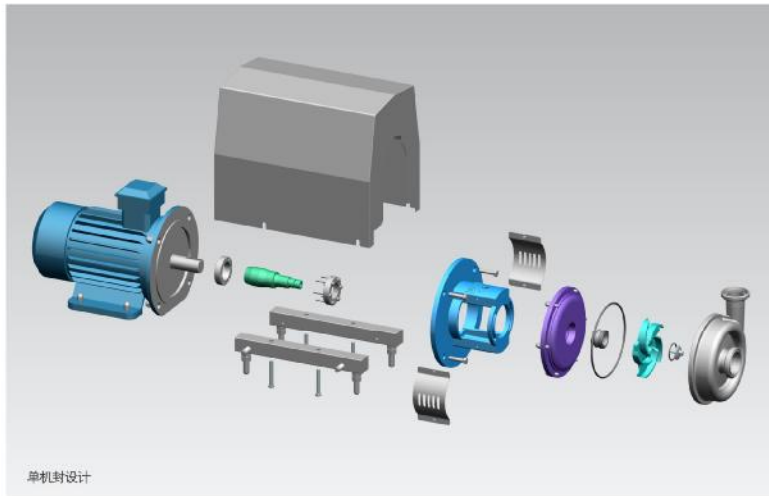


## 离心泵(KS系列) Centrifugal pump (KS series)



单机封设计

### KS系列 KS Series

- ◆该离心泵是不锈钢制造，带有不锈钢电机外壳。
- ◆卫生和低成本效益的设计，使它非常适用于乳制品、饮料、食品加工、制药和精细化工工作中。
- ◆The centrifugal pump is made of stainless steel and with a shrouded motor.
- ◆Sanitary and cost-efficient design makes it perfect for the dairies, beverages, food-processing, pharmaceutical and fine chemicals industries.

### 工作原理 Operating principles

- ◆叶轮安装在泵壳里面，它和泵轴一起在联合中旋转，叶轮刀片以动能和压能的形式将能量传达给流体。
- ◆该泵即使通过简单的反向旋转，也是不可行的。从电机后面也可以看出泵的旋转方向，正确的旋转方向，是顺时针的。
- ◆Housed inside the casing, the impeller rotates in conjunction with the pump shaft. With this arrangement, the impeller blades convey energy to the fluid in the form of kinetic energy and pressure energy.
- ◆This pump can't reverse by simple reversal of the direction of rotation. The direction of rotation is clockwise when the pump is viewed from the rear side of the motor.



## 离心泵(KS系列) Centrifugal pump (KS series)

### 技术规格

- ◆最大流量: 150m<sup>3</sup>/h
- ◆最高扬程: 70h(M)
- ◆最高温度: 120°C/248°F(满足30Min CIP/SIP)
- ◆最高转速: 3600Min<sup>-1</sup>
- ◆卫生认证: 3A-02-10/NO.1579, 密封FDA.177.2600

### 设计和特点

- ◆不锈钢电机外圈由冷成型板做; 开式叶轮或闭式叶轮由不锈钢熔模铸造;
- ◆可调节不锈钢脚: 根据3A卫生标准认证; IEC或NEMA B35电机 IP55, F等级绝缘, 50HZ、60HZ。

### 材质 Materials

- ◆与物料接触部位: AISI-316/304
- ◆垫圈(标准): EPDM(FDA)
- ◆机械密封(标准): SIC/SIC/EPDM
- ◆内表面处理: Ra ≤ 0.8 μm
- ◆外表面处理: 喷沙处理或者抛光处理
- ◆Parts in contact with pumped media: AISI-316/304
- ◆Gaskets(standard): EPDM(FDA)
- ◆Mechanical seal(standard): SIC/SIC/EPDM
- ◆Inside surface finishing: Ra ≤ 0.8 μm
- ◆Outside surface finishing: Sandblast or Mirror polish

### 选项 Options

- ◆机械密封圈: C/SIC, TC/TC
- ◆垫圈: FPM(VITON)和NBR
- ◆进出口连接: 卡箍、螺纹、法兰、DIN、SMS、RJT、IDF
- ◆电机: 2900, 1450, 3600Min<sup>-1</sup>, 50HZ, 60HZ
- ◆单端面机械密封(标准)
- ◆水冲洗双端面机械密封(选项)
- ◆Mechanical seal in: C/SIC, TC/TC
- ◆Gaskets in: FPM(VITON)and NBR
- ◆Connectors: Clamp, thread, flange, DIN, SMS, RJT, IDF
- ◆Motor: 2900, 1450, 3600Min<sup>-1</sup>, 50HZ, 60HZ
- ◆Single mechanical seal(standard)
- ◆Flushed double mechanical seal(Options)

### Technical specifications

- ◆Max Flow: 150m<sup>3</sup>/h
- ◆Max Head: 70h(M)
- ◆Max working temperature: 120 degree C/248 degree F (30Min CIP/SIP)
- ◆Max Rev: 3600Min<sup>-1</sup>
- ◆Certificate: 3A-02-10/NO.1579.FDA.177.2600

### Design and features

- ◆Casing manufactured with cold-formed plate. Open impeller and close impeller manufactured with stainless steel investment casting;
- ◆Adjustable stainless steel legs, Pump designed according to 3A Sanitary standards. IEC or NEMA B34 motors, IP 55, F-class insulation, 50HZ, 60HZ

电机采用IEC EN IE2高效等级(相当于中国二级能效), PTC热敏电阻 Motor the IEC EN IE2(Equivalent to China two energy efficiency), PTC thermistor

### 宽电压电机Wide input range motor

功率(Power) Power	电压备注 Voltage	功率(Power) Power	电压备注 Voltage
0.55		4	
0.75		5.5	
1.1	210V-230V/50HZ	7.5	360V-400V/50HZ
1.5	360V-400V/50HZ	11	630V-690V/50HZ
2.2	420V-460V/50HZ	15	420V-460V/60HZ
3		18.5	
		30	

其他电压和频率电机请与东正联系  
Please contact Donjoy for any other voltage or frequency of motor.

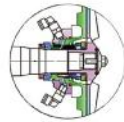


## 离心泵(KS系列) Centrifugal pump (KS series)

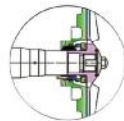


机械密封 Mechanical seal

机封示意图  
Mechanical Sealing Fig



水冲洗双端机械密封  
Flushed double mechanical seal



单端面机械密封  
Single mechanical seal

### 泵进出口的连接方式

#### Application of pump inlet and outlet connection type

液体在管道中会有能量的损失，分为沿程损失和局部阻力损失，管内越光滑，沿程损失越小，弯道越少，管径变化越小，局部阻力损失越小，因而尽量不要采用粗糙的管道连接，也不要连接中用管道急变的方式连接。

The fluid in pipe will lose a part of energy that called as "pathway lose" and "local resistance lose", pipe surface is more smooth, pathway lose is more less, and bend of pipe and the change of pipe diameter are more less, local resistance lose is more less, thus it is not better by rough surface pipe and by rapid change pipe diameter.

### 管道直径及连接距离

#### Pipe diameter and distance of connection

泵在小流量运行时，效率很低，消耗的能量使液体温度急剧上升，泵在小流量下运行，通过叶轮间回流增加，造成泵压力脉动、振动、噪音等危害增加，因而，连接的管道进口直径最好不要小于泵进口直径。为了保证泵运行的更加稳定，泵进口前需要连接一段直管，长度约为5-10倍管道直径。

When low flow rate running the efficiency of pump is very less, consume of energy have fluid temperature rise up rapidly, and when low flow rate running, the return flow of pump is increased in impeller clearance, the pulsant pressure, shaking, noise from pump etc harm will result, for the connection diameter of pipe front inlet is not less than design pipe diameter, and it need a straight pipe front inlet, long for 5-10 times pipe diameter, so that keep pump better running.

错误的连接管道 Wrong pipe type

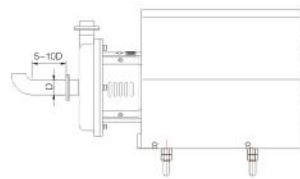


正确的连接管道 Right pipe type



D-02

管道入口连接距离 Pipe connection distance

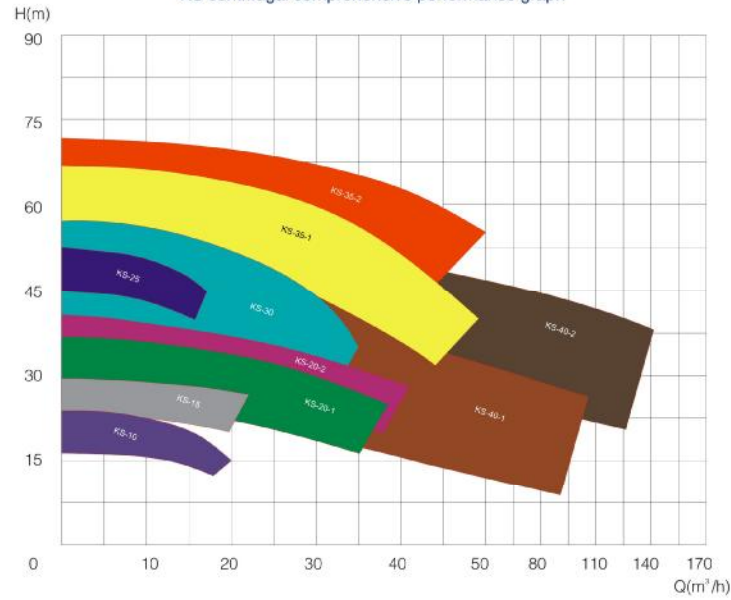


D-03



## 离心泵(KS系列) Centrifugal pump (KS series)

KS系列离心泵综合性能曲线图  
KS centrifugal comprehensive performance graph



KS带排污口离心泵示意图 KS series pump drainage pipe picture



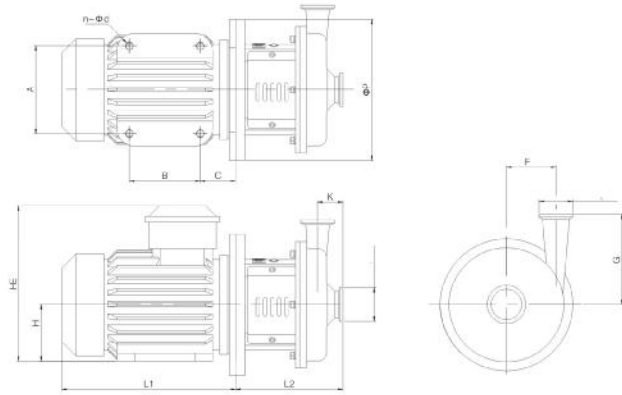
KS离心泵订购选型表 KS centrifugal pump selection table

型号 Model	选型规格		电机选择		进口/出口
	流量 (T)	扬程 (M)	功率 (KW)	电流 (A)	
KS10	3	22	1.5KW		1.5"/1.5"
	5	22	1.5KW		
	8	22	1.5KW		
	9	22	1.5KW		
	12	20	1.5KW		
	15	16	1.5KW		
KS15	3	30	1.5KW		2"/1.5"
	5	30	1.5KW		
	8	26	1.5KW		
	10	25	2.2KW		
	15	22	2.2KW		
	18	18	2.2KW		
KS20-1	5	36	2.2KW		2"/2"
	10	36	3.0KW		
	15	25	4.0KW		
	20	30	4.0KW		
	25	30	5.5KW		
	30	30	5.5KW		
KS20-2	38	22	5.5KW		2"/2"
	20	40	5.5KW		
	25	40	5.5KW		
	30	35	5.5KW		
	35	32	5.5KW		
	40	30	7.5KW		
KS25	45	26	7.5KW		2"/1.5"
	5	50	4KW/5.5KW		
	10	45	5.5KW		
KS30	5	22	5.5KW/10.2A		2"/1.5"
	10	22	5.5KW/10.2A		
	15	22	5.5KW/10.2A		
	20	22	5.5KW/10.2A		
	25	20	7.5KW/13.6A		
	30	20	7.5KW/13.6A		
	35	20	7.5KW/14.5A		
	40	20	7.5KW/13.6A		
	45	20	7.5KW/13.6A		
	50	20	7.5KW/13.6A		
	55	20	7.5KW/13.6A		
	60	20	7.5KW/13.6A		
	65	20	7.5KW/13.6A		
	70	20	7.5KW/13.6A		
75	20	7.5KW/13.6A			
KS35-1	10	70	11KW		2.5"/1.5"
	15	65	11KW		
	20	65	11KW		
	25	60	11KW		
	30	60	11KW		
	35	55	11KW		
KS35-2	40	50	15KW		2.5"/2"
	45	50	15KW		
	50	50	15KW		
	55	50	15KW		
	60	50	15KW		
	65	50	15KW		
KS40-1	70	38	15KW		3"/2.5"
	80	35	15KW		
	90	33	15KW		
	100	30	18.5KW		
	110	28	18.5KW		
	120	25	18.5KW		
	130	22	18.5KW		
	140	20	18.5KW		
	150	18	18.5KW		
	KS40-2	50	50	15KW	
60		48	15KW		
70		47	18.5KW		
80		46	18.5KW		
85		45	22KW		
90		44	22KW		
100		43	22KW		
110		40	22KW		
120		35	22KW		
130		33	30KW		
140	20	30KW			



## 离心泵(KS系列) Centrifugal pump (KS series)

离心泵KS无防护罩尺寸图 Centrifugal pump without protective cover size figure

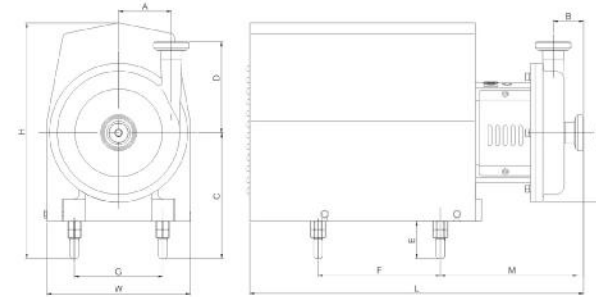


KS泵安装数据表(无罩)  
KS pump series installation table(no motor cover)

型号 Model	功率	进口口径	出口口径	FE	A	B	C	H	HE	L1	F	出口口径	K	F	G	L2	
KS10	1.5KW	1.5"	1.5"	169	Φ32	140	100	56	90	200	260	200	4x10	53	63	129	180
	2.2KW	1.5"	1.5"	169	Φ32	140	125	56	90	200	285	200	4x10	53	63	129	180
KS15	1.5KW	2"	1.5"	250	Φ32	140	100	56	90	200	260	200	4x10	35	90.5	148	203
	2.2KW	2"	1.5"	250	Φ32	140	125	56	90	200	285	200	4x10	35	90.5	148	203
KS20-I	2.2KW	2"	2"	250	Φ32	140	125	56	90	200	285	200	4x10	38	85	163	203
	3KW	2"	2"	250	Φ32	160	140	63	100	270	320	250	4x12	38	85	163	216
KS20-II	4KW	2"	2"	250	Φ32	190	140	70	112	278	335	250	4x12	38	85	163	216
	5.5KW	2"	2"	250	Φ32	216	140	89	132	320	385	300	4x12	38	85	163	216
KS25	7.5KW	2"	2"	250	Φ32	216	140	89	132	320	385	300	4x12	38	85	163	214
	4KW	2"	1.5"	268	Φ32	190	140	70	112	278	335	250	4x12	49	108	183	214
KS30	5.5KW	2"	1.5"	268	Φ32	216	140	89	132	320	385	300	4x12	49	108	183	214
	7.5KW	2"	1.5"	268	Φ32	216	140	89	132	320	385	300	4x12	49	108	183	214
KS35-I	11KW	2.5"	1.5"	350	Φ36	254	210	106	160	400	490	350	4x15	57	131	222	273
	15KW	2.5"	1.5"	350	Φ36	254	210	106	160	400	490	350	4x15	57	131	222	273
KS35-II	15KW	2.5"	2"	350	Φ36	254	210	106	160	400	490	350	4x15	57	131	222	273
	18.5KW	2.5"	2"	350	Φ36	254	254	106	160	400	535	350	4x15	57	131	222	273
KS40-I	11KW	3"	2.5"	303	Φ36	254	210	106	160	400	490	350	4x15	61.5	105	202	290
	15KW	3"	2.5"	303	Φ36	254	210	106	160	400	490	350	4x15	61.5	105	202	290
KS40-II	18.5KW	3"	2.5"	303	Φ36	254	254	106	160	400	535	350	4x15	61.5	105	202	290
	22KW	3"	2.5"	303	Φ36	270	241	121	180	420	560	350	4x15	61.5	105	202	290
	30KW	3"	2.5"	303	Φ36	318	306	133	200	470	660	400	4x19	61.5	105	202	290

注：以上尺寸均以卡箍接头为准。

KS系列尺寸图 Centrifugal pump dimensions figure



KS离心泵安装尺寸 Centrifugal Pump Open Impeller Series

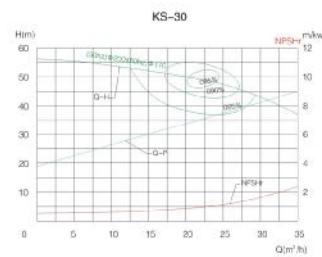
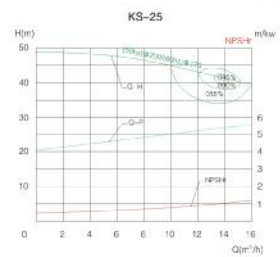
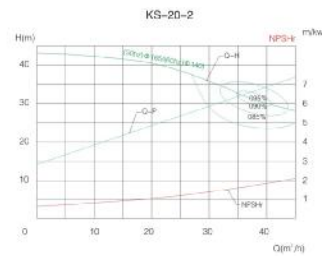
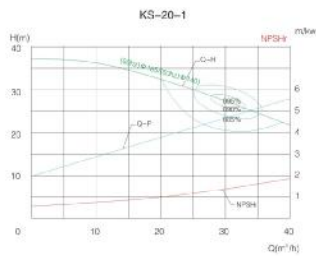
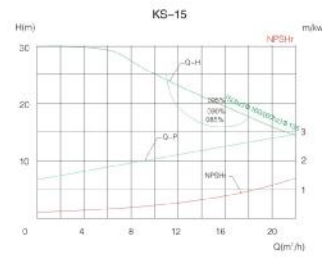
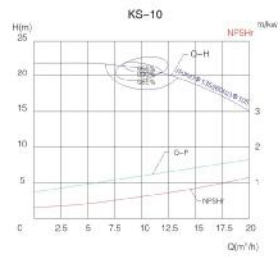
型号 Model	功率	进口	出口	FE	A	B	C	D	M	F	G	H	L	W	E	C	H	E	
KS10	1.5KW	1.5"	1.5"	169	Φ32	63	60	190	136	163	240	140	360	526	210	70	222	392	102
	2.2KW	1.5"	1.5"	169	Φ32	63	60	210	136	163	240	140	360	526	210	70	242	392	102
KS15	1.5KW	2"	1.5"	250	Φ32	90.5	42	190	155	186	240	140	360	551	210	70	242	392	102
	2.2KW	2"	2"	250	Φ32	85	45	210	170	186	240	140	360	551	210	70	242	392	102
KS20-I	2.2KW	2"	2"	250	Φ32	85	45	210	170	186	240	140	360	551	210	70	242	392	102
	3KW	2"	2"	250	Φ32	85	45	230	170	175	300	160	430	590	260	70	262	482	102
KS20-II	4KW	2"	2"	250	Φ32	85	45	222	170	175	300	190	430	590	260	70	254	482	102
	5.5KW	2"	2"	250	Φ32	85	45	252	170	197	350	216	470	737	310	70	284	502	102
KS25	7.5KW	2"	2"	250	Φ32	85	45	252	170	197	300	216	470	737	310	70	284	502	102
	4KW	2"	1.5"	268	Φ32	108	56	222	190	173	300	190	430	597	260	70	254	482	102
KS30	5.5KW	2"	1.5"	268	Φ32	108	56	252	190	195	330	216	470	735	310	70	284	502	102
	7.5KW	2"	1.5"	268	Φ32	108	56	252	190	195	300	216	470	735	310	70	284	502	102
KS35-I	11KW	2.5"	1.5"	350	Φ36	131	68	290	229	240	450	254	575	860	375	102	322	607	102
	15KW	2.5"	1.5"	350	Φ36	131	68	290	229	240	450	254	575	860	375	102	322	607	102
KS35-II	15KW	2.5"	2"	350	Φ36	131	68	290	229	240	450	254	575	860	375	102	322	607	102
	18.5KW	2.5"	2"	350	Φ36	131	68	290	229	240	515	254	575	865	375	102	322	607	102
KS40-I	11KW	3"	2.5"	303	Φ36	105	73.5	290	213.5	240	450	254	575	870	375	102	322	607	102
	15KW	3"	2.5"	303	Φ36	105	73.5	290	213.5	240	450	254	575	870	375	102	322	607	102
KS40-II	18.5KW	3"	2.5"	303	Φ36	105	73.5	290	213.5	240	515	254	575	885	375	102	322	607	102
	22KW	3"	2.5"	303	Φ36	105	73.5	310	213.5	240	515	279	625	946	400	102	342	657	102
	30KW	3"	2.5"	303	Φ36	105	73.5	350	213.5	267	580	318	670	1014	440	102	382	732	102

注：以上尺寸均以SMS标准接头为准。

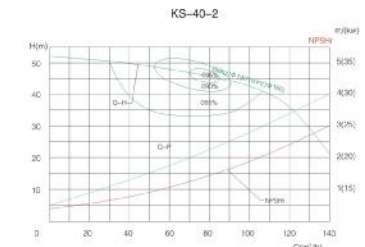
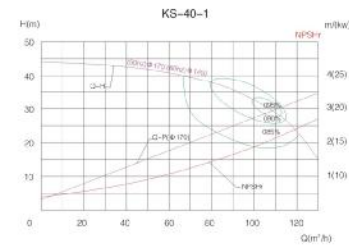
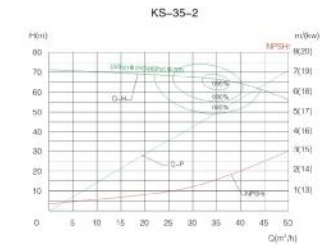
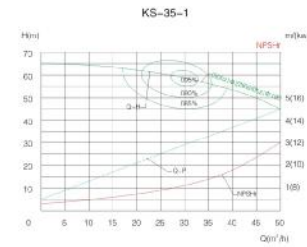


# 离心泵(KS系列) Centrifugal pump (KS series)

离心泵性能综合曲线图 KS Series pump performance curve figure



说明: 测试条件: 介质清水, 温度20°C, 叶轮转速2900 R.P.M (此曲线图亦适用电机60Hz, 叶轮转速3600R.P.M)  
Note: Test condition is pure water, 20°C temperature, impeller speed 2900R.P.M (it is the same curve as motor 60Hz, impeller speed 3600R.P.M)



说明: 测试条件: 介质清水, 温度20°C, 叶轮转速2900 R.P.M (此曲线图亦适用电机60Hz, 叶轮转速3600R.P.M)  
Note: Test condition is pure water, 20°C temperature, impeller speed 2900R.P.M (it is the same curve as motor 60Hz, impeller speed 3600R.P.M)

## 离心泵型号说明 Model instruction of Centrifugal Pump

KS 10 6T 22 1.5KW 380V 50HZ M 1.5"/1.5" S

- 接口标准: DIN(D), SMS(S), 3A(A), RJT(R), ISO(I), ISO(I)
- Connection standard: DIN(D), SMS(S), 3A(A), RJT(R), ISO(I), ISO(I)
- 进出口规格 Inlet & Outlet Size
- 连接方式: 螺纹(M) 卡箍(C)  
Connection way: Threaded(M), Clamped(C)
- 电机频率: 50HZ; 60HZ  
Motor frequency: 50HZ, 60HZ
- 电压: 110V 220V 380V (详见选型表)  
Voltage: 110V 220V 380V (refer to selection table)
- 电机功率: 1.1kw 1.5kw 2.2kw.....  
Motor power: 1.1kw 1.5kw 2.2kw.....
- 离心泵扬程 (详见选型表)  
Discharge head (refer to selection table)
- 离心泵流量 (详见选型表) Flow rate (refer to selection table)
- 离心泵型号 Model
- 离心泵代码: 开式叶轮KS; 闭式叶轮BS  
Centrifugal Pump code: KS series (Open impeller) & BS series (Close impeller)

例: KS-10-6T-22-1.5Kw-380V-50HZ-M-2.5"/2.5"-S  
Sample: KS-10-6T-22-1.5Kw-380V-50HZ-M-2.5"/2.5"-S

