	180	300	130	400	160	240	25	30	140	100	430	100	250	22	22	22	101	307	587	190
200	235	200	320	140	420	160	240	25	30	140	100	500	100	250	22	22	22	128	359	634	230

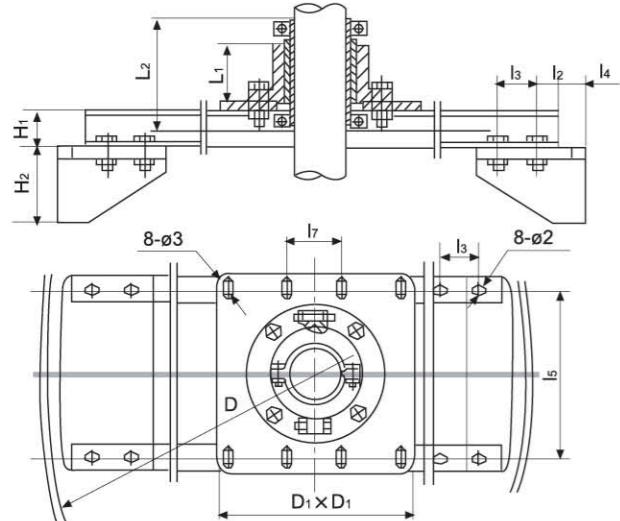
注：重量仅供参考，与设备内径 D 有关，SD 适合于中间轴承位置高度在上封头范围的情况，用户提供高度位置及封头图形，本公司可以供应定位拉杆构件。 Note: The weight have relation to inside diameter D of equipment only for reference. SD type is fit for that high of middle bearing place belong to the upper seal confine. We can supply orientation pole member after user supplied high place and seal drawing.



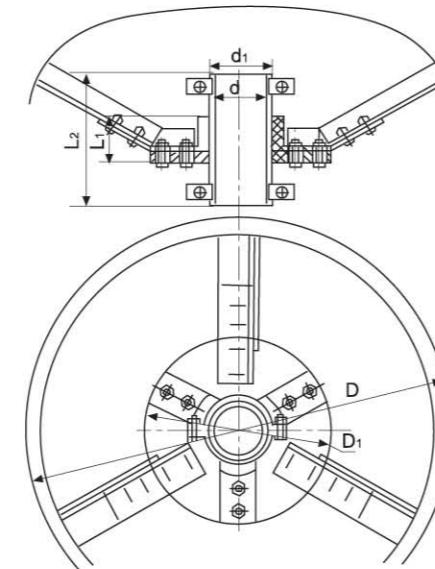
SL型三拉杆式中间轴承
Three-pole middle bearing SL



SC型三槽钢中间轴承三轴瓦式
Three channel steel middle bearing SC, three axial tile



JC型#字槽钢式中间轴承
character channel steel middle bearing JC

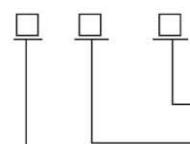


SD型三拉杆式吊挂中间轴承
Three-pole pensile middle bearing SD

(五)底轴承 Bottom bearing

底轴承分三足式(SZ型)、底部法兰式(DL型)、迷宫三足式(MSZ型)、迷宫底法兰式(MDL型)四种。标定型号如下：

Bottom bearing includes three-foot (SZ), bottom flange (DL), maze three-foot (MSZ), maze flange (MDL) four types, mode of earmark as follows:



主体材料代号 Primary material code

搅拌轴直径 d Diameter of milling shaft d

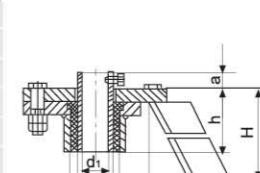
型号(分 SZ、DL、MSZ、MDL 四种) Type (SZ, DL, MSZ, MDL)

SZ型主要尺寸 Primary dimension of SZ type

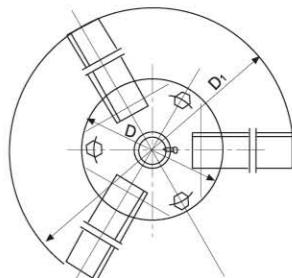
公称轴径 d nominal axes diameter	d ₁	d ₂	D	D ₁	a	h	H	重量(kg) weight
30	22	45	140	363	20	50	160	4.33
40	32	55	160	412	20	60	180	5.49
50	40	65	180	455	20	70	200	6.9
65	50	85	200	498	20	90	230	14
80	65	100	230	563	30	105	250	18
95	75	115	250	617	45	120	280	22
110	90	130	270	683	45	135	300	26.5
125	105	145	310	790	45	155	350	34
140	115	165	360	893	45	165	390	49
165	140	190	400	1040	45	165	430	67
190	165	215	440	1040	50	220	450	90

DL、MDL型主要尺寸 Primary dimension of DL, MDL type

公称轴径 d nominal axes diameter	d ₁	d ₂	D	D ₁	h	H	重量(kg) weight
30	22	45	135	157	35	105	5.1
40	32	55	145	178	45	125	7.1
50	40	65	156	211	55	145	9.6
65	50	85	180	265	70	175	16
80	65	100	195	309	85	195	22
95	75	115	210	359	100	225	30
110	90	130	225	397	115	245	39
125	105	145	245	430	130	260	53
140	115	165	265	500	155	300	69
165	140	190	295	542	165	310	88
190	165	215	320	600	190	340	120



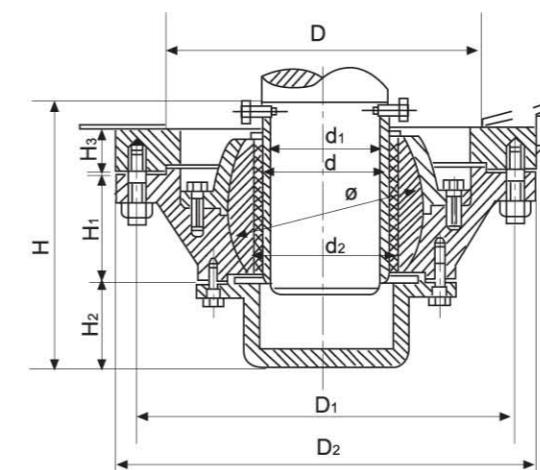
SZ型底轴承 Bottom bearing SZ



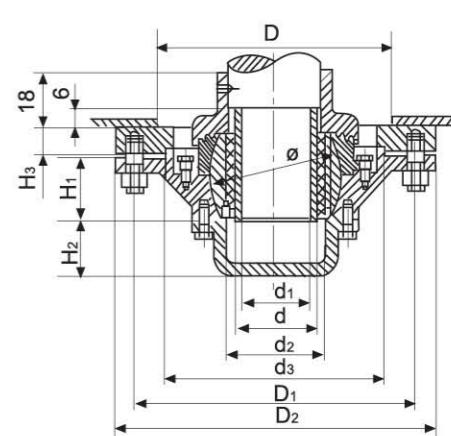
MSZ型底轴承 Bottom bearing MSZ

MSZ型主要尺寸 Primary dimension of MSZ type

公称轴径 d nominal axes diameter	D	D ₁	D ₂	d ₁	d ₂	d ₃	□	H ₁	H ₂	H ₃	~H	螺柱 screw 数量 No. 直径 diameter	长度 length x length	重量(kg) weight
65	220	265	310	50	80	225	120	50	56	32	174	8	M16 x 50	43.8
80	240	285	330	65	100	245	140	54	66	32	193	8	M16 x 50	53
95	260	330	375	80	115	255	155	72	74	32	224	12	M16 x 65	78
110	295	385	430	95	130	300	188	82	84	40	249	12	M20 x 85	108
125	315	395	440	105	145	363	210	90	90	40	280	12	M20 x 85	155
140	350	445	490	115	165	413	238	100	95	45	300	12	M20 x 95	189
165	385	495	540	140	190	463	270	110	100	45	320	16	M20 x 100	227
190	405	495	540	165	215	463	296	120	105	50	340	16	M20 x 110	270



DL型底轴承 Bottom bearing DL



MDL型底轴承 Bottom bearing MDL

(六)搅拌器 Agitators

本公司生产近30类计140多种搅拌器，从最常见的(包括已有的HB5标准，SB90标准各种搅拌器)到各种复杂形状或特殊用途的搅拌器。可按H/T2123-91标准的各种规格尺寸系列制造；也可根据用户生产工艺需求，代为设计制造各种特殊要求、特殊规格或特殊用途的搅拌器。

1. 搅拌器的形式、主要尺寸特性参数

搅拌器类型	搅拌器简图	主要尺寸	特性参数			备注	
			常用运转条件	常用介质粘度范围(η)	液体流动状态		
桨型	直叶	D _j /D _i =0.35~0.80 b/D _j =0.1~0.25 桨叶数Z _j =2; 斜叶的斜角=45°(标准值), 30°	n=1~100rpm v=1.0~5.0 m/s	D _j /D _i =0.35~0.80 b/D _j =0.1~0.25 桨叶数Z _j =2; 斜叶的斜角=45°(标准值), 30°	低速时主要为水平环向流；高速时为径型；有挡板时为上下循环流 有轴向分流，径向分流和环向分流多在层流，过度流状态下操作 桨叶端的线速度v=1.0~3.0m/s	当D _j /D _i >0.9并设多层次桨式叶轮时，可用予高粘度液体的低速搅拌。 在层流区操作时，其适用介质粘度可达到10 ⁵ mPa·s，桨叶端的线速度v=1.0~3.0m/s	
	斜叶	D _j /D _i =0.2~0.5(标准值为0.33) b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6) 后弯桨叶的斜角=30°、45°、60°(标准值D=45°)	n=10~300rpm v=4~10m/s; 10 ⁴ mpa·s 对斜桨叶、后弯桨叶V=2~6m/s	D _j /D _i =0.2~0.5(标准值为0.33) b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6) 后弯桨叶的斜角=30°、45°、60°(标准值D=45°)	对直桨叶D<5x10 ⁴ mpa·s 斜桨叶的V=2~6m/s D<10 ⁴ mpa·s	直叶。弯叶为径向流。有挡板时，自下两个循环流；斜叶为兼有径向流和轴向流，但近于轴流型 用于高粘度的液体时，后弯叶的弯角宜取大值，以降低功率消耗。	最高转速可达600rpm；斜叶斜角66°的叶片用予3叶开启涡轮，其搅拌效果类似3叶推进式；用于高粘度的液体时，后弯叶的弯角宜取大值，以降低功率消耗。
	后弯叶	D _j /D _i =0.2~0.5(标准值为0.33) b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6) 后弯桨叶的斜角=30°、45°、60°(标准值D=45°)	n=10~300rpm v=4~10m/s; 10 ⁴ mpa·s 对斜桨叶、后弯桨叶V=2~6m/s	D _j /D _i =0.2~0.5(标准值为0.33) b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6) 后弯桨叶的斜角=30°、45°、60°(标准值D=45°)	D _j /D _i =0.2~0.5(标准值为0.33); b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6); 后弯桨叶的斜角=30°、45°、60°(标准值D=45°); D _j /D _i =0.2~0.5(标准值为0.33); b/D _j =0.15~0.3 桨叶数Z _j =3、4、6、8(常用桨叶数Z _j =6); 后弯桨叶的斜角=30°、45°、60°(标准值D=45°)	对直桨叶D<5x10 ⁴ mpa·s 斜桨叶的V=2~6m/s D<10 ⁴ mpa·s	最高转速可达600rpm；斜叶斜角66°的叶片用予3叶开启涡轮，其搅拌效果类似3叶推进式；用于高粘度的液体时，后弯叶的弯角宜取大值，以降低功率消耗。

We have made about 30 kinds of agitators, namely 140 categories. We can make according to every size series of H/T2123-91 from familiar furthest (include existing every agitators of HB5, SB90 standard) to every complicated figure or especial use. We can also design and made all kinds of agitators with especial request or especial size or especial use, according to the technics request of user.

1. Form primary dimension and characteristic parameter of agitators

type	simple drawing	primary dimension	characteristic parameter			note
			common work condition	common medium viscosity extension(η)	liquid flow state	
oar		D _j /D _i =0.35~0.80 b/D _j =0.1~0.25 number of oar leaf Z _j =2; bevel of skew leaf l _a f = 45° (normal value). 30°	n=1~100rpm v=1.0~5.0m/s	D<2000 mpa·s	Level round flow as low speed; radial form as high speed; flow round up and down with baffle. Distributary along axes, radial, round has been done in the condition of floor flow or transition flow.	It can be used to mill high viscosity liquid with low speed when D _j /D _i >0.9, and many floor oar impellers have been used. Medium viscosity in point has achieved 10 ⁵ mPa·s. When done in floor flow area. Line speed at the end of oar leaf v=1.0~3.0m/s
		D _j /D _i =0.2~0.5 (normal value 0.33); b/D _j =0.15~0.3 (normal value 0.2); number of oar leaf Z _j =3、4、6、8 (number of normal oar leaf Z _j =6); bevel of skew oar leaf l _a f =30°、45°、60° (normal value l=45°); degree of retral curly oar leaf l=30°、50°、60°、80° (normal l=50°、60°)	n=10~300rpm v=4~10m/s; 10 ⁴ mpa·s to straight oar leaf to skew oar leaf, retral curly oar leaf had been formed along radial and flow along axes has been formed for skew leaf, but it seems flow along axes.	Flow along radial for straight leaf and curly leaf; two flows round up and down with bevel of skew leaf 66° has been used for three-leaf opening turbine, its effect seems three-leaf advance form. Degree of retral curly oar leaf should choose big value to reduce power wastage for high viscosity liquid.	Up most rotate speed can achieve 600rpm. Impeller with bevel of skew leaf 66° has been used for three-leaf opening turbine, its effect seems three-leaf advance form. Degree of retral curly oar leaf should choose big value to reduce power wastage for high viscosity liquid.	
opening turbine						

搅拌器类型	搅拌器简图	主要尺寸	特性参数			备注
			常用运转条件	常用介质粘度范围(η)	液体流动状态	
圆盘涡轮式	直叶	Dj/Di=0.2 ~0.5(标准值为0.33); Dj:l:b=20:5: 叶片数量 Zj = 4、6、8(常用 Z=6)	n=10~300rpm v=4~10m/s	对直叶为: □ <5x10 ⁴ mPa · s	直叶、弯叶为径向流; 有挡板时, 对斜叶、弯叶为: □ 自桨叶为界形上、下两个循环流; 斜叶为兼有径向流和轴向流; 圆盘涡轮叶轮在其圆盘上下的液体混合不如开启涡轮	最高转速 n=600rpm;
	斜叶	A 斜桨叶斜角 □=45°、30° 后弯叶弯角 □=45°				
	后弯叶					
推进式	螺旋叶	Dj/Di=0.2~0.5(标准值为0.33); S/Dj=1、2 叶片数量 Zj=2、3、4 (常用 Z=3); Pt-螺距	n=100~500rpm v=3~15m/s	□<2000mpa · s	轴流型, 循环速率高, 剪切力小。 装有挡板或导流筒时, 轴向流更强	最高转速 n=1750rpm; 叶端高线速 v=25m/s; 在 n<500rpm 时, 适用介质粘度 □ ≤ 5X 10 ⁴ mPa · S

type	simple drawing	primary dimension	characteristic parameter			note
			common work condition	common medium viscosity extension(η)	liquid flow state	
disk turbine form	straight leaf	Dj/Di= 0 . 2 ~ 0 . 5 (normal value is 0.33); Dj:l:b=20:5:4 number leaf Zj = 4、6、8 (normal Z=6)	n=10~300rpm v=4~10m/s	to straight leaf: □<5x10 ⁴ mPa · s leaf v=2~6m/s	Flow along radial for straight leaf and curly leaf; two flows round up and down has been formed with baffle; both flow along radial and flow along axes has been formed for skew leaf; liquid is mixed better up and down the disk using opening turbine than using disk turbine.	upmost rotate speed n=600rpm;
	skew leaf	A bevel skew oar leaf □ = 4 5 ° 、 30°degree of retral curly leaf □=45°				
	retral curly leaf	β Dj/Di= 0.2~0.5(normal value is 0.33); S/Dj=1、2 number of leaf Z j = 2 、 3 、 4 (normal Z=3); Pt-pitch	n=100~500rpm v=3~15m/s	□<2000mpa · s	Flow along axes, high round speed, little cut power, strong flow along axes for baffle or canister leading flow.	upmost rataite speed n=1750rpm; high line speed at the end of leaf v=25m/s; Medium viscosity is point □ ≤ 5X 10 ⁴ mPa · S as n <500rpm
advance form	helix leaf					

搅拌器类型	搅拌器简图	主要尺寸	特性参数			备注
			常用运转条件	常用介质粘度范围(η)	液体流动状态	
锚式		D1/Di=0.9~0.98; b/Di=0.1; Hm/Di=0.48~1.0	n=1~100rpm; v=1~5m/s	η<10^5mPa · s	在桨叶不同高度上均为水平环向流；采用斜叶或角钢型叶时，可增加桨叶附近的涡流；锚式、框式叶轮均在层流状态下操作	为了增大搅拌范围，可根据需要在桨叶上增设立叶和横梁
螺带搅拌式器		Di/Di=0.9~0.98; S/Di=0.5, 1, 1.5; b/Di=0.1; Hm/Dj=1~3 (可根据液层高度增大) 螺带条数: 1, 2	n=0.5~50rpm; v=2m/s	η<10^5mPa · s	轴流型：一般是液体沿容器内壁螺旋上升后再沿轴下降；桨叶在层流状态下操作	
螺杆搅拌式器		Dj/Di=0.4~0.5; S/Dj=1, 1.5; Hm/Dj=1~3	n=0.5~50rpm; v=2m/s	η<10^5mPa · s	轴向流。带导流筒时，一般液体放入搅拌容器内，在导流筒内向下流，在导流筒外的环形空间向上流；桨叶在层流状态下操作	螺杆叶轮可偏心放入搅拌容器内，这时桨叶与容器内壁的间距< $\frac{1}{20}$ Dj, 容器壁能起到挡板的作用
布尔搅拌马金式		Dj/Di=0.2~0.5; b/Di=0.1; b=70; 桨叶数量 Zj=6, 8	n=10~300rpm	η<5x10^4mpa · s	径流型	桨叶端部加宽并有后弯角；排出液体性能好，动力消耗小，剪切力小

type	simple drawing	primary dimension	characteristic parameter			note
			common work condition	common medium viscosity extension(η)	liquid flow state	
anchor form		D1/Di=0.9~0.98; b/Di=0.1; Hm/Di=0.48~1.0	n=1~100rpm; v=1~5m/s	η<10^5mPa · s	It all is level round flow on the different height of oar leaf. It can add whirlpool near leaf when using skew leaf or angle iron leaf; impeller of anchor and frame forms has been worked in the condition of floor flow.	Horrent leaf and beam can be added as needed for extending milling area.
helix cincture form agitator		Di/Di=0.9~0.98; S/Di=0.5, 1, 1.5; b/Di=0.1; Hm/Dj=1~3 (augment according to liquid height); number of helix cincture 1, 2	n=0.5~50rpm; v=2m/s	η<10^5mPa · s	Flow along axes Liquid raises helix along inner case wall, then drops along shaft; oar leaf is worked in the condition of floor flow.	
		Dj/Di=0.4~0.5; S/Dj=1, 1.5; Hm/Dj=1~3	n=0.5~50rpm; v=2m/s	η<10^5mPa · s	Flow along axes Normal liquid has flowed down within canister leading flow, flowed up in round room outside canister leading flow. Oar leaf has been worked in the condition of floor flow.	Impeller of helix pole can be putted into milling case, distance of oar leaf and inner case wall less than $\frac{1}{20}$ Dj, case wall can exert action as baffle.
buermajin form agitator		Dj/Di=0.2~0.5; b/Di=0.1; b=70; number of oar leaf Zj=6, 8	n=10~300rpm	η<5x10^4mpa · s	Flow along radial	The end of oar leaf is widened and retral curly degree exist. It has good capability of venting liquid, small power wastage, little cut power.

搅拌器类型	搅拌器简图	主要尺寸	特性参数			备注
			常用运转条件	常用介质粘度范围(°)	液体流动状态	
三叶搅拌掠器式		D _j /D _i =0.5; b/H _m =2/5; h/D _i =0.05; β=30°、50°; 叶片上翘角: 15°~20°; 叶片数 Z _j =3	n=80~150rpm v<10m/s	□<10 ⁴ mPa · S	径流型: 搅拌容器内装配指形挡板时可获得上下循环流，循环量大 在挡板的配合下，剪切作用也大	最高叶端线速度 v=15m/s
MIG式(多层双倾斜桨叶)		D _j /D _i =0.5~0.95(标准值为0.7); 每个叶轮的桨叶数 Z _j =2 搅拌器容量 Z=2~3个(标准为3个); 叶轮间距 Sp=0.28D _i (标准值); 搅拌容器内设挡板的条件: D _j /D _i <0.7. 2~4 挡板; D _j /D _i >0.7: 无挡板	v=1~12m/s	□<10 ⁴ mPa · S	低速时水平环向流和轴向流: 高速时为径向流轴向流: 在每个斜桨叶外端增设一个与主桨叶反向倾斜的小桨叶; 桨叶前端有较强的涡流。可在层流区和湍流区操作 每个搅拌器为二个桨叶: 搅拌轴上一般装2~3个搅拌器(互成90°)	MIG式叶轮属于斜桨叶的改型，在每个斜桨叶外端增设一个与主桨叶反向倾斜的小桨叶; 桨叶前端有较强的涡流。可在层流区和湍流区操作 每个搅拌器为二个桨叶: 搅拌轴上一般装2~3个搅拌器(互成90°)
INTERMIG式MIG改型			流体的流动状态同 MIG 式搅拌器，桨叶外端的涡流更强，混合效果更好	INTERMIG式搅拌器属子 MIG 式搅拌器的改型，在斜主桨叶外端的小桨叶改为双斜叶小桨叶; 搅拌轴上的搅拌器数一般为 2~3 个(互成 90°)	INTERMIG式搅拌器属子 MIG 式搅拌器的改型，在斜主桨叶外端的小桨叶改为双斜叶小桨叶; 搅拌轴上的搅拌器数一般为 2~3 个(互成 90°)	
锯式搅拌圆盘式		D _j /D _i =0.2~0.5; v=5~20m/s	□<2000mpa · s	径流型。 在湍流状态下操作	径流型。	在湍流状态下操作

注: 表中通用符号的命名: n- 搅拌器转数 rpm; v- 搅拌器桨叶部的线速 m/s; Di- 搅拌容器内径; Dj- 搅拌器直径; S-螺旋形桨叶的螺距; β- 后弯桨叶的后弯角(°)。

type	simple drawing	primary dimension	characteristic parameter			note
			common work condition	common medium viscosity extension(°)	liquid flow state	
three-leaves retral curly form agitator		D _j /D _i =0.5; b/H _m =2/5; h/D _i =0.05; β=30°、50°; uphill turnup angle of leaf: 15°~20°; number of leaf Z _j =3	n=80~150rpm v<10m/s	□<10 ⁴ mPa · S	Radial flow form Flow round up and down can be formed when baffle as finger form is assembled within agitator, large circulation capacity, cut action is also large with baffle.	Upmost line speed at the end of leaf v=15m/s
Many floor double slantwise oar MIG agitator leaves		D _j /D _i =0.5~0.95 (normal value is 0.7); number of oar leaf in every impeller Z _j =2 capability of agitator Z=2~3 (normal value is 3); distance of impeller Sp=0.28D _i (normal value); condition of setting up baffle within agitator; D _j /D _i <0.7. 2~4 baffles; D _j /D _i >0.7; without baffle	v=1~12m/s	□<10 ⁴ mPa · S	Level round flow and axes flow as low speed; radial flow and axes flow as high speed. It has strong whirlpool in oar leaf front, it can work in floor flow area and onflow area.	MIG impeller belongs to skew oar leaf remodel, little oar leaf, contrary major oar leaf orientation, is setted up. There is two oar leaves in every agitator; there is usual 2-3 agitators on milling axes. (become 90° each other)
INTERMIG form MIG remodeled		Flow state of liquid is same to MIG agitator. Whirlpool outside oar leaf is still strong, mixing effect is still good.				INTERMIG agitator belongs to MIG agitator remodel. Little oar leaf outside skew major oar leaf is changed into double skew little oar leaf. There is usual 2-3 agitators on milling axes. (become 90° each other)
Toothed disk agitator		D _j /D _i =0.2~0.5; v=5~20m/s	□<2000mpa · s	Radial flow form It is worked in the condition of onflow		

Note: Call of universal symbol in list: n—rotate speed of agitator, rpm; v—line speed of agitator leaf, m/s; Di—inside diameter of agitator; Dj—diameter of agitator; S—pitch of helix oar leaf; β—degree of retral curly oar leaf (°)

2、搅拌器在搅拌容器中的位置尺寸关系

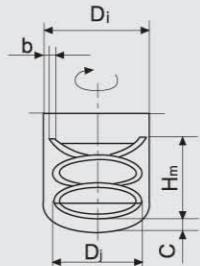
搅拌器在搅拌容器中的位置尺寸关系

搅拌器类型	搅拌容器和搅拌器简图	位置尺寸比例
桨式		$C = (0.15 \sim 0.25)D_i$ $S_p = (0.3 \sim 0.4)D_i$ $W_b = (\frac{1}{12} - \frac{1}{10})D_i$ (standard value: $\frac{1}{12}D_i$) $S_b = (0.2 \sim 0.5)W_b$ (standard value: $0.2W_b$) $H_i = D_i$ (standard value) 当 H_i 远大于 D_i 时，应采用多层搅拌器
锚式框式		$C = (0.03 \sim 0.06)D_i$ $S_b = 0.0275D_i$ (for flat bottom propeller agitator) $S_b = 0.06D_i$ (for semi-circular bottom propeller agitator) $H_i = D_i$ (standard value)
开启圆盘涡轮式		$C = (0.5 \sim 1)D_i$ (for opening disk turbine form agitator) $C \approx D_i$ (for flat bottom propeller agitator) $S_p = (1 \sim 1.5)D_i$ $W_b = (\frac{1}{12} - \frac{1}{10})D_i$ (standard value: $1/12D_i$) $S_b = (0.2 \sim 0.5)W_b$ (standard value: $0.2W_b$) $H_i = D_i$ (standard value) 当 H_i 远大于 D_i 时，应采用多层搅拌器
推进式		$C = (1 \sim 1.5)D_i$ (standard value: $C = D_i$) $W_b = 0.1D_i$ $S_b = 0$ (无间隙) $H_i = D_i$ (standard value)
三叶后掠式		$C = (0.1 \sim 0.3)D_i$ $H_i = D_i$ (standard value)

2. Relation of place dimension for agitator within case

Relation of place dimension

Type	Simple drawing of case and agitator	Scale of place dimension
oar form		$C = (0.15 \sim 0.25)D_i$ $S_p = (0.3 \sim 0.4)D_i$ $W_b = (\frac{1}{12} - \frac{1}{10})D_i$ (normal value: $\frac{1}{12}D_i$) $S_b = (0.2 \sim 0.5)W_b$ (normal value: $0.2W_b$) $H_i = D_i$ (normal value) Many floor agitator should be used when H_i bigger than D_i
anchor and frame form		$C = (0.03 \sim 0.06)D_i$ $S_b = 0.0275D_i$ (for anchor and frame form agitator with level bottom oar leaf) $S_b = 0.06D_i$ (for anchor and frame form agitator with fox bottom oar leaf) $H_i = D_i$ (normal value)
opening turbine form disk turbine form		$C = (0.5 \sim 1)D_i$ (for opening turbine form agitator) $C \approx D_i$ (for disk turbine form agitator) $S_p = (1 \sim 1.5)D_i$ $W_b = (\frac{1}{12} - \frac{1}{10})D_i$ (normal value: $1/12D_i$) $S_b = (0.2 \sim 0.5)W_b$ (normal value: $0.2W_b$) $H_i = D_i$ (normal value) Many floor agitator should be used when H_i bigger than D_i
advance form		$C = (1 \sim 1.5)D_i$ (normal value: $C = D_i$) $W_b = 0.1D_i$ $S_b = 0$ $H_i = D_i$ (normal value)
three-leaves retral curly form		$C = (0.1 \sim 0.3)D_i$ $H_i = D_i$ (normal value)

Type	Simple drawing of case and agitator	Scale of place dimension
螺带式 helix cincture agitator		$C=(0.01\sim0.05)D_i$

3、搅拌器选形 Form selection of agitator

(1)最适宜的搅拌器端部的圆周速度 Optimum circle speed at the end of agitator

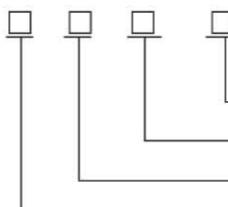
Type	被搅拌介质的粘度 medium viscosity mPa·s	适宜的搅拌器端部 圆周速度.m/s circle speed	最高转速 rpm upmost rotate speed
桨式、框式、锚式 oar, frame and anchor form	1~4000	3.0~2.0	< 80
	4000~8000	2.5~1.5	
	8000~15000	1.5~1.0	
涡轮式 turbine form	1~5000	7~4.2	< 540
	5000~15000	4.2~3.4	
	15000~25000	3.4~2.3	
推进式 advance form	1~2000	4.8~16	< 800

(2)搅拌器形式选择 Form selection of agitator

搅拌器形式选用表 selection list

工艺过程类别 type of technics process	控制因素 control factor	适用搅拌器形式 form in point	Di/Dj	Hi/Di
调和 congruity (低粘度均相液体混合) low viscosity symmetrical phasic liquid mixed	容积循环速率 cubage round speed	推进式 advance form 涡轮式 turbine form	推进式 advance form:4:1~3:1 涡轮式 turbine form:6:1~3:1	不限
分散 decentralization (非均相液体混合) asymmetrical phasic liquid mixed	液滴大小 (分散度) liquid drop bulk decentralization degree	涡轮式 turbine form	3.5:1~3:1	1:1~1:2
固体悬浮 solid suspended	容积循环速率 cubage round speed 容积循环速率, 湍流强度 cubage round speed onflow strong	按固体粘度、含量及比重选用下列三种: 桨式、推进式或涡轮式 select next three types according to solid viscosity	推进式 advance form: 2.5:1~3.5:1 桨式或涡轮式 oar or turbine form: 2.0:1~3.2:1	1:2~1:1
气体吸收 gas absorbed	剪切作用, 容积循环速率, 高速度 cut action, cubage round speed, high speed	涡轮式 turbine form	2.5:1~4.0:1	4:1~1:1
传热 transmit heat energy	容积循环速率, 流经传热面的湍流速度 cubage round speed, onflow speed of flowing across transmit heat energy surface	桨式 oar form 推进式 advance form 涡轮式 turbine form	桨式 oar form:1.25:1~2:1 推进式 advance form:3:1~4:1 涡轮式 turbine form:3:1~4:1	1:2~2:1

4、搅拌器型号标注方法 Earmark procedure of agitator mode



材料代号 Material code
搅拌器轴孔径 Hole diameter of agitator axes
搅拌器的外径 Outside diameter of agitator
搅拌器型式代号 (见搅拌器型号一览表)
Mode code of agitator (see mode list of agitator)

5、搅拌器型号一览表 Mode list of agitator

序号 No.	搅拌器型式名称 mode name	代号 code	序号 No.	搅拌器型式名称 mode name	代号 code
001	平直叶整体桨式 (HG5-220-65) even straight leaf holistic oar form	PJ	020	六直叶可拆开启涡轮式 SB90-283 six straight leaves knock-down opening turbine form	PCK
002	平直叶可拆桨式 (HG5-220-65) even straight leaf knock-down oar form	PCJ	021	六直叶稳定环开启涡轮式 six straight leaves steady ring opening turbine form	PKW
003	斜叶整体桨式 SB90-278 skew leaf holistic oar form	XJ	022	六窄叶整体开启涡轮式 SB90-286 six confined leaves holistic opening turbine form	PZK
004	斜叶可拆桨式 SB90-279 skew leaf knock-down oar form	ZJ	023	六窄叶可拆开启涡轮式 SB90-287 six confined leaves knock-down opening turbine form	PKZ
005	E型折叶桨式 E type two-double leaf oar form	EJ	024	六窄叶稳定环开启涡轮式 six confined leaves steady ring opening turbine form	PZW
006	E型折叶可拆桨式 E type two-double leaf knock-down oar form	ECJ	025	六弯叶开启涡轮式 six curly leaves opening turbine form	WK
007	G型折叶桨式 G type two-double leaf oar form	GJ	026	六弯叶开启涡轮式 six curly leaves opening turbine form	WZK
008	G型折叶可拆桨式 G type two-double leaf knock-down oar form	GCJ	027	六弯叶稳定环开启涡轮式 six curly leaves steady ring opening turbine form	WKW
009	S型双折叶桨式 S type bidirectional two-double leaf oar form	SJ	028	六斜窄叶稳定环开启涡轮式 six skew confined leaves steady ring opening turbine form	WWK
010	S型双折叶可拆桨式 S type bidirectional two-double leaf knock-down oar form	SCJ	029	六斜叶整体开启涡轮式 SB90-284 six skew leaves holistic opening turbine form	XK
011	C型双折叶桨式 C type bidirectional two-double oar form	CJ	030	六斜叶可拆开启涡轮式 SB90-285 six skew leaves knock-down opening turbine form	XKK
012	C型双折叶可拆桨式 C type bidirectional two-double knock-down oar form	CCJ	031	六斜叶稳定环开启涡轮式 six skew leaves steady ring opening turbine form	XKW
013	曲边斜叶整体桨式 curly edge skew leaf holistic oar form	QJ	032	六斜窄叶整体开启涡轮式 six skew confined holistic opening turbine form	XZK
014	曲边斜叶可拆桨式 curly edge skew leaf knock-down oar form	QCJ	033	六斜窄叶可拆开启涡轮式 six skew confined knock-down opening turbine form	XKZ
015	菱臂弧叶整体桨式 rhombic arm fox leaf holistic oar form	BJ	034	六斜窄叶稳定环开启涡轮式 six skew confined steady ring opening turbine form	XZW
016	菱臂弧叶可拆桨式 rhombic arm fox leaf knock-down oar form	BCJ	035	四斜叶整体开启涡轮式 four skew leaves holistic opening turbine form	MK
017	花板孔整体桨式 motley board-hole holistic oar form	FJ	036	四斜叶可拆开启涡轮式 four skew leaves knock-down opening turbine form	XCK
018	花板孔可拆桨式 motley board-hole knock-down oar form	FCJ	037	四斜叶整体稳定器开启涡轮式 four skew leaves holistic stabilizer opening turbine form	MKW
019	六直叶整体开启涡轮式 SB90-282 six straight leaves holistic opening turbine form	PK	038	四斜叶可拆稳定器开启涡轮式 four skew leaves knock-down stabilizer opening turbine form	XCW

序号 No.	搅拌器型式名称 mode name	代号 code
039	四斜窄叶整体开启涡轮式 four skew confined leaves holistic opening turbine form	NK
040	四斜窄叶可拆开启涡轮式 four skew confined leaves knock-down opening turbine form	NCK
041	四斜窄叶整体稳定器开启涡轮式 four skew confined leaves holistic stabilizer opening turbine form	NKW
042	四斜窄叶可拆稳定器开启涡轮式 four skew confined leaves knock-down stabilizer opening turbine form	NCW
043	四叶T型开启涡轮式 four leaves T type opening turbine form	TCK
044	三斜窄叶整体开启涡轮式 three skew confined leaves holistic opening turbine form	YK
045	三斜窄叶可拆开启涡轮式 three skew confined leaves knock-down opening turbine form	YCK
046	三斜叶整体稳定器开启涡轮式 three skew leaves holistic stabilizer opening turbine form	YKW
047	三斜叶可拆稳定器开启涡轮式 three skew leaves knock-down stabilizer opening turbine form	YCW
048	三斜窄叶整体开启涡轮式 three skew confined leaves holistic opening turbine form	ZK
049	三斜窄叶可拆开启涡轮式 three skew confined leaves knock-down opening turbine form	ZCK
050	三斜窄叶整体稳定器开启涡轮式 three skew confined leaves holistic stabilizer opening turbine form	ZKW
051	三斜窄叶可拆稳定器开启涡轮式 three skew confined leaves knock-down stabilizer opening turbine form	ZCW
052	平直叶圆盘涡轮式 HG5-221-65 even straight leaf disk turbine form	PY
053	平直叶对开圆盘涡轮式 SB90-280 even straight leaf folio disk turbine form	PDY
054	斜叶圆盘涡轮式 SB90-281 skew leaf disk turbine form	ZY
055	斜叶对开圆盘涡轮式 skew leaf folio disk turbine form	ZDY
056	弯叶圆盘涡轮式 curly leaf disk turbine form	WY
057	弯叶可拆圆盘涡轮式 curly leaf knock-down disk turbine form	WCY
058	弯叶对开圆盘涡轮式 curly leaf folio disk turbine form	XDY
059	弯叶可拆对开圆盘涡轮式 curly leaf knock-down folio disk turbine form	WKY
060	螺距叶圆盘涡轮式 pitch leaf disk turbine form	LY
061	螺距叶可拆圆盘涡轮式 pitch leaf knock-down disk turbine form	LCY
062	螺距叶对开圆盘涡轮式 pitch leaf folio disk turbine form	LDY
063	螺距叶可拆对开圆盘涡轮式 pitch leaf knock-down folio disk turbine form	LKY
064	半圆弧圆盘涡轮式 half fox disk turbine form	HY
065	半圆弧可拆圆盘涡轮式 half fox knock-down disk turbine form	HCY
066	半圆弧对开圆盘涡轮式 half fox folio disk turbine form	HDY
067	半圆弧可拆对开圆盘涡轮式 half fox knock-down folio disk turbine form	HKY
068	箭叶圆盘涡轮式 arrow leaf disk turbine form	JY
069	箭叶可拆圆盘涡轮式 arrow leaf knock-down disk turbine form	JCY

序号 No.	搅拌器型式名称 mode name	代号 code
070	箭叶对开圆盘涡轮式 arrow folio disk turbine form	JDY
071	箭叶可拆对开圆盘涡轮式 arrow knock-down disk turbine form	JKY
072	平齿形圆盘涡轮式 even tooth disk turbine form	CY
073	翻齿形圆盘涡轮式 turnover tooth disk turbine form	FY
074	贴齿形圆盘涡轮式 adnate tooth disk turbine form	TY
075	三叶左旋推进式 SB90-290 SB90-291 three revolved left leaves advance form	TXL
076	三叶右旋推进式 HG-222-65 three revolved right leaves advance form	TXR
077	三叶左旋稳定环推进式 three revolved left leaves steady ring advance form	TWL
078	三叶右旋稳定环推进式 three revolved right leaves steady ring advance form	TWR
079	三叶左旋导流筒推进式 three revolved left leaves leading flow canister advance form	TVL
080	三叶右旋导流筒推进式 three revolved right leaves leading flow canister advance form	TVR
081	三叶焊接左旋推进式 three welding revolved left leaves advance form	HXL
082	三叶焊接右旋推进式 three welding revolved right leaves advance form	HXR
083	三叶焊接左旋稳定环推进式 three welding revolved left leaves steady ring advance form	HWL
084	三叶焊接右旋稳定环推进式 three welding revolved right leaves steady ring advance form	HWR
085	三叶焊接左旋导流筒推进式 three welding revolved left leaves leading flow canister advance form	HVL
086	三叶焊接右旋导流筒推进式 three welding revolved right leaves leading flow canister advance form	HVR
087	三叶可调左旋推进式 three adjustable revolved left leaves advance form	TTL
088	三叶可调右旋推进式 three adjustable revolved right leaves advance form	TTR
089	三叶可拆左旋推进式 three knock-down revolved left leaves advance form	TCL
090	三叶可拆右旋推进式 three knock-down revolved right leaves advance form	TCR
091	高效轴流旋桨左旋式 high efficiency flow revolving oar revolved left	GXL
092	高效轴流旋桨右旋式 high efficiency flow revolving oar revolved right	GXR
093	四叶左旋推进式 four revolved left advance form	SXL
094	四叶右旋推进式 four revolved right advance form	SXR
095	四叶左旋稳定环推进式 four revolved left leaves steady ring advance form	SWL
096	四叶右旋稳定环推进式 four revolved right leaves steady ring advance form	SWR
097	四叶左旋导流筒推进式 four revolved left leaves leading flow canister	SVL
098	四叶右旋导流筒推进式 four revolved right leaves leading flow canister	SVR
099	三宽叶整体旋桨式 three wide leaves holistic revolving oar form	KHX
100	三宽叶可拆旋桨式 three wide leaves knock-down revolving oar form	KCX

序号 No.	搅拌器型式名称 mode name	代号 code	序号 No.	搅拌器型式名称 mode name	代号 code
101	三宽叶稳定环旋桨式 three wide leaves steady ring revolving oar form	KWY	123	带导流筒螺杆式 helix pole with leading flow canister	LGH
102	三窄叶整体旋桨式 three confined holistic revolving oar form	ZHX	124	螺带式 helix cincture form	LD
103	三窄叶可拆旋桨式 three confined knock-down revolving oar form	ZCX	125	螺带螺杆式 helix cincture and helix pole form	LDG
104	三窄叶稳定环旋桨式 three confined steady ring revolving oar form	ZWX	126	锥底螺带式 fastigiate bottom helix	ZLD
105	四宽叶可拆旋桨式 four wide leaves knock-down revolving oar form	KSX	127	锥底螺带螺杆式 fastigiate bottom helix cincture and helix pole form	ZLG
106	四窄叶可拆旋桨式 four confined leaves knock-down revolving oar form	ZSX	128	椭圆底框 HG5-757-78 elliptical bottom pane form	KS
107	三叶后齿左旋式 three back tooth leaves revolved left form	CL	129	直角锥底框式 square fastigiate bottom pane form	KSA
108	三叶后齿右旋式 three back tooth leaves revolved right form	CR	130	钝角锥底框式 an obtuse angle fastigiate bottom pane form	KSB
109	三叶后齿可拆左旋式 three back tooth leaves knock-down revolved left form	CCL	131	锚式 anchor form	MS
110	三叶后齿可拆右旋式 three back tooth leaves knock-down revolved right form	CCR	132	搪玻璃专用锚式 anchor for spreading over glass	TS
111	三叶翘曲左旋式 three warp leaves revolved left form	QL	133	锚框式 anchor pane form	MKS
112	三叶翘曲右旋式 three warp leaves revolved right form	QR	134	锚带式 anchor cincture form	MDS
113	三叶翘曲可拆左旋式 three warp leaves knock-down revolved left form	QCL	135	方框式 pane form	FKS
114	三叶翘曲可拆右旋式 three warp leaves knock-down revolved right form	QCR	136	方栅式 quadrade pale form	FSS
115	三叶刮板式 three frame leaves scraping board	KG	137	板框式 board pane form	BKS
116	三叶后掠整体式 three retral curly leaves holistic form	HQ	138	消泡叶轮 banish froth impeller	XPJ
117	三叶后掠可拆式 three retral curly leaves knock-down form	HCQ	139	消泡桨 banish froth oar	XPJ
118	四叶后掠整体式 four retral curly leaves holistic form	SQ	140	泵型曝气机 pump leak gas machine	BAY
119	四叶后掠可拆式 four retral curly leaves knock-down form	SCQ	141	伞型曝气机 umbrella leak gas machine	BDY
120	三叶锥底平桨式 three leaves fastigiate bottom even oar form	SZP	142	翼盘型曝气机 aerofoil leak gas machine	BQY
121	布尔马金式 buermajin form	BM	143	整体式稳定环 holistic steady ring	WH
122	螺杆式 helix pole form	LG	144	对开式稳定环 folio steady ring	WF



双级摆线针轮减速器
double stage cycloidal pin wheel decelerator



单级立式摆线针轮减速器(带 JA 支架)
single stage vertical cycloidal pin wheel decelerator (with JA frame)



JXLD 型新型机架
JXLD type new frame



JA 型机架
JA type frame



FZ 型双支点方底板机架
FZ type double-support quadrate frame



XDJ 型机架 (HG21566)
XDJ type frame



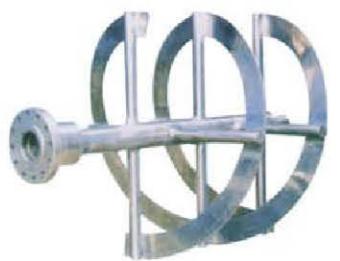
DJ 型机架
DJ type frame



JXLD 型机架
JXLD type frame



SJ130 双支点机架
带 □150mm 搅拌轴
SJ130 double-support frame
with □150mm mixer axle



螺带式搅拌器
Helix cincture type beater



SZ型底轴承
SZ type bottom bearing



非标搅拌器
Nonstandard beater



移动可调高速搅拌机
Floating adjustable high-speed blender



高速搅拌机
high-speed blender



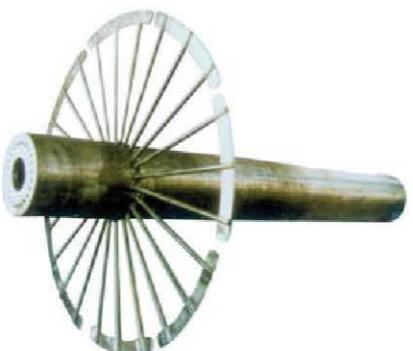
KJ 系列可移式搅拌机
KJ series floating blender



高速搅拌机
High-speed blender



底入式搅拌机
bottom-entrance blender



搅拌器
Beater

