



# YTL型液下式脱硫泵

YTL-type liquid-type desulfurization pump

# YZ型液下式渣浆泵

YZ-type liquid-type slurry pump

# 使用说明书

河北汇通泵业有限公司

## Company Profile 企业简介

河北汇通泵业有限公司主导产品为TL(L) TLD、YTL系列脱硫泵、ZJA、ZJD、GMZ系列渣浆泵、YZ系列液下渣浆泵、ZJQ系列潜水渣浆泵、排污泵、真空泵等。

公司具有先进的质量保证体系和科学的检测手段，生产设备先进精良，各系列杂质泵的过流件都经过精心研制，反复试验，根据用户不同的用途以及介质含量的要求，有选择性的使用各种高强度耐磨、耐腐蚀材质，为广大用户解决了生产过程中设备磨损、腐蚀、运行寿命短的难题，产品性能达到国际标准。产品素以工艺精湛，性能稳定可靠，质量优良，服务周到而著称。能满足城市给排水，环保工程，农业灌溉，水利工程，石油，化工，煤炭，冶金，矿山，电站，电厂，造纸，污水处理，河道抽砂，清淤等行业的需要，并为多个重点工程配套，赢得客户的信任和好评！

我公司奉行“面向市场搞科研，精工制造创品牌”的治厂方略，以优质的产品，优质的服务，优雅的环境，期盼各界同仁，朋友光临合作，同心同德图发展，互惠互利到永远。

Huitong Hebei Pump Co., Ltd. leading products for TL (L) TLD, YTL series desulfurization pumps, ZJA, ZJD, GMZ series slurry pump, By YZ series liquid slurry pump, ZJQ series submersible slurry pumps, sewage pumps, vacuum pumps, and so on.

The company has advanced quality assurance system and scientific means of detection, advanced production equipment sophisticated, the series impurity pump flow items have been carefully developed trial, according to the requirements of different users and uses of media content, selective use variety of high-strength wear-resistant, corrosion-resistant material, for the majority of users to solve production process equipment wear, corrosion, short operating life problems, product performance to meet international standards. Products are renowned for their exquisite workmanship, stable and reliable performance, high quality, courteous service is known. To meet the needs of the urban water supply and drainage, environmental engineering, agricultural irrigation, water conservancy, petroleum, chemical, coal, metallurgy, mining, power plants, power plants, paper, sewage treatment, river Chousha, dredging and other industries, and a number of focus engineering support, to win customer trust and praise!

I company of "market-oriented to engage in scientific research, precision manufacturing brand" strategy Zhichang, quality products, excellent service, elegant surroundings, and look forward to all my colleagues and friends visit cooperation and concerted development plans, and mutual benefit to forever.

## 一、概述

YZ/YTL型液下渣浆泵/脱硫泵是立式单级单吸悬臂式离心泵结构，叶轮为半开式叶轮，在叶轮吸入边延伸处设有搅拌叶片。

该系列泵主要用于脱硫环保、市政工程、火力发电厂、煤气焦化厂、炼油厂、炼钢厂、采矿、造纸业、水泥厂、食品厂、印染等行业抽吸浓液、稠油、油渣、污蚀液、泥浆、灰浆、流沙及城市排污沟道的流动污泥、以及含有煤块、灰渣的液体。也可作为化工、医药等行业抽吸含有泥沙浆物的流体和有腐蚀性液体。

YZ型过流件材质:Gr26、Gr27、304、316等

YTL型过流件材质:Gr30A、A49等

泵型号和意义:例:80YTL80-20A 80YZ80-20A

YTL-液下脱硫泵 YZ-液下渣浆泵

80-泵的出口直径(mm)

80-泵的设计点流量(m<sup>3</sup>/h)

20-泵的设计点扬程(m)

A-叶轮经第一次切割-

泵的传动方式:泵通过弹性联轴器与电动机连接。从原动机看方向为顺时针方向旋转。

## 二、结构说明

YZ/YTL型泵为单级，单吸悬臂式结构，用轴承座，支承座，联接管连接泵的水力部件，液体由出液管部件排出，泵的叶轮为半开式叶，在叶轮叶片进口延伸处设有搅拌叶片，该泵主要特点是在液下部位的泵轴，有足够的刚度，叶轮，泵壳之间不设轴承，不采用轴封，可以输送含有较大浓度固定颗粒的介质。泵插入液下的长度在800-2500之间，如果需要可以配带吸入管，轴封采用液下泵插入液体中运行，不设轴封，传动由立式电动机安装在电机支承和支承座上，用联轴器与泵相连。

## 1 Summary

YZ YTL type liquid slurry pump is vertical single stage single suction cantilever centrifugal pump impeller structure, semi open impeller, a stirring blade extends in impeller suction side.

this series pump is mainly used for desulfurization environmental protection, municipal engineering, thermal power plant, gas coking plants, oil refineries, steel mills, mining, paper making, cement factory, food factory, printing and dyeing industry, heavy oil, diesel, suction liquid waste etching solution, slurry, mortar, sand and city sewage channel flow sludge containing coal, ash, and. Can also be used as chemical, pharmaceutical and other industries with fluid suction sediment slurry material and corrosive liquids.

YZ type overcurrent pieces of material Gr26, Gr27, 304, 316

YTL type overcurrent and other pieces of material Gr30A, A49, etc.

pump type and meaning: example: 80YTL80-20A

80YZ80-20A

Desulfurization pump YZ- submerged under liquid slurry pump YTL

80- pump outlet diameter (mm)

80-pump design point flow (m<sup>3</sup>/h)

20- pump design point lift (m) cutting

A- impeller through

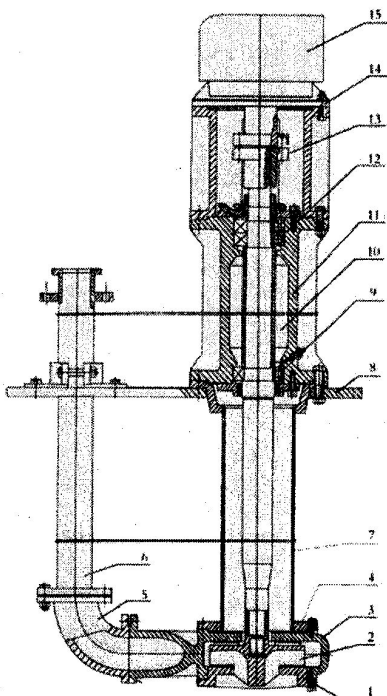
the first pump: pump through the elastic drive. See from the direction of the original motivation for the clockwise direction of rotation.

## The description of the structure

YZ YTL type pump is a single-stage, single suction cantilever structure, the bearing, bearing seat, the connecting pipe hydraulic components connected pump, liquid from the discharge pipe part discharge, pump impeller is a semi open type leaf, mixing blades are arranged in the impeller blade inlet extends, the pump is mainly characterized in the liquid part of the pump shaft, have enough stiffness, impeller, pump shell between the non bearing, without the use of shaft seal, can be transmitted with high concentration solid granules medium. Liquid pump inserted length between 800-2500, if you need to be equipped with suction pipes, liquid pump seal used to run insert liquid, no seal, transmission by the vertical electric motor installed in the bearing and the bearing seat, connected by coupling with the pump.

# YZ/YTL型脱硫泵结构图

# Structural Drawing of YZ/YTL Slurry Pumps



- 1、吸入盖 Suction cover
- 2、叶轮 Impeller
- 3、泵体 The pump body
- 4、泵盖 The pump cover
- 5、出液弯头 Liquid outlet elbow
- 6、出液管 The liquid outlet pipe
- 7、联接管 The connecting tube
- 8、支承座 The supporting seat
- 9、轴承 Bearing
- 10、轴 Shaft
- 11、轴承座 The bearing seat
- 12、轴承 Bearing
- 13、轴承器部件 Bearing components
- 14、电机支承 Motor bearing
- 15、电机 Electric machinery

AA-最低页面值

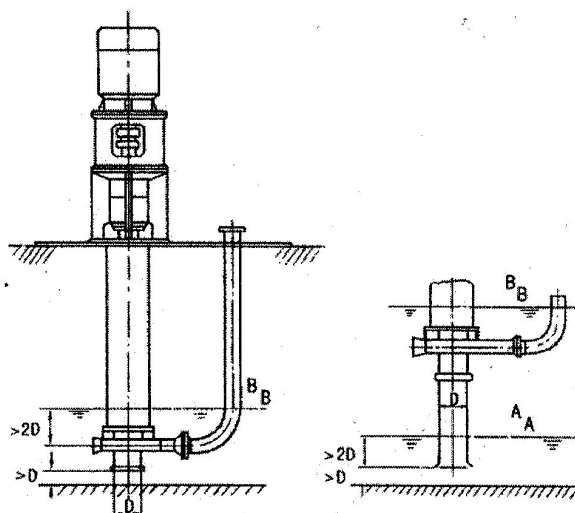
The lowest value of AA-

BB-启动时页面的最低值

The minimum value of the BB-  
start page

D-吸入管直径

D- diameter of suction pipe



YZ/YTL型液下脱硫泵性能表 (1)

型 号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电机	
	m <sup>3</sup> /h	L/S					型 号	功率(KW)
50YZ25-12 50YTL25-12	12	3.3	13.5	1430	1.18	37.3	Y100L2-4	3
	25	6.9	12		2.07	39.5		
	30	8.3	11		2.35	38.2		
	7	19	5.5	910	0.28	37.3	Y90L-6	1.1
	15	4.2	4.8		0.50	39.5		
	19	5.3	4.4		0.60	38.2		
50YZ25-12A 50YTL25-12A	11	3	9.3	1430	0.76	36.8	Y100L1-4	2.2
	23	6.3	8.1		1.30	39		
	27	7.5	7.3		1.42	37.7		
	7	1.9	3.7	910	0.19	26.3	Y90S-6	0.75
	14	3.9	3.3		0.32	28.5		
	17	4.7	2.7		0.33	37.2		
50YZ25-12B 50YTL25-12B	10	2.7	7.5	1430	0.78	26.3	Y100L1-4	2.2
	21	5.8	7.2		1.45	28.5		
	25	6.8	5.9		1.08	37.2		
	6	1.7	3	910	0.19	26.3	Y90S-6	0.75
	13	3.6	2.9		0.36	28.5		
	15	4.2	2.4		0.26	37.2		
50YZ30-20 50YTL30-20	18	5	21.5	1440	3.25	32.4	Y132S-4	5.5
	30	8.33	20		3.77	43.4		
	36	10	19		4.11	45.4		
	11.8	3.28	9.2	940	0.91	32.4	Y100L-6	1.5
	19.6	5.44	8.5		1.05	43.4		
	23.5	6.53	8.1		1.14	45.4		
50YZ30-20A 50YTL30-20A	16.5	4.58	18.4	1440	2.67	31	Y132S-4	5.5
	28	7.78	17		3.02	43		
	33	9.17	16		3.20	45		
	10.8	3	7.8	940	0.72	32	Y100L-6	1.5
	18.3	5.08	7.2		0.83	43		
	21.5	5.97	6.8		0.89	45		
50YZ30-20B 50YTL30-20B	15	4.17	15.5	1440	2.08	30.5	Y112M-4	4
	25	6.94	14.4		2.30	42.6		
	31	8.61	13.7		2.60	44.5		
	9.8	2.72	6.6	940	0.58	30.5	Y90L-6	1.1
	16.3	4.53	6.1		0.64	42.6		
	20.2	5.61	5.8		0.72	44.6		

YZ/YTL型液下脱硫泵性能表 (2)

型 号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电动机	
	m <sup>3</sup> /h	L/S					型 号	功率(KW)
50YZ30-30 50YTL30-30	18	5	31.5	1460	5.64	27.4	Y160M-4	11
	30	8.33	30		6.74	36.4		
	36	10	28		7.42	37		
	11.8	3.28	13.6	910	1.60	27.4	Y132L-6	3
	19.6	5.44	12.97		1.90	36.4		
	23.5	6.53	12.1		2.09	37		
50YZ30-30A 50YTL30-30A	16	4.44	25.7	1460	3.93	28.5	Y132M-4	7.5
	27	7.5	24.5		5.06	35.6		
	33	9.17	22.8		5.70	36		
	10	2.78	10	910	1.03	26.5	Y112M-6	2.2
	16.8	4.67	9.5		1.22	35.6		
	20.5	5.69	9		1.40	36		
50YZ36-50 50YTL36-50	18	5	53	1470	9.28	28	Y180L-4	22
	36	10	50		14.43	34		
	45	12.5	48		16.35	36		
	11	3.1	23	960	2.46	28	Y160M-6	7.5
	23	6.4	21		3.87	34		
	29	8.1	20		4.39	36		
50YZ36-50A 50YTL36-50A	16	4.4	44	1470	7.11	27	Y180M-4	18.5
	33	9.2	42		11.46	33		
	41	11.4	40		12.77	35		
	10	2.8	18	960	1.82	27	Y132M2-6	5.5
	21	5.8	17.5		3.03	33		
	26	7.2	17		3.44	35		
50YZ36-50B 50YTL36-50B	15	4.2	37	1460	5.82	26	Y160L-4	15
	30	8.3	35		8.67	33		
	37	10.3	33.6		9.96	34		
	9	2.5	15.5	960	1.46	26	Y132M2-6	5.5
	19	5.3	15		2.35	33		
	24	6.7	14		2.69	34		
65YZ50-12 65YTL50-12	30	8.3	13.2	1440	2.26	47.7	Y132S-4	5.5
	50	13.8	12		2.92	55.9		
	60	16.6	10.8		3.17	55.7		
	19	5.3	5.5	940	0.60	47.7	Y112M-6	2.2
	32	8.9	5		0.78	55.9		
	39	10.3	4.5		0.86	55.7		
65YZ50-12A 65YTL50-12A	28	7.7	11.9	1440	1.92	47.2	Y132S-4	5.5
	48	13.3	10.8		2.55	55.4		
	57	15.8	9.7		2.73	55.2		
	18	5	5	940	0.52	47.2	Y100L-6	1.5
	31	8.6	4.5		0.69	55.4		
	37	10.3	4		0.73	55.2		

YZ/YTL型液下脱硫泵性能表(3)

型号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电动机	
	m <sup>3</sup> /h	L/S					型号	功率(KW)
65YZ50-12B 65YTL50-12B	26	7	10.7	1440	1.62	46.8	Y112M-4	4
	45	12.5	9.7		2.17	54.9		
	54	15	8.7		2.34	54.7		
	16	4.4	4.5	940	0.42	46.8	Y100L-6	1.5
	29	8.1	4		0.58	54.9		
	35	9.7	3.5		0.61	54.7		
65YZ100-40 65YTL100-40	73	20.3	49	1470	24.4	40	Y200L-4	30
	100	27.8	40		27.5	43.7		
	112	31.1	35		29.3	42.9		
	48.7	13.5	21.8	980	7.3	40.1	Y160L-6	11
	68.7	18.5	17.8		8.2	43.7		
74.8	20.8	15.6	8.7	42.9				
80YZ45-32 80YTL45-32	30	8.3	36	1460	9.81	30	Y180M-4	18.5
	45	12.5	32		11.12	35.3		
	55	15.3	30		11.99	37.5		
	20	5.6	15.5	960	2.82	30	Y160M-6	7.5
	30	8.3	13.8		3.20	35.3		
36	10	12.8	3.35	37.5				
80YZ80-20 80YTL80-20	48	13.3	22	1480	6.39	45	Y160L-4	15
	80	22.2	21		8.32	55		
	96	26.7	18.5		9.13	53		
	31	8.6	9.5	960	1.78	45	Y132M1-6	4
	52	14.4	9		2.32	55		
83	17.5	8	2.59	53				
80YZ80-20A 80YTL80-20A	44	12.2	18.6	1460	5.19	43	Y160M-4	11
	73	20.3	17.5		6.57	53		
	90	25	15.6		7.50	51		
	28	7.8	8	960	1.42	43	Y132M1-6	4
	48	13.3	7.5		1.85	53		
59	16.4	6.5	2.05	51				
80YZ80-20B 80YTL80-20B	39	10.8	16	1460	3.95	43	Y132M-4	7.5
	68	18.9	15		5.24	53		
	80	22.2	13.4		5.73	51		
	25	6.9	6.9	960	1.09	43	Y132S-6	3
	44	12.2	6.5		1.47	53		
52	14.4	5.8	1.61	51				
100YZ-100-30 100YTL-100-30	60	16.7	36	470	14.36	41	Y180L-4	22
	100	27.8	31		15.64	54		
	120	33.3	28		16.35	56		
	39	10.8	15.5	970	4.02	41	Y160M-6	7.5
	65	18.1	13.5		4.43	54		
79	21.9	10	3.84		56			
100YZ100-30A 100YTL100-30A	75	20.8	30	1470	15.72	39	Y180M-4	18.5
	92	25.6	26		12.42	52.35		
	110	30.6	24		13.32	54		
	48	13.3	12.8	960	4.29	39	Y132M2-6	5.5
	60	16.7	11		3.43	52.5		
71	19.7	12	4.30	54				

YZ/YTL型液下脱硫泵性能表(4)

型 号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电机	
	m <sup>3</sup> /h	L/S					型 号	功率(KW)
100YZ100-30B 100YTL100-30B	50	13.9	25	1460	8.96	38	Y160L-4	15
	85	23.6	22		9.80	52		
	102	28.3	20		10.49	53		
	32	8.9	10.8	960	2.48	38	Y132M2-6	5.5
	55	15.3	9		2.59	52		
	67	18.6	8		2.76	53		
100YZ100-40 100YTL100-40	50	13.9	44	1470	14.91	40.2	Y200L-4	30
	100	27.8	40		18.96	57.5		
	120	33.3	38		21.13	58.8		
	32	8.9	19	970	4.12	40.2	Y160L-6	11
	65	18.1	14		4.31	57.5		
	79	21.9	16		5.86	58.8		
100YZ120-60 100YTL120-60	72	20	61	1480	31.50	38	Y250M-4	55
	120	33	60		38.85	50.5		
	144	40	56		42.26	52		
	47	13.1	26	970	8.76	38	Y200L1-6	18.5
	78	21.7	25		10.52	50.5		
	94	26.1	24		11.82	52		
100YZ120-60A 100YTL120-60A	65	18	50	1480	24.26	36.5	Y225M-4	45
	108	30	49		29.43	49		
	130	36.1	16		32.59	50		
	42	11.7	21.5	970	6.74	36.5	Y180L-6	15
	70	19.4	21		8.18	49		
	85	23.6	16.8		7.78	50		
100YZ120-60B 100YTL120-60B	59	16.4	41	1480	18.57	35.5	Y200L-4	30
	98	27.2	40		22.25	48		
	118	32.8	37		24.28	49		
	38	10.5	17.5	940	5.10	35.5	Y160L-6	11
	64	17.8	17		6.18	48		
	77	21.4	15.5		6.64	49		
100YZ160-38 100YTL160-38	96	26.7	45	1480	26.88	43.8	Y225M-4	45
	160	44.4	39		32.7	52		
	192	53.3	36		37.22	50.6		
	62	17.2	19	970	7.33	43.8	Y180L-6	15
	104	28.9	16.5		8.99	52		
	125	34.7	15		10.10	50.6		
100YZ160-38A 100YTL160-38A	88	24.4	38	1480	21.29	42.8	Y225S-4	37
	148	41.1	33		26.10	51		
	177	49.2	30		29.23	49.5		
	57	15.8	16	970	5.81	42.8	Y160L-6	11
	97	26.9	14		7.26	51		
	116	32.2	12.5		7.98	49.5		



YZ/YTL型液下脱硫泵性能表(5)

型 号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电机	
	m <sup>3</sup> /h	L/S					型 号	功率(KW)
100YZ160-38B 100YTL160-38B	82	22.8	33	1480	17.15	43	Y200L-4	30
	137	38.1	28		20.10	52		
	164	45.6	26		23.24	50		
	53	14.78	14	970	4.70	43	Y160L-6	11
	89	24.7	12		5.60	52		
	107	29.7	11		6.41	50		
150YZ200-15 150YTL200-15	161	44.7	18.1	1470	14.4	55	Y180M-4	18.5
	207	57.5	15.6		15.1	58		
	240	66.7	13		15.8	54		
	107	29.7	8.0	980	4.3	55	Y160M-6	7.5
	138	38.3	6.9		4.5	58		
	160	44.4	5.8		4.6	54		
150YZ250-40 150YTL250-40	250	41.7	44	1480	33.3	54	Y250M-4	55
	300	69.4	40		44.6	61		
	88	83.3	38		49.3	63		
	163	27.2	18	970	8.01	54	Y250L-6	18.5
	196	45.3	17		12.3	61		
	135	54.4	16		13.6	63		
150YZ250-40A 150YTL250-40A	225	37.5	35	1480	29.94	43	Y225M-4	45
	270	62.5	32		39.24	50		
	88	75	30		43.28	51		
	147	24.4	15	970	8.87	43	Y180L-6	15
	176	40.8	13.5		10.82	50		
	120	48.9	12.5		11.75	51		
150YZ250-40B 150YTL250-40B	200	33.3	28	1480	21.29	43	Y225S-4	37
	240	55.6	25		27.91	49		
	78	66.7	24		31.39	50		
	131	21.7	12	970	5.93	43	Y160L-6	11
	157	36.4	10.5		7.65	49		
	168	43.6	10		8.56	50		
150YZ280-20 150YTL280-20	280	46.7	21	980	20.45	47	Y250M-6	37
	336	77.8	20		24.61	62		
	125	93.3	16.5		26.50	57		
	208	34.7	11.2	730	8.12	47	Y225S-8	18.5
	250	57.8	11		10.06	62		
	154	69.4	9		10.76	57		
150YZ280-20A 150YTL280-20A	258	42.8	18	980	18.42	46	Y225M-6	30
	310	71.7	17		19.59	61		
	114	86.1	14		21.12	56		
	192	31.7	9.5	730	6.42	46	Y200L-8	15
	230	53.3	9		7.72	61		
	142	63.9	7		7.83	56		
150YZ280-20B 150YTL280-20B	237	39.4	15	980	12.90	45	Y200L2-6	22
	285	65.8	14		15.07	60		
	105	79.2	11		15.53	55		
	176	29.2	8	730	5.09	45	Y180L-8	11
	212	48.9	7		5.60	60		
		58.8	6		6.30	55		

YZ/YTL型液下脱硫泵性能表(6)

型号	流量		扬程 (m)	转速 (r/min)	轴功率 (KW)	效率 (%)	配用电机	
	m <sup>3</sup> /h	L/S					型号	功率(KW)
150YZ360-60 150YTL360-60	240	66.7	64	1480	78.53	53.3	Y315M-4	132
	360	100	60		92.26	63.8		
	420	116.7	58		100.58	66		
	160	44.4	28	980	22.82	53.5	Y280M-6	45
	240	66.7	26		26.65	63.8		
	280	77.8	25		28.90	66		
200YZ460-35 200YTL460-35	276	76.7	38	1480	48.44	59	Y280M-4	90
	460	12.8	35		63.58	69		
	552	153.3	33		77.56	64		
	182	50.6	16.5	980	13.87	59	Y225M-6	30
	30	84.4	15		18.01	69		
	365	101.4	14		21.76	64		
200YZ460-35A 200YTL460-35A	255	70.8	32.5	1480	38.94	58	Y280S-4	75
	426	118.3	30		51.98	67		
	511	141.9	28.3		62.55	63		
	167	46.4	14	970	10.98	58	Y200L2-6	22
	179	77.5	12.5		14.18	67		
	334	92.8	11.5		16.61	63		
200YZ460-35B 200YTL460-35B	235	65.3	27.5	1480	30.90	57	Y250M-4	55
	391	108.6	25		40.36	66		
	470	130.6	23.8		49.16	62		
	154	42.8	11.5	970	8.47	57	Y200L1-6	18.5
	256	71.1	10.5		11.10	66		
	308	85.6	10		13.54	62		
200YZ500-20 200YTL500-20	300	83.3	23	980	30.33	62	Y280M-6	55
	500	138.9	20		38.38	71		
	600	166.7	18		43.93	67		
	223	61.9	12	730	11.76	62	Y250M-8	30
	372	103.3	11		15.71	71		
	446	123.9	9		16.33	67		
200YZ500-20A 200YTL500-20A	278	77.2	19.7	980	24.47	61	Y280S-6	45
	463	128.6	17		31.08	69		
	555	154.2	15.4		35.83	65		
	207	57.5	10	730	9.25	61	Y225M-8	22
	344	95.6	9		12.23	69		
	416	114.7	8		13.95	65		
200YZ600-25 200YTL600-25	360	100	28	480	43.6	63	Y280M-4	90
	600	166.7	25		56.77	72		
	720	200	20		58.57	67		
	238	66.1	12	980	12.35	63	Y225M-6	30
	387	110.3	11		16.53	72		
	477	132.5	8.8		17.07	67		

## 五、装配与拆卸

### YZ/YTL型液下泵装配顺序

- 1、将轴承分别装在轴承盒和轴承座上。
- 2、将毛毡圈装在轴承端盖甲、丙和轴承盒上。
- 3、将轴承端盖乙、丙装在轴承座上并用螺栓紧固。
- 4、将装好的轴承盒穿在轴上，拧上圆螺母，并将轴承端盖甲紧固在轴承盒上。
- 5、将轴装入轴承座，用螺栓固定，拧上调整螺钉，并将轴承座安装在支撑座上，将挡水圈套在下部轴承处的合适位置。
- 6、将联接管固定在轴承座上，并在联接管下部装上泵盖，在轴下部装上叶轮并拧紧，依次装上泵体前盖，并用螺栓固定，用轴承盒处的调整螺钉调整叶轮与前盖间的间隙，（控制在1-1.5mm内）调好以后用螺母、螺栓紧固。
- 7、电机支撑按装在轴承座上用螺栓紧固，在轴的上端装联轴器部件，并将电机联轴器用紧固螺钉紧固在电机轴头上，将电机装在电机支撑上，并用螺栓、螺母紧固。
- 8、从泵的出口顺序将石棉垫、出液弯头、出液管部件装上，并固定在支撑座上。

泵的拆卸按上述相反步骤进行。

## 5. The assembly and disassembly

### YZ/YTL type liquid pump assembly sequence

- 1, the bearing is installed in the bearing box and a bearing seat.
  - 2, felt ring is arranged on the bearing cover a, C and bearing box.
  - 3, the bearing end cover B, C is arranged in the bearing seat and bolt.
  - 4, the bearing box installed on shaft, nut, screw on the circle, and the bearing end cover in a fastening on the bearing box.
  - 5, the shaft into the bearing seat, fixed with bolts, screw on the adjusting screw, and the bearing seat is arranged on the supporting seat, the water retaining ring in proper position at the lower part of the bearing.
  - 6, the connecting pipe is fixed on the bearing seat, and the lower part of a connecting tube pump installed in the lower part of cover, shaft mounted on the impeller and pump body tighten, arranged the front cover, and fixed by a bolt, with the adjustment screw impeller bearing box office and the gap between the front cover, (in 1-1.5mm) Regulation after the nut, bolt.
  - 7, a motor support is arranged in the bearing seat with a bolt, mounted coupling parts on the upper end of the shaft, and the motor coupling with fastening screws on the motor shaft, the motor is arranged on the motor support, and bolt, nut.
  - 8, from the outlet of the pump in order to asbestos pad, a liquid discharge pipe elbow, component, and is fixed on the supporting seat.
- pump disassembly steps according to the contrary.

## 六、安装

- 1、安装前的准备工作。
  - a、检查水泵和电机有无损坏。
  - b、准备工具及起重设备。
  - c、按图检查基础。
  - d、将轴的支撑座安装在容器上，用螺栓拧紧（如系水泥井罐需预先设置地脚螺栓）。

## 七、启动与停止

- 1、观察泵的安装基础是否已经稳固，所有各部件螺栓是否拧紧。
- 2、检查泵轴向间隙是否已经调整好，（搬动联轴器无摩擦声即可）
- 3、油标注入锂基黄油。
- 4、检查电机旋转方向是否正确。
- 5、启动电机，打开压力表旋塞，当泵以全转数工作时，调节闸阀开度到需要范畴内。
- 6、泵停止工作时，应先停止电动机，然后闭上压力表旋塞。
- 7、泵长期停止运行时，应将泵拆开，擦拭干净，涂上防锈油妥善保存。

## 八、运转

- 1、注意泵轴承温度，不应超过外界温度 $35^{\circ}$ ，最高不能大于 $75^{\circ}$ 。
- 2、油杯内应注满锂基黄油，保证轴承能正常润滑。
- 3、泵在第一个月内、或运转100小时后，应更换电机支撑油杯内的黄油，以后每工作2000小时后更换一次。
- 4、定期检查弹性联轴器，注意电机轴承温升。
- 5、运转过程中，如发现噪声或不寻常的声音时，应立即停车检查。
- 6、泵每工作2000小时应进行周期检查，叶轮泵体（或泵盖）之间的间隙磨损不能过大，间隙的最大值不得超过1.5毫米，如超过可更换叶轮或前盖。

## 6. Installation

- 1, preparation before installation.
  - a, check the pump and motor is damaged.
  - b, prepare tools and lifting equipment. According to the figure
  - c, check the foundation.
  - d, the shaft supporting seat is installed on the container, screwed (such as cement well tank to preset anchor bolts).

## 7. Start and stop

- 1, to observe the installation base pump is stable, all the parts of the bolts are tightened.
- 2, check the pump axial clearance is adjusted, (moving the coupling friction free sound can)
- 3, standard oil injected lithium base grease.
- 4, check the motor rotation direction is correct.
- 5, start the motor, open the pressure gauge cocks, when the pump to work full speed, regulating valve opening to the category of wei.
- 6, the pump stop working, should stop the motor, and then close the pressure gauge cock.
- 7, pump stops running, the pump should be open, wipe clean, coated with anti rust oil preservation.

## 8. Work

- 1, pay attention to the pump bearing temperature, shall not exceed the outside temperature  $35^{\circ}$ . The highest, not greater than  $75^{\circ}$ .
- 2, cup filled with lithium base grease should guarantee normal lubrication, bearing.
- 3, the pump in the first month, or 100 hours of operation, should replace the motor supporting cup butter, after every 2000 hours of work a replacement.
- 4, check the flexible coupling, pay attention to the motor bearing temperature rise.
- 5, during operation, such as found in noise or unusual sound, should immediately stop check.
- 6, pump every 2000 working hours should periodically check the impeller, pump (or pump cover) gap between wear can not be too large, the maximum clearance shall not exceed 1.5 mm, such as more than can be replaced or front cover impeller.

## 九、可能发生的故障及解决方法 Possible failures and Solutions

故障 Trouble	发生原因 Causes	解决办法 Remedies
水泵不出水, 压力表指针强烈跳动 No water pump, pressure gauge pointer strong beat	1, 进水口淤塞 2、管路与仪表漏气 1, water inlet silted up 2, piping and instrument air	1、排出淤塞物 2、拧紧或堵塞漏气处 1, from the blockage 2, plug the leak
水泵不出水 No water pump	1、进水口高于液面 2、旋转方向不对 1, water inlet is higher than the water level 2, rotating in the wrong direction	1、增高页面或下降泵的安装高度 2、检查电机转向 Mounting height of 1 pages, increase or decrease the pump 2, check the shift motor
压力表指示泵出水处有压力, 泵仍不出水。 Indication of pressure gauge pump outlet pressure, water pump	1、出水管阻太大 2、叶轮淤塞 3、转数不足 1, water resistance is too large 2, the impeller blockage 3, speed problems	1、检查管路 2、清洗叶轮 3、增加绷得转数 1, check the pipeline 2, clean the impeller 3, increase was revolution
流量过低 Flow rate is too low	1、水泵淤塞 2、转数不足 3、叶轮磨损过大 1, pump silting 2, speed problems 3, the wear of the impeller is too	1、清洗泵及管路 2、增加转数 3、更换叶轮 1, cleaning pump and pipeline 2, increase 3, replacement of the impeller speed
泵消耗功率过大 Pump power consumption is too high	1、泵供水量过小 2、叶轮磨损 1, pump water supply is too small 2, the wear of the impeller	1、出口管开启闸阀 2、更换叶轮 1, open the valve outlet pipe 2, replacement of the impeller
轴承过热 Bearing Overheating	1、轴承缺油 2、轴承内部有污物或缺油 1, bearing 2, there is dirt or lack of oil bearing	1、增添润滑脂 2、清洗轴承或更换轴承 1, add grease 2, bearing cleaning or replacement of bearings

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