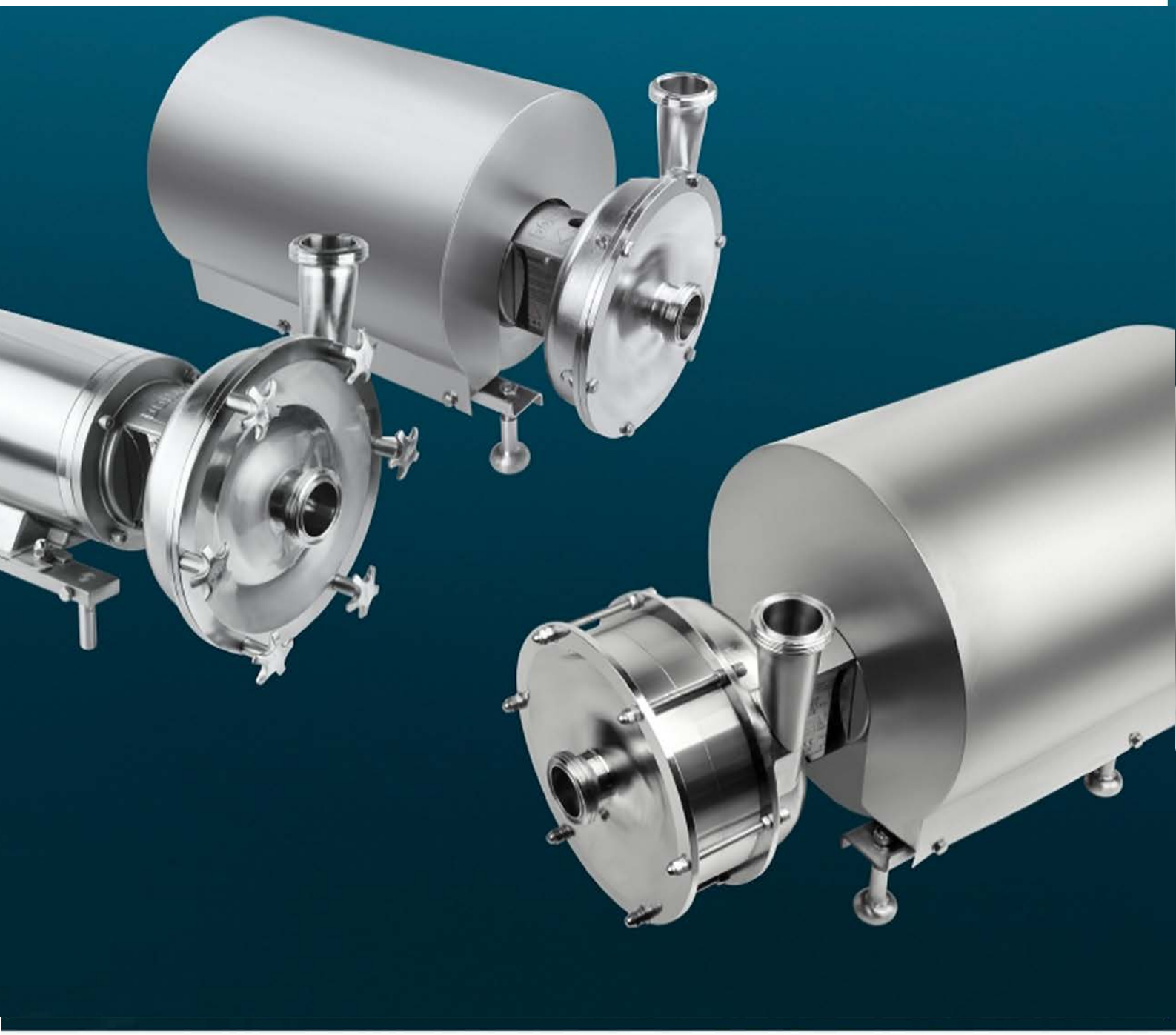
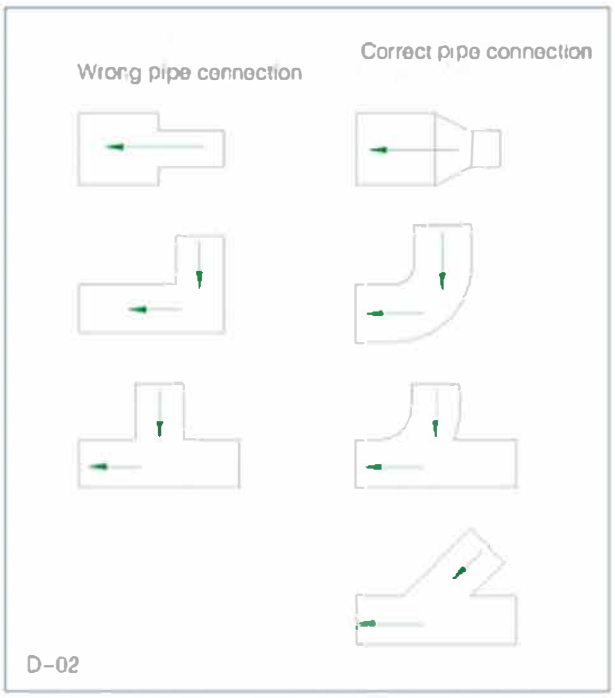
Centrifugal Pump

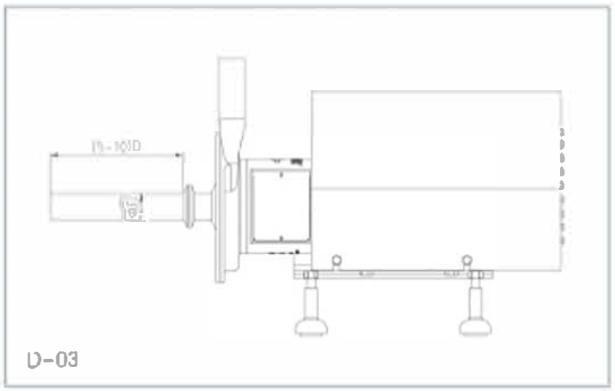
Adamant Valves



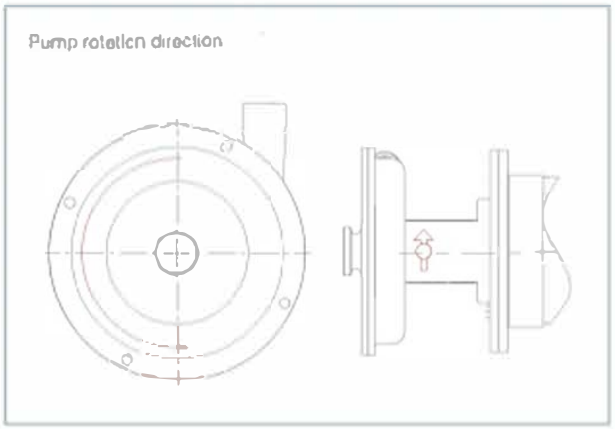
The effect of pipe connections on pump usage



D-02



D-03



Suggestion for pump inlet / outlet connect to pipeline

Liquid in the pipeline will have energy loss, divided into along damage and local resistance damage, which will eventually affect the flow and head loss. Therefore, the smoother the inner part of the pipeline, the smaller the damage along the path; the smaller the diameter change, the smaller the local power loss As a result, rough innerdamage along the path, the smaller the diameter change, the smaller the local power loss As a result, rough inner wall and connection should be avoided as much as possible do not use the shrinkage diameter too large, too much bending, bending too small and so on process pipelines. In order to improve the service life of the pump and the performance of the pump, please try to reduce the process pipe bending and shrinkage diameter (As shown in (D-02))

Suggestions for pump inlet / outlet connection dimensions

In order to ensure the stable operation of the centrifugal pump and prolong the service life, it is required to install strictly according to the inlet and outlet sizes of the pump itself. It is strictly forbidden to use the pipe connection smaller than the inlet and outlet sizes of the pump.

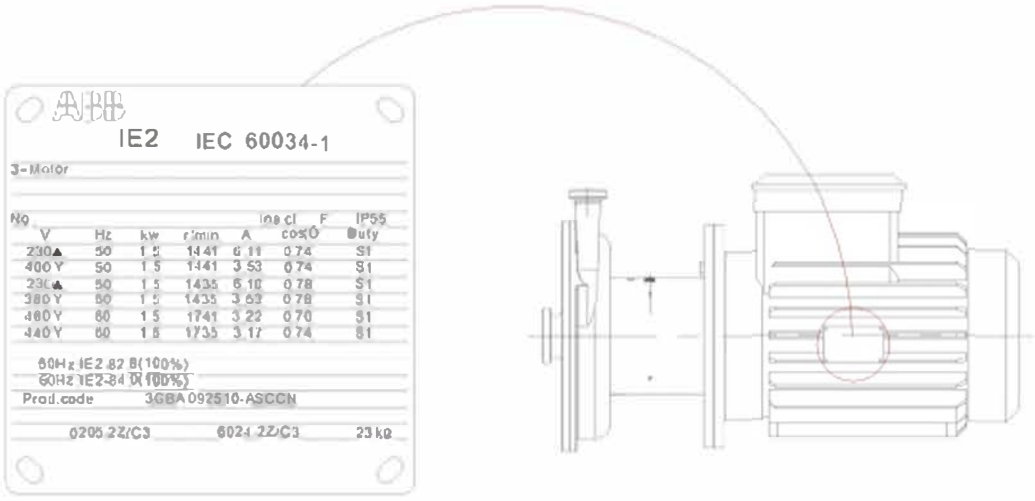
otherwise it will easily cause pump shake, noise, NPSH increase, etc.; the pump inlet connecting with pipeline needs to maintain a certain straight

pipe distance: it is recommended to be 5-10 times the diameter of the inlet pipe (As shown in (D-03))

Pump motor and impeller rotation direction

Rotation direction of motor and impeller is same. Pay attention to rotation direction when installation and debugging. Otherwise, the flow and head will be abnormal. Long-term reverse rotation will result in damage to mechanical seal.

The effect of pipe connections on pump usage



Remark: The format of the rating plate is for reference only, the final figure will be subject to the actual rating plate.

Wide voltage motor

Power(KW)	Voltage	Power(KW)	Voltage
0.55	210~230V/50HZ	4.0~5.5	360V~400V/50HZ
0.75	360V~400V/50HZ	7.5~11	630V~690V/50HZ
1.1~1.5	420V~460V/60HZ	15~18.5	420V~460V/60HZ
2.2~3.0		22~30	

Note: The motor adopts IEC IEN IE2 energy efficiency class, PTC thermistor.

O-ring Configuration

The sealing rubbers we use are in compliance with hygienic and high purity requirements such as FDA 177.2600; 3-A 18-03, Class II, USP Class VI Chapter 88 GB 4806.11 and so on.

EPDM=Standard

Scope of application: Temperature -10 ℃ to 130℃; PH value about 5-9, can tolerate with various media in the health field and industrial chemicals, low cost (recommended)

FKM(Viton)=Option

Scope of application: Temperature -10℃ to 150 ℃, can tolerate with various media in the health field, industrial chemicals, oils and so on.

FFKM=Option

Scope of application: Temperature -30℃ to 250℃; can tolerate with various media in the health field, industrial chemicals, oils, etc., can cover almost all media, higher cost

HNBR=Option

Scope of application: Temperature -10 ℃ to 150℃, can tolerate with various media in the health field, industrial oils, etc., especially suitable for oil products.

series centrifugal pump

Solution for high efficiency, low noise, simple and economical maintenance, high purity

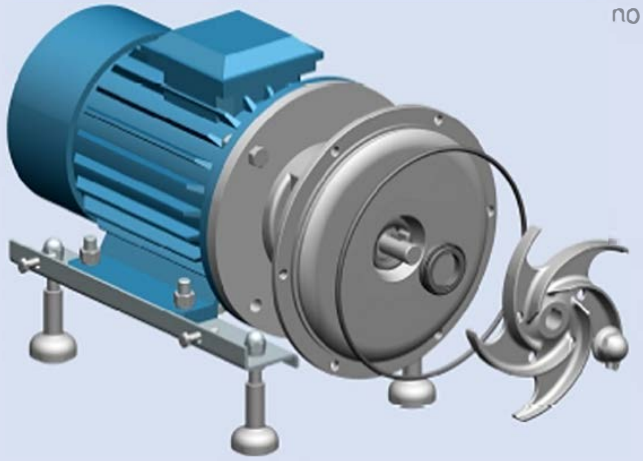
With the change of market demand and the development of technology, we hope to set up new technical standards in the field of high clean pump, for this reason, we have made a series of technology upgrades and optimization with the help of the Fluid science software analysis and our more than 20 years experience in manufacturing and engineering application.

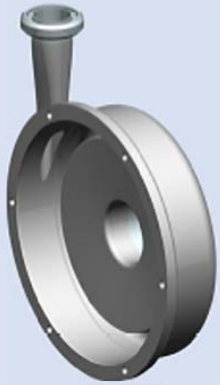
Donjoy DJ-KLX series Centrifugal pump is upgraded from KS centrifugal pump, not only optimize the internal structure, such as impeller design, dead angle treatment, machine seal pressure balance design and the machine seal is completely in the flushing area ,but also optimize external sanitation of the pump , which makes its internal absolute sanitation and external reduction of dead Angle. Since there is no dead Angle area, it is easy to be cleaned by CIP and sterilized by SIP. In addition, DJ - KLX series pump, has kept the maximum flexibility of combined applications, for example, the pump outlet angle can be arbitrarily adjusted from 0 ° to 135 ° , the pump cover adopts hand wheel nut, which keeps high efficiency in the maintenance of the pump and replacement of machine seal, and reduces the highly professional requirements to maintenance personnel without special tools. Therefore, the DJ-KLX series centrifugal pump has achieved the goal of high efficiency, health, high reliability and low cost, making it a high performance pump.

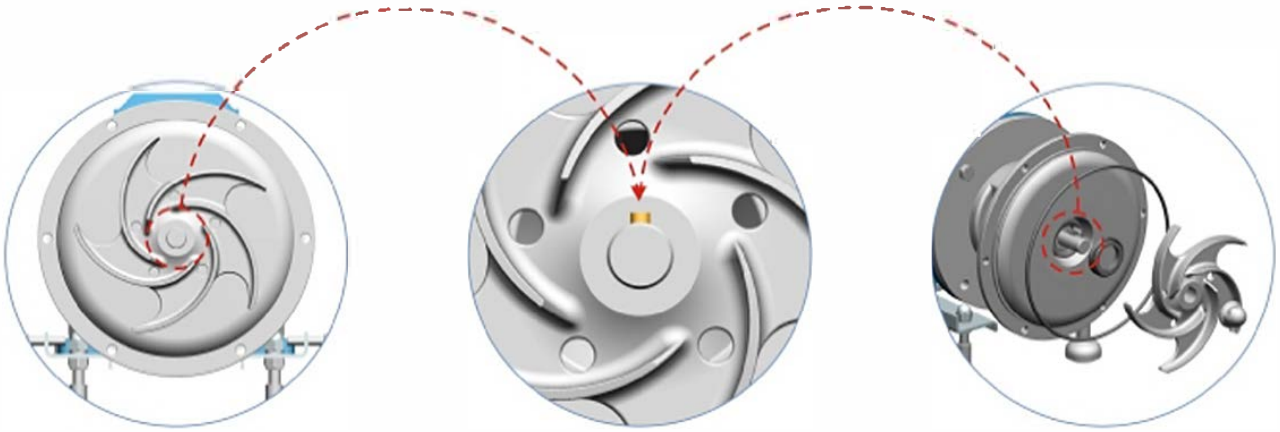
Technical Specifications

Flow rate	1m³/h-140m³/h
Head	70M
Temperature	-20℃[t]140℃
Power	0.37KW-30KW
Materia l	304 /316L,1.431/1.4404,ASME BPE 316L ,1.4435 NB2 Fe≤0.5%
Surface treatment	≤ Ra0.8μm, ≤ Ra0.6μm, ≤ Ra0.4μm
Machine seal	See Configuration Table
Inlet/Outlet connection Certification	Thread, clamp flange, Aseptic flange
	3-A-02-10(N.O.1579); MDX06/42-EC (N.O.70521616101-00); FDA 177.2600; USP CLASS-II; EG/VO1935:2004

Very simple maintenance, no special tools required, no professional s required







Technical Advantages

- Maintenance disassembly and installation can be completed without professional staff and special tools.
- Initial use of installation debugging, even if a short reverse rotation will not be damaged.
- Impeller and shaft are connected by keyway, impeller and mechanical seal rotating ring are connected by pin; mechanical seal static ring and pump body are connected by special-shaped flange.
- Compatible with single and double machine seal, only need to change machine seal.

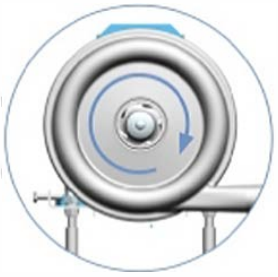
series centrifugal pump various configurations

Thread connection

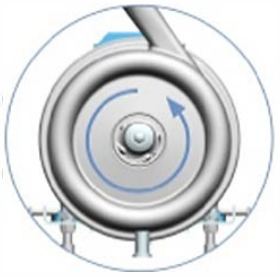
Clamp connection

Union nut

Flange connection inlet / outlet



90° ...0° inclined outlet



90° ...135° inclined outlet

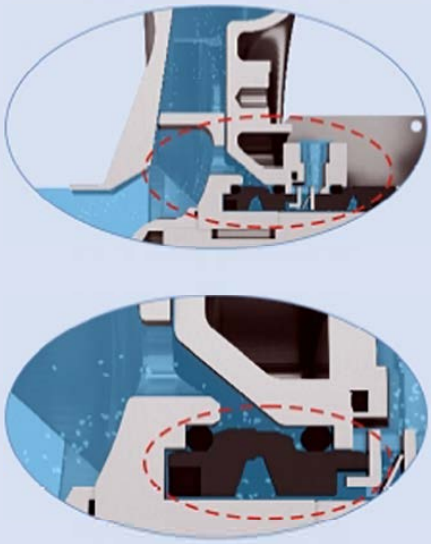
Elbow bottom discharge outlet

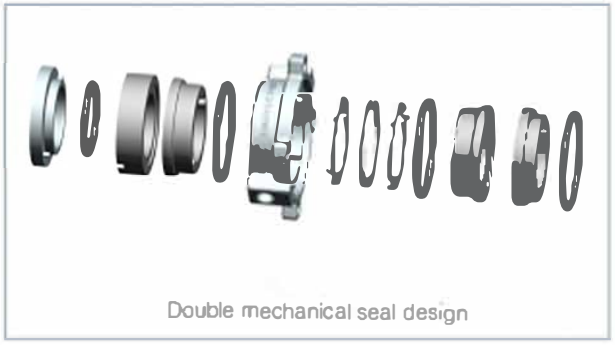
Bottom discharge outlet

Pump Inlet/outlet Connection Standard

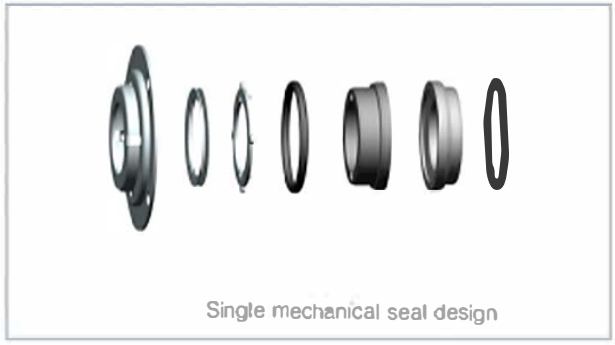
Connection: Thread, Clamp, Flange, Aseptic flange, KF etc.
Standard: DIN SMS ISO IDF RJT ASME BPE 3A + line

series centrifugal pump mechanical seal design





Double mechanical seal design



Single mechanical seal design

Mechanical Seal Features

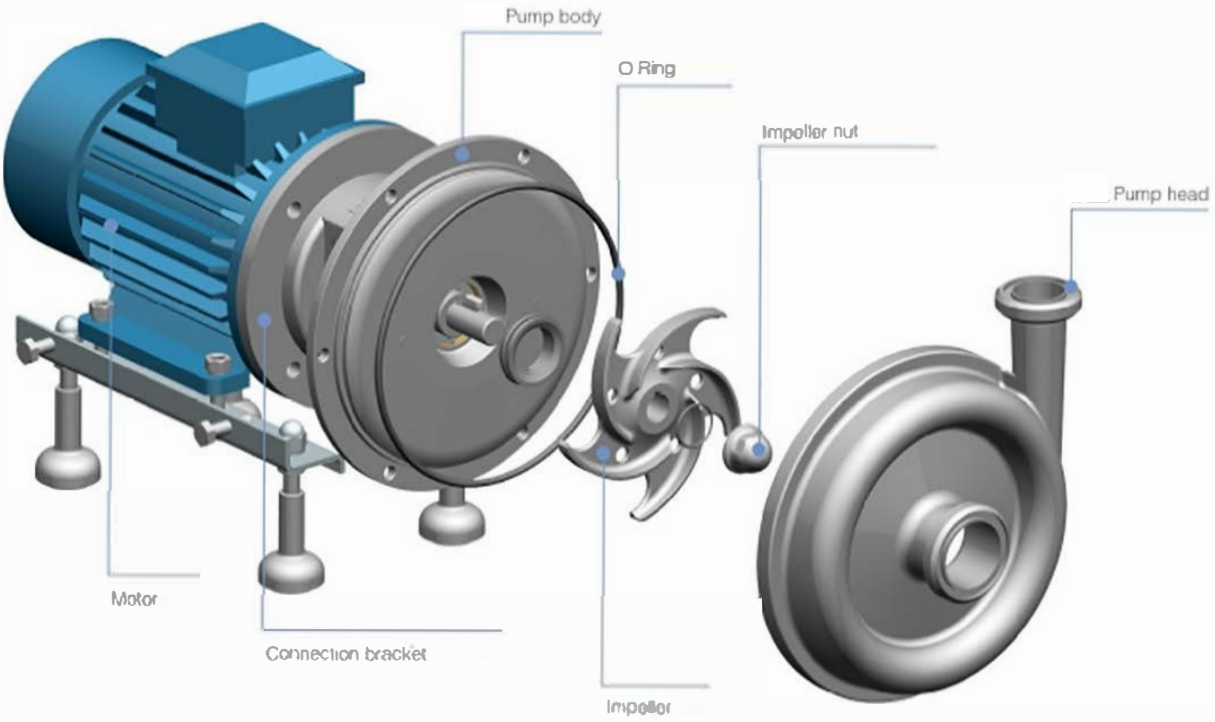
Series centrifugal pump mechanical seal is researched and developed together with European Swedish famous company. The mechanical seal is designed with pressure balance and super long working life, can be disassembled and maintained easily without special tools. The sanitary purity is according to EU EHEDG, USA 3-A-02-11, FDA1772600 and so on, and has lots of configuration

Mechanical Seal Configuration

1)SIC/C/EPDM	Standard
2)SIC/C/FKM	●ptional
3)SIC/C/HNBR	
4)SIC/SIC/EPDM	
5)SIC/SIC/FKM	
6)SIC/SIC/HNBR	
7)TC/TC/EPDM	
8)TC/TC/FKM	
9)TC/TC/HNBR	

Note: Above configurations is suitable for single and double mechanical seal

KLX series centrifugal pump



KLX centrifugal pump selection table

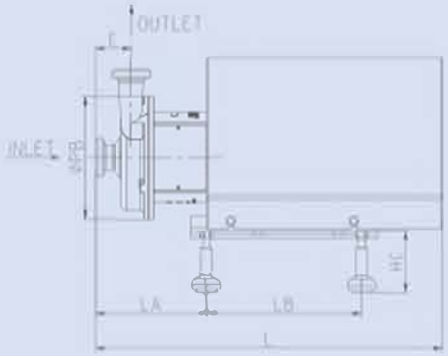
Model	Power	Flow rate (m³)	Head (M)	Inlet&outlet	(KG)
DJ-KLX-10	1.1KW	3	22	1.5"/1.5"	30
	1.1KW	5	22		30
	1.5KW	3	22		36
	1.5KW	5	22		36
	1.5KW	8	22		36
	1.5KW	9	22		36
	1.5KW	12	20		36
	1.5KW	15	18		36
	2.2KW				40
	2.2KW	18	18		40
DJ-KLX-15	1.5KW	3	28	2"/1.5"	39
	1.5KW	5	28		39
	1.5KW	8	26		39
	2.2KW				42
	2.2KW	10	28		42
	2.2KW	15	22		42
	2.2KW	18	18		42
	3.0KW				54
	2.2KW	20	18		42
	3.0KW				54

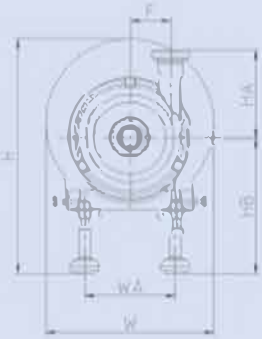
Model	Power	Flow rate (m³)	Head (M)	Inlet&outlet	(KG)
DJ-KLX-20-1	2.2KW	5	38	2"/2"	47
	3.0kw				56
	3.0kw	10	38		56
	4.0KW				61
	4.0KW	15	36		61
	4.0KW	20	33		61
	4.0KW	25	30		61
	5.5KW				83
	5.5KW	30	30	2.5"/2"	83
	5.5KW	38	22		83
DJ-KLX20-2	5.5KW	20	40	2"/2"	82
	5.5KW	25	37		82
	5.5KW	30	36	2.5"/2"	82
	5.5KW	36	32		82
	7.5KW	40	30		86
	7.5KW	45	28		86
DJ-KLX-25	4.0KW	5	50	2.5"/1.5"	61
	5.5KW	10	50		82
	5.5KW	15	48		82
	5.5KW	20	45		82
DJ-KLX-30	5.5KW	10	60	2.5"/1.5"	83
	5.5KW	15	55		83
	5.5KW	20	50		83
	7.5KW				87
	7.5KW	25	45		87
	7.5KW	30	40		87

Model	Power	Flow rate (m³)	Head (M)	Inlet&outlet	(KG)
KLX 35-1	11KW	10	70	3"/1.6" 3"-2"	152
	11KW	15	65		152
	11KW	20	65		152
	11KW	25	60		152
	11KW	30	60		152
	11KW	35	55		152
	15KW	40	50		165
	15KW	45	50		165
	15KW	50	45		165
KLX 35-2	15KW	20	70	3"-2" DN80-2"	165
	15KW	25	70		165
	15KW	30	70		165
	15KW	35	65		165
	15KW	40	65		165
	18.5KW	45	60		174
	18.5KW	50	55		174

Model	Power	Flow rate (m³)	Head (M)	Inlet&outlet	(KG)
KLX -40-1	11KW	45	42	3"/2.5" 4"-3"	148
	11KW	50	42		148
	15KW	60	40		162
	15KW	65	40		162
	15KW	70	38		162
	15KW	80	36		162
	15KW	90	33		162
	18.5KW	100	30		171
	18.5KW	110	28		171
KLX-40-2	15KW	50	50	3"/2.5" 4"-3"	162
	15KW	60	48		162
	18.5KW	70	47		171
	18.5KW	80	46		171
	22KW	85	46		205
	22KW	90	44		205
	22KW	100	43		205
	22KW	110	40		205
	22KW	120	35		205
	30KW	130	30		263
	30KW	140	20		263

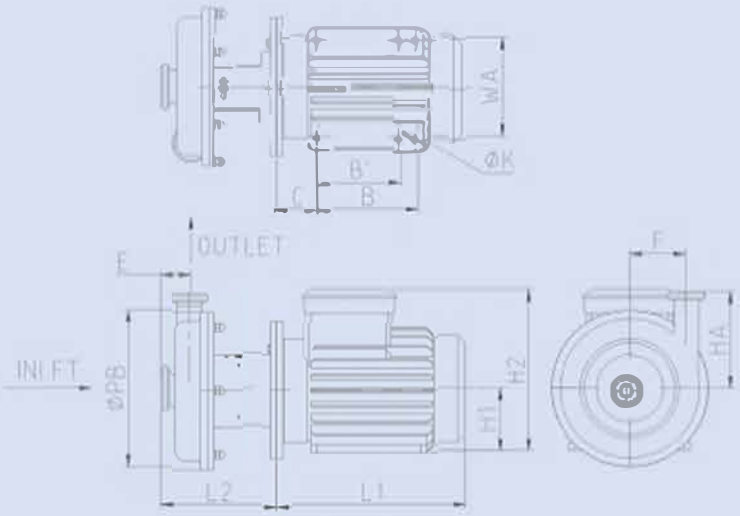
KLX series centrifugal pump data chart





KLX Series	Pump head dimension				Assembly Dimension							Inlet / outlet connection											
												螺纹 Thread connection				卡箍连接 Clamp connection				DIN螺纹连接 Thread connection			
	Power (KW)	Inlet d'/DN	Outlet d'/DN	ΦPB	F	LB	H	HB	HC	W'	WA	E	LA	HA	L	E	LA	HA	L	E	LA	HA	L
KLX10	1.1KW	1.5"	1.5"	189	63	240	337	199		250	125	56	171	136	512	49	163.7	129	504.7	56	171	136	517
	1.5-2.2KW	1.5"	1.5"	189	63	240	359	189		280	140	56	171	136	534	49	163.7	129	526.7	56	171	136	539
KLX15	1.5-2.2KW	2"	1.5"	250	95	240	359	189		280	140	48	171	155	534	41	163.7	148	526.7	49	172	155	535
	3KW	2"	1.5"	250	95	300	413	219		320	160	48	151	155	576	41	143.7	148	568.7	49	152	155	577
KLX20- I KLX20- II	2.2KW	2"	2"	250	92	240	362	189		320	140	45	165.5	170	584	38	158.2	163	576.7	46	166.5	171	585
	3KW	2"	2"	250	92	300	418	219		340	160	45	172.5	170	591	38	165	163	574	46	176	171	592
	4KW	2"	2"	250	92	300	421.5	211		380	190	45	175	170	594	38	168	163	587	46	176	171	595
	5.5-7.5KW	2"/2.5"	2"	250	92	330	466	231		340	216	45	172	170	591	38	160	163	580	46	170.5	171	590
KLX25 KLX30	4KW	3"	1.5"	328	127.5	300	421.5	211	94.8	380	190	60	200.5	194	680	49	189.2	183	668.7	59	190.5	193	679
	5.5-7.5KW	3"	1.5"	328	127.5	330	466	231		380	216	60	200.5	194	680	49	189.2	183	668.7	59	190.5	193	679
KLX35- I	11-15KW	3"	1.5"	363	131	450	551	260		470	254	76	239.5	229	815	65	228.2	222	803.2	75	238.5	229	814
KLX35- II	15KW	3"	2"	363	131	450	551	260		470	254	76	239.5	229	815	65	228.2	222	803.2	75	238.5	230	814
	18.5KW	3"	2"	363	131	450	551	260		470	254	76	239.5	229	815	65	228.2	222	803.2	75	238.5	230	814
KLX40- I KLX40- II	11-15KW	3"	2.5"	315	105	450	551	260		470	254	73.5	248.5	213.5	823	61.5	237.2	202.5	811.7	73.5	247.5	212.5	822
	18.5KW	3"	2.5"	315	105	450	561	260		470	254	73.5	248.5	213.5	823	61.5	237.2	202.5	812	73.5	247.5	212.5	823
	22KW	3"	2.5"	315	105	515	583	281		510	279	73.5	243.5	213.5	919	61.5	232.2	202.5	907.2	73.5	242.5	212.5	918
	30KW	3"	2.5"	315	105	580	665	301		580	318	73.5	254.5	213.5	965	61.5	243.2	202.5	953.2	73.5	253.5	212.5	964

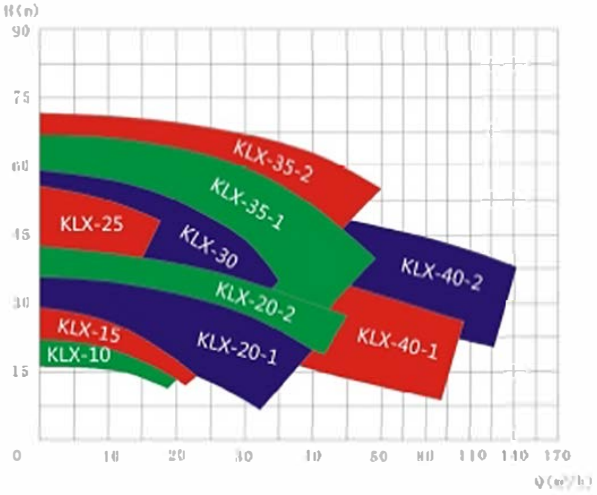
KLX series centrifugal pump data chart (without cover)



KLX Series	Assembly Dimension													Inlet / outlet connection								
	Power (KW)	Inlet d'/DN	Outlet d'/DN	ΦPB	F	L1	A	B	B'	C	K	H1	H2	Thread connection			Clamp connection			Thread connection		
														E	L2	HA	E	L2	HA	E	L2	HA
KLX10	1.1KW	1.5"	1.5"	189	63	269	125	100	/	50	10	80	192	56	196	136	49	188.7	129	56	196	136
	1.5KW	1.5"	1.5"	189	63	285	140	100	/	56	10	90	217	56	196	136	49	188.7	129	56	196	136
	2.2KW	1.5"	1.5"	189	63	301	140	125	/	56	10	90	217	56	196	136	49	188.7	129	56	196	136
KLX15	1.5KW	2"	1.5"	250	90.5	285	140	100	/	56	10	90	217	48	193	155	41	185.7	148	49	193	155
	2.2KW	2"	1.5"	250	90.5	301	140	125	/	56	10	90	217	48	193	155	41	185.7	148	49	193	155
	3KW	2"	1.5"	250	90.5	316	160	140	/	63	12	100	240	48	193	155	41	185.7	148	49	193	155
KLX20-I KLX20-II	2.2KW	2"	2"	250	85	301	140	125	/	56	10	90	217	45	207	170	38	200	163	46	208	171
	3KW	2"	2"	250	85	316	160	140	/	63	12	100	240	45	207	170	38	200	163	46	208	171
	4KW	2"	2"	250	85	351	190	140	/	70	12	112	252	45	207	170	38	200	163	46	208	171
	5.5-7.5KW	2"/2.5"	2"	250	85	399	216	140	/	89	12	132	301	45	207	170	38	200	163	46	208	171
KLX30 KLX30	4KW	3"	1.5"	328	127.5	351	190	140	/	70	12	112	252	60	201.5	194	49	190.2	183	59	201	193
	5.5-7.5KW	3"	1.5"	328	127.5	399	216	140	/	89	12	132	301	60	201.5	194	49	190.2	183	59	201	193
KLX35-I	11-15KW	3"	1.5"	363	131	477	254	254	210	108	14.5	160	413	76	282	194	65	270.7	222	75	281	229
KLX35-II	15KW	3"	2"	363	131	477	254	254	210	108	14.5	160	413	76	282	229	65	270.7	222	75	281	66
	18.5KW	3"	2"	363	131	477	254	254	210	108	14.5	160	413	76	282	229	65	270.7	222	75	281	66
KLX40-I KLX40-II	11-15KW	3"	2.5"	315	105	477	254	254	210	108	14.5	160	413	73.5	292	213.5	61.2	280.7	202	73.5	291	213
	18.5KW	3"	2.5"	315	105	477	254	254	210	108	14.5	160	413	73.5	292	213.5	61.2	280.7	202	73.5	291	213
	22KW	3"	2.5"	315	105	573	279	279	241	121	14.5	180	434	73.5	292	213.5	61.2	280.7	202	73.5	291	213
	30KW	3"	2.5"	315	105	618	318	305	267	133	18.5	200	473	73.5	292	213.5	61.2	280.7	202	73.5	291	213

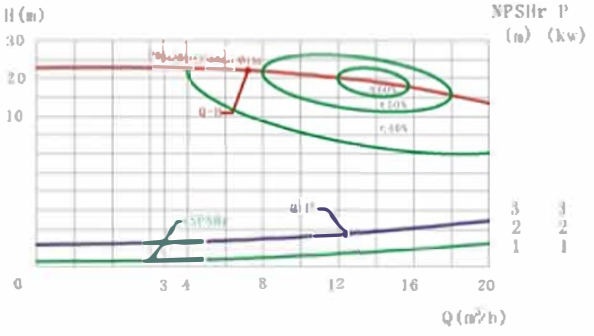
KLX series centrifugal pump graph

KLX series-centrifugal pump-graph

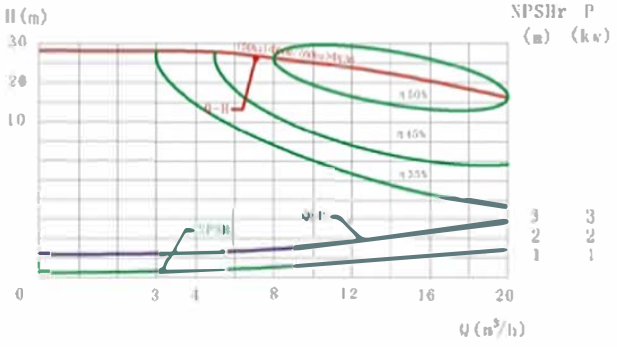


Testing condition medium water. temperature 20℃, mpeller speed 2900 RPM (This graph also applies to motor 60HZ mpelle r speed 3600RPM) Q-Flow rate (m /H). H-head (meter), P-powe(KW), η % pump efficiency

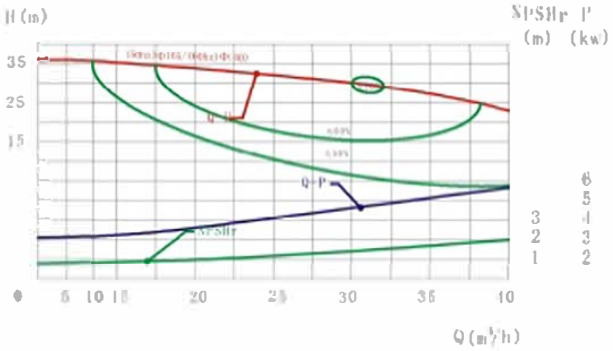
KLX-10(Q-H Graph)



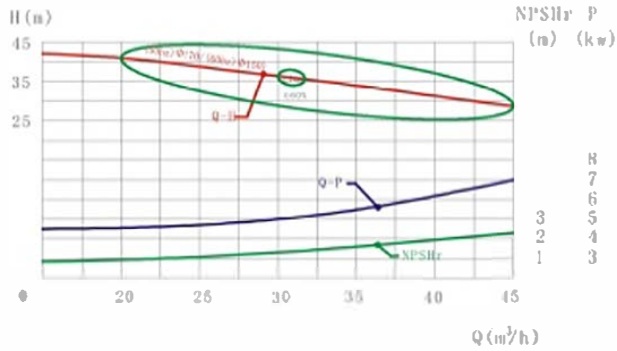
KLX-15(Q-H Graph)



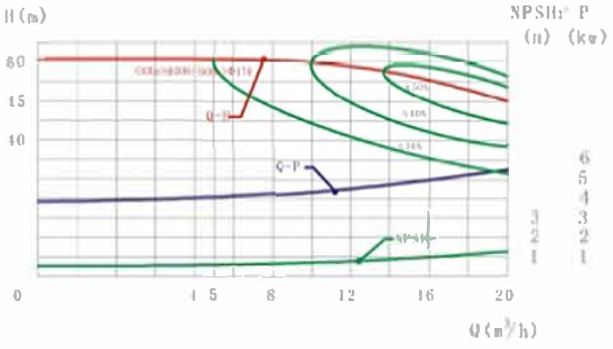
KLX-20-1(Q-H/Graph)



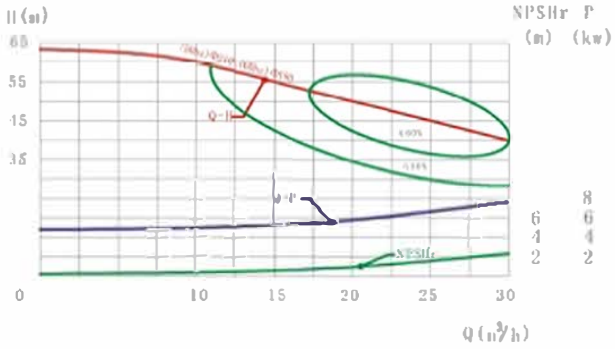
KLX-20-2(Q-H Graph)



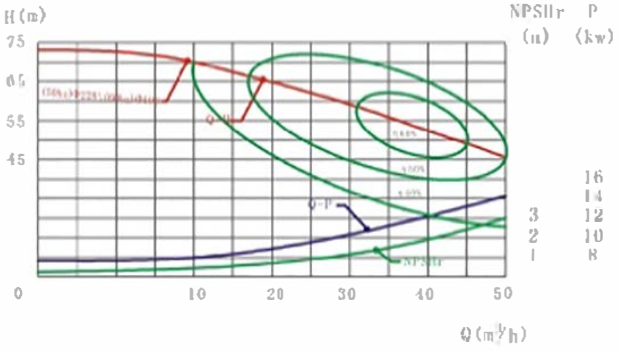
KLX-25(Q-H /Graph)



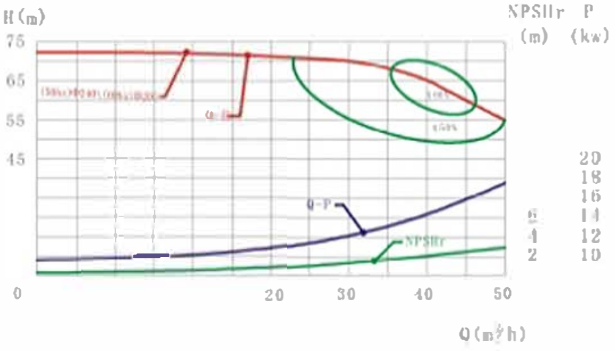
KLX-30(Q-H /Graph)



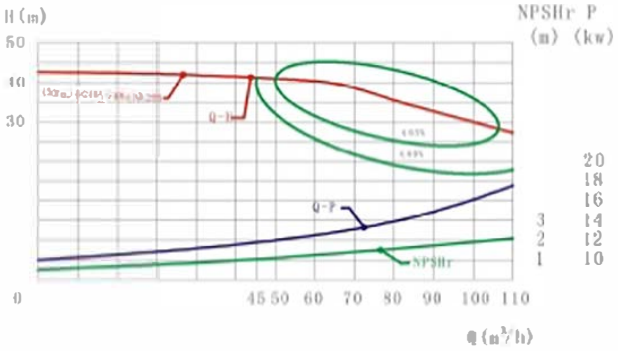
KLX-35-1(Q-H/Graph)



KLX-35-2(Q-H/Graph)



KLX-40-1(Q-H/Graph)



KLX-40-2(Q-H/Graph)