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The banner features the Hanthing logo on the left, which consists of a stylized blue 'S' shape above the word 'Hanthing' in blue. To the right of the logo is a collage of various industrial pumps. A large yellow diagonal banner across the center reads 'Water pump'. To the right of this banner, four blue boxes list pump types: 'Inline', 'Split case', 'Multi stage', and 'End suction'. At the bottom, a blue bar contains the website 'www.hanthing.com'. The collage also includes the phrases 'QUALITY CREATES VALUE' and 'INNOVATION SHAPES THE FUTURE'.

Hanthing

Water pump

Inline
Split case
Multi stage
End suction

www.hanthing.com



The banner features the Exthin logo on the left, which consists of yellow wavy lines above the word 'Exthin' in yellow. To the right of the logo is a collage of various industrial compressors. A large yellow diagonal banner across the center reads 'Air Compressor'. To the right of this banner, three black boxes list compressor types: 'Portable', 'Screw', and 'Piston'. At the bottom right, there is an image of a large industrial air compressor unit. At the top, a black bar contains the website 'www.exthin.com'.

www.exthin.com

Exthin

Air Compressor

Portable
Screw
Piston

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国家产品质量免检 | 中国著名品牌

ZTS系列化工泵

ZTS Series Chemical Pump



Type

ZTS



ZTS石油化工流程泵,是根据API610第七版和VDMA24297(轻/中型)规范进行设计。

应用范围

本泵适合输送清洁或含有颗粒的液体,低温或高温的液体,中性或有腐蚀性的液体。

主要用于:

- 炼油厂、石油化学工业、煤加工工业和低温工程
- 化学工业、造纸、纸浆业、制糖业和普通流程工业
- 供水厂、海水淡化厂
- 供暖和空气调节系统
- 发电厂
- 环境保护工程
- 船舶及海上工业等

性能参数

- 口 径 DN 25-200mm
- 流 量 Q 可达2400m³/h
- 扬 程 H 可达300m
- 工作压力 P 可达2.5MPa
- 工作温度 T 可达 -80℃ ~ +450℃

结构特点

该泵为单级、卧式、径向剖分式蜗壳泵。泵体为脚支撑,单吸径向叶轮,轴向吸入,径向排出。根据使用条件,采用前、后口环及平衡孔进行水力平衡。填料箱体有冷却或加热管接头。轴封采用填料密封,也可采用单端面或双端面机械密封,并配有冷

却、冲洗或密封液系统。

标准管路按API规范设计。

吸入及排出管法兰的额定压力等级相同。

从电机端看,泵为顺时针转动。

输送介质

- 各种温度和浓度的硫酸、硝酸、盐酸和磷酸等无机酸和有机酸。
- 各种温度和浓度的氢氧化钠和碳酸钠等碱性溶液。
- 各种盐溶液。
- 各种液态石油化工产品,有机化合物以及其它有腐蚀性的原料和产品。

目前我厂的耐腐蚀材料,能满足上述各种介质的要求。订货时,请用户提供所需要输送介质的详细情况。

ZTS petrochemical process pump is designed according to API610 7th edition and VDMA24297 (light/medium) standard.

Application ranges

The pump are suitable for pumping clean or containing particle liquid, low or high temperature liquid, chemically neutral or corrosive liquids.

- Oil refinery, petrochemical industry, coal processing industry and low temperature engineering.
- Chemical industry, papermaking, paper pulp industry, sugar industry and general processing industry.
- Water supply factory and desalinator.
- Heating and air conditioning system.
- Power plant.
- Environmental engineering.
- Ships and offshore industry, etc.

Performance parameter

- Size DN 25-200mm
- Capacity Q up to 2400m³/h

- Heads H up to 300m
- Pressures P up to 2.5MPa
- Temperatures T -80℃ to +450℃

Construction feature

The pumps are horizontal single-stage single-suction centrifugal process pumps with supporting feet below. The single-suction radial impeller, shaft direction suction port and radially upward discharge port. According to the operating conditions, the hydraulic balance provide to the front or rear wear rings and balance holes. Stuffing-box have the cooling or heating connections. The shaft sealing is packing or mechanical seal(single or double faces), the cooling, flushing or sealing liquid are provided.

Standard piping are designed according to API standard.

The rated pressure stage of flanges is same in the suction and

discharge piping.

Looking from the motor, the direction of rotation is clockwise.

Pumping medium

- All kinds of temperature and concentration of sulfuric acid, nitric acid, hydrochloric acid and phosphoric acid and other inorganic acid and organic acids.
- All kinds of temperature and concentration of sodium hydroxide alkaline solution and sodium carbonate, etc.
- Various salt solution
- Various liquid petroleum products, organic compounds, and other corrosive materials and products.

At present, anti-corrosive materials for pumps provided by our plant can meet all the requirements of the medium mentioned above. Please provide the detail service conditions for the pump to us when you order.

设计特点

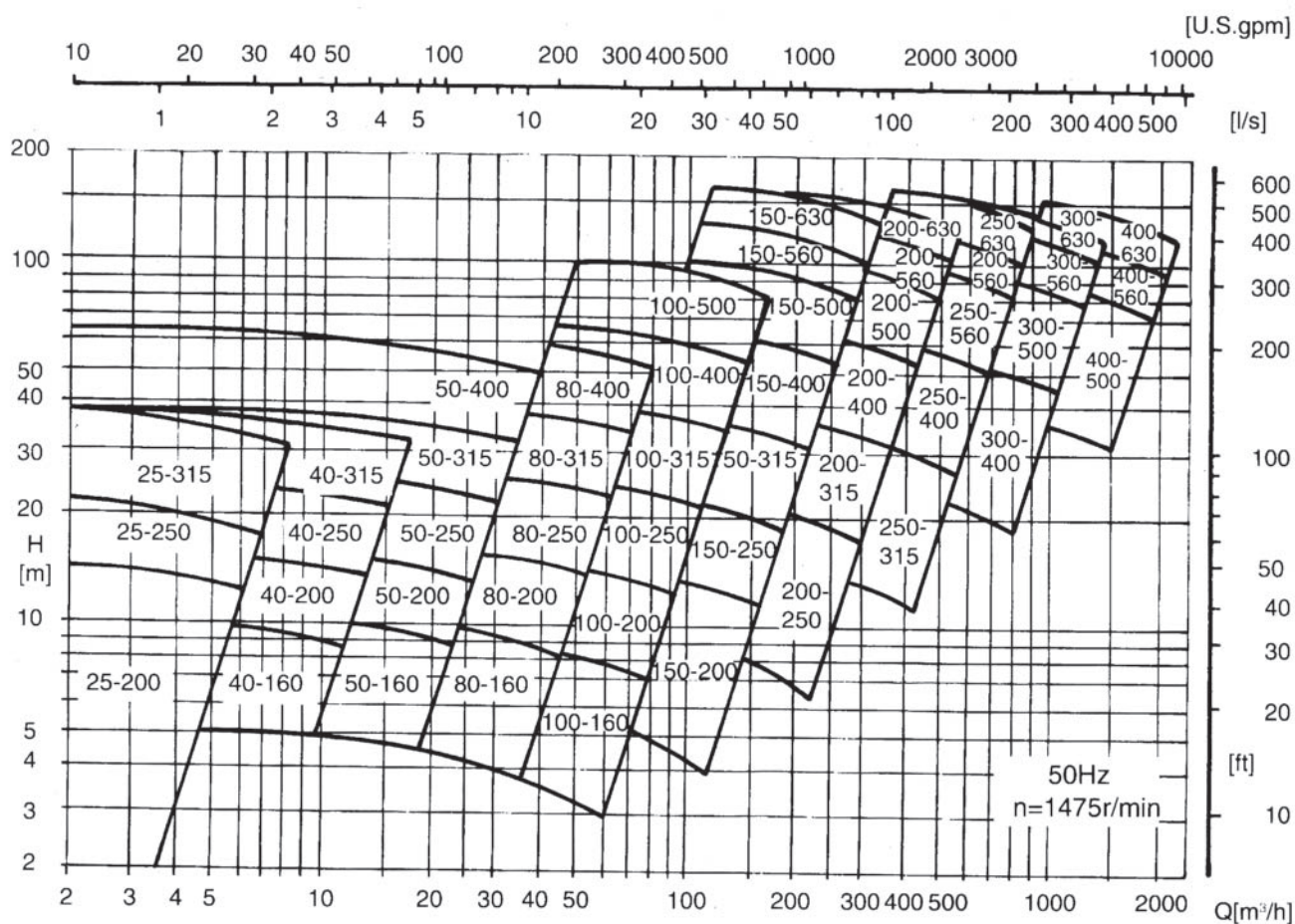
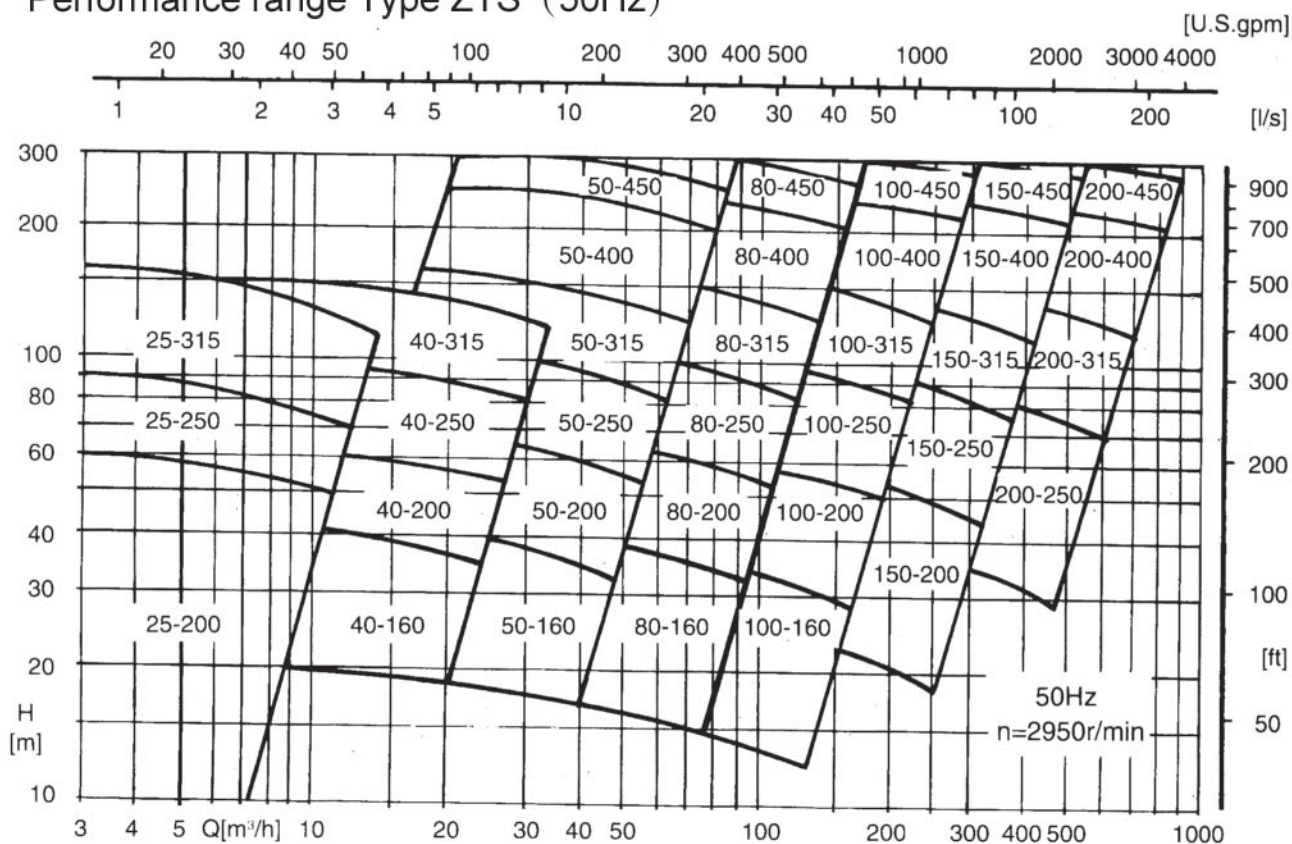
设计特点	优点	经济效益
按照 API610(第七版)标准设计 采用组件装配, 联轴器带有加长段	保证执行流程工业的结构和维修标准 拆装泵时无须拆下管道和电机, 易于拆装, 便于维修	可靠性高, 互换性好 停工时间短, 维修费用低
不同规格泵的基本部件可以互换	53 种规格泵只需 8 种规格的轴承部件, 对于重工位的 ZTH、ZTG、ZTU 系列具有相同的水力件(叶轮)和轴承部件	备件少, 易保管, 费用低
双蜗壳泵体 (口径 80mm 以上) 管径大, 腐蚀余量大	径向力小, 轴挠度小, 轴承处挠度小于 0.05mm 管内流速小, 振动小, 噪音低, 泵体带有自动排气装置。管道结构简单, 承载好, 泵体无须支架, 不会断裂寿命长。	轴套和耐磨轴承使用寿命长 维修方便, 费用低 效率高, 消耗小, 管道支撑和消音附件费用低 备件少, 稳定性高
叶轮结构 闭式叶轮 (标准件) 开式叶轮 (ZTK 型) 叶轮用钢丝螺套自锁	闭式叶轮能在各种条件下良好运行, 效率高, 气蚀值低。 开式叶轮适于输送汽液两种和含有固体颗粒浓度大 (达 10%) 的液体, 气蚀值极低, 要求装置气蚀余量小, 轴不与输送的介质接触。	本系列泵结构合理, 能耗低, 稳定可靠, 价格便宜
磨损件可以更换 叶轮和泵体口环, (角结构也可) 轴封处轴套, 泵体磨损环可用泵冲洗。	当泵体、叶轮上的口环和轴套受磨损后, 更换泵体、叶轮和轴后仍能继续使用。	节省维修和备件费用 维修简便, 迅速
整体重型轴承支架 油润滑球轴承, 自动润滑而且自动控制油位。 当温度 $T \leq 250^{\circ}\text{C}$ 时, 不须冷却 当温度 $T > 250^{\circ}\text{C}$ 时, 采用风冷或水冷却 迷宫环密封 (标准件), 也可用径向密封	轴与轴承支架同轴度好, 稳定性高, 刚性好, 挠度小。 $n_k > n$, 零件少 不增加轴承温度	填料密封或机械密封寿命长 易于维修, 停工时间短 运行费用低, 不需对冷却系统投资
填料箱尺寸适宜	填料密封和各种结构的机械密封, 可互换	互换性好, 改型填料箱不必另行加工

Design Features

Design features	Advantages	Economic considerations
Process design API610 (7 th edition) Assembly unit Coupling with spacer	Ensure to execute the structure of process industry and maintenance standard disassembly without removal of pipeline and driver, rapid disassembly or assembly, easy to repair	High reliability and interchangeability Downtime short Low maintenance
Interchangeable modular elements for various sizes	Only 8 bearing frames for 53 sizes Same hydraulics(impellers) and bearing frames as for heavy duty series ZTH、ZTG、ZTU	Few spare parts, easy to keep, low costs
Double volute casing (above 3" branch size) Large suction and discharge Increased corrosion allowance	Small radial thrust, small shaft deflection (<0.05mm) in the area of the bearing Low branch velocity, low noise level due to additional primary measures at impeller, casing with automatic vent, simple pipeline design, better absorption of force long rated life of casing, casing joint cannot break and casing parts can not break.	Long rated life of antifriction bearings, long rated life of shaft seals, downtime short, low maintenance, higher efficiency, low operating costs, low costs for pipeline support and sound protection, low spare part and repair costs, high reliability
Impeller designs Closed impeller(standard) Open impeller depending on size (ZTK) Impeller fasten itself with wire thread insert	Closed impeller can good operation in various conditions, high efficiency, low NPSHreq values Open impeller are suitable for conveying steam and liquid, as well as the liquid containing solid particles that the concentration is up to 10%, the NPSHreq value is extremely low, the NPSH of the device is small, the shaft is not to contact with liquid	This series of pumps have reasonable structure, low energy consumption, stable and reliable, the price is cheap
Wear parts can be replaced the impeller and pump body mouth ring, (Angle structure can also be) bushing in the shaft seal, the wear ring of pump body can be flushed with pump	After the mouth rings on pump body and impeller are wore, replace them, the pump body, impeller and shaft can be continue to use	Save the cost of repair and spare parts, simple maintenance and quickly
Integral heavy duty bearing bracket Oil-lubrication ball bearings, automatic lubrication and control oil level. $T \leq 250^{\circ}\text{C}$, no cooling $T > 250^{\circ}\text{C}$, air cooling or water cooling labyrinth seal ring (standard), also can use radial sealing	The axially shaft and bearing bracket is well, high stability, strong rigidity, deflection small. $n_k > n$, less spare part no increase bearing temperature	The operating life of packing or mechanical seal is long easy to maintain, downtime short low operating cost, no investment costs for cooling system
Suitable dimensioned stuffing box	Packing and various structured mechanical seal can interchange	Good interchangeability, need not to machine the remodeled stuffing box in addition

ZTS型泵性能范围 (50Hz)

Performance range Type ZTS (50Hz)



ZTS型泵性能表 (一)

Table of Standard Performance Type ZTS (一)

型号	叶轮 型式	流量 Q m ³ /h	扬程 H m	轴 承 支 架	泵额定转速 n=2900r/min						流量 Q m ³ /h	扬程 H m	轴 承 支 架	泵额定转速 n=1450r/min											
					比重 r=1.00			比重 r=1.35						比重 r=1.84			比重 r=1.00			比重 r=1.35			比重 r=1.84		
					电机功率及型号									电机功率及型号											
					KW			KW						KW			KW			KW			KW		
ZTS25-200	A	11.5	49	0	5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	5.8	12	0	1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	B	10.5	42		4	Y112M-2	5.5	Y132S1-2	7.5	Y132S2-2	5.4	11													
	C	9	36		3	Y100L-2	4	Y112M-2	5.5	Y132S1-2	4.6	8.5													
	D	7.5	28		2.2	Y90L-2	3	Y100L-2	4	Y112M-2	4	6.5													
	E	5.5	16		1.5	Y90S-2	1.5	Y90S-2	2.2	Y90L-2	3	4													
ZTS25-250	A	16	70	2	11	Y160M1-2	15	Y160M2-2	22	Y160M2-2	8.1	18	1	1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	B	14.5	62		11	Y160M1-2	15	Y160M2-2	19	Y160L-2	7.7	16				2.2	Y100L1-4	3	Y100L2-4						
	C	13.6	42		7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	7.2	11				2.2	Y100L1-4	2.2	Y100L1-4						
	D	11.3	24		5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	6	6.2		1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
ZTS25-315	A	20	128	2	30	Y200L1-2	37	Y200L2-2	55	Y250M-2	10	32	2	5.5	Y132S-4	7.5	Y132M-4	7.5	Y132M-4						
	B	18.6	116		30	Y200L1-2	37	Y200L2-2	45	Y225M-2	9.2	29		4	Y112M-4	5.5	Y132S-4	7.5	Y132M-4						
	C	17	99		22	Y180M-2	30	Y200L1-2	37	Y200L2-2	8.3	24		3	Y100L2-4	5.5	Y132S-4	5.5	Y132S-4						
	D	15.7	87		18.5	Y160L-2	30	Y200L1-2	37	Y200L2-2	7.6	22		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	E	14.5	76		15	Y160M2-2	22	Y180M-2	30	Y200L1-2	7.1	20		2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	F	13	64		11	Y160M1-2	15	Y160M2-2	22	Y180M-2	6.4	16		2.2	Y100L1-4	2.2	Y100L1-4	3	Y100L2-4						
ZTS40-160	A	28	33	1	5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	14	8	1	1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	B	25.6	29		4	Y112M-2	5.5	Y132S1-2	5.5	Y132S1-2	11	5.5						1.1	Y90S-4						
	C	22	22		2.2	Y90L-2	3	Y100L-2	4	Y112M-2	9.5	4.5													
	D	20	16																						
ZTS40-200	A	29	53	1	11	Y160M1-2	15	Y160M2-2	19	Y160L-2	15	13	1	1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	B	26	47		7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	13	12		1.1	Y90S-4	1.5	Y90L-4	2.2	Y100L1-4						
	C	22	39		5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	12	9		1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	D	18	20		4	Y112M-2	5.5	Y132S1-2	7.5	Y132S2-2	9.5	7						1.1	Y90S-4						
ZTS40-250	A	32	78	2	18.5	Y160L-2	22	Y180M-2	30	Y200L1-2	16	20	1	3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	B	30	72		15	Y160M2-2	19	Y160L-2			15	18		2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	C	24	60		11	Y160M1-2	15	Y160M2-2	19	Y160L-2	13	14		1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	D	21	47		7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	11	11		1.1	Y90S-4	1.5	Y90L-4	2.2	Y100L1-4						
ZTS40-315	A	42	115	2	37	Y200L2-2	45	Y225M-2	75	Y280S-2	21	29	2	5.5	Y132S-4	7.5	Y132M-4	11	Y160M-4						
	B	40	107		30	Y200L1-2			55	Y250M-2	20	27		4	Y112M-4	5.5	Y132S-4	7.5	Y132M-4						
	C	34	81		22	Y180M-2	30	Y200L1-2	45	Y225M-2	18	20		3	Y100L2-4	3	Y100L2-4	5.5	Y132S-4						
	D	29	61		15	Y160M2-2	22	Y180M-2	30	Y200L1-2	15	15													
ZTS50-160	A	50	34	2	11	Y160M1-2	15	Y160M2-2	15	Y160M2-2	25	8.4	1	1.5	Y90L-4	2.2	Y100L1-4	2.2	Y100L1-4						
	B	45	29		7.5	Y132S2-2	11	Y160M1-2			23	7				1.5	Y90L-4								
	C	38	22		5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	19	5.5		1.1	Y90S-4	1.1	Y90S-4	1.5	Y90L-4						
	D	31	17		3	Y100L-2	4	Y112M-2	5.5	Y132S1-2	17	4						1.1	Y90S-4						
ZTS50-200	A	62	52	2	18.5	Y160L-2	22	Y180M-2	30	Y200L1-2	31	13	1	3	Y100L2-4	3	Y100L2-4	4	Y112M-4						
	B	56	46		15	Y160M2-2	19	Y160L-2	22	Y180M-2	29	12		2.2	Y100L1-4										
	C	49	37		11	Y160M1-2	15	Y160M2-2	19	Y160L-2	25	9		1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	D	43	28		7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	22	7		1.1	Y90S-4	1.5	Y90L-4	2.2	Y100L1-4						
ZTS50-250	A	70	82	2	30	Y200L1-2	37	Y200L2-2	55	Y250M-2	35	20	2	4	Y112M-4	5.5	Y132S-4	7.5	Y132M-4						
	B	66	75						45	Y225M-2	33	19		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	C	60	60		22	Y180M-2	30	Y200L1-2	37	Y200L2-2	30	15		2.2	Y100L1-4	3	Y100L2-4	3	Y100L2-4						
	D	50	45		15	Y160M2-2	19	Y160L-2	22	Y180M-2	26	11													
ZTS50-315	A	87	115	3	55	Y250M-2	75	Y280S-2	110	Y315S-2	44	28	2	11	Y160M-4	11	Y160M-4	15	Y160L-4						
	B	80	100		45	Y225M-2			90	Y280M-2	40	24		7.5	Y132M-4										
	C	70	78		30	Y200L1-2	45	Y225M-2	55	Y250M-2	35	19		5.5	Y132S-4	7.5	Y132M-4	11	Y160M-4						
	D	57	57		22	Y180M-2	30	Y200L1-2	37	Y200L2-2	30	14		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
ZTS50-400	A	82	194	3	110	Y315S-2	160	Y315L1-2			41	48	2	15	Y160L-4	22	Y180L-4	30	Y200L-4						
	B	78	175		90	Y280M-2	132	Y315M-2	160	Y315L1-2	39	43				18.5	Y180M-4	22	Y180L-4						
	C	70	140		75	Y280S-2	90	Y280M-2	132	Y315M-2	35	34		11	Y160M-4	15	Y160L-4	19	Y180M-4						
	D	60	102		45	Y225M-2	75	Y280S-2	90	Y280M-2	30	25		7.5	Y132M-4	11	Y160M-4	15	Y160L-4						
ZTS50-450	A	93	248	4	132	Y315M-2																			
	B	87	233		132	Y315M-2																			
	C	75	195		110	Y315S-2	132	Y315M-2																	
	D	56	141		55	Y250M-2	75	Y280S-2	110	Y315S-2															
ZTS80-160	A	94	94	2	15	Y160M2-2	19	Y160L-2	30	Y200L1-2	47	8	2	2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						
	B	85	85				15	Y160M2-2	19	Y160L-2	42	7		1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4						
	C	76	76		11	Y160M1-2	11	Y160M1-2	15	Y160M2-2	38	5.5						2.2	Y100L1-4						
	D	66	66		5.5	Y132S1-2	7.5	Y132S2-2	11	Y160M1-2	34	4		1.1	Y90S-4	1.5	Y90L-4	1.5	Y90L-4						
ZTS80-200	A	103	103	1	30	Y200L1-2	37	Y200L2-2			51	14	1	4	Y112M-4	5.5	Y132S-4	7.5	Y132M-4						
	B	95	95		22	Y180M-2	30	Y200L1-2	37	Y200L2-2	47	12		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4						
	C	54	84		15	Y160M2-2	22	Y180M-2	30	Y200L1-2	41	9.5		2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4						

ZTS型泵性能表 (二)

Table of Standard Performance Type ZTS (二)

型号	泵额定转速 n=2900r/min										泵额定转速 n=1450r/min									
	叶轮 型式	流量 Q m3/h	扬程 H m	轴 承 支 架	比重 r=1.00		比重 r=1.35		比重 r=1.84		流量 Q m3/h	扬程 H m	轴 承 支 架	比重 r=1.00		比重 r=1.35		比重 r=1.84		
					电机功率及型号									电机功率及型号						
					KW		KW		KW					KW		KW		KW		KW
ZTS80-250	A	127	82	2	45	Y225M-2	75	Y280S-2	90	Y280M-2	64	20	2	7.5	Y132M-4	11	Y160M-4	15	Y160L-4	
	B	120	76			55	Y250M-2	75	Y280S-2	60	19	7.5		Y132M-4	7.5	Y132M-4	11	Y160M-4		
	C	105	59		30	Y200L1-2	45	Y225M-2	55	Y250M-2	52	14.5		4	Y112M-4	5.5	Y132S-4	7.5	Y132M-4	
	D	87	45		22	Y180M-2	30	Y200L1-2	37	Y200L2-2	46	11		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4	
ZTS80-315	A	141	127	2	90	Y280M-2	160	Y315L1-2			70	33	2	15	Y160L-4	19	Y180M-4	22	Y180L-4	
	B	135	121		75	Y280S-2				66	30	11		Y160M-4	15	Y160L-4	15	Y160L-4		
	C	115	97		55	Y250M-2	75	Y280S-2		56	24	11		Y160M-4	11	Y160M-4	15	Y160L-4		
	D	90	74		37	Y200L2-2	45	Y225M-2	75	Y280S-2	45	18		5.5	Y132S-4	7.5	Y132M-4	11	Y160M-4	
ZTS80-400	A	171	187	3	160	Y315L1-2					85	46	2	22	Y180L-4	30	Y200L-4	45	Y225M-4	
	B	159	170							80	42	19		Y180M-4			37	Y225S-4		
	C	135	130		90	Y280M-2	132	Y315M-2		65	33	15		Y160L-4	19	Y180M-4	30	Y200L-4		
	D	116	95		75	Y280S-2	90	Y280M-2	132	Y315M-2	53	25		11	Y160M-4	15	Y160L-4	18.5	Y180M-4	
ZTS80-450	A	206	238	4																
	B	196	221																	
	C	175	185																	
	D	140	129		110	Y315S-2	132	Y315M-2												
ZTS100-160	A	162	29	2	22	Y180M-2	30	Y200L1-2	37	Y200L2-2	81	7.2	2	3	Y100L2-4	4	Y112M-4	5.5	Y132S-4	
	B	150	24		15	Y160M2-2	22	Y180M-2	30	Y200L1-2	73	6		2.2	Y100L1-4	3	Y100L2-4	4	Y112M-4	
	C	130	17		11	Y160M1-2	15	Y160M2-2	18.5	Y160L-2	93	4.3		1.5	Y90L-4	2.2	Y100L1-4	3	Y100L2-4	
	D	110	12		7.5	Y132S2-2	11	Y160M1-2	15	Y160M2-2	55	3		1.1	Y90S-4	1.5	Y90L-4	2.2	Y100L1-4	
ZTS100-200	A	193	50	2	45	Y225M-2	55	Y250M-2	75	Y280S-2	95	12.5	2	5.5	Y132S-4	7.5	Y132M-4	11	Y160M-4	
	B	180	44		37	Y200L2-2	45	Y225M-2		90	10.5	4		Y112M-4	5.5	Y132S-4	7.5	Y132M-4		
	C	155	35		30	Y200L1-2	37	Y200L2-2	45	Y225M-2	80	8.5		3	Y100L2-4	3	Y100L2-4	4	Y112M-4	
	D	135	26		19	Y160L-2	30	Y200L1-2	37	Y200L2-2	70	6		11	Y160M-4	15	Y160L-4	18.5	Y180M-4	
ZTS100-250	A	230	79	2	75	Y280S-2	90	Y280M-2			115	20	2	11	Y160M-4	11	Y160L-4	15	Y160L-4	
	B	218	73							110	18	7.5		Y132M-4	11	Y160M-4	11	Y160M-4		
	C	190	58		45	Y225M-2	75	Y280S-2	90	Y280M-2	100	14		5.5	Y132S-4	7.5	Y132M-4	7.5	Y132M-4	
	D	170	44		37	Y200L2-2	45	Y225M-2	75	Y280S-2	90	10								
ZTS100-315	A	250	126	3	132	Y315M-2	160	Y315L1-2			125	31	2	19	Y180M-4	22	Y180L-4	30	Y200L-4	
	B	240	120							119	29	15		Y160L-4	19	Y180M-4	22	Y180L-4		
	C	203	97		90	Y280M-2	132	Y315M-2	160	Y315L1-2	104	24		11	Y160M-4	11	Y160M-4	15	Y160L-4	
	D	170	71		75	Y280S-2	75	Y280S-2	110	Y315S-2	86	17.5		37	Y225S-4	45	Y225M-4	75	Y280S-4	
ZTS100-400	A	300	194	4							150	48	3	30	Y200L-4	30	Y200L-4	45	Y225M-4	
	B	290	180								145	44		22	Y180L-4	30	Y200L-4	45	Y225M-4	
	C	260	145								130	36		15	Y160L-4	22	Y180L-4	30	Y200L-4	
	D	224	105		110	Y315S-2	160	Y315L1-2			115	26								
ZTS100-450	A	327	258	4																
	B	307	241																	
	C	260	200																	
	D	200	145		160	Y315L1-2														
ZTS100-500	A										180	75	3	75	Y280S-4	90	Y280M-4	110	Y315S-4	
	B										167	68		55	Y250M-4	75	Y280S-4			
	C										142	53		37	Y225S-4	55	Y250M-4	75	Y280S-4	
	D										120	42		30	Y200L-4	37	Y225S-4	55	Y250M-4	
ZTS150-200	A	320	44	2	55	Y250M-2	75	Y280S-2	90	Y280M-2	152	9.5	2	7.5	Y132M-4	11	Y160M-4	15	Y160L-4	
	B	300	39		45	Y225M-2					140	7		5.5	Y132S-4	7.5	Y132M-4	11	Y160M-4	
	C	265	30		37	Y200L2-2	45	Y225M-2	75	Y280S-2	140	7		3	Y100L2-4	4	Y112M-4	5.5	Y132S-4	
	D	220	23		22	Y180M-2	30	Y200L1-2	45	Y225M-2	123	5								
ZTS150-250	A	390	74	3	110	Y315S-2	160	Y315L1-2			195	18.5	2	15	Y160L-4	22	Y180L-4	30	Y200L-4	
	B	355	62		90	Y280M-2	110	Y315S-2	160	Y315L1-2	180	16		11	Y160M-4	11	Y160M-4	15	Y160L-4	
	C	325	46		75	Y280S-2	90	Y280M-2	110	Y315S-2	160	11.5								
	D																			
ZTS150-315	A	422	125	3							220	32.5	3	30	Y200L-4	45	Y225M-4	55	Y250M-4	
	B	430	120								210	30		22	Y180L-4	30	Y200L-4	37	Y225S-4	
	C	372	94		160	Y315L1-2					180	24		15	Y160L-4	19	Y180M-4	22	Y200L-4	
	D	310	68		90	Y280M-2	132	Y315M-2	160	Y315L1-2	150	17								

ZTS型泵性能表 (三)
Table of Standard Performance Type ZTS (三)

型号	泵额定转速 n=2900r/min										泵额定转速 n=1450r/min									
	叶轮 型式	流量 Q m3/h	扬程 H m	轴 承 支 架	比重 r=1.00		比重 r=1.35		比重 r=1.84		流量 Q m3/h	扬程 H m	轴 承 支 架	比重 r=1.00		比重 r=1.35		比重 r=1.84		
					电机功率及型号									电机功率及型号						
					KW		KW		KW					KW		KW		KW		KW
ZTS150-400	A	520	205	4							260	51	3	55	Y250M-4	75	Y280S-4	110	Y315S-4	
	B	498	190								250	48						90	Y280M-4	
	C	453	151								225	38		37	Y225S-4	55	Y250M-4	75	Y280S-4	
	D	400	113								200	28		30	Y200L-4	37	Y225S-4	55	Y250M-4	
ZTS150-450	A	546	260	5							546									
	B	520	246								520									
	C	452	208								452									
	D	347	142								347									
ZTS150-500	A										300	77	3	110	Y315S-4	132	Y315M1-4			
	B										283	72		90	Y280M-4	132	Y315M1-4	160	Y315M2-4	
	C										233	59		75	Y280S-4	90	Y280M-4	110	Y315S-4	
	D										208	45		45	Y225M-4	75	Y280S-4	75	Y280S-4	
ZTS150-560	A										335	104	4	160	Y315M2-4					
	B										315	97		132	Y315M1-4					
	C										260	80		90	Y280M-4	132	Y315M1-4	160	Y315M2-4	
	D										212	60		75	Y280S-4	90	Y280M-4	110	Y315S-4	
ZTS150-630	A										360	115	4							
	B										338	105.5								
	C										274	82		132	Y315M-4	160	Y315M2-4			
	D										220	60		75	Y280S-4	110	Y315S-4	160	Y315M2-4	
ZTS200-250	A	610	72	3	160	Y315L2					305	17.5	3	22	Y180L-4	30	Y200L-4	45	Y225M-4	
	B	580	65		160	Y315L2					290	16		19	Y180M-4	30	Y200L-4	37	Y225S-4	
	C	520	47		110	Y315S-2	132	Y315M-2			260	12		15	Y160L-4	19	Y180M-4	30	Y200L-4	
	D	470	32		75	Y280S-2	90	Y280M-2	110	Y315S-2	240	8		11	Y160M-4	15	Y160L-4	15	Y160L-4	
ZTS200-315	A	710	122	4							350	30	3	45	Y225M-4	55	Y250M-4	75	Y280S-4	
	B	680	114								340	29		37	Y225S-4	55	Y250M-4	75	Y280S-4	
	C	600	87								300	22		30	Y200L-4	37	Y225S-4	55	Y250M-4	
	D	480	65		132	Y315M-2					250	15		19	Y180M-4	22	Y180L-4	30	Y200L-4	
ZTS200-400	A	850	203	5							426	50	3	90	Y280M-4	110	Y315S-4	160	Y315M2-4	
	B	830	150								410	47		75	Y280S-4	110	Y315S-4	132	Y315M1-4	
	C	750	145								370	36.5		55	Y250M-4	75	Y280S-4	110	Y315S-4	
	D	670	106								332	27		45	Y225M-4	55	Y250M-4	75	Y280S-4	
ZTS200-450	A	930	257	6							930									
	B	880	240								880									
	C	770	200								770									
	D	580	140								580									
ZTS200-500	A										495	84	4							
	B										470	79		160	Y315L1-4					
	C										400	63		110	Y315S-4	160	Y315L1-4			
	D										330	48		75	Y280S-4	90	Y280M-4	132	Y315M-4	
ZTS200-560	A										540	105	5							
	B										510	98								
	C										440	81		160	Y315L1-4					
	D										350	62		110	Y315S-4	132	Y315M-4			
ZTS200-630	A										580	132	5							
	B										550	125								
	C										468	100								
	D										372	75		132	Y315M-4					
ZTS250-315	A										545	27	3	55	Y250M-4	75	Y280S-4	110	Y315S-4	
	B										528	25		55	Y250M-4	75	Y280S-4	90	Y280M-4	
	C										480	19		37	Y225S-4	55	Y250M-4	75	Y280S-4	
	D										434	13		30	Y200L-4	37	Y225S-4	45	Y225M-4	
ZTS250-400	A										660	49	4	132	Y315M-4					
	B										630	46		110	Y315S-4	160	Y315L1-4			
	C										565	36		75	Y280S-4	110	Y315S-4	160	Y315M2-4	
	D										500	24		55	Y250M-4	75	Y280S-4	90	Y280M-4	

ZTS型泵性能表（四）

Table of Standard Performance Type ZTS (四)



型号	泵额定转速 n=2900r/min									泵额定转速 n=1450r/min									
	叶轮型式	流量 Q m3/h	扬程 H m	轴承 支架	比重 r=1.00		比重 r=1.35		比重 r=1.84		流量 Q m3/h	扬程 H m	轴承 支架	比重 r=1.00		比重 r=1.35		比重 r=1.84	
					电机功率及型号									电机功率及型号					
					KW		KW		KW					KW		KW		KW	
ZTS250-500	A									800	82	5							
	B									770	76								
	C									700	58		160	Y315L1-4					
	D									630	42		110	Y315S-4	160	Y315L1-4			
ZTS250-560	A									860	106	5							
	B									830	98								
	C									760	78								
	D									665	57		160	Y315L1-4					
ZTS250-630	A									855	128	6							
	B									816	119								
	C									720	96								
	D									625	71								
ZTS300-400	A									1050	48	4							
	B									1010	45		160	Y315L1-4					
	C									900	34		132	Y315M-4	160	Y315L1-4			
	D									780	26		90	Y280M-4	132	Y315M-4	160	Y315L1-4	
ZTS300-500	A									1240	78	5							
	B									1170	75								
	C									1015	57								
	D									870	42		160	Y315L1-4					
ZTS300-560	A									1340	104	6							
	B									1280	97								
	C									1140	77								
	D									950	56								
ZTS300-630	A									1450	132	6							
	B									1375	125								
	C									1170	100								
	D									950	75								
ZTS400-500	A									1870	74	6							
	B									1800	70								
	C									1520	52								
	D									1300	38								
ZTS400-560	A									2040	98	6							
	B									1950	91								
	C									1760	74								
	D									1500	54								
ZTS400-630	A									2390	125	7							
	B									2280	117								
	C									1960	95								
	D									1610	70								

说明：*订货合同在泵型上还应注明叶轮形式，例如：选ZTS40-250，叶轮型式为A，1号轴承支架，应写为 ZTS40-1250A。

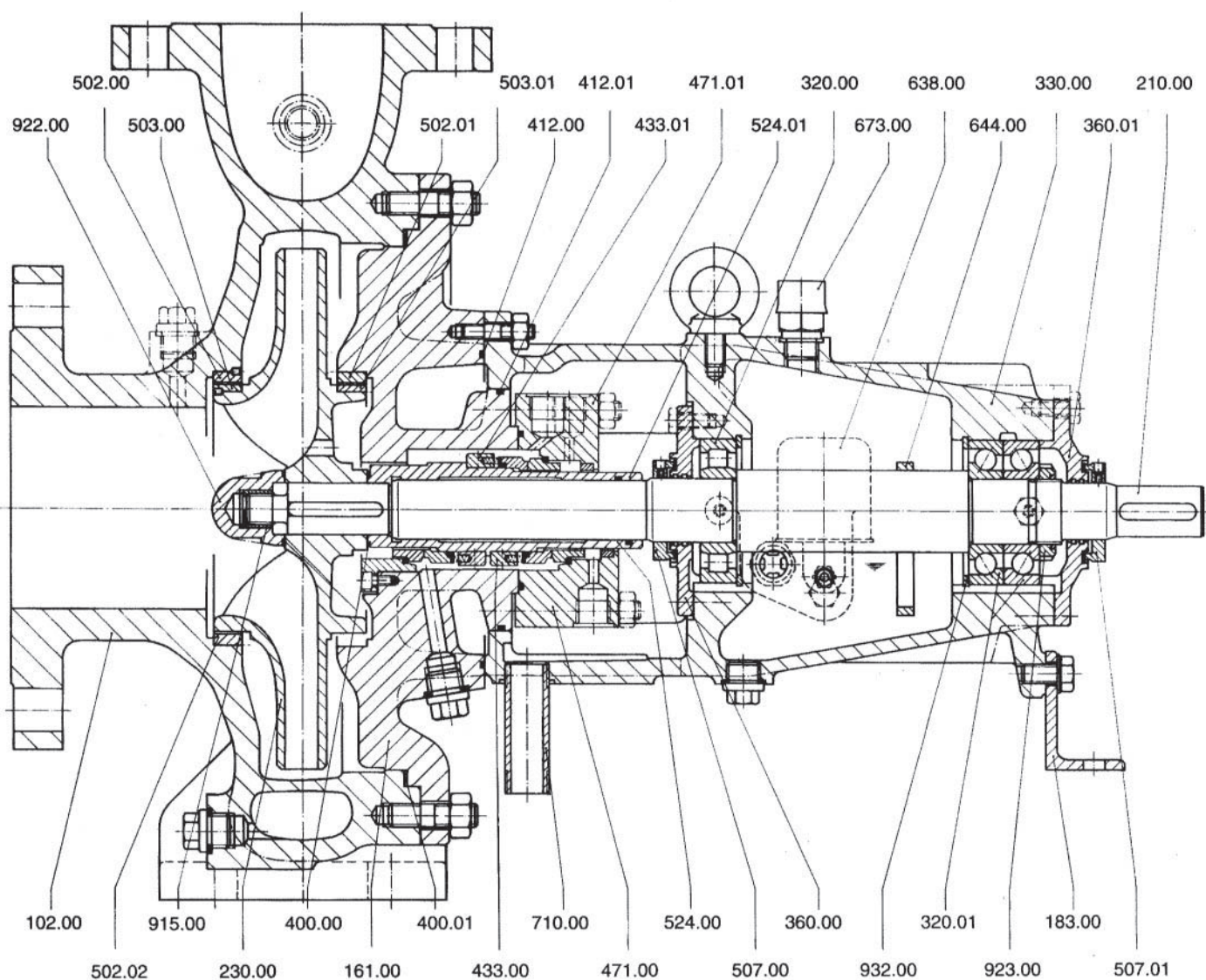
*表中有流量，扬程总值而无功率的泵，其功率超过160KW，需订货时当面确定。

Note：*The type of impeller should be mark out in the contract, for example, when the ZTS40-250 is selected, the impeller size is A, the bearing bracket is No.1, it should be ZTS40-1250A.

*If there have the value of flow and head in the list, but without the power value of pump in it, when the power values exceed 160kw, it should be ensure when ordering.

ZTS型泵剖面图

Sectional Drawing Type ZTS



102.00	泵体	Casing	412.00	O 形圈	O-ring	507.01	防尘盘	Deflector
161.00	泵盖	Casing cover	412.01	O 形圈	O-ring	524.00	轴套	Shaft sleeve
183.00	支脚	Supporting foot	433.00	机械密封	Mechanical seal	524.01	轴套	Shaft sleeve
210.00	轴	Shaft	433.01	机械密封	Mechanical seal	638.00	恒位油杯	Constant oil cup
230.00	叶轮	Impeller	471.00	密封压盖	Sealing cover	644.00	甩油环	Lubricating ring
320.00	耐磨轴承	Antifriction bearing	471.01	密封压盖	Sealing cover	673.00	油分离器	Vent filter
320.01	耐磨轴承	Antifriction bearing	502.00	泵体口环	Casing wear ring	710.00	排液管	pipe
330.00	轴承支架	Bearing bracket	502.01	泵体口环	Casing wear ring	915.00	钢丝螺套	Threaded insert
360.00	轴承压盖	Bearing cover	502.02	泵体口环	Casing wear ring	922.00	叶轮螺母	Impeller nut
360.01	轴承太盖	Bearing cover	503.00	叶轮口环	Impeller wear ring	923.00	圆螺母	Bearing nut
400.00	平垫片	Flat gasket	503.01	叶轮口环	Impeller wear ring	932.00	卡环	Snap ring
400.01	平垫片	Flat gasket	507.00	防尘盘	Deflector			

各种设计结构
Various design structures

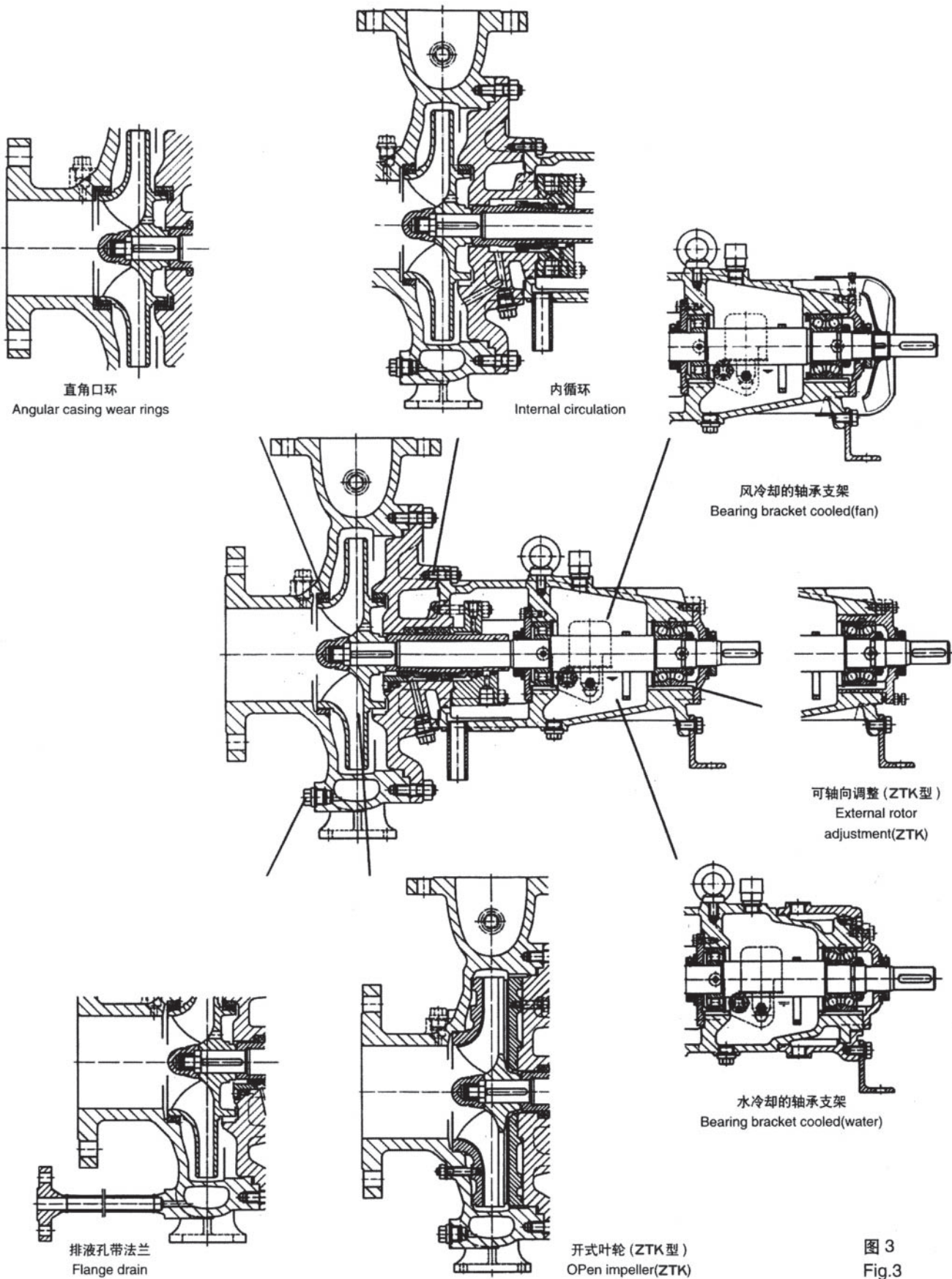


图 3
Fig.3

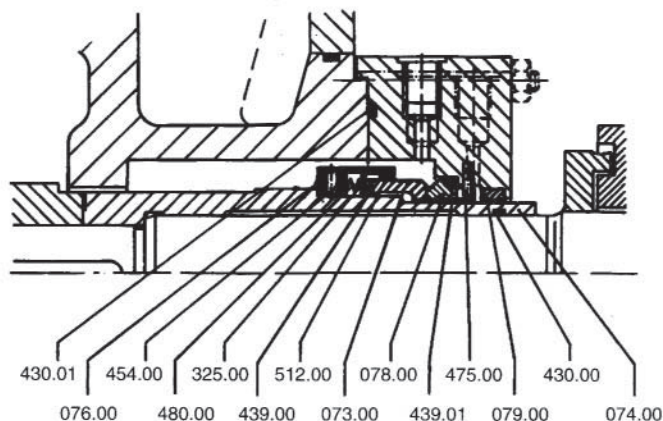


图4 单端面平衡机械密封
pig 4 Single mechanical seal, balanced

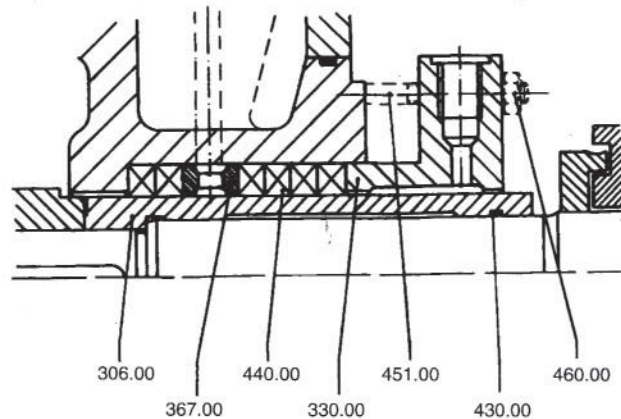


图5 带冷却压盖和水封的填料密封
pig 5 Packed stuffing box with lantern ring and gland cooling

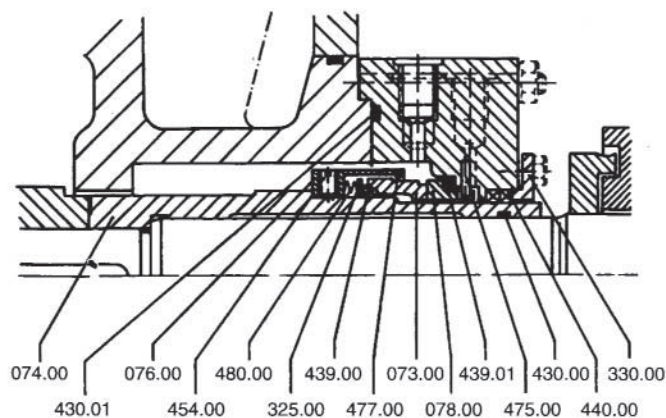


图6 带辅助填料密封的单端面平衡型机械密封
pig 6 Single mechanical seal, balanced, with auxiliary stuffing box

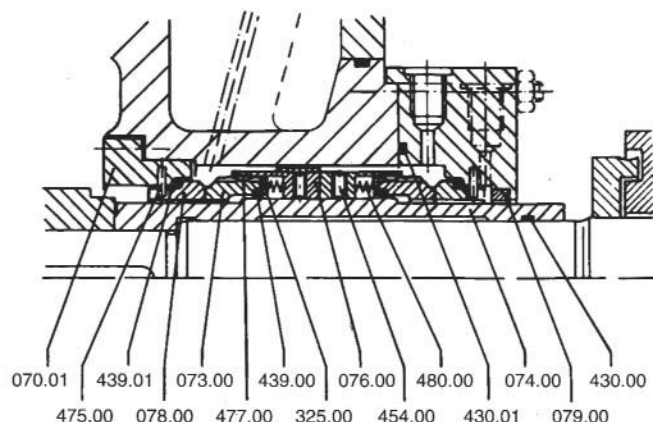


图7 带加压系统的双端面平衡机械密封
pig 7 Double mechanical seal, balanced, with pressurized system

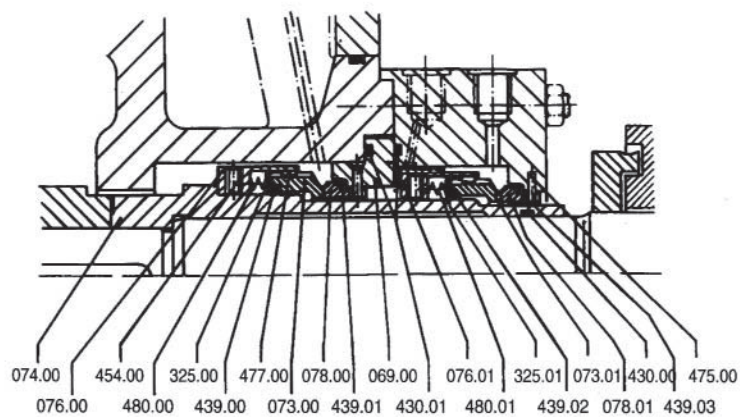


图8 串联式机械密封
pig 8 Tandem mechanical seal

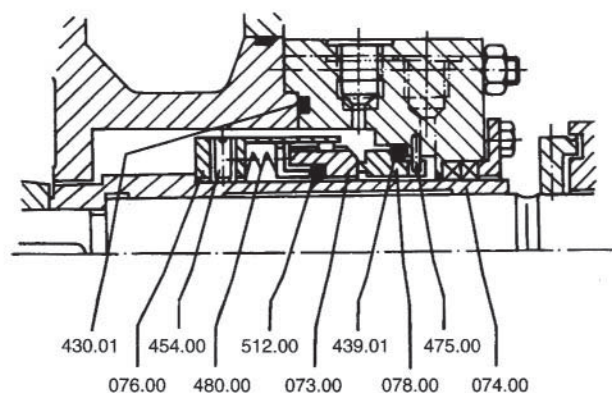


图9 单端面非平衡机械密封 (特殊设计)
pig 9 Single mechanical seal unbalanced (special design)

轴承支架号 Bearing bracket size	机械密封型式 (BURGMANN) Mechanical seal size			
	单端面平衡型密封 Single balanced	单端面波纹管密封 Single bellows	双端面密封 Double	串联式密封 Tandem
LK0	H74N/28-E ₁ -5Z	MFLWT80/28-E ₁ -5Z	H74N-DF/28-E ₁ -5Z	H74N/28-E ₁ -FTA2
LK1	H74N/33-E ₁ -5Z	MFLWT80/33-E ₁ -5Z	H74N-DF/33-E ₁ -5Z	H74N/33-E ₁ -FTA2
LK2	H74N/43-E ₁ -5Z	MFLWT80/43-E ₁ -5Z	H74N-DF/43-E ₁ -5Z	H74N/43-E ₁ -FTA2
LK3	H74N/53-E ₁ -5Z	MFLWT80/53-E ₁ -5Z	H74N-DF/53-E ₁ -5Z	H74N/53-E ₁ -FTA2
LK4	H74N/65-E ₁ -5Z	MFLWT80/65-E ₁ -5Z	H74N-DF/65-E ₁ -5Z	H74N/65-E ₁ -FTA2
LK5	H74N/75-E ₁ -5Z	MFLWT80/75-E ₁ -5Z	H74N-DF/75-E ₁ -5Z	H74N/75-E ₁ -FTA2
LK6	H74N/95-E ₁ -5Z	MFLWT80/95-E ₁ -5Z	H74N-DF/95-E ₁ -5Z	H74N/95-E ₁ -FTA2
LK7	无	无	无	无

轴承零件表

Shaft seals part list

069.00	静环座	Stationary seal ring adapter	306.00	轴套	Shaft sleeve	439.03	O 形圈	O-ring
070.01	静环座	Stationary seal ring adapter	325.00	挡圈	Disc	440.00	填料	Packing
073.00	动环	Rotating seal ring	325.01	挡圈	Disc	451.00	双头螺栓	Stud bolt
073.01	动环	Rotating seal ring	330.00	填料压盖	Stuffing box gland	454.00	定位螺钉	Setscrew
074.00	轴套	Shaft sleeve	367.00	水封环	Lantern ring	460.00	螺母	Nut
076.00	弹簧座	Spring plate	430.00	O 形圈	O-ring	475.00	销钉	Pin
076.01	弹簧座	Spring plate	430.01	O 形圈	O-ring	477.00	销钉	Pin
078.00	静环	Stationary seal ring	439.00	密封垫	Sealing ring	480.00	弹簧	Spring
078.01	静环	Stationary seal ring	439.01	密封垫	Sealing ring	480.01	弹簧	Spring
079.00	节流衬套	Throttling bush	439.02	密封垫	Sealing ring	512.00	推环	Snap ring

叶轮

Impellers

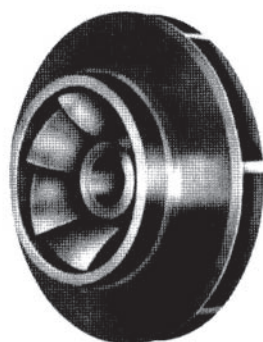


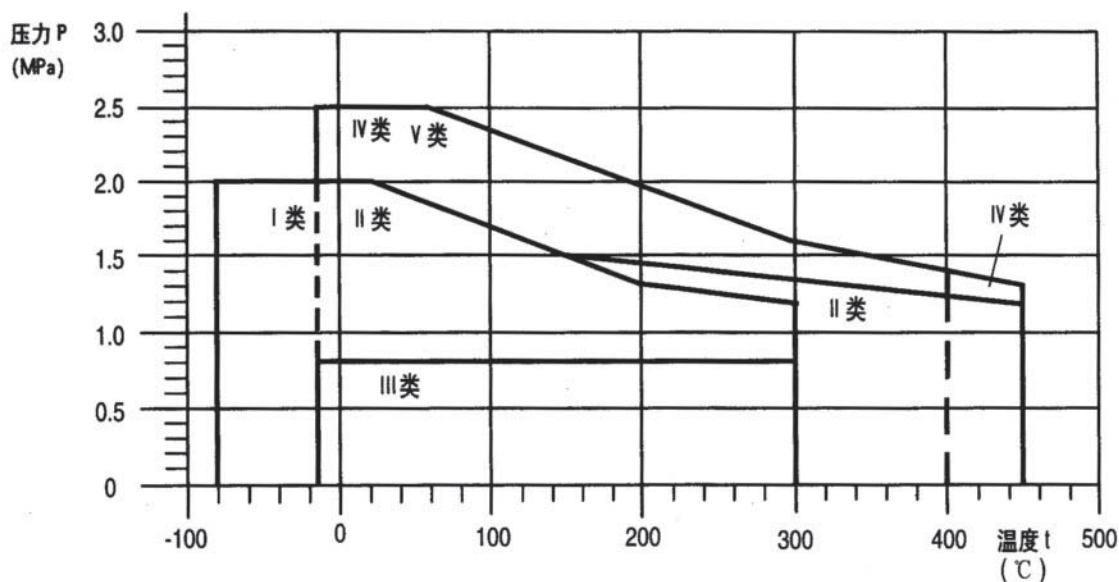
图 10 闭式叶轮
fig 10 Closed impeller



图 11 开式叶轮
fig 11 Open impeller

压力-温度图表 Pressure-Temperature Diagram

最大容许工作压力
Max permissible operating pressure



泵体 Casing	材料 material
I	1.4312(B), 1.4308(304), 1.4446(304L)
II	1.4410(M), 1.4408(316), 1.6902(316L), 2.4879(804) 1.4500(904), 1.4536(904L) 钛及钛合金
III	E, HT20-40
IV	ZG25
V 类	ZG1Cr13

最大容许试验压力 (20°C)
Max permissible test pressure (20°C)

材料 Materials		泵体 Casing	法兰 Flanges					
泵体 Casing	泵体螺栓 Casing screws	Mpa	GB	DIN			ANSI	
			PN25	PN10	PN16	PN25	Class 125	Class 150
I II	1Cr18Ni9	3.0	2555 -81	-	2543	2544	-	B16.5
III	2Cr13	1.2		2532	2533	2534	B16.1	-
IV		3.75		-	2543	2544	-	B16.5
V		3.75		-	2543	2544	-	B16.5

各种系列泵的标准部件的互换

Interchange of standard parts for various series pump

API610单级流程泵（轻、中和重型）由4个系统组成，系列按压力等级划分，有标准水力部件和轴承架（动力端）。

因此，该泵保证在最经济的情况下，满足市场的需要。备件少，泵使用范围广，适应性强。有4个系列，每个系列有40-50多种规格，仅用9个重型整体轴承架，叶轮通用，各种规格的轴、轴套、轴承和机械密封也相同。API610 single-stage process pump (light, medium, and heavy) consists of 4 series that is divided according to pressure level. There are standard hydraulic parts and bearing bracket (power end). Therefore, this pump ensure to meet the needs of the market in the most economic circumstances. Less spare parts, wide range of application and strong adaptability. There are 4 series and 40-50 kinds of specifications in each series. There are just 9 heavy-duty overall bearing bracket and the impeller are general. Various specifications of the shaft, bushings, bearing and mechanical seal are the same too.

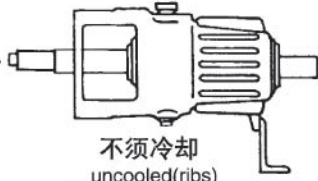
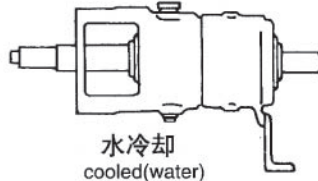
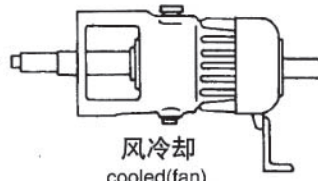
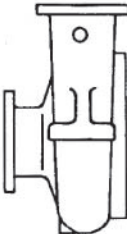
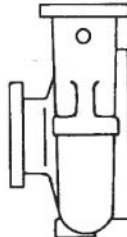
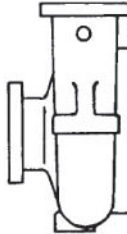
四个系列的压力范围	不同压力下的泵体结构	四个系列泵的叶轮通用，开式叶轮适用于ZTS/ZTH系列	不同压力下的泵盖结构	九种轴承架的选取，取决于工作环境是否需要冷却
4 series,divided into Pressure ranges	Casing according to design pressure used	Standardized hydraulics for all 4 series, open impeller design for series ZTS/ZTH	Casing cover according to design pressure used	9 bearing brackets, depending on application conditions cooled or uncooled Cooling achieved by fan as standard though water-cooled design possible
ZTS可达 2.5MPa 有 53 个规格		开式  open 闭式  closed		 不须冷却 uncooled(ribs)  水冷却 cooled(water)  风冷却 cooled(fan)
ZTH可达 5.0MPa 有 53 个规格				
ZTG可达 7.5MPa 有 40 个规格				
ZTU可达 13.5MPa 有 40 个规格				

图 13
Fig 13

图 13
Fig 13