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XL系列小流量化工流程泵

XL SERIES SMALL-FLUX CHEMICAL PROCESS PUMP



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概 述 Outline

XL系列小流量化工流程泵是卧式单级单吸离心泵，主要应用于化工、石油化工、炼油厂、发电厂、造纸及医药、食品、制糖等行业。输送清洁或含量小于2%固体颗粒的各种温度的介质。

XL series small flow chemical process pump is horizontal single stage single suction centrifugal pump, mainly for chemical, petrochemical, refinery plant, power plant, paper making, pharmacy, food and sugar production industries, etc. The pump transfers clean or liquid with 2% solid in various temperatures.

运行参数 Running data

流 量: Q 0-12.5 m³/h

扬 程: H 0-125 m

工作压力: P 2.5 MPa

工作温度: T -80℃ ~ +450℃

适用范围: 主要应用于化工、石油化工、炼油厂、发电厂、造纸及医药、食品、制糖等行业。

Capacity: 0-12.5 m³/h

Head: 0-125 m

Working pressure: 2.5 MPa

Working temperature: -80℃~+450℃

Application: Mainly for chemical, petrochemical, refinery plant, power plant, paper making, pharmacy, food and sugar production industries.

结构特点 Characteristics of structure

泵体: 该系列泵为OH2结构形式、悬臂式、径向剖分蜗壳泵。泵体采用中心支撑，轴向吸入，径向排出。

叶轮: 叶轮为闭式叶轮。轴向力主要采用开平衡孔平衡，残余轴向力由轴承承受。

轴封: 轴封根据工况的不同，可以采用填料密封、单端面、双端面、串联机械密封等。

轴承: 轴承的润滑方式为稀油润滑，由恒位油杯控制油位，保证轴承在良好润滑状态下工作。

标准化: 只有泵体是专用件，三化程度高，可降低运行成本。

维修: 后开门式设计可以不动泵进出口管路，即可维修，使用方便。

Casing: The pump is in OH2 structure, cantilever type, radial split volute type. Casing is with central support, axial suction, radial discharge.

Impeller: Closed impeller. Axial thrust is mainly balanced by balancing hole, rest by thrust bearing.

Shaft seal: According to different work condition, seal can be packing seal, single or double mechanical seal, tandem mechanical seal and so on.

Bearing: Bearings are lubricated by thin oil, constant bit oil cup control oil level to ensure bearing excellent work at well lubricated condition.

Standardization: Only casing is special, high Three-standardization to lower operation cost.

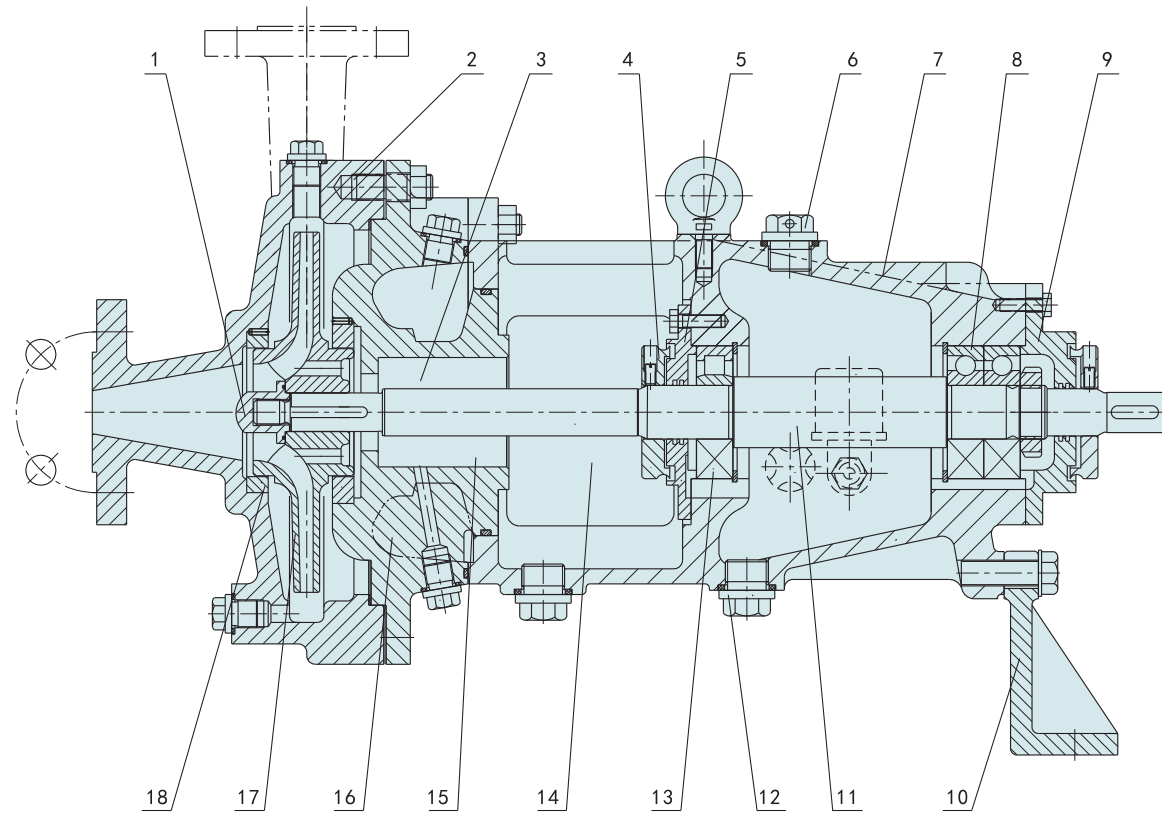
Maintenance: Back-open-door design, easy and convenient maintenance without dismantling pipelines at suction and discharge.

旋转方向 Rotating direction

从驱动端看，泵按顺时针方向旋转。

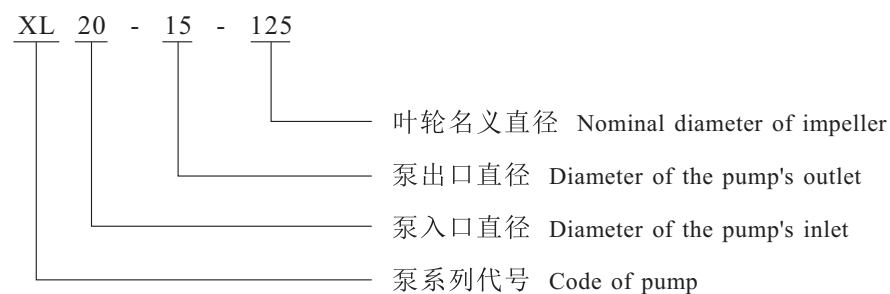
CW viewed from drive end

结构图 Structure drawing

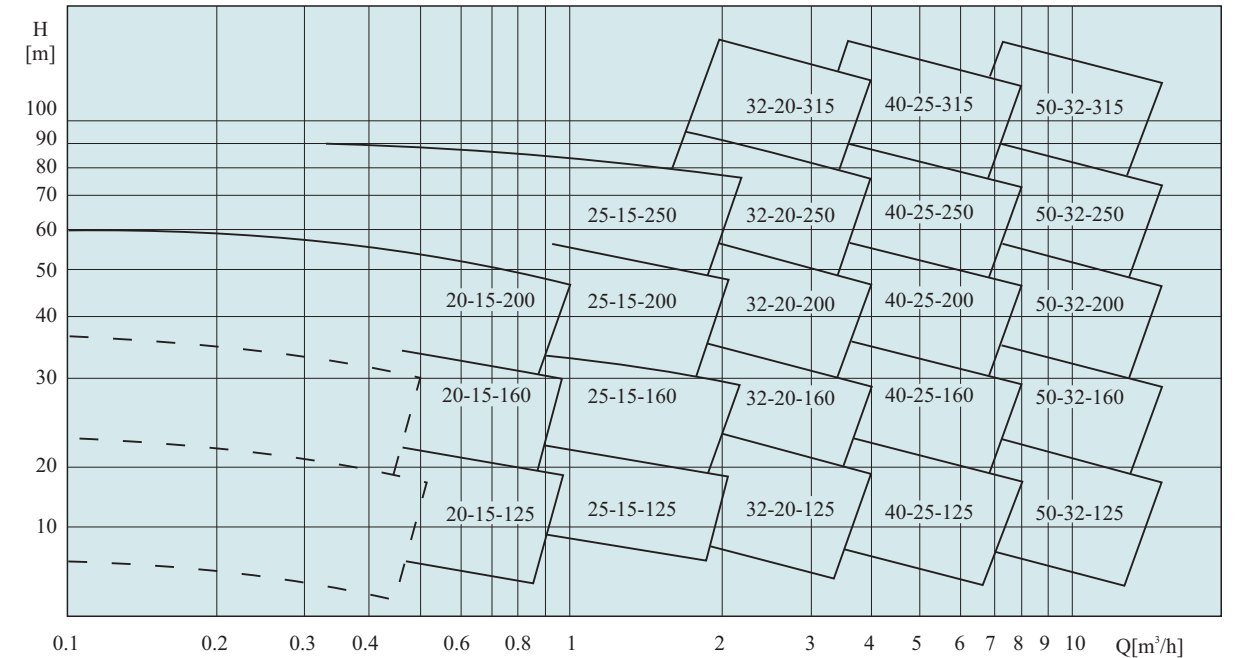


1	叶轮螺母 Impeller nut	6	放气塞 Vent plug	11	轴 Shaft	16	泵盖 Pump cover
2	泵体 Pump casing	7	轴承箱体 Bearing housing	12	放油塞 Oil drainage plug	17	叶轮 Impeller
3	轴套 Shaft sleeve	8	轴承 Bearing	13	轴 承 Bearing	18	泵体口环 Casing wear ring
4	折流盘 Baffle plat	9	轴承压盖(后) Bearing gland(back)	14	密封压盖 Seal gland		
5	轴承压盖(前) Bearing gland(front)	10	支脚 Support	15	密封组件 Sealing part		

型号意义 Model meaning



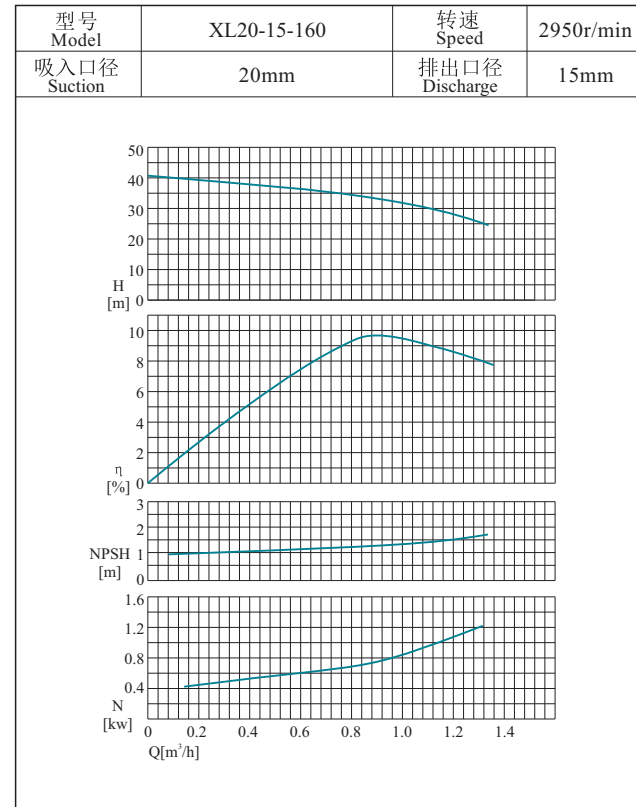
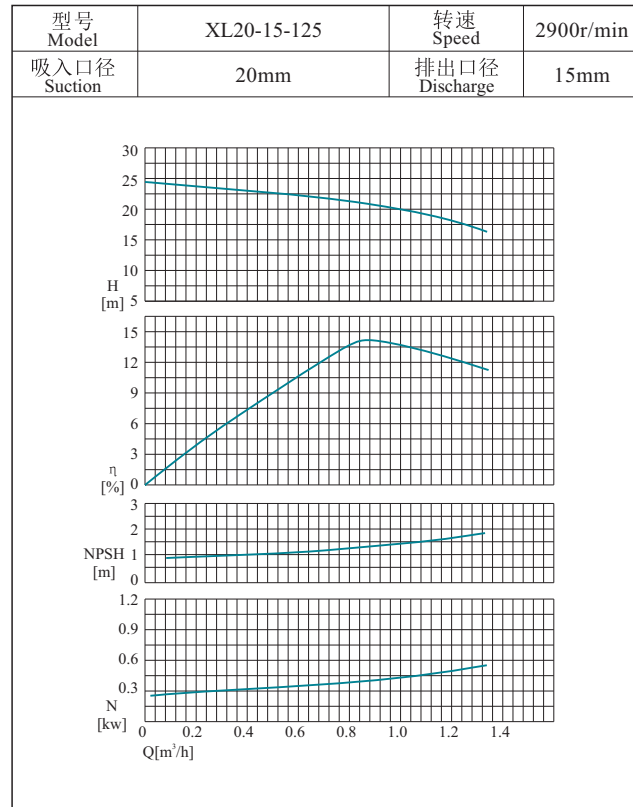
型谱图 Atlas of style



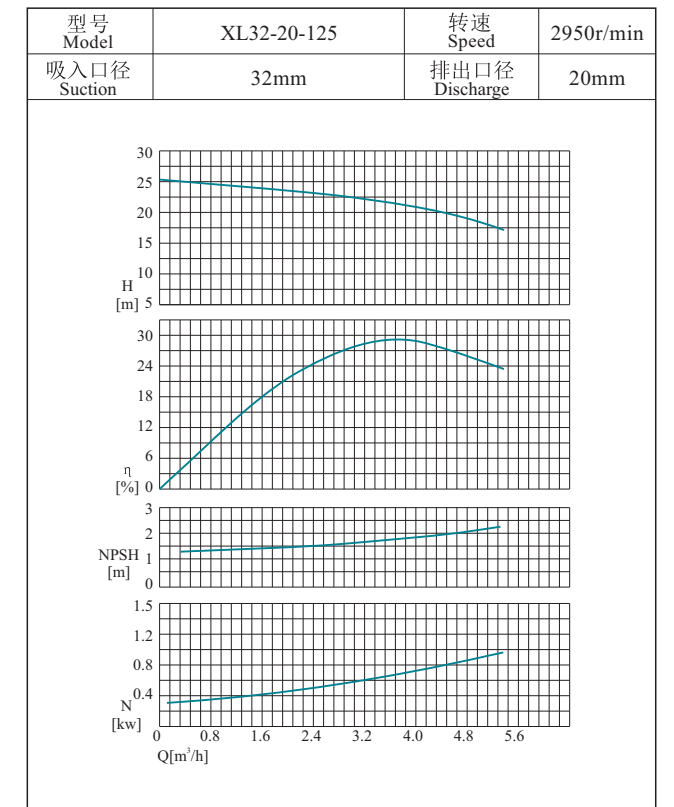
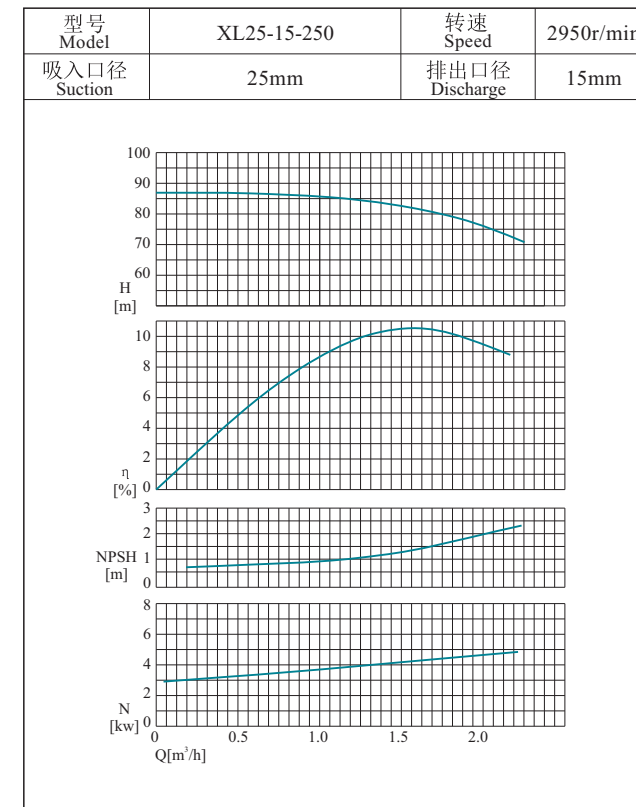
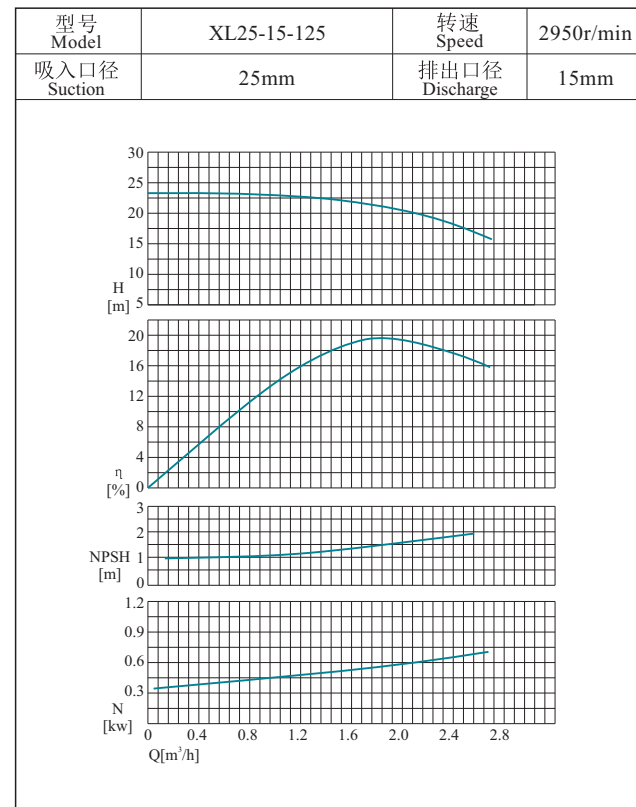
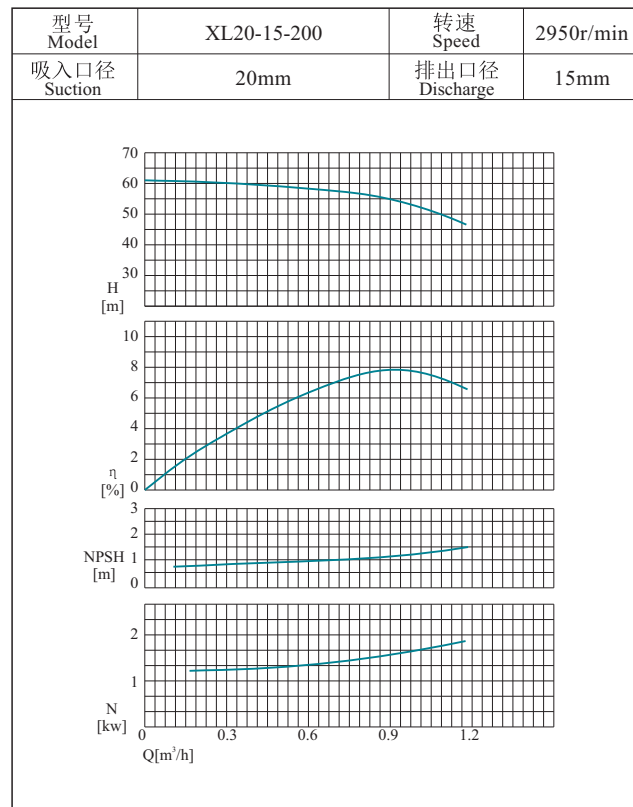
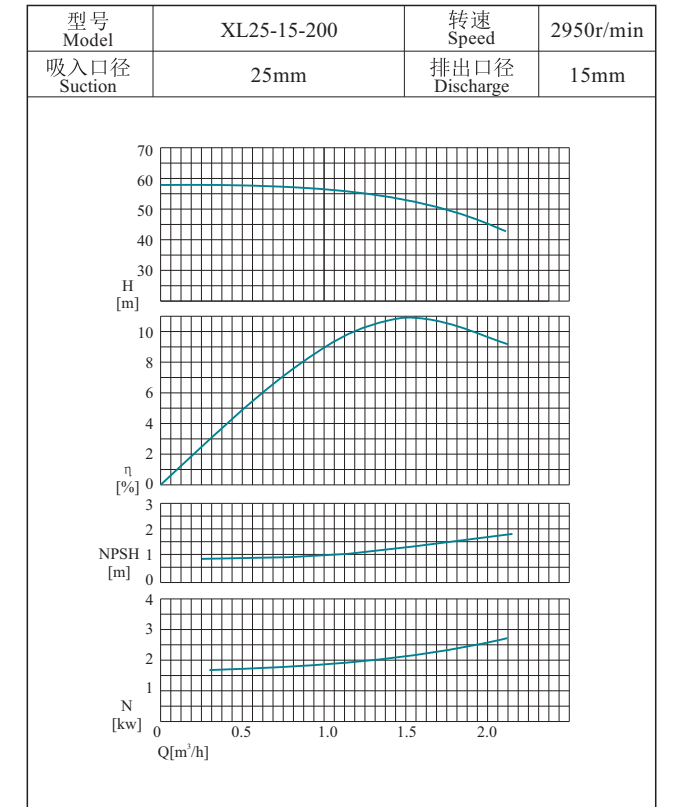
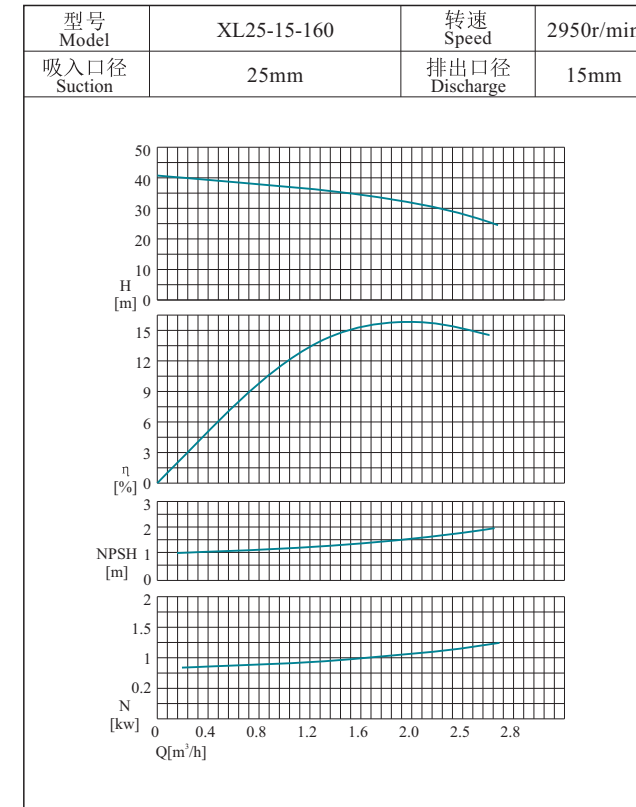
性能参数表 Performance data

型号 Type	流量 Capacity (m³/h)	扬程 Head (m)	介质比重 Specific gravity					
			1.00		1.35		1.84	
			电机型号 Motor type	功率 Power	电机型号 Motor type	功率 Power	电机型号 Motor type	功率 Power
XL 20-15-125	0.8	20	Y802-2	1.1	Y802-2	1.1	Y90S-2	1.5
XL 20-15-160		32	Y90S-2	1.5	Y90L-2	2.2	Y90S-2	2.2
XL 20-15-200		50	Y100L-2	3	Y112M-2	4	Y132S1-2	5.5
XL 25-15-125	1.6	20	Y802-2	1.1	Y802-2	1.1	Y90S-2	1.5
XL 25-15-160		32	Y90S-2	1.5	Y90L-2	2.2	Y100L-2	3
XL 25-15-200		50	Y100L-2	3	Y112M-2	4	Y132S1-2	5.5
XL 25-15-250		80	Y132S2-2	7.5	Y160M1-2	11	Y160M1-2	11
XL 32-20-125	3.2	20	Y802-2	1.1	Y90S-2	1.5	Y90L-2	2.2
XL 32-20-160		32	Y90L-2	2.2	Y100L-2	3	Y112M-2	4
XL 32-20-200		50	Y112M-2	4	Y112M-2	4	Y132S1-2	5.5
XL 32-20-250		80	Y132S2-2	7.5	Y160M1-2	11	Y160M2-2	15
XL 32-20-315		125	Y160M2-2	15	Y160L-2	18.5	Y180M-2	22
XL 40-25-125	6.3	20	Y90S-2	1.5	Y90L-2	2.2	Y100L-2	3
XL 40-25-160		32	Y100L-2	3	Y112M-2	4	Y132S1-2	5.5
XL 40-25-200		50	Y112M-2	4	Y132S1-2	5.5	Y132S2-2	7.5
XL 40-25-250		80	Y160M1-2	11	Y160M2-2	15	Y160L-2	18.5
XL 40-25-315		125	Y180L-2	18.5	Y180M-2	22	Y200L1-2	30
XL 50-32-125	12.5	20	Y90L-2	2.2	Y100L-2	3	Y112M-2	4
XL 50-32-160		32	Y100L-2	3	Y112M-2	4	Y132S1-2	5.5
XL 50-32-200		50	Y132S1-2	5.5	Y132S2-2	7.5	Y160M1-2	11
XL 50-32-250		80	Y160M1-2	11	Y160M2-2	15	Y160L-2	18.5
XL 50-32-315		125	Y180M-2	22	Y200L1-2	30	Y200L2-2	37

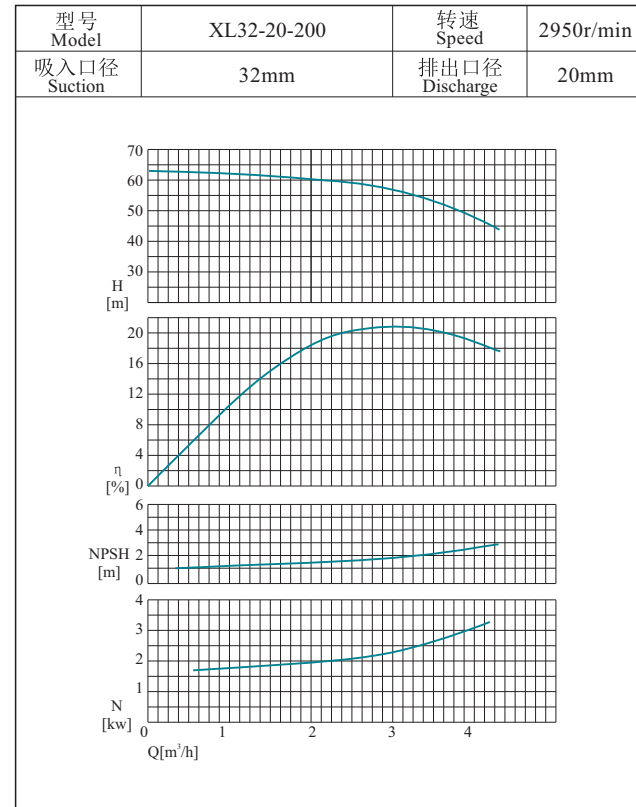
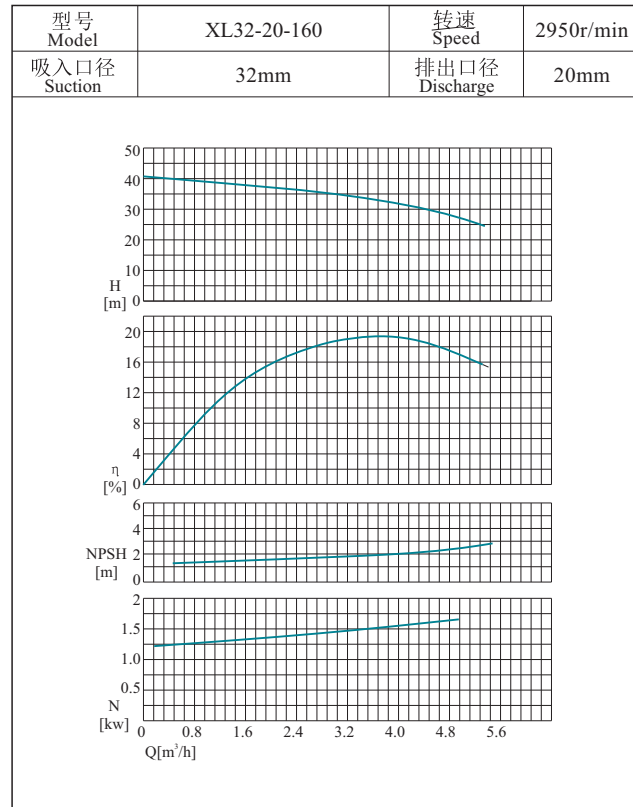
性能曲线图 Performance curve



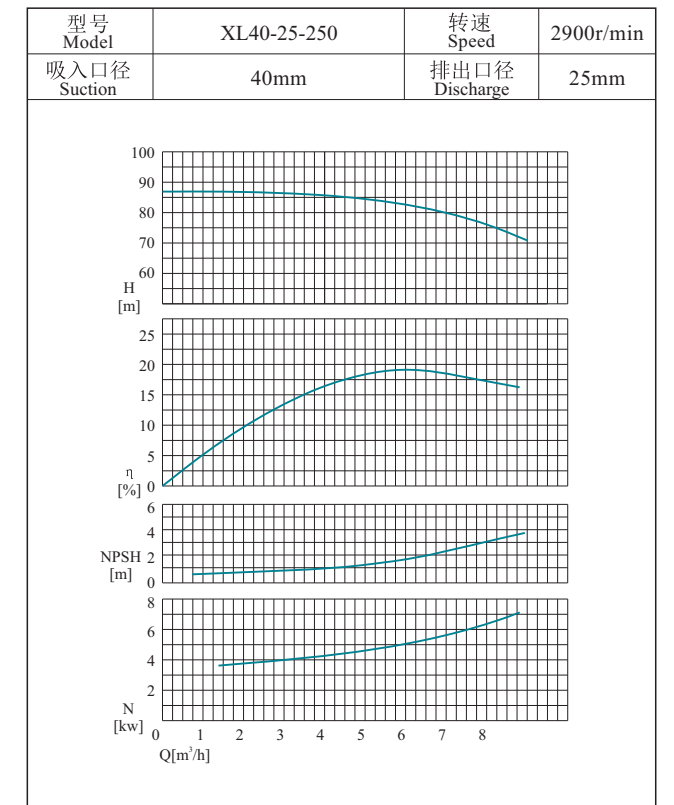
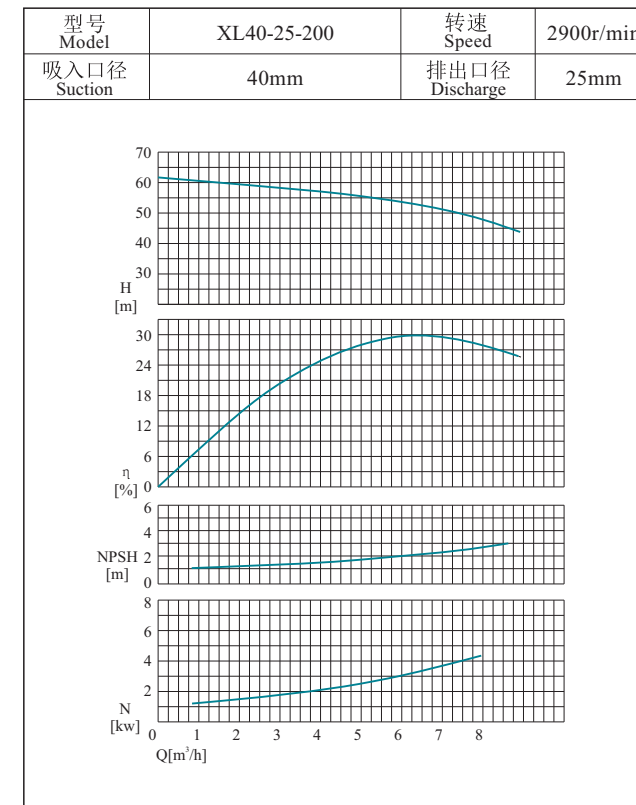
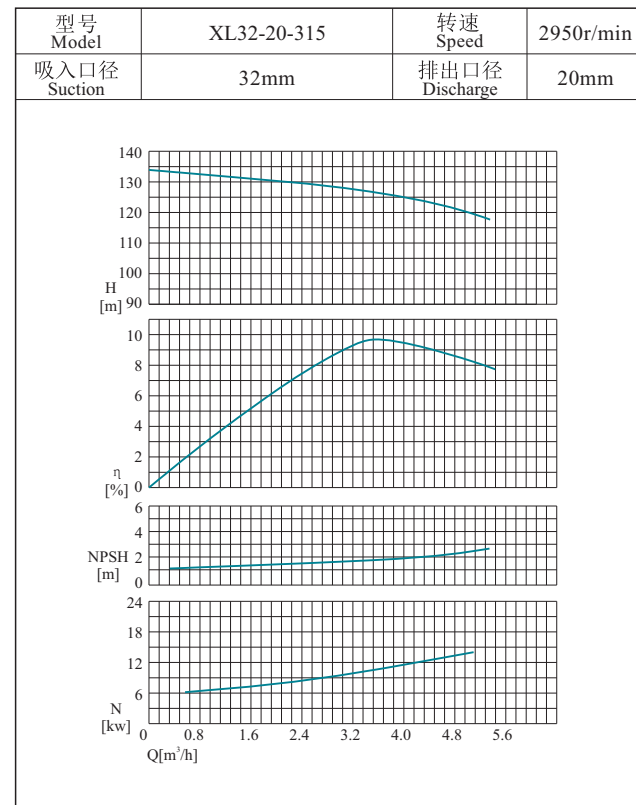
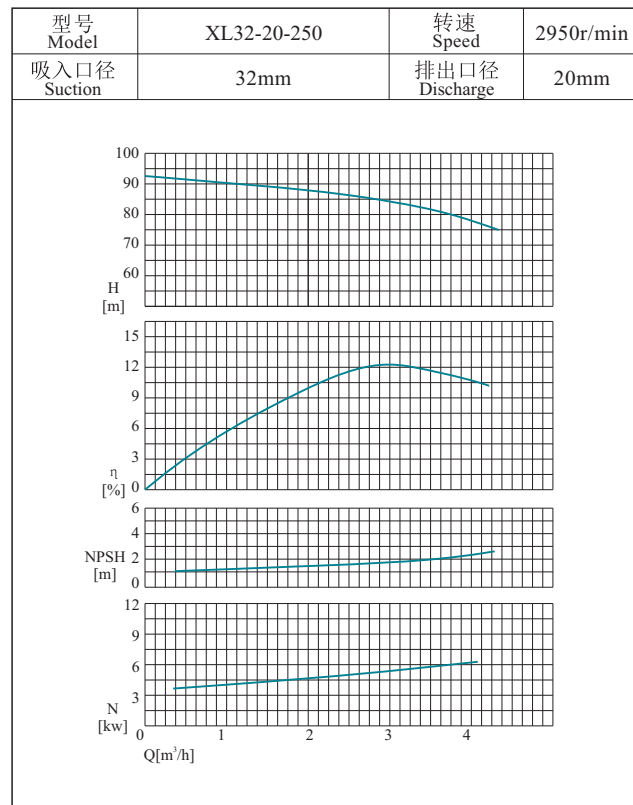
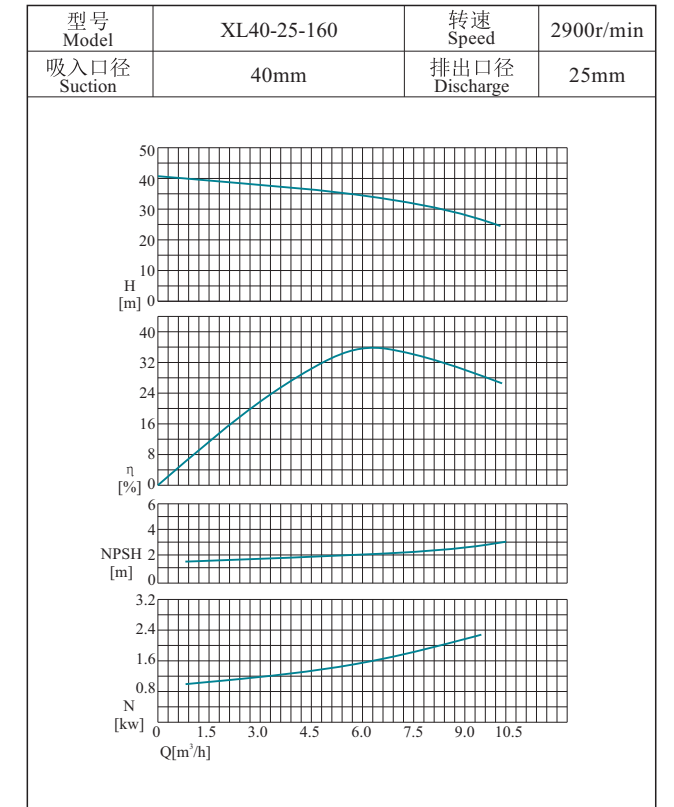
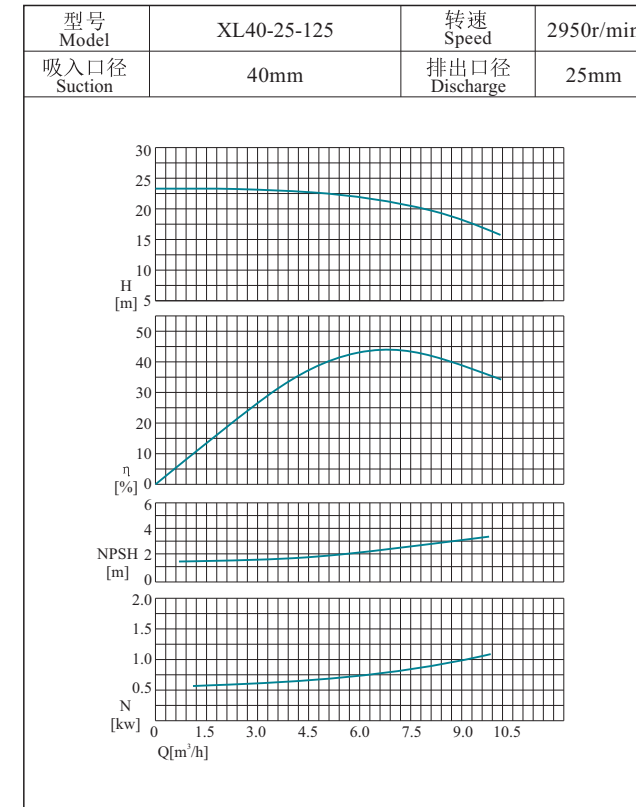
性能曲线图 Performance curve



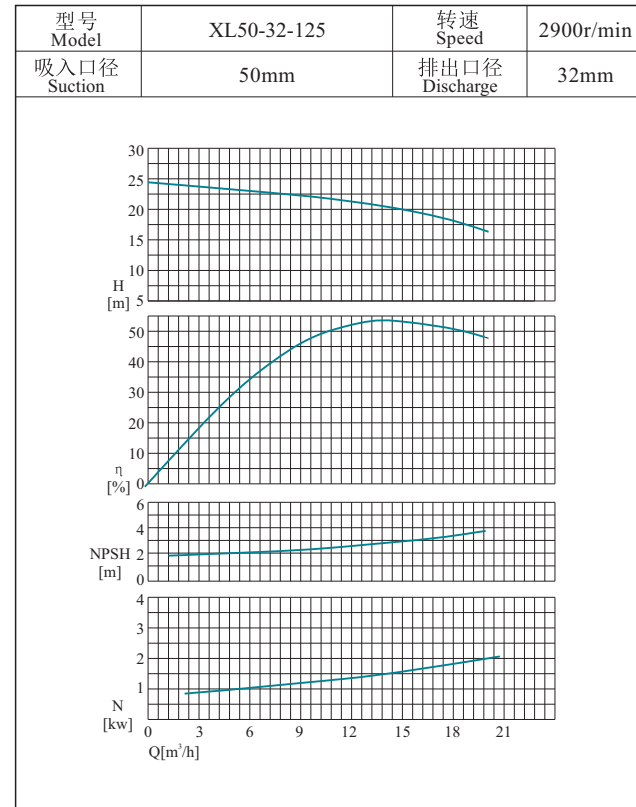
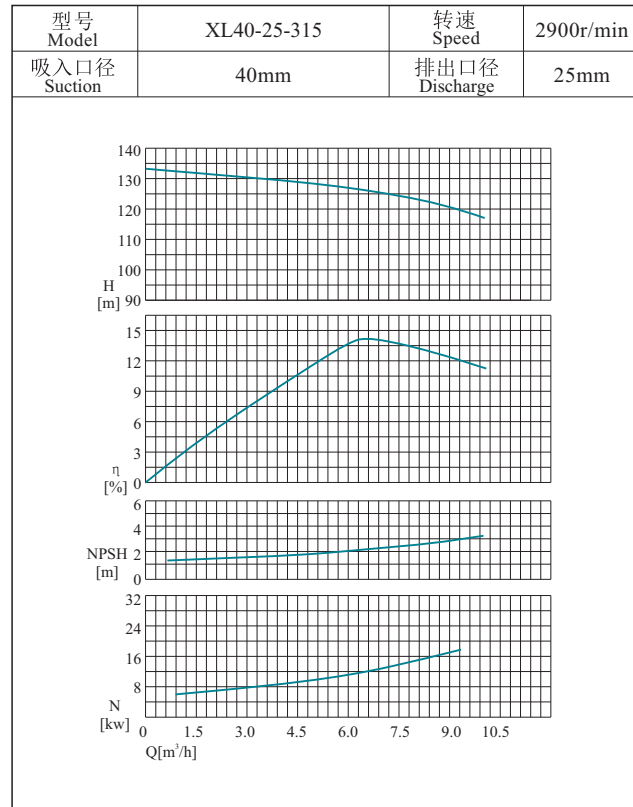
性能曲线图 Performance curve



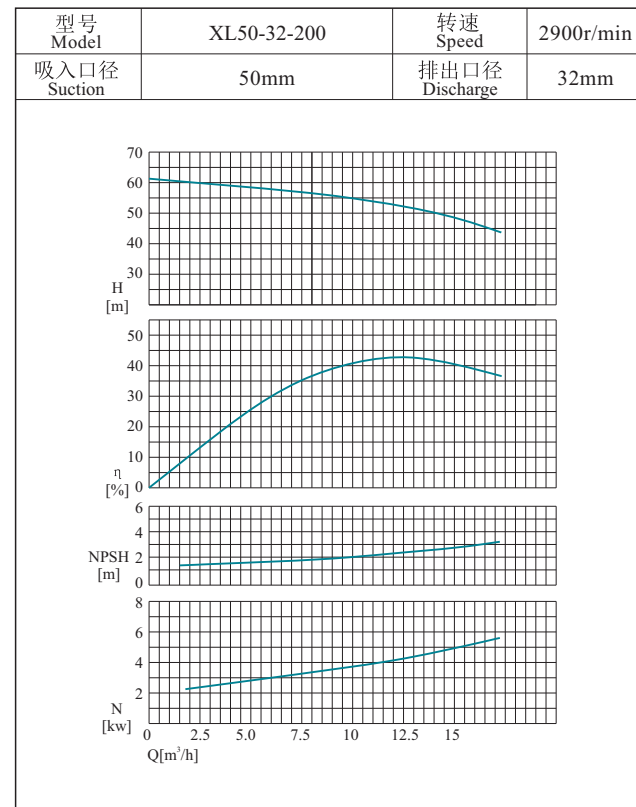
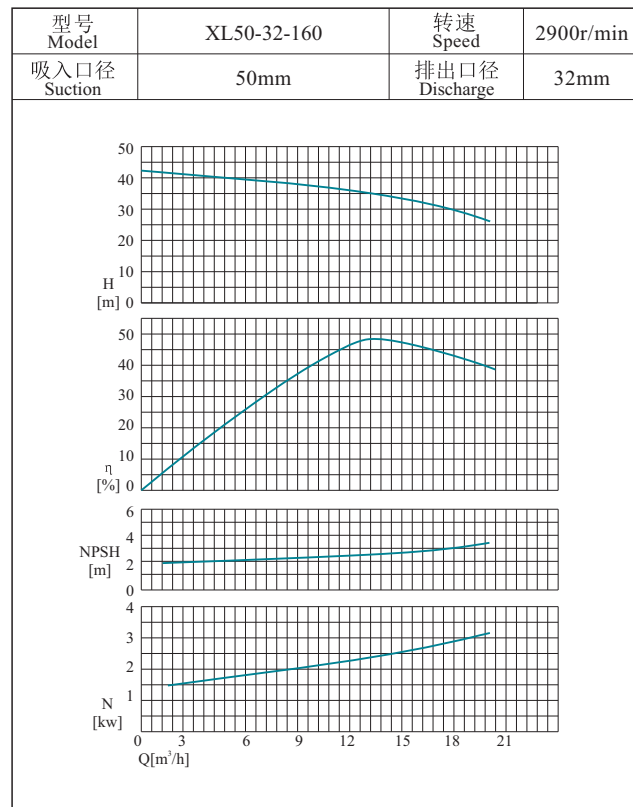
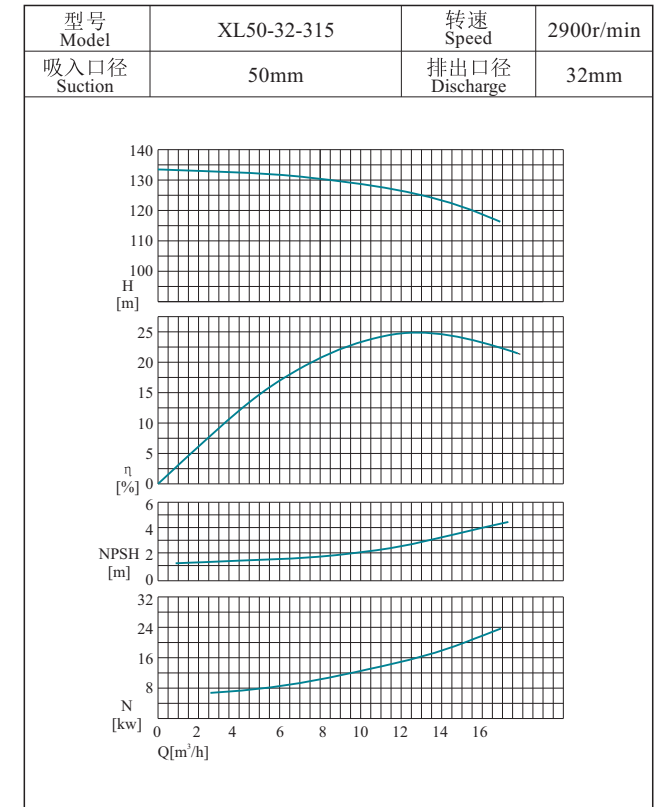
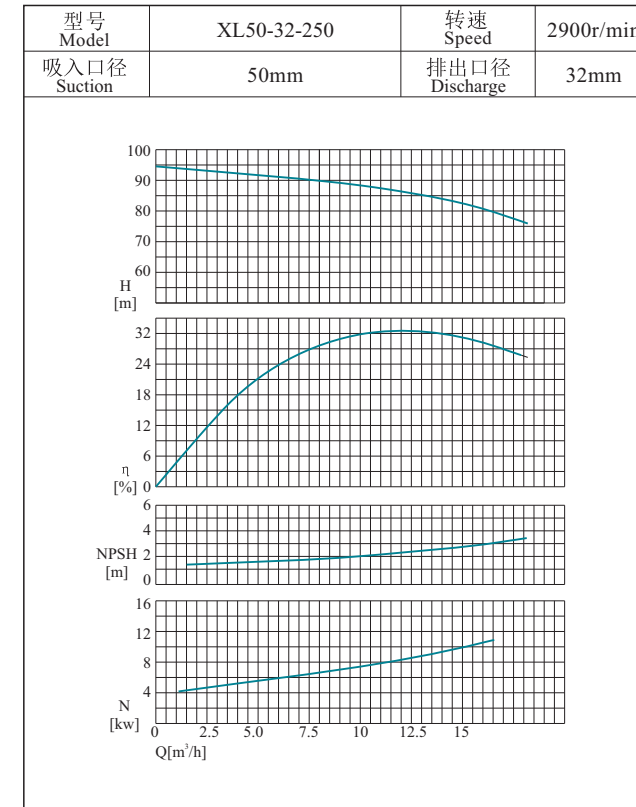
性能曲线图 Performance curve



性能曲线图 Performance curve



性能曲线图 Performance curve



泵体材料介质适应表 Table of the pump casing materials 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 (°C)			
		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	A
	100	A	A	A	A
丙醇 Propyl alcohol		A	A	A	A
丁醇 Butanol		A	A	A	A
甲醛 Ormaldehyde	10~30	D			
	40~50	C			
	80~90			D	D
乙醛 Acetaldehyde	10	C	C		
	100	A	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	B
丙酮 Acetone	<100	B			
	100	A	A	A	A
甲烷 Methane		A	A	A	A

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
乙烷 Elayl		A	A	A	A
乙烯 Ethane		A(120)			
丙烷 Propane		A	A	A	A
丁烷 Tetrane		A(120)			
汽油(高辛烷值) Gasoline(high octane value)		B	B	B	
汽油(喷油机燃料) Gasoline(fuel for oil sprayer)		B	B	B	
汽油(含H ₂ S) Gasoline(containing H ₂ S)		B			
汽油(含HCL, SO ₂ , H ₂ O) Gasoline(containing HCL, SO ₂ , H ₂ O)		C	C		
煤油 Coal oil		B	B	B	B
三乙醇胺 Triethanolamine		B	B	B	B
植物油 Vegetable oil	100	A	A	A	A
		A	D		
	90	D	产生催化 Producing catalyze		
豆油 Soy bean oil		B	B		
玉米油 Corn oil		B	B	B	
棉籽油 Cottonseed oil		B	B	B	
饮用水 Drinking water		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 PH=7 Water PH=7		C	C	C	C

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
水 PH<7 Water PH<7		D			
水 PH>7 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

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
铬酸 Chromic acid	<25	D			
	30~80	B			
	100	A			
硼酸 Boric acid	<10	C	C	C	C
	>10	D		D	
70~90%硫酸+硝酸 70~90% sulphuric acid+nitric acid		A			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
氢氧化钠 Sodium hydroxide	<30 ^②	A	B	B	B*
		D*(200)			
	30~40	A	B	B	C
	50~60	B	B	D	D
		D*(200)			
氯化铵 Ammonium hydride	<10	C	D		
	10~99	D	D		
	100	B			
硫酸钠(PH>7) Sodium sulphate(PH>7)		B	B	B	B
硝酸钠 Sodium nitrate	<90	A	A	B	C
	100	A	A	A	A
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
	20~90	A(120)			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
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			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
碳酸氢钠 Sodium bicarbonate	<100	B	B	B	B
	100	C			
硅酸钠 Sodium silicate		B	B	B	B
		B(120)			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
柠檬酸钠 Sodium citrate	10	D			
	100	A			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
硫酸钾△ Potassium sulphate△	10~20	B	B	B	D ^④
		D			
	100	A			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
硝酸钾 Potassium nitrate	<90	B	B	B	B
	100	A	A	A	A
		A(120)			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
氟化钾 Potassium fluoride	20	B	B	B	
	100	A	B	B	B

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
		氰化钾 Potassium cyanide	<50	C ^③	C
60~70				C	C
80~90	B		B	B	B
	100	B	B	B	B
		C(120)			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
重铬酸钾 Heavy Potassium chromate	<60	B	B	B	B
		B	120		
	100	B	B	B	B

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
高锰酸钾 Potassium permanganate	<100	B	B	B	C
	100	B			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
		氯化钙 Lime chloride	10	A	A
	A(120)				
20~70	B		B	C	D
	100	A	A	A	A
		A(120)			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature (°C)			
		25	50	80	100
氟化钙 Calcium fluoride	90	C			
	100	B	B	B	B

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℃以下。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℃.
 ②Cast iron does not withstand 100℃. ③Cast iron to be C. ④Cast iron to be D.

铬18镍19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(°C)			
		25	50	80	100
无机酸 Inorganic acid					
硫酸*(不充气) Sulphuric acid* (without gas filled)	<5	B	D		
	10~80	D	D		
	90	B	D		
	100	B	C		D
硫酸*(充气) Sulphuric acid* (gas filled)	<20	C	D		
	30~60	D	D		
	70~80	C	D		
90~100	B	C	D	D	
发烟硫酸 Fuming sulphuric acid		D			
硝酸 Nitric acid	<30	A	A	A	A
		C(120)		D(150)	
	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
		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	
		C(沸点) C(Boiling point)			
	20~30	B	D	D	D
	50	D			
100	D				
硼酸* Boric acid*	<30	A	A	A	A
		A(沸点) A(Boiling point)			
	40	B	B	B	B
		B(150)			
50	B	B	B	B	

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
硼酸* Boric acid*	70~80	D			
		C(200)			
	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	B (沸104) (Boiled 104)
氢氧化钠 Sodium hydroxide	<50	A	C	C	D
		D*(200)			
	70*	B	B	B	D*
		D*(200)			
80*	B	B	B	D	
	D*(200)				
100	B	B	B	B	
	C(316)		D(370)		
氢氧化钾* Potassium hydroxide*	<50	B	B	B	B
		B(沸点) B(Boiling point)			
	50	B	B	B	D
		D(200)			
60~70	B	B	B	C	
	C(120)				
80	B			D	
	D(200)				
氢氧化钾 Potassium hydroxide	100	A			
	D(250)				
硫酸钠* Sodium sulphate*		A	A	A	A
	A(200)		B(840)		

铸铁和低碳钢泵适应介质表

Table of the media suitable to the pump made of cast iron and low carbon steel

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
硝酸钠* Sodium nitrate*	<70	A	A	A	A
		A(沸点) A(Boiling point)			
	100	B		D	
		D(510)			
碳酸钠 Sodium carbonate	10	A	A	A	A
		A(沸点) A(Boiling point)			
	20~40	B	B	A	A
100	A	A	A	B	
碳酸钠 Sodium carbonat	100	D*(400)		D*(900)	
氯化钠* Sodium chloride*	10~30	B	B	B	B
		B(沸点) B(Boiling point)			
	90	D			
100	B	B	B		
	D(260)		D(700)		
氰化钠 Sodium cyanide	10	A	A	A	A
	20~30	A			
	40~100	A	A	A	D
	D(700)				
硅酸钠 Sodium silicate		A	A	A	A
		D(800)			
醋酸钠* Sodium acetate*	10	A	A	A	A
		A(150)			
	20~60	B	B	B	B
100	B	B	B	B	
	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
		A(沸点) A(Boiling point)			
100	D(200)				
硝酸钾 Saturation	<80	B	B	B	B
		B(沸点) B(Boiling point)			
	100	A	A	A	A
	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(°C)			
		25	50	80	100
氰化钾 Potassium cyanide	90				
	100	B			
重铬酸钾 Heavy potassium chromate	<30	A	A	A	A
		A(沸点) A(Boiling point)			
	40~60	A	A	A	A
100	B				
高锰酸钾 Potassium permanganate	<30	B	B	B	B
		B(沸点) B(Boiling point)			
100	B				
氯化钙* Calcium chloride*	<20	A	A	A	D
	30~80	B	B	B	D
	100	B			
	D(150)				
氟化钙 Calcium fluoride	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
		B(沸点) B(Boiling point)			
	90	A	A		
100	B			C	
氨水 Ammonium water		A	A	A	A
氨(无水) Ammonium (free of water)		A	A	A	A
		A(316)		A(500)	
甲醇 Methanol	<100	A	A	A	A
	100	A	A	A	C
乙醇 Alcohol		A	B	B	B
丙醇 Propanol		A	A	A	A
丁醇 Butanol		A	A	A	A
甲醛* Formaldehyde*	<40	A	A	A	A
		A(150)			
	50	A	A	B	B
		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)甲醛 Dimethyl ether		B	B	B	B

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		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
乙烷 Ethane		A(370)			
丙烷(液及气) Propane(liquid and gas)		A	A	A	A
丁烷 Tetrane		A(316)			
汽油(高辛烷值) Gasoline(high value of octane)		B	B	B	
汽油(喷汽机燃料) Gasoil(fuel of steam sprayer)		B	B	B	
煤油 Coal oil		A	A	A	A
三乙醇胺 Triethanolamine		A(200)			

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

铬18镍12钼(钛)(316,316L)不锈钢泵的适应介质表
Table of the media suitable to the pump made of Cr18Ni12Mo(Ti) (316,316L) stainless steel

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
硫酸 [∞] (充气) Vitriol [∞] (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) Vitriol [∞] (without gas filled)	<5	B	D	D	D
	20~80	D	D	D	D
	80~90	B	D	D	
	100	B	B	B	C
硝酸 Nitric acid	<20	A	A	A	A
	30~60	A	B	B	B
	70	A	B	B	
	80	A	B	D	
	90	A	D		
100	A [∞]	D			
磷酸 [∞] (充气) Phosphoric acid (gas filled)	<25	A	A	A	A
	25-50	A	A	A	B

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
磷酸 [∞] (不含氧) Phosphoric acid [∞] (containing no oxygen)	<100	D			
	100	B	B	B	B
	50~85	A	B	B	B
	90	D			
100	B				
氢氟酸(不充气) Hydrofluoric acid (without gas filled)	<100	D			
100	B				
氢氟酸(充气) Hydrofluoric acid (gas filled)	<10	B			
10~90	D				
100	B				
10	B				
30					A
100	A	A	A	A	A
100	A(816)				
铬酸 Chromic acid		D			D
氯酸 [∞] Chloric acid [∞]		D			
四磷酸 Tetra-phosphoric acid		B			
硼酸 [∞] Boric acid [∞]	<10	A	A	A	A
	20~50	B	B	B	B

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
王水 Nitro-hydrochloric acid	70~80	B			
	100	B	B		
混酸: 硫酸>50%+硝酸<50%+水<20% Mixed acid: sulphuric acid>50%+nitric acid<50%+water<20%		D			
		B	B	B	
混酸: 硫酸20~60%+硝酸<25%+水<20% Mixed acid: sulphuric acid>20~60%+nitric acid<25%+water<20%		D			
		D(沸点) D(Boiling point)			
混酸: 硫酸30%+硝酸15%+水55% Mixed acid: sulphuric acid 30%+nitric acid 15%+water55%		B	B	B	
		B(沸点) B(Boiling) (110)			
混酸: 硫酸15%+硝酸5%+水80% Mixed acid: sulphuric acid 15%+nitric acid 5%+water80%		B	B	B	
		B(沸点) B(Boiling) (110)			
甲酸 [∞] Aminic acid	<5	B	B	B	B
	>5	C	C	C	C
醋酸 [∞] (不充气) (乙酸) Acetic acid [∞] (without gas filled) (acetic acid)	<50	A	A	A	A
	60~90	B	B	B	B
	100	B	B	B	B
		D(200)			
醋酸(充气) Acetic acid (gas filled)	<40	A	A	A	A
	50	A	B	B	B
	60~90	A	B	B	C
	100	A	B	B	C
	D(150)				
氢氧化钠 Sodium hydroxide	<20	A	A	A	A
	30~50	A	A	B	D
	70	A	A	B	B
	80	A	A	B	D*
	D(260)			D(370)	

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
氢氧化钠 Sodium hydroxide	100	A	A	A	A
氢氧化钾* Potassium hydroxide*	<50	A	A	A	A
	50	B	B	B	D
	60~70	B	B	B	C
	80	B			
	100	A			
硫酸钠 Sodium sulphate		A	A	A	A
硝酸钠 Sodium nitrate	<70	A	A	A	A
	100	B			
碳酸钠 Sodium carbonate	10	A	A	A	A
20~40	B	B	A	A	
100	B	B	B	B(260)	
氯化钠 [∞] Sodium chloride [∞]	10	B	D		
20~30	B	B	B	B	
90	D				
100	A				
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
硅酸钠 Potassium silicate		A	A	A	A
硫酸钾 Potassium sulphate	<100	A	A	A	A

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
	100	A			
硝酸钾 Potassium nitrate	<80	B	B	B	B
		B(沸点) B(Boiling point)			
	100	B			
碳酸钾 Potassium bicarbonate	<70	B	B	B	B
		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
		A(沸点) A(Boiling point)			
	40~60				A
	10	B			
高锰酸钾 Potassium permanganate	<30	B	B	B	B
氯化钙** Calcium chloride**	10	B	D		
	20~30	B	B		
	40~90	B	B	B	
		D(沸点) D(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 Methanol	<100	A	A	A	A

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
	100	A	A	A	A
乙醇 Alcohol		A	A	A	A
乙二醇 Ethandiol		A	A	A	A
甲醛** Formaldehyde**	<40	A	A	A	A
		A(150)			
	50	A	A	B	B
		B(300)			
	60~70	A	A		
	80~90	A	A	A	
	100	A			
乙醚 Ethyl ether		A	A	A	A
丙酮 Acetone		A	A	A	A
醋酸乙酯 Ethyl ester acetate		A	A	B	B
甲苯 Toluene		A	A	A	A
		A(沸点) A(Boiling point)			
汽油 Gasoline		A(175)			
煤油 Coal oil		A	A	A	A
苯酚 Phenyl hydroxide	70~90	B	B	B	B
		B(150)		D(200)	
海水 Sea water	流速 Flowrate				
	<1.5m/s	A**		A(PH≈7)	
	>1.5m/s	A**			

注：① Cr26Mol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。
Note: ① Cr26Mol ferritic steel does not withstand corrosion;
② High flowrate and friction may increase corrosion;
③ Not allowed to contain micro chlorhydric acid, sulphuric acid or sodium chloride. Cr26Mol ferritic steel is of a better corrosion resistance.

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(°C)			
		25	50	80	100
硫酸(充气) Vitriol [®] (gas filled)	1	B	B	B	B
		B(沸点) B(Boiling point)			
	<3	B	B		D
	<10	B	C	D	D
	10~30	B	C	D	
	40~50	C	D		
	50~100	D	D		
硫酸(不充气) Vitriol (without gas filled)	<10	B			
	10~100	D			

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
硝酸 Nitric acid	10	A	A	A	A(150)
		B(200)			
	20	A	A	A	
		A(150)		B(200)	
		D(316)			
	30~80	A	A	A	A(150)
		D(200)			
80~100	A	A	B		
	B(150)				

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
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)
	30	B	D		
	>50	D			
	3	B	B	B	B
磷酸(充气) Phosphoric acid (gas filled)	<10	B	B	B	
磷酸(不充气) Phosphoric acid (without 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			
铬酸 Chromic acid	10	A	A	A	A
	<90	A(沸点) A(Boiling point)			
硼酸 Boric acid	10	A	A	A	A
		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会降低腐蚀。
②含微量Cl⁻的甲、乙醇可能产生应力腐蚀破裂，含2%以上的水时可避免。
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% water.

介质名称 Medium name	浓度 Concentration (%)	温度 Temperature(°C)			
		25	50	80	100
甲酸(不充气) Aminic acid (without gas filled)	<10	A	A	A	
		A(沸点) A(Boiling)			
	30	D			D
	<50	B	B	D	D
	90			D	D
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)
		D(260)			
氢氧化钠 Sodium hydroxide	10	A	A	A	A
		A(沸点) A(Boiling point)			
硫酸钠 Sodium sulphate	10~30	A	A	A	A
		A(沸点) A(Boiling point)			
	饱和 Saturation	A	A		
		D(900)			
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** 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
醋酸乙酯 Ethyl ester acetate		A	A	A	A
甲苯 Toluene		A	A	A	A
苯酚 Phenyl hydroxide		A			

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(°C)	
硫酸 Vitriol	5-40	60	A
	10	80	B
	20	70	B
	30	70	B
	40	30-50	A
	50	40	A
	50	50	B
	60	20-35	A
	60	40	B
	80-98	40	A
80-98	50	B	

介质名称 Medium name	介质条件 Medium condition		腐蚀情况 Corrosion condition
	浓度 Concentration(%)	温度 Temperature(°C)	
硝酸 Nitric acid	10-40	20-沸腾 20-Boiling	A
	50	100	A
	60	90	A
	70	100	B
	80	80	B
醋酸 Acetic acid	1-80	沸腾 Boiling	A
	99.5	200	A
	100	20-75	A
	100	100	A
	100	沸腾 Boiling	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	腐蚀情况 Corrosion condition
介质名称 Medium name	浓度 Concentration(%)	温度 Temperature(°C)	h	
硝酸 Nitric acid	5	20		A
	7	20	720	A
	5	沸腾 Boiling		D
	20	20		A
	20	沸腾 Boiling		A
	50	20		A
	50	沸腾 Boiling	24	C
	65	20		A
	65	沸腾 Boiling	24	D
	90	20		A
90	沸腾 Boiling		D	
醋酸 Acetic acid	10-50	20		C
	10	沸腾 Boiling		D
蚁酸 Formic acid	10-50	20		A
	10-50	沸腾 Boiling		D
柠檬酸 Citric acid	1	20		A
	1	沸腾 Boiling		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 Boiling		A
	50	100		D
	浓液 Thick liquid	20		A

介质条件 Medium condition			延续时间 Extended time	腐蚀情况 Corrosion condition
介质名称 Medium name	浓度 Concentration(%)	温度 Temperature(°C)	h	
草酸 Oxalic acid	浓液 Thick liquid	20		A
	浓液 Thick liquid	沸腾 Boiling		D
硝酸铵 Ammonium nitrate	约65 About 65	20	1127	A
	约65 About 65	125	110	C