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YCZ系列标准化工流程泵

YCZ Series Standard Chemical Process Pump



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YCZ
系列标准化工流程泵

■ 概述

YCZ型离心式化工泵是引进国外先进技术并升级改造。结构形式为卧式、单级、单吸离心泵；其尺寸和性能符合DIN24256/ISO2858、GB5662-85系列。同时参照API610的相关标准要求，将YCZ标准化工流程泵的密封腔尺寸、结构、辅助管路系统、运行间隙、轴承配置、轴的刚性、过流部件材质的控制等都进行了改进，进一步提高了化工流程泵的安全可靠性。

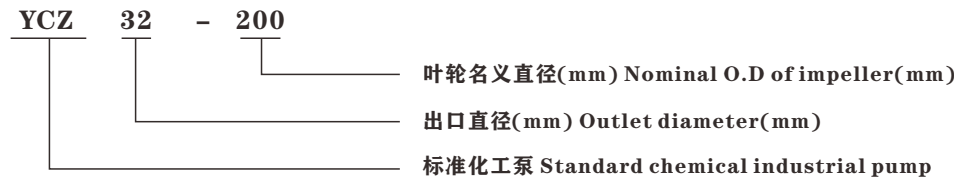
YCZ系列标准化工泵的性能范围包括了IH系列标准化工泵所有性能，其效率、汽蚀性能等指标均超过IH泵，并可与IH和CZ等泵进行单机互换，全系列总共40个型号，近300个规格品种，并采用6中轴承悬架部件，结构经典可靠，零部件互换性好，能满足各种工况

■ General

Model YCZ centrifugal chemical pump is a single-stage single-suction horizontal one made by means of introducing the foreign advanced know-how and updated reforming and both dimensions and performance of it conform to DIN24256/ ISO2858, GB5662-85 series. Meanwhile, the size of the sealing cavity, structure, assistant pipeline system, running interval, bearing allocation, shaft rigidity, control of the materials of the flow-passing parts etc. aspects with YCZ standard chemical process pump have been improved by referring to the related requirements in API610, further enhancing both safety and reliability of the pump.

For LQCZ standard chemical pump, the range of its performance covers the all performances of IH series standard chemical pump and its efficiency and cavitation performance etc. all indexes surpass those of IH pump and can be interchanged individually with IH and CZ pumps. With the whole series there are 40 models, about 300 specifications and 6 kinds of the bearing suspension tackle. It features a classic and reliable structure and a good interchangeability between the parts and can meet with the

■ 型号说明 About the model



■ 用途 Purpose

输送低温或高温液体；中性或有腐蚀性液体；清洁或含有固体颗粒的液体。通常应用于：

■化学和石油化工学工业 ■炼油厂 ■纸厂和纸浆业 ■制糖业 ■冶金 ■电站 ■食品

■制药 ■合成纤维 ■供水 ■海水淡化 ■环保 ■供热和空气调节

To transport either low or high temperature liquids; neutral or corrosive liquids; pure liquids or liquids containing solid grains.

Usually applied for:

■Chemical and petrochemical industries ■Oil refinery plants ■Paper manufacturer and paper pulp industry

■Sugar industry ■Metallurgy ■Electric station ■Food ■Pharmacy ■Synthetic fiber

■Water supply ■Seawater desalting ■Environmental protection ■Heat supply and air-conditioning

■ 性能

口径	DN	32-300(350)mm
流量	Q	可达2000m³/h
扬程	H	可达160m
工作压力	P	2.5MPa
工作温度	t	-30℃-+170℃

特性曲线平坦。汽蚀值低，效率高。在不满负荷时，也保持这些特性。

■ 设计特点

叶轮采用闭式叶轮，泵体采用底脚支撑结构，作用于轴封处的压力由副叶片或叶轮上的平衡孔平衡。轴封即可采用软填料密封，也可采用各种结构的单、双端面机械密封，（如用户有要求可采用集装式密封）。密封腔体有夹套冷却结构可通过冷却水冷却或通蒸汽加热和保温。滚柱轴承经久耐用，并在轴承悬架内采用稀油润滑，轴径尺寸充裕，以保证运行平稳。大规格的泵体设计成双蜗壳体，以平衡径向力，使泵运行平稳、振动小。轴承架，包括轴、叶轮、填料函等形成一个组合部件，使泵体在维修时不须从管道上拆下（如果采用加长联轴器时，电机也不必拆下），如受安装条件所限，也可根据用户要求，不加中间联轴器。法兰设计常规采用GB9113.1，2.5MPa、RF形式或ANSI(class150)法兰和HG20618-97 2.0MPa。LQCZ系列标准化工流程泵可配用Y、Y2或YB、YB2系列电机（380V，50Hz），B3安装方式，同型号泵在不同的使用工况（不同的轴功率）可以选配不同功率的电机或按用户要求配套指定型号电机。其他方面特点还有如下内容：

YCZ标准化工流程泵的技术条件符合ISO5199/EN25199标准，泵运行安全可靠性强，通用性强，适用范围广，同时执行工业流程泵的结构标准，后拉式设计，泵拆装维修安全方便，维护检修费用低；

■ Performance

Aperture	DN	32-300(350)mm
Flow	Q	up to 2000m³/h
Head	H	up to 160m
Working pressure	P	2.5MPa
Working temperature	t	-30℃-+170℃

Flat performance curve, low vapour corrosion value, high efficiency, which are also kept under a non-full load.

■ Design featurese

Use a closed impeller and, for the pump casing, a foot supported structure, and the pressure acting at the shaft seal is made balanced by a secondary blade or the balancing hole on the impeller. The shaft seal can be either a soft packing one or a single or double end-face mechanical one of various structures (a packaged seal can also be used if so required by users). Inside of the sealing cavity there is a jacket cooling structure, which can be cooled by cooling water or heated and insulated with steam getting through. The durable cylindrical bearing, the thin-oil lubricated bearing suspension tackle and the sufficient size of the shaft ensures a stable work. The large-scale pump casing is designed to be a dual-volute body, used for balancing the radial force, leaving a stable movement and a small vibration when the pump is at work. The bearing holder, together with the shaft, impeller, packing box etc., forms a combined part and thus making it unnecessary to remove the pump casing from the pipeline at repair (neither the motor, if an extended clutch is used). The intermittent clutch can be unfitted, if so required by users, in case of a limited installation condition). The flange design usually adopts GB9113.1, 2.5MPa, RF form or ANSI (class 150) flange and HG20618-97, 2.0MPa. LQCZ series standard chemical process pump can be completed with Y, Y2 or YB, YB2 series motor (380V, 50Hz) and installed in B3 mode. In different working conditions (different shaft powers), pumps of the same model can be completed with motors of different powers or those of the user appointed models. The features at other aspects come as below:

The technical conditions of YCZ standard chemical process pump conform to the standards of ISO5199/EN25199, leaving safe and highly reliable work, a powerful universality and a wide range of application. The structure standard as an industrial process pump and the pull-back design makes the pump removal and repair safe and easy and both maintenance and overhaul a low cost. The rigid design of the pump shaft and both heavy cylindrical roller and paired dual-linked angle-contacted ball bearing used with the pump makes the pump capable of bearing a heavier radial or

泵轴刚性设计，选用重型圆柱滚子或成对双联角接触球轴承，即可以承担较大的径向载荷和轴向载荷，使泵轴整体刚性加强，同时叶轮作动平衡检验和校正，泵运行振动小、噪音低，对轴封和轴承的使用寿命非常有利；

YCZ标准化工流程泵的轴为干式结构设计，叶轮由叶轮螺母和轴套一起固定在轴上，叶轮螺母与叶轮之间、叶轮与轴套之间均有密封垫，在正常的使用条件下，泵轴与所输送介质不接触，不受介质的腐蚀，进一步提高了泵运行的安全可靠性；

YCZ标准化工流程泵采用整体铸造闭式叶轮，对使用工况适应性强，具有最高效率及最优德汽蚀性能，叶轮带标准的背叶片或平衡孔，可减少轴向推力和密封室压力，延长密封及轴承的使用寿命。

泵体顶部中心线出口和泵脚支撑，具有最大的抗管道负荷能力，大流量高扬程泵体流道的双蜗壳设计，径向力小，动挠度小，泵运行平稳，泵壳腐蚀量大，而且有可更换的磨损环，最大限度地提高了泵的耐腐蚀性并延长泵的使用寿命；

托架轴承箱大容量的储油罐、并使用恒油位计和磁性安全透气塞，可以保证轴承的润滑和冷却效果，轴承箱两侧的油封为迷宫密封，使用周期长，安全可靠、结构简单，可使轴承箱内的润滑油保持清洁；

YCZ标准化工流程泵选用金属膜片式联轴器，重量轻，动平衡型号，能够自动补偿机组轴的位移，运转平稳噪音低而且节能；

泵和电机安装在一个公共的底座上，底座尺寸符合ISO3661标准，一般采用焊接底座（桁架焊接结构），特殊要求时也可用铸造底座。机加工的泵和电机安装面便于电机和泵的同心度校准，底座刚性好，抗变形，安装容易；

LQCZ标准化工流程泵机械密封的辅助管路系统符

axial load and the integral rigidity of the pump shaft reinforced and, with the impeller inspected and corrected at the dynamic balance at the same time, the pump movement a small vibration and a low noise, greatly helpful to the duration of both shaft seal and bearing.

For YCZ standard chemical process pump, the shaft is dry-structure designed, the impeller is fixed, together with the muff, on the shaft by the impeller nut and a sealing gasket is set in between both impeller and impeller nut and between both impeller and muff. The pump shaft will not be contacted with the medium being transported in the normal condition of use, so it will not be corroded therefrom, making it safer and more reliable at work.

YCZ standard chemical process pump adopts an integrally cast closed impeller, it is powerful suitable to the used working condition and holds the maximum efficiency and the best cavitation performance. With a standard back blade or balancing hole set with the impeller, it is possible to reduce the axial push-force and the pressure in the sealing chamber and extend the duration of both seal and bearing.

Both exit at the central line on the top of the pump casing and pump foot support hold a maximum capacity of pipeline load resisting and the dual-volute design with the runner of a heavy-flow high-head pump casing leaves a small radial force, a small dynamic flexibility, stable pump movement, a heavy corrodible amount with the pump casing and, available with a replaceable wear-ring, the pump corrosion resistance is made enhanced to the utmost extent and the pump duration is extended.

The oil storing tank of a big volume with the bracket bearing box and both constant oil leveler and magnetic safety venting plug can make sure of the bearing lubricating and cooling effect. The oil seals on both sides of the bearing box are labyrinth seals, which hold a long period of use and a simple structure, are safe and reliable and can have the lubricating oil inside of the bearing box kept cleaned.

YCZ standard chemical process pump adopts a metal membrane clutch, leaving a light weight, a good dynamic balancing performance, an automatic compensation for the displacement of the unit shaft, stable movement with low noise and energy-saving.

Both pump and motor are mounted on one common foundation, the dimension of which conform to ISO3661, and usually a welded foundation (a girder welded structure) is adopted but a cast one can also be used in case of a special requirement. The machined installation surfaces of both

过流部分主要零部件材料

YCZ标准化工流程泵过流部分的主要零件是指泵体、泵盖和叶轮等。这些零部件与输送介质接触，受介质腐蚀，承担介质的压力和热负荷，这些零件的材质对泵的安全可靠运行非常重要，因此要根据输送的介质和使用工况的不同，要选择合适的过流部件材质，在订货时，请用户能提供所输送介质的详细情况或指出明确的材质要求。YCZ标准化工流程泵过流部分的主要零件通常有以下四种材料供选择（表中列出了中国、美国、德国常用材料代号之间的关系）。也可以根据用户需要，选用合适制造化工流程泵的其他材料（所选材料及代号

材料名称 Material	中国钢号 Steel grade of China	美国钢号 Steel grade of USA		德国钢号 Steel grade of Germany		材料代号 Code of material
	GB	ASTM	UNS	DIN	W-Nr.	
不锈钢 Stainless steel	0Cr18Ni9	304	S30400	X5CrNi18 10	1.4301	I
	0Cr17Ni12Mo2	316	S31600	X5CrNiMo17 12 2	1.4401	II
	00Cr17Ni14Mo2	316L	S31603	X2CrNiMo18 14 3	1.4435	II
铸钢 Cast steel	ZG230-450	450-240	J03101	GS-45	1.0446	IV

过流部件材质与泵使用工作压力、温度的关系

Relationship between the materials of the flow-passing components and both working pressure and temperature used with the pump

材料 Material		材料代号 Code of material	工作压力（MPa） Working pressure	工作温度（℃） Working temperature	实验压力（MPa） Experimental pressure
不锈钢 Stainless steel	304 316 316L	I II	1.6	-30~170	2.7
铸钢 Cast steel	ZG230-450	IV	2.5	-30~170	3.75

泵最大工作压力Pd小于泵的允许使用压力[Pd]时，泵才能安全运行。

泵最大工作压力Pd的计算如下式：

$$P_d = P_z + H_o / 10(\text{bar})$$

Pz：泵的进口压力(bar)

Ho：泵的关闭扬程(m)

ρ：介质的比重(kg/dm³)

泵的允许使用压力可从下面的“压力与温度极限”图

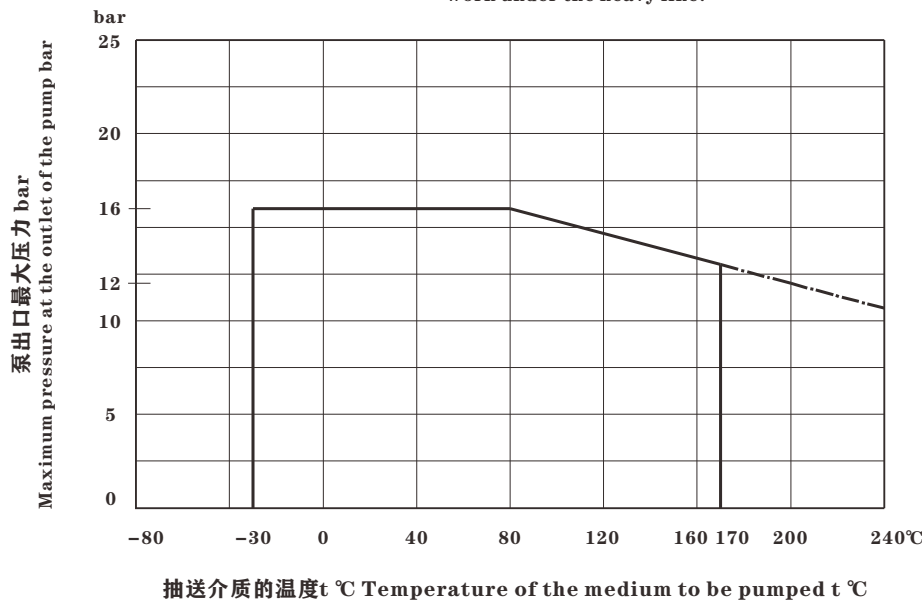
Materials of he main parts in the flow-passing portion

These main parts mean the pump casing, pump cover and impeller. They are contacted with the medium being transported and subjected to corrosion of it and bear both pressure and hot load of it. The materials of these parts leave a great importance to the pump's safe and reliable work and it is therefore necessary to select proper materials for the flowpassing components upon different media and working conditions and for the users at order to provide the details about the medium to be transported or note the required materials definitely. For these main parts, there are four kinds of material usually available for your choice (listed in the table below, and the relationship between the common material codes of China, USA and Germany as well). Other materials proper to make the chemical process pump can also be selected upon necessity (the material and its

材料的压力和温度使用极限 Limits at use of the material pressure and temperature

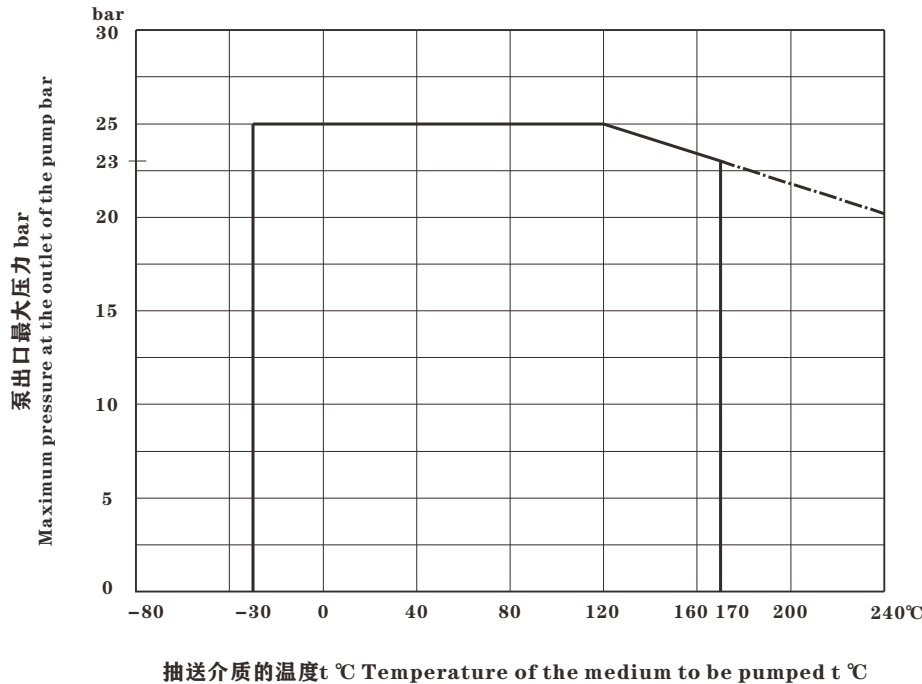
过流部分主要零件的材质为304、316、316L时，泵使用温度和压力的极限图，在粗实线以下是安全的。

The following chart shows the limits of both pressure and temperature for the pump to work when the materials of the main parts in the flowpassing portion are 304, 316 and 316L and the pump can be safely to work under the heavy line.

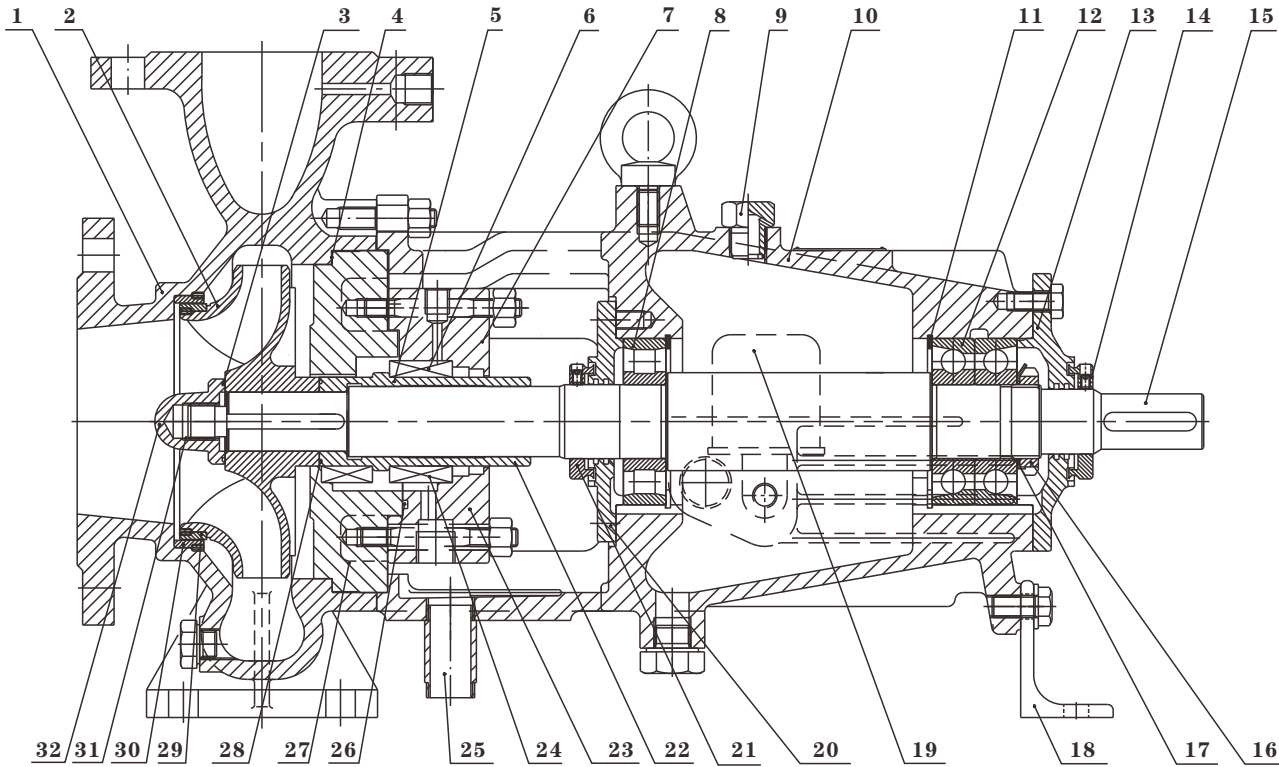


过流部分主要零件的材质为ZG23-450时，泵使用温度和压力的极限图，在粗实线以下使用是安全的。

The following chart shows the limits of both pressure and temperature for the pump to work when the materials of the main parts in the flow-passing portion are ZG230-450 and the pump can be safely to work under the heavy line.

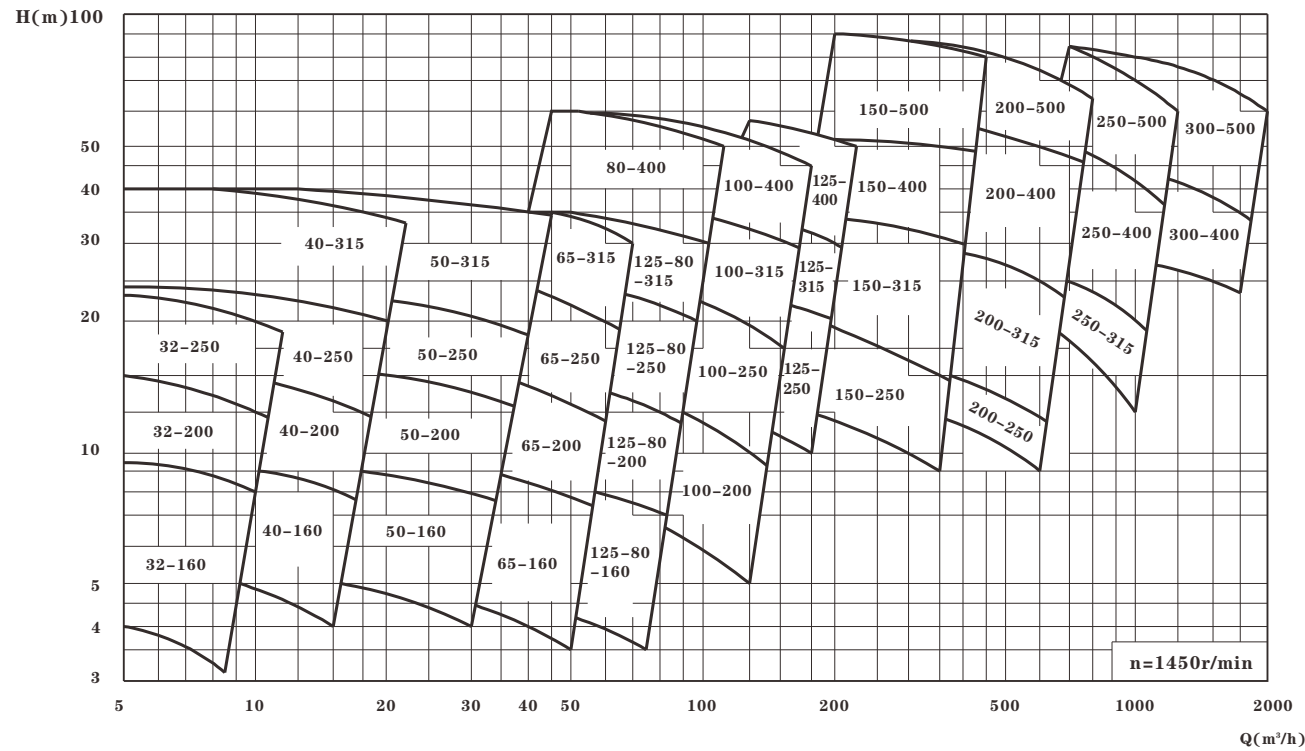
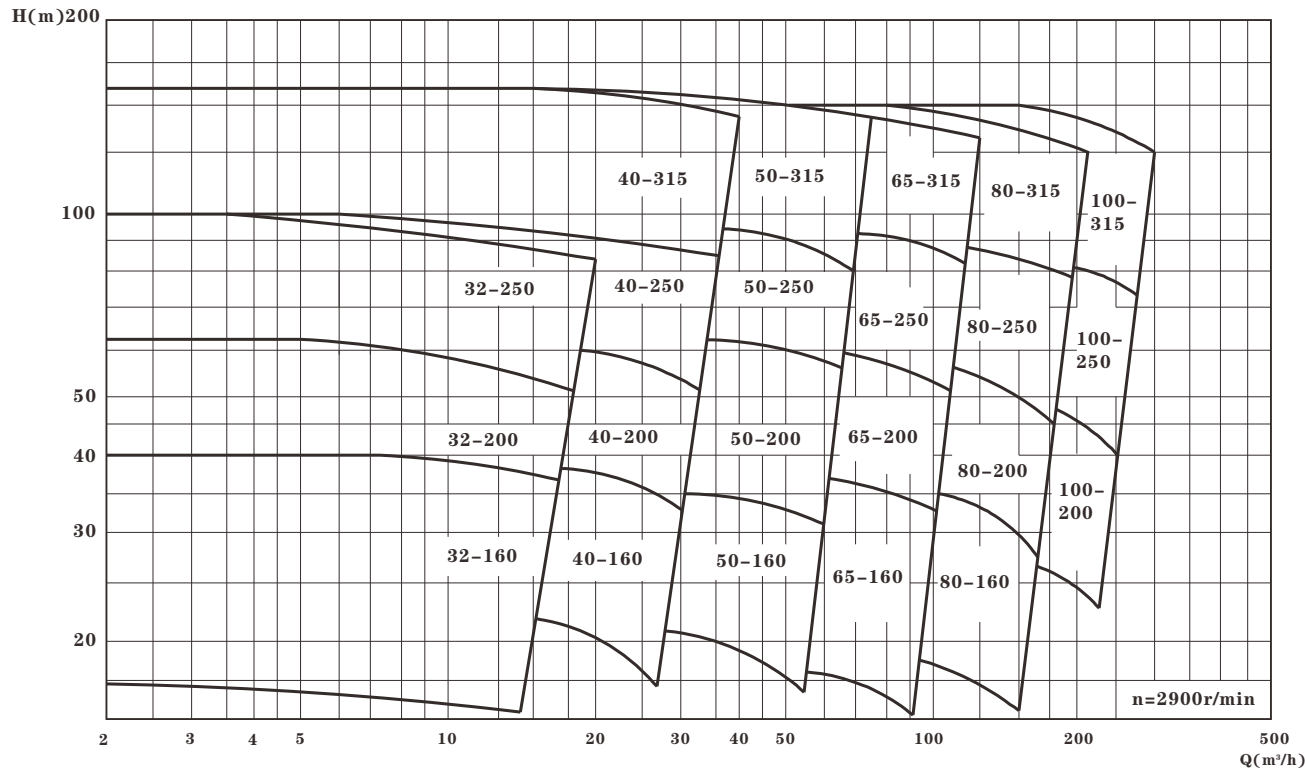


■ 结构图 Structural drawing



1	泵体 Pump casing	9	放气塞 Ventfilter plug	17	止动垫片 Locking gasket	25	排液管 Pipe
2	叶轮 Impeller	10	悬架 Bearing bracket	18	支架 Support foot	26	O形圈 O-ring
3	O形圈 O-ring	11	卡环 Circlip	19	油杯 Constant-level-oiler	27	泵盖 Pump cover
4	垫片 Gasket	12	轴承 Ball bearing	20	轴承压盖 Bearing cover	28	O形圈 O-ring
5	轴套（单端面） Shaft sleeve	13	轴承压盖 Bearing cover	21	防尘盘 Dust-proof ring	29	叶轮密封环 Impeller seal ring
6	机械密封（单端面） Mechanical seal	14	防尘盘 Dust-proof ring	22	轴套（双端面） Shaft sleeve	30	泵体密封环 Seal ring of pump casing
7	机封压盖（单端面） Seal cover	15	轴 Shaft	23	机封压盖（双端面） Sealing cover	31	钢丝螺套 Threaded insert
8	滚柱轴承 Ball bearing	16	轴承螺母 Bearing nut	24	机械密封（双端面） Mechanical seal	32	叶轮螺母 Impeller nut

■ YCZ型泵型谱图 Atlas of stype



■ YCZ型泵性能表 YCZ type performance table

泵型号 Pump type	叶轮 型式 Impeller type	泵额定转速 Rated rotary speed of pump n=2900r/min									泵额定转速 Rated rotary speed of pump n=1450r/min																
		流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84			流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84		
						电机功率及型号 Power and model of motor						电机功率及型号 Power and model of motor							电机功率及型号 Power and model of motor								
							型号 Type	KW	型号 Type	KW	型号 Type		型号 Type	KW					型号 Type	KW	型号 Type		型号 Type	KW	型号 Type	KW	型号 Type
YCZ32-160	A	20	36	3.1	62	4	Y112M-2	5.5	Y132S1-2	7.5	Y132S2-2	11	9	1.5	49	1.1	Y90S-4	1.1	Y90S-4			1.5	Y90L-4				
	B	18	32			4	Y112M-2	5.5	Y132S1-2	7.5	Y132S2-2	10	8														
	C	17	28			3	Y100L-2	4	Y112M-2	5.5	Y132S1-2	9	7														
	D	15	20			2.2	Y90L-2	3	Y100L-2	4	Y112M-2	6	5														
	E	13	14									6	3														
YCZ32-200	A	20	50	2.7	51	7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	10	13	1	47	1.5	Y90L-4	1.5	Y90L-4	2.2	Y100L1-4						
	B	18	48			5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	9	12														
	C	16	40			4	Y112M-2	5.5	Y132S1-2	7.5	Y132S2-2	8	10														
	D	15	30																								
YCZ32-250	A	20	85	2.1	40	15	Y160M2-2	18.5	Y160L-2	30	Y200L1-2	11	20	0.9	37	2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	B	20	75			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	9	15														
	C	18	65			7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	8	11														
	D	15	50																								
YCZ40-160	A	30	34	1.5	63	7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	15	8	0.6	60	1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	B	28	30			5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	15	7														
	C	16	26			3	Y100L-2	5.5	Y132S1-2	7.5	Y132S1-2	14	6														
	D	14	18									12	4														
YCZ40-200	A	34	50	2.4	60	11	Y160M1-2	15	Y160M2-2			16	13	1.1	57	1.5	Y90L-4	1.5	Y90L-4	2.2	Y100L1-4						
	B	30	48			7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	15	12														
	C	26	38			5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	14	9														
	D	22	30																								
YCZ40-250	A	36	85	6	50	22	Y180M-2	30	Y200L1-2	45	Y225M-2	20	21	2.5	48	4	Y112M-4	5.5	Y132S-4	5.5	Y132S-4						
	B	34	80			18.5	Y160L-2	22	Y180M-2	37	Y200L2-2	18	20			3	Y100L2-4	4	Y112M-4								
	C	30	65			15	Y160M2-2	18.5	Y160L-2	30	Y200L1-2	16	15			2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	D	26	50			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	13	12														
YCZ40-315	A	46	140	4	50	45	Y225M-2	55	Y250M-2			22	36	1	45	11	Y160M-4	11	Y160M-4								
	B	44	130			37	Y200L2-2	45	Y225M-2			22	32			5.5	Y132S2-4										
	C	40	100			30	Y200L1-2	37	Y200L2-2	37	Y200L2-2	20	24			4	Y112M-4	5.5	Y132S-4								
	D	34	80			30	Y200L1-2	30	Y200L1-2	37	Y200L2-2	18	18			4	Y112M-4	4	Y112M-4	5.5	Y132S-4						
YCZ50-160	A	55	34	2.9	73	11	Y160M1-2					30	8	1.6	70	1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	B	50	30			7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	26	7														
	C	46	26			5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	24	6			1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	D	40	18			5.5	Y132S1-2	7.5	Y132S2-2	7.5	Y132S2-2	20	4														
YCZ50-200	A	65	56	4	72	18.5	Y160L-2					34	14	1.5	70	3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	B	65	50			15	Y160M2-2	18.5	Y160L-2			32	12			2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	C	50	40			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	30	10			1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	D	40	32			7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	24	7			1.5	Y90L-4	1.5	Y90L-4	2.2	Y100L1-4						

■ YCZ型泵性能表 YCZ type performance table

泵型号 Pump type	叶轮 型式 Impeller type	泵额定转速 Rated rotary speed of pump n=2900r/min									泵额定转速 Rated rotary speed of pump n=1450r/min																
		流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84			流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84		
						电机功率及型号 Power and model of motor						电机功率及型号 Power and model of motor							电机功率及型号 Power and model of motor								
						KW	型号	Type	KW	型号	Type	KW	型号	Type					KW	型号	Type	KW	型号	Type	KW	型号	Type
YCZ50-250	A	65	85	3	64	30	Y200L1-2		37	Y200L2-2		45	Y225M-2	34	21	1.1	59	5.5	Y132S-4		5.5	Y132S-4		11	Y160M-4		
	B	60	80						45	Y225M-2	30	20	4	Y112M-4													
	C	55	65			22	Y180M-2	30	Y200L1-2	37	Y200L2-2	26	16	3	Y100L2-4			4	Y112M-4	5.5	Y132S-4						
	D	45	60			15	Y160M2-2	15	Y160M2-2	22	Y180M-2	24	12	2.2	Y100L1-4			3	Y100L2-4	4	Y112M-4						
YCZ50-315	A	80	138	5	60								42	35	1.8	58	11	Y160M-4						15	Y160L-4		
	B	75	135			55	Y250M-2					42	32														
	C	70	110			45	Y225M-2					40	26							11	Y160M-4						
	D	65	85			37	Y200L2-2	45	Y225M-2			36	20														
YCZ65-160	A	100	32	3	74	15	Y160M2-2	18.5	Y160L-2				50	8	1.5	68	2.2	Y100L1-4		3	Y100L2-4	4	Y112M-4				
	B	90	32					22	Y180M-2	48	7																
	C	90	24			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	46	6														
	D	80	14			5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	38	4					2.2	Y100L1-4	3	Y100L2-4						
YCZ65-200	A	100	54	3.2	73	22	Y180M-2	30	Y200L1-2	37	Y200L2-2	50	13	1	73	4	Y112M-4		4	Y112M-4	5.5	Y132S-4					
	B	90	50			18.5	Y160L-2	22	Y180M-2	30	Y200L1-2	42	10			3	Y100L2-4		3	Y100L2-4	4	Y112M-4					
	C	90	40			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	36	7			2.2	Y100L1-4	2.2	Y100L1-4	3	Y100L2-4						
	D	70	30																								
YCZ65-250	A	115	85	3.4	71	45	Y225M-2	55	Y250M-2			54	21	0.9	67	11	Y160M-4		11	Y160M-4							
	B	115	75							50	20	5.5	Y132S-4					11	Y160M-4								
	C	100	65			37	Y200L2-2	45	Y225M-2	55	Y250M-2	46	16			4	Y112M-4		5.5	Y132S-4							
	D	80	50			30	Y200L1-2	30	Y200L1-2	37	Y200L2-2	40	10					4	Y112M-4	5.5	Y132S-4						
YCZ65-315	A	135	130	5.5	66	90	Y280M-2	110	Y315S-2	160	Y315M2-2	64	32	1.3	62	11	Y160M-4		15	Y160L-4	18.5	Y180M-4					
	B	130	125							61	30																
	C	115	115			75	Y280S-2	90	Y280M-2	132	Y315S-2	56	28														
	D	110	110			55	Y250M-2	75	Y280S-2	110	Y315S-2	54	24														
	E	90	85			45	Y225M-2	55	Y250M-2	75	Y280S-2	50	20														
	F	75	70			30	Y200L1-2	45	Y225M-2	55	Y250M-2	52	16			5.5	Y132S-4		11	Y160M-4							
YCZ80-160	A	170	30	4.2	76	22	Y180M-2	30	Y200L1-2	37	Y200L2-2	75	8	2.2	70	3	Y100L2-4		4	Y112M-4	5.5	Y132S-4					
	B	160	26			18.5	Y160L-2	22	Y180M-2		30	Y200L1-2	70					7									
	C	150	22			15	Y160M2-2	18.5	Y160L-2			70	5					3	Y100L2-4	4	Y112M-4						
	D	130	16			11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	65	4					2.2	Y100L1-4	2.2	Y100L1-4						
YCZ80-200	A	150	50	3.8	79	37	Y200L2-2	45	Y225M-2	55	Y250M-2	80	12	1.9	73	5.5	Y132S-4	11	Y160M-4		11	Y160M-4					
	B	140	46			30	Y200L1-2	37	Y200L2-2			75	11			4	Y112M-4	5.5	Y132S-4								
	C	130	38			22	Y180M-2	30	Y200L1-2			65	9			3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	D	110	26			15	Y160M2-2	15	Y160M2-2	30	Y200L1-2	60	6					3	Y100L2-4	4	Y112M-4						

■ YCZ型泵性能表 YCZ type performance table

泵型号 Pump type	叶轮 型式 Impeller type	泵额定转速 Rated rotary speed of pump n=2900r/min										泵额定转速 Rated rotary speed of pump n=1450r/min									
		流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00		比重=1.35 Specific gravity=1.35		比重=1.84		流量 Q	扬程 H (m)	气蚀 余量 NPSH m	效率 %	Specific gravity=1.00		Specific gravity=1.35		Specific gravity=1.84	
						电机功率及型号 Power and model of motor										电机功率及型号 Power and model of motor					
							型号 Type	KW	型号 Type	KW							KW	型号 Type	KW	型号 Type	KW
YCZ80-250	A	190	80	5	80							90	20	1.3	78	11	Y160M-4	11	Y160M-4	15	Y160L-4
	B	180	75			55	Y250M-2					90	19								
	C	170	70			45	Y225M-2					85	17								
	D	150	55			37	Y220L2-2	55	Y250M-2	75	Y280S-2	75	14								
	E	130	47			30	Y200L1-2	37	Y220L2-2	55	Y250M-2	70	11			5.5	Y132S-4	5.5	Y132S-4	11	Y160M-4
YCZ80-315	A	200	130	5.5	76.5	110	Y315S-2	160	Y315M2-2			100	32	1.3	72.5	15	Y160L-4	18.5	Y180M-4	30	Y200L-4
	B	180	125				132	Y315M1-2			95	30									
	C	160	100			75	Y28S-2	90	Y280M-2	132	Y315M1-2	85	24					18.5	Y180M-4		
	D	150	75			55	Y250M-2	75	Y280S-2	90	Y280M-2	70	18			15	Y160L-4	15	Y160L-4		
YCZ80-400	A											105	52	1.2	63	30	Y200L-4	37	Y225S-4		
	B												100			50					
	C												90			44					
	D												80			38	30	Y200L-4			
	E												75			30	18.5	Y180M-4	18.5	Y180M-4	
YCZ100-200	A	220	45	4	81	45	Y225M-2	55	Y250M-2			115	11	1.2	80	5.5	Y132S-4	11	Y160M-4	11	Y160M-4
	B	200	40			30	Y200L1-2	45	Y225M-2	55	Y250M-2	100	10								
	C	180	30			22	Y180M-2	30	Y200L1-2	45	Y225M-2	90	8			5.5	Y132S-4	5.5	Y132S-4		
	D	150	25					37	Y220L2-2	80	6										
LQCZ100-250	A	280	75	4.9	81.5	90	Y280M-2	110	Y315S-2	160	Y315M2-2	130	20	1.2	72.5	15	Y160L-4	30	Y200L-4	30	Y200L-4
	B	250	70			75	Y280S-2			132	Y315M1-2	130	18			15	Y160L-4				
	C	230	55			55	Y250M-2	75	Y280S-2	110	Y315S-2	120	14			11	Y160M-4	11	Y160M-4	15	Y160L-4
	D	200	40			37	Y200L2-2	55	Y250M-2	75	Y280S-2	100	10					11	Y160M-4		
YCZ100-315	A	270	135	5.5	75.5	160	Y315L2-2					132	32	1.5	72	30	Y200L-4	30	Y200L-4		
	B	250	130			132	Y315L1-2					120	30			18.5	Y180M-4				
	C	230	100			110	Y315S-2	132	Y315M1-2			100	26			15	Y160L-4	15	Y160L-4	30	Y200L-4
	D	200	85			75	Y280S-2	110	Y315S-2	132	Y315M1-2	90	21					18.5	Y180M-4		
YCZ100-400	A											150	50	2	70	45	Y225M-4	45	Y225M-4		
	B											140	48								
	C											120	40			30	Y200L-4	30	Y200L-4	45	Y225M-4
	D											100	30			18.5	Y180M-4	30	Y200L-4	30	Y200L-4
YCZ125-250	A											200	20	2.2	84	18.5	Y180M-4	22	Y180L-4		
	B											200	18			15	Y160L-4	18.5	Y180M-4		
	C											190	14			11	Y160M-4	15	Y160L-4		
	D											160	10			11	Y160M-4	11	Y160M-4	15	Y160L-4

■ YCZ型泵性能表 YCZ type performance table

泵型号 Pump type	叶轮 型式 Impeller type	泵额定转速 Rated rotary speed of pump n=2900r/min										泵额定转速 Rated rotary speed of pump n=1450r/min															
		流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84			流量 Q (m³/h)	扬程 H (m)	气蚀 余量 NPSH m	效率 %	比重=1.00 Specific gravity=1.00			比重=1.35 Specific gravity=1.35			比重=1.84 Specific gravity=1.84		
						电机功率及型号 Power and model of motor													电机功率及型号 Power and model of motor								
						KW	型号	Type	KW	型号	Type	KW	型号	Type					KW	型号	Type	KW	型号	Type	KW	型号	Type
YCZ125-315	A													200	30	2	79		30	Y200L-4		37	Y225S-4		45	Y225M-4	
	B												180	30					30	Y200L-4		37	Y225S-4				
	C												170	24					18.5	Y180M-4			30	Y200L-4			
	D												100	18					15	Y160L-4	18.5	Y180M-4					
YCZ125-400	A													220	50	2.2	74.5		55	Y250M-4		75	Y280S-4				
	B												200	48					45	Y225M-4		75	Y280S-4				
	C												180	46					37	Y225S-4		55	Y250M-4				
	D												170	42							45	Y225M-4					
	E												150	36					30	Y200L-4		30	Y200L-4				
	F												150	30													
YCZ150-250	A													320	17	3.5	83		22	Y180L-4							
	B												300	15					18.5	Y180M-4		30	Y200L-4		37	Y225S-4	
	C												280	13													
	D												260	12					15	Y160L-4	18.5	Y180M-4		30	Y200L-4		
	E												240	11					11	Y160M-4	15	Y160L-4		22	Y180L-4		
YCZ150-315	A													380	30	3	82.5		45	Y225M-4		75	Y280S-4				
	B												340	26					37	Y225S-4		45	Y225M-4				
	C												320	20					30	Y200L-4		37	Y225S-4		55	Y250M-4	
	D												300	17					22	Y180L-4		30	Y200L-4		37	Y225S-4	
YCZ150-400	A													400	48	4.3	80		75	Y280S-4		110	Y315S-4				
	B												340	40					55	Y250M-4		75	Y280S-4				
	C												300	34					45	Y225M-4				90	Y280M-4		
	D												260	28					37	Y225S-4		45	Y225M-4		75	Y280S-4	
YCZ150-500	A													420	80	2.5	78		132	Y315M1-4							
	B												400	70					110	Y315S-4		160	Y315M2-4				
	C												360	65							132	Y315M1-4					
	D												340	50					75	Y280S-4		110	Y315S-4		132	Y315M1-4	
	E												300	45					55	Y250M-4		75	Y280S-4		110	Y315S-4	
YCZ200-250	A													600	12	3.5	85		30	Y200L-4		37	Y225S-4				
	B												540	11					22	Y180L-4		30	Y200L-4				
	C												500	10									37	Y225S-4			
YCZ200-315	A													650	24	4	83.5		55	Y250M-4		75	Y280S-4				
	B												600	20					37	Y225-4		45	Y225M-4				
	C												550	16													
	D												500	13					30	Y200L-4		37	Y225-4		55	Y250M-4	

■ YCZ型泵性能表 YCZ type performance table

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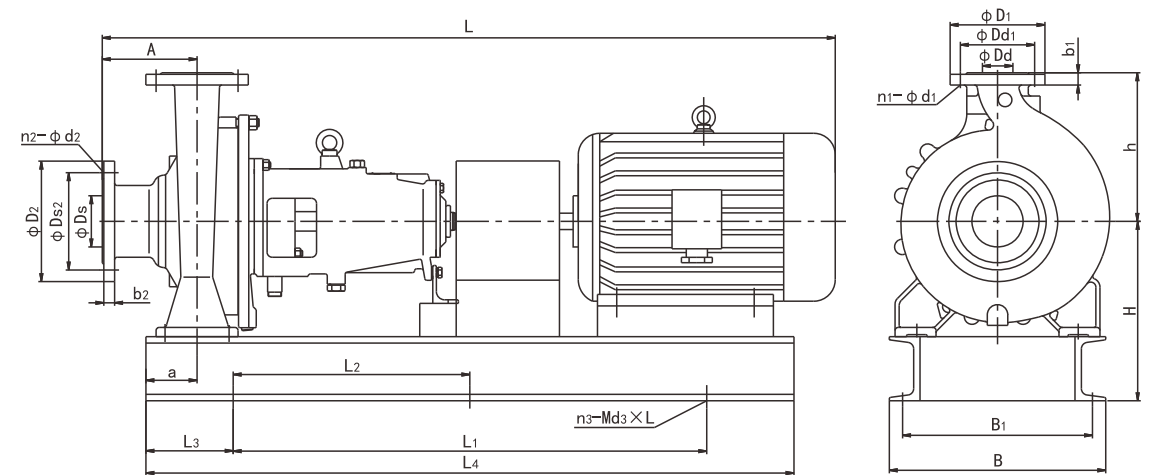
*每个型号对应电机的功率等级按密度不同而不同，具体如密度1.2，则应按密度1.35的电机功率选择。

***表中有参数无电机的型号在选择时提前与技术中心沟通确认是否能做!**

*The power grades of the motor corresponded to every model are different upon different densities and, in case of a density 1.2, then selection shall be made per the motor's power of density 1.35.

*For the model in the table available with parameters but without motor, please contact the technical center in advance

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions



系型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ —Md ₃ × L	总重量 Weight (kg)					
YCZ32—160	Y90S—4/1.1	1	130	75	660		170	1000	1050	400	440	180	300	4—M12 × 220	127					
	Y90L—4/1.5								1075											
	Y90L—2/2.2								1075											
	Y100L—2/3								1120											
	Y112M—2/4								1140											
	Y132S1—2/5.5				1215															
	Y132S2—2/7.5				1215															
YCZ32—200	Y90L—4/1.5	1	140	75	660		170	1000	1085	400	440	200	300	4—M12 × 220	131					
	Y100L1—4/2.2								1130											
	Y112M—2/4								1150											
	Y132S1—2/5.5				740		190	1120	1225						400	440	200	300	4—M12 × 220	187
	Y132S2—2/7.5								1225											
	Y160M1—2/11								1350											
	Y160M2—2/15				840		205	1250	1350						400	440	200	300	4—M12 × 220	256
YCZ32—250	Y00L1—4/2.2	1	140	90	740		190	1120	1130	400	440	225	300	4—M12 × 220	163					
	Y100L2—4/3								1130											
	Y112M—4/4								1150											
	Y132S2—2/7.5	840			230		1400	1315	350	390	305		4—M16 × 220	176						
	Y160M1—2/11							1440												
	Y160M2—2/15							1440												
	Y160L—2/18.5	1060			270		1600	1485	400	440	365		4—M16 × 220	359						
	Y200L1—2/30							230						1400	1615	490	530	448		

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ —M _{d3} × L				
YCZ40—160	Y90S—4/1.1	1	130	75	660		170	1000	1050	400	440	180	300	4—M12 × 220	127			
	Y90L—4/1.5								1075						127			
	Y90L—2/2.2								1075						127			
	Y100L—2/3								1120						138			
	Y112M—2/4								1140						151			
	Y132S1—2/5.5								1215						183			
	Y132S2—2/7.5			1215	183													
	Y160M1—2/11			840	205		1250	1340		252								
YCZ40—200	Y90S—4/1.1	1	140	75	660		170	1000	1060	400	440	200	300	4—M12 × 220	131			
	Y90L—4/1.5								1085						131			
	Y00L1—4/2.2								1130						142			
	Y112M—4/4								1150						155			
	Y112M—2/4								1150						155			
	Y132S—4/5.5								1225						176			
	Y132S1—2/5.5			1225	176													
	Y132S2—2/7.5			1225	176													
	Y160M1—2/11			840	205		1250	1350	256									
	Y160M2—2/15							1350	256									
	Y160L—2/18.5							1395	256									
	YCZ40—250							Y90S—4/1.1	2						140	90	660	
Y90L—4/1.5		1085	148															
Y00L1—4/2.2		1130	163															
Y100L2—4/3		740	190	1120	1130	163												
Y112M—4/4					1150	176												
Y132S—4/5.5					1225	205												
Y132S2—2/7.5		940	205	1250	1225	205												
Y160M1—2/11					1315	205												
Y160M2—2/15					1440	225												
Y160L—2/18.5					1440	303												
Y180M—2/22					1485	359												
Y200L1—2/30					1510	359												
YCZ40—315	Y100L2—4/3	2	160	90	1060		270	1600	1240	490	530	280	365	4—M16 × 220	224			
	Y112M—4/4								1260						237			
	Y132S—4/5.5								1335						257			
	Y132M—4/7.5								1375						266			
	Y160M—4/11								1460						332			
	Y160M2—2/15								1460						332			
	Y160L—2/18.5								1530						332			
	Y180M—2/22								1530						332			
	Y200L1—2/30				530		1635	6—M16 × 220	389									
	Y200L2—2/37						1635		471									
	Y225M—2/45						1675		565									
	Y250M—2/55						1820		550	600	450			565				
	Y280S—2/75						1900		670	720				820				

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L											
YCZ50-160	Y90S-4/1.1	1	140	75	660		170	1000	1060	400	440	185	300	4-M12 × 220	130										
	Y90L-4/1.5								1085						130										
	Y00L1-4/2.2								1130						141										
	Y100L-2/3	2			740		190	1120	1220						128										
	Y112M-2/4								1240						134										
	Y132S1-2/5.5								1315						166										
	Y132S2-2/7.5								1315						179										
	Y160M1-2/11								230				1400	1440	310	4-M16 × 220	210								
	Y160M2-2/15													1440			285								
YCZ50-200	Y90S-4/1.1	1	150	75	660		170	1000	1070	400	440	200	300	4-M12 × 220	134										
	Y90L-4/1.5								1095					134											
	Y00L1-4/2.2								1140					4-M16 × 220	145										
	Y100L2-4/3								1140					145											
	Y112M-4/4								1160					4-M12 × 220	158										
	Y132S2-2/7.5	2			840		205	1250	1325					4-M16 × 220	212										
	Y160M1-2/11								230						1400	1450	287								
	Y160M2-2/15												1450			287									
	Y160L-2/18.5												1495			287									
	Y180M-2/22												1520			287									
	Y200L1-2/30						1625	348																	
	YCZ50-250						Y00L1-4/2.2	2	155				90		740		190	1120	1235	400	440	240	300	4-M12 × 220	184
							Y100L2-4/3												1235						184
							Y112M-4/4												1255						197
							Y132S-4/5.5												205						1250
Y132M-4/7.5		1370	228																						
Y160M2-2/15		230	1400	1455	303																				
Y160L-2/18.5				1500	303																				
Y180M-2/22				1525	362																				
Y200L1-2/30				270	1600	1630	4-M16 × 220			452															
Y200L2-2/37						1630	452																		
Y225M-2/45		1670	452																						
Y250M-2/55		1785	575																						
YCZ50-315		Y100L2-4/3	2			175	90	940			230	1400		1255	490		530	280	365				4-M16 × 220	230	
		Y112M-4/4		1275	243																				
		Y132S-4/5.5		1350	272																				
	Y132M-4/7.5	1390		272																					
	Y160M-4/11	1475		338																					
	Y160L-4/15	1520		338																					
	Y180M-2/22	1610		428																					
	Y200L1-2/30	3	1060	530	270			1600	1610		385	505													
	Y200L2-2/37								1715				505												
	Y225M-2/45								1755				600												
	Y250M-2/55								1870				550	600		450			6-M16 × 220	723					
	Y280S-2/75								1940											986					
	Y280M-2/90				1990			986																	
	Y315S-2/110				2040			1342																	

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)									
YCZ50-400	Y132M-4/7.5	2	165	105	940		230	1400	1380	490	530		430	4-M16 × 220	321									
	Y160M-4/11								1460						388									
	Y160L-4/15								1510						388									
	Y180M-4/18.5								1535						388									
	Y180L-4/22								1575						444									
	Y200L-4/30								1640						526									
	Y225M-4/45	3			1060	530	270	1600	1745	335		335		450	6-M16 × 220	654								
	Y250M-2/55								1860							777								
	Y280S-2/75								1930							670	720	450	6-M16 × 220	1029				
	Y280M-2/90																				1980	1029		
	Y315S-2/110																				2130	1357		
	Y315M-2/132																						2180	1357
	Y315L1-2/160																							
	YCZ65-160																						Y00L1-4/2.2	2
Y100L2-4/3		1235	177																					
Y112M-4/4		1235	177																					
Y132S1-2/5.5		1330	221																					
Y132S2-2/7.5		840	205	1250	1330	400	440	220	315	4-M16 × 220	221													
Y160M1-2/11					1455						297													
Y160M2-2/15		940	230	1400	1455	400	440	220	315	4-M16 × 220	297													
Y160L-2/18.5					1500						297													
Y180M-2/22					1525						325													
YCZ65-200	Y00L1-4/2.2	1	160	90	740		190	1120	1150	400	440	240	300	4-M12 × 220	169									
	Y100L2-4/3								1150						169									
	Y112M-4/4								1170						182									
	Y132S-4/5.5								1245						210									
	Y160M1-2/11	2			840		205	1250	1370	400	440	240	300	4-M16 × 220	280									
	Y160M2-2/15								1370						280									
	Y160L-2/18.5								1415						300									
	Y180M-2/22								1440						348									
	Y200L1-2/30								940						230	1400	1545	424						
	Y200L2-2/37																1545	424						
	YCZ65-250	Y112M-4/4			2	165	105	840		205	1250	1265	400	440		350	4-M12 × 220	219						
		Y132S-4/5.5										1340						247						
		Y160M-4/11										1465						324						
		Y200L1-2/30						1060	530	270	1600	1640	490	530	260	365	6-M16 × 220	468						
Y200L2-2/37		1640	468																					
Y225M-2/45		1680	563																					
Y250M-2/55		1795	686																					
Y280S-2/75		1865	948																					
		1200	600	300								1800	1865	670	720									

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)						
YCZ65-315	Y132S-4/5.5	2	185	105	740		230	1400	1400	490	530		365	4-M16 × 220	1288						
	Y132M-4/7.5								1440						288						
	Y160M-4/11								1525						354						
	Y160L-4/15								1570						354						
	Y180M-4/18.5				1060	530	270	1600	1595						415						
	Y200L1-2/30								1700						502						
	Y225M-2/45								1740						300		588				
	Y250M-2/55								1855								710				
	Y280S-2/75				1200	600	300	1800	1925	670	720	450	6-M16 × 220	838							
	Y280M-2/90								1975					889							
	Y315S-2/110								2075					1250							
	Y315M-2/132				1600	800	320	2240	2175	730	780	50		1338							
	Y315L1-2/160								2175					1413							
YCZ80-160	Y90S-4/1.1	2	155	90	740		190	1120	1165	400	440	220	330	4-M12 × 220	166						
	Y90L-4/1.5								1190						166						
	Y00L1-4/2.2								1235						177						
	Y100L2-4/3								1235						177						
	Y112M-4/4								1235						190						
	Y132S1-2/5.5				840		205	1250	1330						440	220	315	4-M16 × 220	221		
	Y132S2-2/7.5								1330										221		
	Y160M1-2/11				940		230	1400	1455						440	240			300	4-M14 × 220	297
	Y160M2-2/15								1455												297
	Y160L-2/18.5								1500												297
	Y200L1-2/30								1625	384											
									Y90L-4/1.5	660		190	1120				1150	400			440
	Y00L1-4/2.2				1150	169															
Y100L2-4/3	1150	169																			
Y112M-4/4	1170	182																			
Y132S-4/5.5	740		205	1250	1245		440	240	300	4-M14 × 220	210										
Y132M-4/7.5					1285						210										
Y160M1-2/11					1370						280										
Y160M2-2/15					1370						280										
Y180M-2/22	940		230	1400	1440		440	240	300	4-M16 × 220	348										
Y200L1-2/30					1545						424										
Y200L2-2/37					1545						442										
Y225M-2/45					1595						504										

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)								
YCZ80-250	Y100L2-4/3	2	165	105	840		205	1250	1245	400	440	260	350	4-M12 × 220	205								
	Y112M-4/4								1265						219								
	Y132S-4/5.5								1340						247								
	Y132M-4/7.5								1380						247								
	Y160M-4/11				940		230	1400	1465			365	4-M16 × 220	324									
	Y160L-4/15								1510					324									
	Y180M-2/22								1535					380									
	Y200L1-2/30				1060	530	270	1600	1640	490	530	450	6-M16 × 220	468									
	Y200L2-2/37								1640					468									
	Y225M-2/45								1680	563													
	Y250M-2/55								1795	550	600			686									
	Y280S-2/75				1200	600	300	1800	1865	670	720			948									
	Y280M-2/90								1915					948									
YCZ80-315	Y132S-4/5.5	2	185	105	940		230	1400	1400	490	530	290	365	4-M16 × 220	288								
	Y132M-4/7.5								1440						288								
	Y160M-4/11								1525						354								
	Y160L-4/15								1570						354								
	Y180M-4/18.5				1060	530	270	1600	1595			290	365	6-M16 × 220	415								
	Y180L-4/22								1635						415								
	Y200L2-2/37								1700						492								
	Y225M-2/45								1740						588								
YCZ80-315	Y250M-2/55	2	185	105	1200	600	300	1800	1855	670	720	290	450	6-M16 × 220	710								
	Y280S-2/75								1925						972								
	Y280M-2/90								1975						972								
	Y315S-2/110				1600	800	320	2240	2075	730	780		570		1250								
	Y315M-2/132								2175						1338								
	Y315L1-2/160								2175						1413								
YCZ80-400	Y160M-4/11	2	185	105	940		230	1400	1520	490	530	350	430	4-M16 × 220	398								
	Y160L-4/15								1565						398								
	Y180M-4/18.5								1590						432								
	Y180L-4/22				1060	530	270	1600	1630					6-M16 × 220	459								
	Y200L-4/30								1695						537								
	Y225S-4/37								1740						631								
	Y225M-4/45								1765						631								
	Y280S-2/75	3			1200	600	300	1800	1985	670	720		450	6-M16 × 220	1049								
	Y280M-2/90								2035						1049								
	Y315M-2/132								1600						800	320	2240	2235	730	780	570	6-M20 × 220	1463
	Y315L1-2/160																	2235					1463

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)					
YCZ100-160	Y90S-4/1.1	2	175	90	740		190	1120	1185	400	440	260	300	4-M12 × 220	174					
	Y90L-4/1.5								1210						174					
	Y00L1-4/2.2								1255						185					
	Y100L2-4/3								1255						185					
	Y112M-4/4				1275	198														
	Y132S-4/5.5				840	205	1250	1350	229											
	Y132S2-2/7.5							1350	365				229							
YCZ100-200	Y100L2-4/3	2	165	90	840		205	1250	1285	400	440	270	350	4-M12 × 220	204					
	Y112M-4/4								1305						217					
	Y132S-4/5.5								1380						246					
	Y132M-4/7.5								1420						246					
	Y160M-4/11				940		230	1400	1505	490	530		365	4-M16 × 220	322					
	Y160L-2/18.5								1550						322					
	Y180M-2/22				1060	530	270	1600	1575					490	530	365	6-M16 × 220	378		
	Y200L1-2/30								1680									467		
	Y200L2-2/37								1680									467		
	Y225M-2/45								1720									561		
	Y250M-2/55								1835	684										
	Y280S-2/75								1905	947										
	YCZ100-250				Y132S-4/5.5	2	200	105	940		230		1400	1415	490	530	290	365	4-M16 × 220	296
					Y132M-4/7.5									1455						296
Y160M-4/11		1540	362																	
Y160L-4/15		1585	362																	
Y180M-4/18.5		1610	423																	
Y200L2-2/37		3	1060	530	270	1600			1715	670	720	450	6-M16 × 220	500						
Y225M-2/45									1755					595						
Y250M-2/55									1775					670						
Y280S-2/75									1940					980						
Y280M-2/90									1990					980						
Y315M-2/132									2000					1313						
YCZ100-315	Y160M-4/11	2	195	105	940		230	1400	1535	490	530	320	430	4-M16 × 220	366					
	Y160L-4/15								1580						366					
	Y180M-4/18.5								1650						430					
	Y180L-4/22				1060	530	270	1600	1645					670	720	450	6-M16 × 220	430		
	Y200L-4/30								1710									509		
	Y225S-4/37								1710									509		
	Y280S-2/75								2000									1001		
	Y280M-2/90	1200			600		1800	2050	670	720	530		1001							
	Y315S-2/110							2000					1334							
	Y315M-2/132							2250					1334							
	Y315L1-2/160							2250					1334							

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)									
YCZ100-400	Y160L-4/15	3	210	125	1060	530	270	1600	1660	550	600	380	430	6-M16 × 220	493									
	Y180M-4/18.5								1725						552									
	Y180L-4/22								1725						552									
	Y200L-4/30								1790						630									
	Y225S-4/37								1835						725									
	Y225M-4/45								1860						725									
	Y250M-4/55								1945						838									
	Y280S-4/75				2015	670	720	1077																
	Y315S-2/110	4			1600	800	320	2240	2265	730	780		570	6-M20 × 220	1542									
	Y315L1-2/160								2315						1542									
YCZ100-500	Y200L-4/30	3	220	125	1200	600	300	1800	1875	670	720	150	530	6-M16 × 220	730									
	Y225S-4/37								1915						826									
	Y225M-4/45								2025						865									
	Y250M-4/55								2025						917									
	Y280S-4/75								2095						1163									
	Y280M-4/90				1400	700	2000	2145	1475															
	Y315S-4/110							2295	1475															
YCZ125-250	Y160M-4/11	3	200	105	940		230	1400	1540	490	530	315	430	4-M16 × 220	379									
	Y160L-4/15								1585						379									
	Y180M-4/18.5								1610						443									
	Y180L-4/22				1060	530	270	1600	1650					6-M16 × 220	443									
	Y200L-4/30								1715						521									
YCZ125-315	Y160L-4/15	3	205	125	1060	530	270	1600	1655	550	600	370	450	6-M16 × 220	448									
	Y180M-4/18.5								1680						480									
	Y200L-4/30								1785						559									
	Y225S-4/37								1830						600									
	Y225M-4/45								1855						633									
YCZ125-400	Y200L-4/30	3	230	125	1200	600	300	1800	1880	670	720	410	530	6-M16 × 220	676									
	Y225S-4/37								1925						772									
	Y225M-4/45								1950						863									
	Y250M-4/55				1400	700		2000	2035						917									
	Y280S-4/75								2105						1109									
	Y280M-4/90								2155						1109									
YCZ150-200	Y100L2-4/3	2	200	105	940		230	1400	1320	490	530	310	365	4-M16 × 220	274									
	Y112M-4/4								1340						274									
	Y132S-4/5.5								1415						274									
	Y132M-4/7.5								1455						274									
	Y160M-4/11								1540						340									
	Y160L-4/15								1585						340									
	Y180M-2/22								1060						530	270	1600	1610	450	6-M16 × 220	401			
	Y200L1-2/30				1715	478																		
	Y200L2-2/37				1715	478																		
	Y225M-2/45				1755	573																		
	Y250M-2/55				1870	550	600	696																
	Y280S-2/75				1200	600	300	1800						1940				670			720	450	6-M16 × 220	958
	Y280M-2/90													1990										958
	Y315S-2/110				1400	700		2000	2140					530			1286							
	YCZ150-250																							

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n ₃ -Md ₃ × L	总重量 Weight (kg)				
YCZ150-630	Y280S-4/75	4	260	160	1600	800	300	2240	2235	920	970	540	700	6-M16 × 220	1524				
	Y280M-4/90								2285						1524				
	Y315S-4/110								2435						1847				
	Y315M-4/132								2435						1847				
	Y315L1-4/160								2435						1847				
YCZ200-250	Y160L-4/15	3	235	125	1060	530	270	1600	1755	550	600	300	450	6-M16 × 220	486				
	Y180M-4/18.5								1780						545				
	Y180L-4/22								1820						545				
	Y200L-4/30								1200						600	300	1800	1855	670
	Y225S-4/37				1930	741													
	Y225M-4/45				1955	741													
	Y280S-2/75				1400	700	2000	2110		530	1092								
	Y280M-2/90							2160	1092										
	Y315S-2/110							1600	800		320		2240	2310	730	780	570	6-M20 × 220	1484
	Y315M-2/132													2360					1484
	Y315L1-2/160				2360	1484													
	YCZ200-315				Y180M-4/18.5	3	245			125				1060					530
Y180L-4/22		1830	563																
Y200L-4/30		1200	600	300	2800			1895	670		720	665							
Y225S-4/37								1940				761							
Y225M-4/45								1965				761							
Y250M-4/55								2050				852							
Y280S-4/75		1400	700	2000	2120			1098											
YCZ200-400		Y225M-4/45	3	260	125			1200	600		300	1800	1980	670	720	470	530	6-M16 × 220	823
	Y250M-4/55	2065				914													
	Y280S-4/75	1400				700	2000	2135	1160										
	Y280M-4/90							2185	1160										
	Y315S-4/110	1600				800	320	2240	2335	730	780	570	6-M20 × 400	1552					
	Y315M-4/132								2385					1552					
	Y315L1-4/160								2385					1552					
	YCZ200-450																		
YCZ200-500	Y280S-4/75	4	265	155	1400	700	300	2000	2190	670		720	600	6-M16 × 220	1299				
	Y280M-4/90								2240						1299				
	Y315S-4/110				1600	800	320	2240	2390	730	780			640	6-M20 × 400	1694			
	Y315M-4/132								2440							1694			
	Y315L1-4/160								2440							1694			
YCZ200-560	Y315S-4/110	5	270	155	1600	800	320	2240	2550	730		530	640	6-M20 × 400	1855				
	Y315M-4/132								2600						1855				
	Y315L1-4/160								2600						1855				

■ 外形安装尺寸图表 Drawing and table of out-form installation dimensions

泵型号 Model of pump	电机型号 Model of motor	轴承架号 Name of shaft	A	a	L ₁	L ₂	L ₃	L ₄	L	B ₁	B	h	H	n3-Md3 × L	总重量 Weight (kg)
YCZ200-630	Y315M-4/132	5	280	155											
YCZ250-315	Y200L-4/30	3	255	125	1200	600	300	1800	1905	670	720	470	530	6-M16 × 220	729
	Y225S-4/37								1950						825
	Y225M-4/45								1975						825
	Y250M-4/55				2060	916									
	Y280S-4/75				2130	1162									
	Y280M-4/90				2180	1162									
	Y315S-4/110				2330	1474									
YCZ250-400	Y250M-4/55	4	280	155	1400	700	300	2000	2135	670	720	520	530	6-M16 × 220	1043
	Y280S-4/75								2205						1283
	Y280M-4/90								2255						1283
	Y315S-4/110				2405	1283									
	Y315M-4/132				2455	1675									
	Y315L1-4/160				2455	1675									
	YCZ250-500				Y315S-4/110	5	300	155	1600				800	320	2240
Y315M-4/132		2630	1846												
Y315L1-4/160		2630	1846												
YCZ250-560	Y315L1-4/160	5	290	155											
YCZ300-400	Y280M-4/90	4	300	155	1400	700	320	2000	2275	670	720	590	600	6-M16 × 220	1368
	Y315S-4/110				1600	800			2475				640	6-M20 × 400	1763
	Y315M-4/132								2475						1763
	Y315L1-4/160								2475						1763
YCZ300-500	Y315L1-4/160	5													
YCZ300-560															
YCZ300-630															
YCZ400-500															
YCZ400-560															
YCZ400-630															

■ 进出口法兰尺寸表 Inlet & outlet flange dimensions table

泵型号 Model of pump	φDs	φDs ₂	φD ₂	φb ₂	n ₂ -φd ₂	φDd	φDd ₁	φD ₁	φb ₁	n ₁ -φd ₁
YCZ32-160 ANSI150RF	50 50	125 121	165	20	4-φ17.5 4-φ19	32 32	100 98	140	18	4-φ17.5 4-φ16
YCZ 32-200 ANSI150RF	50 50	125 121	165	20	4-φ17.5 4-φ19	32 32	100 98	140	18	4-φ17.5 4-φ16
YCZ 32-250 ANSI125EF	50 50	125 121	165	20	4-φ17.5 4-φ19	32 32	100 98	140	18	4-φ17.5 4-φ16
YCZ 40-160 ANSI150RF	65 65	145 140	185	22	8-φ17.5 4-φ19	40 40	110 98	150	18	4-φ17.5 4-φ16
YCZ 40-200 ANSI150RF	65 65	145 140	185	22	8-φ17.5 4-φ19	40 40	110 98	150	18	4-φ17.5 4-φ16
YCZ 40-250 ANSI150RF	65 65	145 140	185	22	8-φ17.5 4-φ19	40 40	110 98	150	18	4-φ17.5 4-φ16
YCZ 40-315 ANSI150RF	65 65	145 140	185	22	8-φ17.5 4-φ19	40 40	110 98	150	18	4-φ17.5 4-φ16
YCZ 50-160 ANSI150RF	80 80	160 152	200	24	8-φ17.5 4-φ19	50 50	125 121	165	20	4-φ17.5 4-φ19
YCZ 50-200 ANSI150RF	80 80	160 152	200	24	8-φ17.5 4-φ19	50 50	125 121	165	20	4-φ17.5 4-φ19
YCZ 50-250 ANSI150RF	80 80	160 152	200	24	8-φ17.5 4-φ19	50 50	125 121	165	20	4-φ17.5 4-φ19
YCZ 50-315 ANSI150RF	80 80	160 152	200	24	8-φ17.5 4-φ19	50 50	125 121	165	20	4-φ17.5 4-φ19
YCZ 65-160 ANSI150RF	100 100	190 190	235	24	8-φ22 8-φ19	65 65	145 140	185	22	8-φ17.5 4-φ19
YCZ 65-200 ANSI150RF	100 100	190 191	235	24	8-φ22 8-φ19	65 65	145 140	185	22	8-φ17.5 4-φ19
YCZ 65-250 ANSI150RF	100 100	190 191	235	24	8-φ22 8-φ19	65 65	145 140	185	22	8-φ17.5 4-φ19
YCZ 65-315 ANSI150RF	100 100	190 191	235	24	8-φ22 8-φ19	65 65	145 140	185	22	8-φ17.5 4-φ19
YCZ 80-160 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	80 80	160 152	200	24	8-φ17.5 4-φ19
YCZ 80-200 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	80 80	160 152	200	24	8-φ17.5 4-φ19
YCZ 80-250	125	220	270	26	8-φ26	80	160	200	24	8-φ17.5
YCZ 80-315 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	80 80	160 152	200	24	8-φ17.5 4-φ19
YCZ 80-400 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	80 80	160 152	200	24	8-φ17.5 4-φ19

■ 进出口法兰尺寸表 Inlet & outlet flange dimensions table

泵型号 Model of pump	φDs	φDs ₂	φD ₂	φb ₂	n ₂ -φd ₂	φDd	φDd ₁	φD ₁	φb ₁	n ₁ -φd ₁
YCZ 100-200	125	220	270	26	8-φ26	100	190	235	24	8-φ22
YCZ 100-250 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	100 100	190 191	235	24	8-φ22 8-φ19
YCZ 100-315 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	100 100	190 191	235	24	8-φ22 8-φ19
YCZ 100-400 ANSI150RF	125 125	220 216	270	26	8-φ26 8-φ22	100 100	190 191	235	24	8-φ22 8-φ19
YCZ 125-250 ANSI150RF	150 150	250 241	300	28	8-φ26 8-φ22	125 125	220 216	270	26	8-φ26 8-φ22
YCZ 125-315 ANSI150RF	150 150	250 241	300	28	8-φ26 8-φ22	125 125	220 216	270	26	8-φ26 8-φ22
YCZ 125-400 ANSI150RF	150 150	250 241	300	28	8-φ26 8-φ22	125 125	220 216	270	26	8-φ26 8-φ22
YCZ 150-250 ANSI150RF	200 200	310 298	360	30	12-φ 26 8-φ22	150 150	250 241	300	28	8-φ26 8-φ22
YCZ 150-315 ANSI150RF	200 200	310 298	360	30	12-φ 26 8-φ22	150 150	250 241	300	28	8-φ26 8-φ22
YCZ 150-400 ANSI150RF	200 200	310 298	360	30	12-φ 26 8-φ22	150 150	250 241	300	28	8-φ26 8-φ22
YCZ 150-500	200	310	360	30	8-φ26	150	250	300	28	8-φ26
YCZ 200-250 ANSI150RF	200 200	310 298	360	30	12-φ 26 8-φ22	200 200	310 298	360	30	12-φ 26 8-φ22
YCZ 200-315 ANSI150RF	200 200	370 362	425	32	12-φ 30 12-φ 26	200 200	310 298	360	30	12-φ 26 8-φ22
YCZ 200-400	200	370	425	32	12-φ 30	200	310	360	30	12-φ 26
YCZ 200-500	200	370	425	32	12-φ 30	200	310	360	30	12-φ 26
YCZ 250-315 ANSI150RF	300 300	430 432	485	34	16-φ 30 12-φ 26	250 250	370 362	425	32	12-φ 30 12-φ 26
YCZ 250-400 ANSI150RF	300 300	430 432	485	34	16-φ 30 12-φ 26	250 250	370 362	425	32	12-φ 30 12-φ 26
YCZ 250-500	300	430	485	34	16-φ 30	250	370	425	32	12-φ 30
YCZ 300-400	300	490	555	38	16-φ 33	300	430	485	34	16-φ 30
YCZ 300-500	300	490	555	38	16-φ 33	300	430	485	34	16-φ 30

■ 最大容许试验压力（20℃）Maximum allowed test pressure(20℃)

泵体 Pump casing	材料 Material
I	1.4312(B),1.4308(304),1.4446(304L)
II	1.4410(M4),1.4408(316),1.6902(316L),24879(804) 1.4500(904),1.4536(904L),钛及钛合金
III	E, HT200
IV	ZG25
V	ZG1Cr13

材料 Material		泵体 Pump casing	法兰 Flange					
泵体 Pump casing	泵体螺栓 Bolt on the pump casing	MPa	GB	DN			ANSI	
			PN25	PN10	PN16	PN25	Class 125	Class 150
I II	1Cr18Ni9	3.0		-	2543	2544	-	B16.5
III	2Cr13	1.2	2565-81	2532	2533	2534	B16.1	-
IV	2Cr13	3.75		-	2543	2544	-	B16.5
V	2Cr13	3.75		-	2543	2544	-	B16.5

■ 泵体材料介质适应表 Table of the pump casing ma tertals suitable for the media

符号说明 Symbol meaning

符号 symbol	说明（耐蚀情况，腐蚀率、毫米/年）Notice(about corrosion resisting, corrosive rate:mm/year)	
A	优良，<0.05	Excellet,<0.05
B	良好，<0.05~0.5	Good,<0.05 0.5
C	可用，但腐蚀较重，0.5~1.5	Use, but severe corrosive, 0.5 1.5
D	不适用，腐蚀严重，>1.5	Unsuitable, severe corrosive,>1.5
*	可能产生应力腐蚀破裂	Possibly to produce stress corroded cracking
△	溶液或介质变色	Color change with solution or medium
∅	可能产生晶间腐蚀	Possibly to form corrosion between crystals
∞	可能产生孔蚀	Possibly to produce hole corrosion

■ 铸铁和低碳钢泵适应介质表 Table of the media suitable to both cast iron and low carbon steel made pumps

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
过氧化氢（双氧水） Hydrogen peroxide	10	B	B	B	B
	20~40	D			
氨水 Ammonia	<30	A	B	B	B
	40	A			
甲醇 Methanol	<100	B	B	B	B
	100	A	A	A	A
乙醇 Ethanol	<100	A	A	A	
	100	A	A	A	A
丙醇 Propyl alcohol		A	A	A	A
丁醇 Butanol		A	A	A	A
		B(120)			
甲醛 Ormaldehyde	10~30	D			
	40~50	C			
	80~90			D	D
	100	A	A	A	A
乙醛 Acetaldehyde	10	C	C		
	100	A	A	A	
丙醛 Propionic aldehyde		A	A		
丁醛 Butyric aldehyde		A	A	A	A
(二)甲醚Dimethyl ether			B	B	B
丙酮 Acetone	<100	B			
	100	A	A	A	A
	100	A(120)			
甲烷 Methane		A	A	A	A
		A(120)			
乙烷 Elayl		A	A	A	A
		A(120)			
乙烯 Ethane		A	A	A	A
丙烷 Propane		A	A	A	A
		A(120)			
丁烷 Tetrane		A	A	A	A
汽油（高辛烷值） Gasoling(high octane value)		B	B	B	
汽油（喷汽机燃料） Gasoling(fuel for oil sprayer)		B	B	B	

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
汽油（含H ₂ S） Gasoling(containing H ₂ S)	100	B			
汽油(含HCL,SO ₂ ,H ₂ O) Gasoling(containing HCL,SO ₂ ,H ₂ O)		C	C		
煤油 Coal oil	90	B	B	B	B
三乙醇胺 Triethanolamine		B	B	B	B
植物油 Vegetable oil		A	A	A	A
		A	D		
		D			
豆油 Soy bean oil		B	B		
玉米油 Corn oil		B	B	B	B
棉籽油 Cottonseed oil		B	B	B	B
饮用水 Drinking water		B	B	B	B
高纯水 High pure water		A			
		A	A		
海水 Sea water	流速 Flowrate				
	<1.5m/s	B			
	>1.5m/s	D	D		
水 Water PH<7		C	C	C	C
水 Water PH<7		D			
水 Water PH<7		A	B		
硫酸Sulphuric acid	<65	D	D		
	65~75	C	C	D	D
	75~100 ^①	B	C	D	D
氢氟酸（不含氧） Hydrofluoric acid (containing no oxygen)	<70	D	D		
	70~90	C			
	100	B	B		
氢氟酸（含氧） Hydrofluoric acid (containing oxygen)	<70	B	B		
	70~90	C			

■ 铸铁和低碳钢泵适应介质表 Table of the media suitable to both cast iron and low carbon steel made pumps

介质名称 Medium name	浓 度 Concentration (%)	温 度 Temperature(℃)			
		25	50	80	100
	100	B	B	C	
铬酸 Chromic acid	>25	D			
	30~80	B			
	100	A			
硼酸 Boratic acid	<10	C	C	C	C
	<10	C(120)			
	>10	D		D	
70~90%硫酸+硝酸 Sulphuric acid+nitric acid		A			
氢氧化钠 Sodium hydroxide	<30 ²	A	B	B	B*
	<30 ²	D*(200)			
	30~40	A	B	B	C
	50~60	B	B	D	D
	50~60	D*(200)			
	80	B	D	D	D
	90			D	D
	100	B		D	
	100	D*(370)			
氢化铵 Ammonium hydride	<10	C	D		
	10~99	D	D		
	100	B			
硫酸钠(PH > 7) Sodium sulphate		B	B	B	B
硝酸钠 Sodium nitrate	<90	A	A	B	C
	100	A	A	A	A
	100	B(120)			
碳酸钠 Sodium carbonate		A	A	A	A
氯化钠（含氧） Solidum chloride (containing oxygen)	10	D ³	C	C	D
	20~30	C			D
	100	A			
氰化钠 Sodium cyanide	10	A	A	A	A
	10	A(120)			
	20~90	A	A	A	A

注：①高转速泵、阀，以用高铬镍不锈钢为好。铸铁优于碳钢，可用于80~100℃一下。②铸铁不耐100℃。③铸铁为C。④铸铁为D。
Note: ①It is better to use the high Cr-Ni stainless steel for the pump and valve of a high rotating speed. Cast iron is better than carbon steel.
May be used below 80~100 .

■ 铬18镍9不锈钢（304,304L）泵适应介质表 Table of the media suitable to the pump made of Cr18Ni9 stainless steel(304,304L)

介质名称 Medium name	浓 度 Concentration (%)	温 度 Temperature(℃)			
		25	50	80	100
		25	50	80	100
无机酸 Inorganic acid					
硫酸（不充气） Shlphuric acid (without gas filled)	<5	B	D		
	10~80	D	D		
	90	B	D		
硫酸（充气） Shlphuric acid (gas filled)	100	B	C		
	<20	C	D		D
	30~60	D	D		
	70~80	C	D		
发烟硫酸 Fuming sulphuric acid	90~100	B	C	D	D
		D			
硝酸 Nitric acid	<30	A	A	A	A
	<30	C(120)		D(150)	
	40~60				
	40~60				
	70				
盐酸 Chlorhydric acid		D			
磷 酸 Phosphoric acid	<5	B	B	B	B
		B(沸点) B(Boiling point)			
	10	B	D	D	D
	10	D(沸点) D(Boiling point)			
	10~85	D			
氢氟酸(不充气)** Hydrofluoric acid (without gas filled)**	,100	D			
	100	B	D		
氢氟酸(充气)** Hydrofluoric acid (gas filled)**		D		D	
铬酸 [°] Chromic acid [°]	<10	B	C	C	
	<10	C(沸点) C(Boiling point)			
	20~30	B	D	D	D
	50	D			
	100	D			
	<30	A	A	A	A
硼酸 [°] Boratic acid [°]	<30	A(沸点) A(Boiling point)			
	40	B	B	B	B
	40	B(150)			
	50	B	B	B	B

介质名称 Medium name	浓 度 Concentration (%)	温 度 Temperature(℃)			
		25	50	80	100
		B(120)			
	70~80	D(120)			
	100	B	B		
		D(200)			
混酸：硫酸 > 50% + 硝酸 < 50% +水 > 20% Mixed acid: sulphuric acid>50%+nitric acid <50%+water>20%		B	B	B	D(沸点) D(Boiling point)
硫酸20~60% + 硝酸 < 25% +水 > 20% Sulphuric acid 20~60% +nitric acid <25%+water >20%		D			
硫酸15% +硝酸5% +水80% Sulphuric acid 15% + nitric acid 5% + water 80%		B	B	B	D(沸104) D(Boiled 104)
氢氧化钠 Sodium hydroxide	<50	A	C	C	D
	<50	D*(200)			
	70*	B	B	B	D*
	70*	D*(200)			
	80*	B	B	B	D
	80*	D*(200)			
	100	B	B	B	B
氢氧化钾 [°] Potassium hydroxide [°]	100	C(316)		D(370)	
	<50	B	B	B	B
	<50	B(沸点) B(Boiling point)			
	50	B	B	B	D
	50	D(200)			
	60~70	B	B	B	C
	60~70	C(120)			
氢氧化钾 Potassium hydroxide	80	B			D
	80	D(200)			
	100	A			
硫酸钠 [°] Sodium sulphate [°]	100	D(250)			
		A	A	A	A
		A(200)		B(840)	

■ 铬18镍9不锈钢（304,304L）泵适应介质表 Table of the media suitable to the pump made of Cr18Ni9 stainless steel(304,304L)

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
硝酸钠 [°] Sodium nitrate [°]	<70	A	A	A	A
	<70	A(沸点) A(Boiling point)			
	100	B		D	
	100	D(510)			
碳酸钠 Sodium carbonate	10	A	A	A	A
	10	A(沸点) A(Boiling point)			
	20~40	B	B	A	A
	100	A	A	A	B
碳酸钠 Sodium carbonate	100	D*(400)		D*(900)	
氯化钠 [°] Sodium chloride [°]	10~30	B	B	B	B
	10~30	B(沸点) B(Boiling point)			
	90	D			
	100	B	B	B	
	100	D(260)		D(700)	
氰化钠 Sodium cyanide	10	A	A	A	A
	20~30	A			
	40~100	A	A	A	D
	40~100	D(700)			
硅酸钠 Sodium silicate		A	A	A	A
		D(800)			
醋酸钠 [°] Sodium acetate [°]	10	A	A	A	A
	10	A(150)			
	20~60	B	B	B	B
	100	B	B	B	B
	100	B(370)			
柠檬酸钠 Sodium citrate	<40	B	B	B	B
	100	B			
硫酸钾 Potassium sulphate	< 饱和	A	A	A	A
	< 饱和	A(沸点) A(Boiling point)			
	100	B			
	100	D(200)			
硝酸钾 Saturation	<80	B	B	B	B
	<80	B(沸点) B(Boiling point)			
	100	A	A	A	A
	100	A(560)			
氟化钾 Potassium fluoride		B	B	B	B
氰化钾 Potassium cyanide	<30	A	A	A	A
	40~	B	B	B	B

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
	90	25	50	80	100
	100	B			
重铬酸钾 Heavy potassium chromate	<30	A	A	A	A
	<30				
	40~60	A	A	A	A
	100	B			
高锰酸钾 Potassium permanganate	<30	B	B	B	B
	100	B			
氯化钙 [°] Calcium chloride [°]	<20	A	A	A	D
	30~80	B	B	B	D
	100	B			
氟化钙 Calcium fluoride	100	D(150)			
	10	A	A	A	A
	100	A	A	A	A
过氧化氢(PH>7) Solozone(PH>7) (双氧水) (Hydrogen peroxide solution)	10~40	B	B	B	B
	10~40				
	90	A	A		
	100	B			C
氨水 Ammonium		A	A	A	A
氨（无水） Ammonium (free of water)		A	A	A	A
		A(316)		A(500)	
甲醇 Methand	<100	A	A	A	A
	100	A	A	A	C
乙醇 Alcohol		A	B	B	B
丙醇 Propyl alcohol		A	A	A	A
丁醇 Butanol		A	A	A	A
甲醛 [°] Ormaldehyde [°]	<40	A	A	A	A
	<40	A(150)			
	50	A	A	B	B
	50	B(300)			
	60~70	A	A		
	80~90	A	A	A	
	100	A			
乙醛 Acetaldehyde		A	A	A	A
丙醛 Propionic aldehyde		A			
丁醛 Butyric aldehyde		A	A	A	A
(二)甲醚 Dimethyl ether		B	B	B	B

■ 铬18镍9不锈钢（304,304L）泵适应介质表 Table of the media suitable to the pump made of Cr18Ni9 stainless steel(304,304L)

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
乙醚 Ethyl ether		A	A	A	A
丙酮 Acetone		A	A	A	A
甲烷 Methane		A	A	A	A
		A(370)			
乙烷 Elayl		A	A	A	A
		A(315)			
丙烷（液及气） Propane (liquid and gas)		A	A	A	A
丁烷 Tetrane		A	A	A	A
汽油（高辛烷值） Gasoling (high octane value)		B	B	B	
汽油（喷汽机燃料） Gasoling (fuel for oil sprayer)		B	B	B	
煤油 Coal oil		A	A	A	A
		A(200)			
三乙醇胺 Triethanolamine		B	B	B	B

■ 铬18镍12钼(钛)(316, 316L)泵适应介质表 Table of the media suitable to the pump mabe of Cr18Ni12Mo(Ti)(316,316L) stainless steel

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
硫酸 [°] （充气） Shlphuric acid [°] (gas filled)	<5	B	B	D	D
	10~30	B	C	D	D
	40~50	C	D	D	
	60~70	D	D	D	
	90	B	C	D	D
	100	B	C	C	C
硫酸（不充气） Shlphuric acid [°] (without gas filled)	100	D(120)			
	<5	B	D	D	D
	20~80	D	D	D	D
	80~90	B	D	D	
	100	B	B	B	C

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
植物油 Vegetable oil		A	A	A	A
		A(350)			
豆油 Soy bean oil		A	A	A	A
玉米油 Corn oil		A	A	A	A
棉籽油 Cottonseed oil		A	A	A	A
饮用水 Drinking water	流速 Flowrate	A	A	A	A
海水 Sea water	<1.5m/s	A [°]		A	
	>1.5m/s	A [°]			

■ 铬18镍12钼(钛)(316, 316L)泵适应介质表 Table of the media suitable to the pump mabe of Cr18Ni12Mo(Ti)(316,316L) stainless steel

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
硝酸 Nitric acid	<20	A	A	A	A
	<20	C(120)		D(150)	
	30~60	A	B	B	B
	30~60	D(120)			
	70	A	B	B	
	80	A	B	D	
	90	A	D		
磷酸（充气） Phosphoric acid (gas filled)	<25	A	A	A	A
	<25	A（沸点） A(Boiling point)			
	25~50	A	A	A	B

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		B(150)			
		70~80	B	D(120)	
王 水 Nitro-hydrochloric acid		D			
混酸：硫酸 > 50% + 硝酸<50% + >20% Mixed acid: sulphuric acid>50% +nitric acid <50% +water>20%		B	B	B	
硫酸20~60% +硝酸<25% + >20% Sulphuric acid 20~60% +nitric acid <25% + water>20%		D			
混酸：硫酸30% + 硝酸15% + 55% Mixed acid: sulphuric acid30% +nitric acid 15% +water55%		B	B	B	
混酸：硫酸15% + 硝酸5% + 80% Mixed acid: sulphuric acid15% +nitric acid 5% +water80%		B	B	B	
甲酸 ^③ Aminic acid	<5	B	B	B	B
	>5	C	C	C	C
	>5	D(沸点) D(Boiling point)			

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		D(120)			
		50~85	A	B	B
碳酸 Carbethylic acid	50~85	D(120)			
	90	D			
	10	B			
	30				A
铬酸 Chromic acid	100	A	A	A	A
	100	A(816)			
		D			D
氯酸 [*] Chloric acid [*]		D			
四磷酸 Tetra-phosphoric acid		B			
硼酸 [*] Boratic acid [*]	<10	A	A	A	A
	<10		A（沸点） A(Boiling point)		
	20~50	B	B	B	B

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		D(250)		D(370)	
		100	A	A	A
氢氧化钾* Potassium hydroxide*		C(260)		D(370)	
	<50	A	A	A	A
	<50	A(沸点) A(Boiling point)			
	50	B	B	B	D
	50	D(200)			
	60~70	B	B	B	C
	60~70	C(150)			
	80	B			
	80	D(200)			
	100	A			
硫酸钠 Sodium sulphate	100	D(260)			
		A	A	A	A
		A(200)		B(840)	
硝酸钠 Sodium nitrate	<70	A	A	A	A
	<70	A(沸点) A(Boiling point)			
	100	B			
	100	A(510)			

■ 铬18镍12钼(钛)(316, 316L)泵适应介质表 Table of the media suitable to the pump mabe of Cr18Ni12Mo(Ti)(316,316L) stainless steel

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		B(150)			
		70~80	B	D(120)	
醋酸 ^③ （不充气） （乙酸） Acetic acid (without gas filled)	100	B	B	D(250)	
	<50	A	A	A	A
	60~90	B	B	B	B
	100	B	B	B	B
	100	D(200)			
醋酸 ^③ （充气） Acetic acid (gas filled)	<40	A	A	A	A
	<40	B(150)		D(200)	
	50	A	B	B	B
	60~90	A	B	B	C
	100	A	B	B	C
	100	D(150)			
氢氧化钠 Sodium hydroxide	<20	A	A	A	A
	<20	B(沸点) B(Boiling point)		D(150)	
	30~50	A	A	B	D
	30~50	D*(150)			
	70	A	A	B	B
	70	D*(150)			
	80	A	A	B	D*

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		A			
硝酸钾 Saturation	<80	B	B	B	B
		A(沸点) A(Boiling point)			
	100	B			
		B(550)			
碳酸钾 Potassium bicarbonate	<70	B	B	B	B
	<70	B(沸点) B(Boiling point)			
	100	B	B	B	B
氟化钾 Potassium fluoride		B	B	B	B
氰化钾 Potassium cyanide	<90	B	B	B	B
	100	B			
重铬酸钾 Heavy potassium chromate	<30	A	A	A	A
	<30				
	40~60				A
	10	B			

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		D(250)		D(370)	
		100	A	A	A
碳酸钠 Sodium carbonate		C(260)		D(370)	
	10	A	A	A	A
	10	A(沸点) A(Boiling point)			
	20~40	B	B	A	A
	20~40	A(沸点) A(Boiling point)			
	100	B	B	B	B(260)
氯化钠 ^{**} Sodium chloride ^{**}	100	D*(400)		D*(900)	
	10	B	D		
	20~30	B	B	B	B
	20~30	B(沸点) B(Boiling point)		D(120)	
	90	D			
	100	A	D(700)		
碳酸氢钠 Sodium bicarbonate		A	A	A	A
氰化钠 Sodium cyanide	<10	A	A	A	A
	20~30	A			
	40~100	B			D
	40~100	D(700)			
硅酸钠 Sodium silicate		A	A	A	A
		D(800~1000)			
硫酸钾 Potassium sulphate	<100	A	A	A	A
	<100	A(沸点) A(Boiling point)			

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		A	A	A	A
乙醇 Alcohol		A	A	A	A
乙二醇 Ethandiol		A	A	A	A
甲醛 [∞] Ormaldehyde [∞]	<40	A	A	A	A
	<40	A(150)			
	50	A	A	B	B
	50	B(300)			
	60~70	A	A		
	80~90	A	A	A	
乙醚 Ethyl ether	100	A			
		A	A	A	A
丙酮 Acetone		A	A	A	A
醋酸乙酯 Ethyl ester acetate		A	A	B	B

■ 铬18镍12钼(钛)(316, 316L)泵适应介质表 Table of the media suitable to the pump mabe of Cr18Ni12Mo(Ti)(316,316L) stainless steel

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		A			
高锰酸钾 Potassium permanganate	<30	B	B	B	B
氯化钙 ^{1*} Calcium chloride ^{1*}	10	B	D		
	20~30	B	B		
	40~90	B	B	B	
	40~90	B(沸点) B(Boiling point)			
	100	A	A	A	A
	50	C(-18)			
氟化钙 Calcium fluoride	10	A	A	A	A
	100	A	A	A	A
甲醇 Methand	<100	A	A	A	A

注：①Cr26Mol铁素体钢不耐蚀；
②高流速和摩擦会增加腐蚀；
③不许含微量盐酸、硫酸或氯化钠。
Cr26Mol铁素体钢耐蚀较好。

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
		A	A	A	A
甲苯 Toluene		A	A	A	A
汽油 Gasoline		A(沸点) A(Boiling point)			
		A	A	A	A
煤油 Coal oil		A(175)			
		A	A	A	A
苯酚 Phenyl hydroxide		A(200)			
		B	B	B	B
海水 Sea water	70~90	B	B	B	B
	70~90	B(150)		D(200)	
	流速 Flowrate				
	<1.5m/s	A ^{**}		A(PH≈7)	
	>1.5m/s	A [°]			

Note:①Cr26MoL ferritic steel does not withstand corrosion;
②High flowrate and friction may increase corrosion;
③Not allowed to contain micro chlorhydric acid, sulphuric acis or sodium chloride.

■ 钛及钛合金泵的适应介质表 Table of the media suitable to the pump of titanium and titanium alloy

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
硫酸 [°] (充气) Shlphuric acid [°] (gas filled)	1	B	B	B	B
	1	B(沸点) B(Boiling point)			
	<3	B	B		D
	<10	B	C	D	D
	10~30	B	C	D	
硫酸 (不充气) Shlphuric acid [°] (without gas filled)	40~50	C	D		
	50~100	D	D		
	<10	B			
	10~100	D			
盐酸 [°] (不充气) Chlorhydric acid [°] (without gas filled)	10	B	D		
	20	C	D		
	>30	D			
盐酸 [°] (充气) Chlorhydric acid [°] (gas filled)	1	B	B	B	B(沸点) B(Boiling point)
	<20	B			
					D(35)

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
硝酸 Nitric acid	10	A	A	A	A(150)
	10	B(200)			
	20	A	A	A	
	20	A(150)			
	20	D(316)			
	30~80	A	A	A	A(150)
	30~80	D(200)			
	80~100	A	A	B	
	80~100	B(150)			
	<10	A	A	A	
甲酸 (不充气) Aminic acid (without gas filled)	<10	A(沸点) A(Boiling point)			
	30	D			D
	<50	B	B	D	D
	90			D	D

■ 钛及钛合金泵的适应介质表 Table of the media suitable to the pump of titanium and titanium alloy

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
盐酸 ^① (充气) Chlorhydric acid ^① (gas filled)	30	B	D		
	>50	D			
磷酸 (充气) Phosphoric acid (gas filled)	5	B		B	B
	<10	B		B	
磷酸 (充气) Phosphoric acid (gas filled)		D(沸点) D(Boiling point)			
	10~20	B	D		
	30	B	C		D
	40	C	C		
	50~70	C	C	D	
	100	D			
		D			
磷酸 ^① (不充气) Phosphoric acid ^① (without gas filled)		D			
铬酸 Chromic acid	10	A	A	A	A
	10	A(沸点) A(Boiling point)			
	<90	A	A	A	A
硼酸 Boratic acid	10	A	A	A	A
	10	A(沸点) A(Boiling point)			
	< 饱和 <Saturation	A	A	A	A
盐酸1%+硝酸3% Chlorhydric acid 1% + nitric acid 3%		A			
盐酸2%+硝酸1% Chlorhydric acid 2% + nitric acid 1%		A			
王水 Nitro-hydrochloric acid		A	A	B	B
盐酸4%+硝酸1% Chlorhydric acid 4% + nitric acid 1%		A			

注：①含Cu、Ni等离子或其他氧化剂能降低腐蚀。
②含微量CL-的甲、乙醇可能产生应力腐蚀破裂，含2%以上的水时呆

介质名称 Medium name	浓 度 Concentration (%)	温度 Temperature(℃)			
		25	50	80	100
甲酸 (充气) Aminic acid (gas filled)		B	B	B	B
醋酸 Acetic acid		A	A	A	A
		A(200)			
氢氧化钾 Potassium hydroxide	10	A	A	A	A
氢氧化钾 Potassium hydroxide		A(沸点) A(Boiling point)			
	20~100	B			D(沸点) D(Boiling point)
	20~100	D(260)			
氢氧化钠 Sodium hydroxide	10	A	A	A	A
	10	A(沸点) A(Boiling point)			
硫酸钠 Sodium sulphate	10~30	A	A	A	A
	10~30	A(沸点) A(Boiling point)			
	< 饱和 <Saturation	A			
硝酸钠 Sodium nitrate	< 饱和 <Saturation	A	A	A	A
		A(300)			
氯化钠 Sodium chloride	< 饱和 <Saturation	A	A	A	A
		A(沸点) A(Boiling point)			
	100	A ⁺ (沸点) A ⁺ (Boiling point)			
乙醇 ⁺² Alcohol ⁺		A	A	A	A
乙二醇 Ethandiol		A	A	A	A
乙醚 Ethyl ether		A	A	A	A
丙酮 Acetone		A	A	A	A
醋酸乙脂 Ethyl ester acetate		A	A	A	A
甲苯 Toluene		A	A	A	A
苯酚 Phenyl hydroxide		A			

Note:①Containing Cu, Ni etc.ions or other oxidants can lower the corrosion.
②Both methanol and alcohol containing micro CL may produce stress corrosive craking, which can be avoided by containing more than 2%

■ ZG00Cr20Ni25Mo4.5Cu1.5(904L)耐腐蚀性能表 ZG00Cr20Ni25Mo4.5Cu1.5(904L) table of anti-corrosive performance

介质名称 Medium name	介质条件 Medium condition		腐蚀情况 Corrosion condition
	浓 度 Concentration(%)	温 度 Temperature(℃)	
硫 酸 Shlphuric acid	5-40	1	1
	10	1	1
	20	<3	<3
	30	<10	<10
	40	10~30	10~30
	50	40~50	40~50
	50	50~100	50~100
	60	<10	<10
	60	10~100	10~100
	80-98		
	80-98		

介质名称 Medium name	介质条件 Medium condition		腐蚀情况 Corrosion condition
	浓 度 Concentration(%)	温 度 Temperature(℃)	
硝 酸 Nitric acid	10-40	20-沸腾 20-Bolling	A
	50	100	A
	60	90	A
	70	100	B
	80	80	B
醋 酸 Acetic acid	1-80	20-沸腾 20-Bolling	A
	99.5	200	A
	100	20-75	A
	100	100	A
	100	20-沸腾 20-Bolling	A

■ ZG1Cr13(410)耐腐蚀性能表 ZG1Cr13(410) table of anti-corrosive performance

介质条件 Medium condition			延续时间 Extended time (h)	腐蚀情况 Corrosion condition
介质名称 Medium name	浓 度 Concentration(%)	温 度 Temperature(℃)		
硝酸 Nitric acid	5	20		A
	7	20	720	A
	5	沸腾 Bolling		D
	20	20		A
	20	沸腾 Bolling		A
	50	20		A
	50	沸腾 Bolling	24	C
	65	20		A
	65	沸腾 Bolling	24	D
	90	20		A
	90	沸腾 Bolling		D
醋酸 Acetic acid	10-50	20		C
	10	沸腾 Bolling		D
蚁酸 Formic acid	10-50	20		A
	10-50	沸腾 Bolling		D

介质条件 Medium condition			延续时间 Extended time (h)	腐蚀情况 Corrosion condition
介质名称 Medium name	浓 度 Concentration(%)	温 度 Temperature(℃)		
柠檬酸 Citric acid	1	20		A
	1	沸腾 Bolling		D
	25	20	720	C
氨 Ammonia	溶液或气体 Solution or air	20-100		A
氢氧化钠 Sodium hydroxide	20	20		A
	20	沸腾 Bolling		A
	50	100		D
草酸 Oxalic acid	浓 液 Thick liquid	20		A
	浓 液 Thick liquid	沸腾 Bolling		D
硝酸铵 Ammonium nitrate	约65 About 65	20	1127	A
	约65 About 65	125	110	C

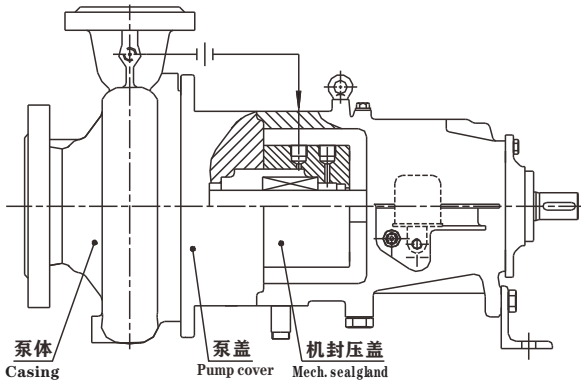
■ 订货须知 Notice at order

- 根据使用条件决定泵的规格、材料、轴封形式及单机。
- 配用特殊电动机时，要支持防爆等级、功率、电压、频率等。
- 若选用填料密封，订货时请特殊注明。
- 本样本内所列性能参数，用户可在其范围内选择。
- 合同签订时，需如实、详尽填写后面所附离心泵数据表，如因填写不实或不全造成的损失公司不予承担！
- Decide the pump's norm, material, axle seal type and motor upon the conditions of use.
- For fitting with a special motor, please indicate the explosion-proof class, power, voltage,frequency etc. Make a special note at order if selecting packing seal.
- Users may select the performance parameters within the range listed in this catalog.
- At signing the contract, please fill in the data table of centrifugal pump attached thereafter completely and upon reality

■ 供货范围 Range of supply

- 本公司该产品标准出厂配置为：泵头、电机、底座、联轴器及联轴器罩。如需其它附件，订货时需另加价。
- The standard allocation of the pump at ex-works includes pump head, motor, foundation, clutch and clutch cover. Additional charge is necessary at order if other accessories are required.

■ 几种常用典型机封冲洗方案 Several common typocal mechanical seal rinsing proposals

API 密封 冲洗方案 Seal rinsing plan	图 例 Legend	说 明 Description
Plan11		循环液从泵出口经过流量控制孔板到达密封，冲洗液流进密封腔中临近密封面的地方，冲洗密封面后液流返回到泵中； 当△P<0.2MPa时，不加孔板； 通常用于单端面机械密封。 The cycling liquid gets to the seal via the flow control orifice from the pump exit and the rinsing liquid flows into the place adjacent to the sealing face in the seal cavity and, after rinsing the said face, flows back into the pump. Usually used for the mechanical seal with a

■ DG型高压锅炉给水泵性能参数 DG type high pressure boiler feed pumps performance

API 密封 冲洗方案 Seal rinsing plan	图 例 Legend	说 明 Description
Plan32		从外供液源来的冲洗液注入密封室里并进入泵腔，要正确选择密封冲洗液，避免冲洗液的汽化发生，避免冲洗液污染泵输送的介质。 通常用于单端面机械密封。 The cycling liquid gets to the seal cavity via the filter, the flow control orifice and the cooler from the pump exit. The filter is not recommended to use in case of a normal condition, as it may cause the seal to be out of work if it is possibly blocked. Usually used for the mechanical seal
Plan54		有压的外部隔离液容器或系统向密封腔提供清洁介质，循环液通过外部泵或压力系统循环，隔离液压力大于所要密封的流程压力； 通常和有压的双端面机械密封一起用； A pressured external isolating liquid vessel or system provides the seal cavity with clean medium, the cycling liquid is cycled via an external pump or a pressure system and the pressure of the isolating liquid is bigger than that of the flow path required to be sealed. Usually used with a pressured

注：如有其它冲洗方案要求需提前说明并在合同中注明！
Note: please note it in advance and in the contract if other rinsing proposal(s) is required.

产品参数表 Parameter data of product		泵名称 Pump name		泵型号 Pump model				
操作条件 OPERATING CONDITION								
1	输送介质 Liquid handled			2	操作状态 Operating	☐ 连续 Continuous	☐ 间断 Intermittent	
3	介质特性 Liquid characteristic			4	进口压力 Inlet press.	额定 Rated	最大 Max.	
5	固体颗粒 Solid content		%	重量 Wet	粒度 Particle size	mm	MPa.G	
7	温度 Temp.		正常 Nor.	高 Max.	最低 Min.	℃	MPa.G	
9	正常温度下的密度 Density at nor. temp.			kg/m ³		MPa		
11	正常温度下的粘度 Viscosity at nor. temp.			cp.		m		
13	流量 Flow rate		正常 Nor.	额定 Rated	m ³ /h		MPa.G	
15	标准 Standard		型式 Type		☐ 卧式 Horiz.			☐ 立式 Verti.
17	泵体 Impeller	☐ 闭式 Closed		☐ 半开式 Semi-closed		☐ 开式 Open		
19		安装 Installation		☐ 悬臂 Overhung		☐ 双支承 Between bearings		
21	联轴器 Clutch		☐ 弹性柱销 Flexible		☐ 中间隔套 With spacer		☐ 膜片联轴器 Membrane clutch	
23	☐ 填料密封 Packing seal		☐ 机械密封 Mechanical seal		底座 Foundation			
25	轴承 Bearing	型号 Model		叶轮 Impeller		轴 Shaft		
27		☐ 单端面 Single		☐ 内装式 Inside		☐ 非平衡型 Unbalanced		
29		☐ 双端面 Double		☐ 外装式 Outside		☐ 平衡型 Balanced		
31		制造厂 Manufacturer		膜片联轴器 Membrane clutch		公用底座 Common foundation		
33	冲洗方案 Flush plan		泵盖 Cover		轴套 Shaft sleeve		其它 Other	
35	提供的辅件 Provided accessories		☐ 换热器 heat exchanger		☐ 缓冲罐 Buffering tank		☐ 管路及附件 Pipeline and fittings	
37	轴封冲洗液 Shaft seal flush liquid		名称 Name		流量 Capacity		压力 Press.	
39	型号 Model		额定功率 Rated power		kW		转速 Speed	
41	电源 Elec. power		V		Hz		PH.	
43	制造厂 Manufacturer		其余要求 Other requirement		绝缘等级 Insulation class		防爆等级 Explosive-proof	
45	附件 ACCESSORIES		联轴器 & 护罩 Coupling & guard		底座 Foundation		地脚螺栓、螺母 Anchor bolts, Nuts	
47	☐ 泵 Pump		☐ 驱动机 Driver		☐ 配对法兰 Pairing counter-flange		☐ 连接螺栓、垫片 Joint bolt, gasket	

管路损耗参考表 Reference table for pipeline loss

流 量 Capacity (L/s)										
管径 Pipe diameter (mm)	1	2	4	6	8	10				
25	3.27	13.0								
38	3.5	14	55				15	20		
50	0.8	3.1	13	29						
65		1.6	3.2	7.1	13	20			40	50
75		0.4	0.8	3.3	5.9	9.6	21.6			
100			0.23	0.8	1.3	2.1	6.8	8.6	13	19.4
125				0.23	0.4	0.63	1.3	2.7	4.1	5.9
150					0.16	0.26	0.58	1.1	1.6	2.3
175						0.11	0.27	0.5	0.74	1.05
200							0.13	0.26	0.37	0.53
250								0.07	0.12	0.18
300									0.07	0.12

直管摩擦损失简表（供估计用）100m直管损失米数以新铸铁管为标准，旧管加倍。
Brief table for the frictional loss of a straight pipe(for evaluation),the lost meters of a 100m straight pipe takes the

阀及弯管折合直管长度（每个）

The length of a straight pipe converted into from both valve and elbow(each)

种类 Variety	折合直管直径倍数 Concert into the times of the diameter of a straight pipe	倍数 Remark
全开闸阀 Fully opened gate valve	13	未畅开加倍 Multiple in case of unoopen
标准弯管 Standard elbow	25	
逆止阀 Back valve	100	
底阀 Foot valve	100	部分堵塞加倍 Partial block-up multiplied

注：例如100mm直径管，底阀折合100倍直径等于100×100=10000mm=10m
直径长度，假定流量为8L/s，直管每100m损失1.3m，则10m损失0.13m，

Note:For instance,a 100mm diameter pipe, the foot valve has a 100×100=10000mm=10m diameter when which is converted into 100 times that of the pipe's diameter.
Suppose the flow is 8L/s, looked into the above table, the loss of the straight pipe is 1.3m each 100m, then the one for 100mm is 0.13m, that is, for a 100mm foot vlave

一定管路直径之最大流量限制

Limit of the maximum flow for a pipe with a certain diameter

管路直径 Pipeline diameter (mm)	最大流量 Maximum flow (L/s)	最大流速 Maximum flow rate (m/s)	管路直径 Pipeline diameter (mm)	最大流量 Maximum flow (L/s)	最大流速 Maximum flow rate (m/s)
25	1	2.04	125	30.0	2.44
38	2.5	1.69	150	43.0	2.45
50	4.17	2.12	175	60.0	2.49
65	6.67	2.01	200	83.3	2.69
75	10.0	2.26	250	133.0	2.72
100	18.4	2.33	300	192.0	2.71

注：超过此限使管路损失显著增加。
Note: The pipeline loss would be made greatly increased once the limit is over.

水泵装配与拆卸

泵在装配前应首先检查零件有无影响装配的缺陷，并擦洗干净，方可进行装配。

- 1、预先可将各处的连接螺栓、丝堵等分别拧紧在相应的零件上。
- 2、预先可将O形密封圈、纸垫、毛毡等分别放置在相应的零件上。
- 3、预先可将密封环和填料、填料环、填料压盖等依次装到泵盖内。
- 4、将滚动轴承装到轴上，然后装到悬架内，再合上压盖，压紧滚动轴承，并在轴上套上连接螺栓。
- 5、将轴套装到轴上，再将泵盖装到悬架上，然后再将叶轮、止动垫圈、叶轮螺母等装上并拧紧，最后将上述组件装到泵体内，并拧紧泵体及泵盖上的连接螺栓。

在上述装配过程中，一些小件如平键、挡油盘、挡水圈轴套内O形密封圈等容易遗漏或装错顺序，应特别注意。

水泵安装

泵安装得好坏对泵的运行和寿命有重要影响，所以安装和校正必须仔细进行。

安装和校正

- 1、清除底座上的油腻和污垢，把底座放在地基上。
- 2、用水平仪检查底座的水平度，允许用楔铁找平。
- 3、用水泥浇灌底座和地脚螺栓孔眼。
- 4、水泥干涸后应检查底座和地脚螺栓孔眼是否松动，合适后拧紧地脚螺栓，重新检查水平度。
- 5、清理底座的支持平面、水泵脚及电机脚的平面，并把水泵和电机安装到底座上去。
- 6、联轴器之间应保持一定的间隙，检查水泵轴与电机轴中心线是否一致，可用薄垫片调整使其同心。

测量联轴器的外圆上下、左右的差别不得超过0.1mm，两联轴器端面间隙一周上最大和最小的间隙差别不得超过0.3mm。

安装说明

- 1、泵的安装高度，管路的长度、直径、流速应符合计算，力求减少不必要的损失。
- 2、长距离输送时应取较大管径。泵的管路应有自己的支架，不允许管路的重量加在泵上，避免把泵压坏。

Water pump assembly and disassembly

Before assembly, please check whether there are defects on parts affecting assembly and clean.

- 1.Tighten all coupling bolts and screw blocks onto the corresponding parts in advance.
- 2.Place O ring, paper cushion, hair felt onto corresponding parts in advance.
- 3.Install seal rings, stuffing, stuffing rings, stiffing cover into the pump cover in the sequence in advance.
- 4.Install rolling bearing onto spindle, and install into the suspended frame, close cover to press on the rolling bearing, then screw coupling bolts onto the spindle.
- 5.Install spindle sleeve into the spindle, install pump cover onto the suspended frame, then install impellers, lock gaskets, impeller nuts and tighten, finally, install the parts above into the pump body, and tighten the coupling bolts on pump body and pump cover.

During the assembly procedure above, some small parts, such as flat key, oil baffle disc, O ring in water baffle ring bearing and so on, are likely to be omitted or assembled wrongly, please pay attention to that.

The disassembly of a pump is in the reversed sequence of assembly

Water pump installation

Installation is very important to operation and service life of a pump, therefore, please install and adjust a pump carefully.

Installation and adjustment

- 1.Clear off oil stain and dirt on the base, and put the base on ground.
- 2.Use gradienter to check the horizontal degree of base, and wedge irons are allowed to be used to adjust.
- 3.Pour cement into base and bolt holes of feet.
- 4.When cement is dried, check whether bolts of base and feet are loosened, tighten in a proper way, and check horizontal degree again.
- 5.Clean the support grounds under base, ground under feet of water pump and motor feet, and install water pump and motor onto the base.
- 6.A clearance shall be kept between shaft couplers, chec whether water pump spindle and motor spindle are on a same center line, thin cushion sheets can be used to adjust.

Measure the difference between up-and-down length and left-to-right length of external circle of coupler shall not be more than 0.1mm. Between two couplers, difference between maximum clearance and minimum clearance on a same circle shall no

t be greater than 0.3mm.

Installation description

- 1.Installation height of pump, length, diameter and flow rate of pipes shall be as calculated, to reduce unnecessary loss.

■ 水泵启动、停止与运转

启动

1、应在机泵联接前确定电动机的旋转方向是否正确。泵的转动是否灵活。

2、关闭吐出管路上的闸阀。

3、向泵内灌满水或用真空泵引水。

4、接通电源，当泵达到正常转速后，再逐渐打开吐出管路上的闸阀。并调节到所需要的工况。在吐出管上的闸阀关闭的情况下，泵连续工作的时间不能超过3分钟。

停止

1、逐渐关闭吐出管路上的闸阀，切断电源。

2、如环境温度低于0℃，应将泵内水放出，以免冻裂。

3、如长期停止使用，应将泵拆卸清洗上油，包装保管。

运转

1、在开车及运转过程中，必须注意观察仪表读数，轴承是否发热，填料是否漏水及泵的振动和杂音等是否正常，如果发现异常情况，应及时处理。

2、轴承温度最高不大于80℃，轴承温度不得超过周围温度40℃。

3、填料正常，漏水应该是少量均匀的。

4、轴承油位应保持在正常位置上，不能过高或过低，过低时应及时补充润滑油。

■ Water pump start,stop and work

Start

1.Before coupling the pump, check whether the rotation direction of motor is correct, rotation of pump is agile.

2.Close the gate valve on output pipe.

3.Pour water into pump, or use vacuum to draw water.

4.Turn on power supply, when pump reaches its normal rotation speed, open the gate valves on output pipes gradually, and adjust according to actual requirements. When gate valves on output pipes are closed, continuous work period of pump shall not be more than 3 minutes.

Stop

1.Gradually close the gate valve on output pipe, and turn off power supply.

2.If ambient temperature is below 0 , drain out water in the pump, to avoid cracking by being frozen.

3.If it will not be used for a long time, please disassemble the pump, clean, add oil, and pack before storage.

Work

1.During start and operation, please check whether reading on instruments are normal, whether bearing is overheated, whether there is water leakage from stuffing, and whether vibration and noises of pump are normal, please handle in time when abnormal situations occur.

2.Maximum temperature of bearing shall be no more than 80 , and bearing temperature shall not be higher than ambient temperature by more than 40 .

3.When stuffing is normal, water leakage shall be of minor amount and even.

4.Oil level of bearing shall be normal, not too high or too low, add the lubricating oil in time when it is too low.

■ 故障原因及排除方法 Failures causes and troubleshooting

故 障 Failure	原 因 Possible causes	排除方法 Troubleshooting
1、水泵不吸水，压力表及真空表指针剧烈跳动。 Pump not suck water, both pointers of manometer and vacuometer severely	a、注入水泵的水不够 b、进水管与仪表漏气 a.Water input the water pump is not enough. b.Air leakage on water input pipes and	a、再往水泵内注水 b、拧紧堵塞漏气处 a.Input more water into the water pump. b.Tighten and block the air leakage parts.
2、水泵不吸水，真空表已显示高度真空。 Pump not suck water, high vacuum shown on	a、底阀没有打开或已堵塞 b、吸水管阻力太大 c、吸水高度太高 a.Bottom valve not opened or blocked up. b.Too large resistance of the suction pipeline.	a、校平或更换底阀 b、清洗或更换吸水管 c、降低吸水高度 a.Adjust or replace bottom valve. b.Clean or replace water input pipes. c.Reduce water input height.

■ 故障原因及排除方法 Failures causes and troubleshooting

故 障 Failure	原 因 Possible causes	排除方法 Troubleshooting
3、压力表有压力而水泵仍不出水。 No water out though pressure is shown on	a、出水管阻力太大 b、旋转方向不对 c、叶轮堵塞 d、水泵转速不够 a.Too large resistance on outlet pipeline. b.Uncorrect rotating direction. c.Impeller blocked up.	a、清洗或缩短水管 b、检查电机旋向 c、清洗叶轮 d、增加水泵转速 a.Clean or shorten water pipe. b.Check rotation direction of motor. c.Clean impeller.
4、泵流量减少或扬程下降。 Pump flow rate reduced	a、叶轮或管路堵塞 b、密封环或叶轮磨损过多 c、转速不够 a.Impellers or pipes are jammed. b.Too serious abrasion on seal rings or impellers.	a、清洗叶轮及管路 b、更换损坏零件 c、调整到额定转速 a.Clean impellers and pipes. b.Replace damaged parts.
5、水泵消耗的功率过大。 Too large power loss of	a、填料压盖太紧，填料函发热 b、叶轮与密封环磨擦 c、流量过大 a.Stuffing cover is too tightened, and stuffing case is heated. b.Impellers and seal rings are abraded.	a、放松填料压盖 b、消除机械磨擦 c、关小出水闸阀 a.Loosen cover of stuffing. b.Eliminate mechanical abrasion.
6、水泵内部声音反常，水泵吸不上水。 Abnormal sound inside	a、吸水管内阻力过大 b、吸水管有空气漏入 c、流量过大发生汽蚀 a.Too great resistance in water input pipe. b.Air ingress into water input pipe. c.Flow rate is too great, which leads to	a、减小吸水高度缩短吸水管长度 b、堵塞漏气处 c、调节出口阀门使泵在规定工况范围内使用 a.Reduce height of water input, and shorten length of water input pipes. b.Block air leakage parts. c.Adjust output valves, to make pump work
7、水泵振动厉害。 Water pump vibration is	a、泵发生汽蚀、叶轮不平衡 b、泵轴与电机不在同一中心线上 c、地脚螺栓松动 a.Air cavities in pump, impellers are not balanced. b.Pump spindle and motor are not on a	a、消除汽蚀、叶轮校平衡 b、校水泵和电机的同轴度 c、拧紧地脚螺栓 a.Eliminate air cavities, balance impellers. b.Adjust coaxiality of water pump and
8、轴承过热。 Overheat on bearing.	a、润滑油不足或过多，或变质 b、水泵与电机轴不同心 a.Lubricating oil is not enough, or too much,or degraded. b.Water pump and motor spindle are	a、检查油量，清洗轴承并换油 b、把轴中心线对准 a.Check oil amount, clean bearing and replace oil. b.Align center line of spindle.