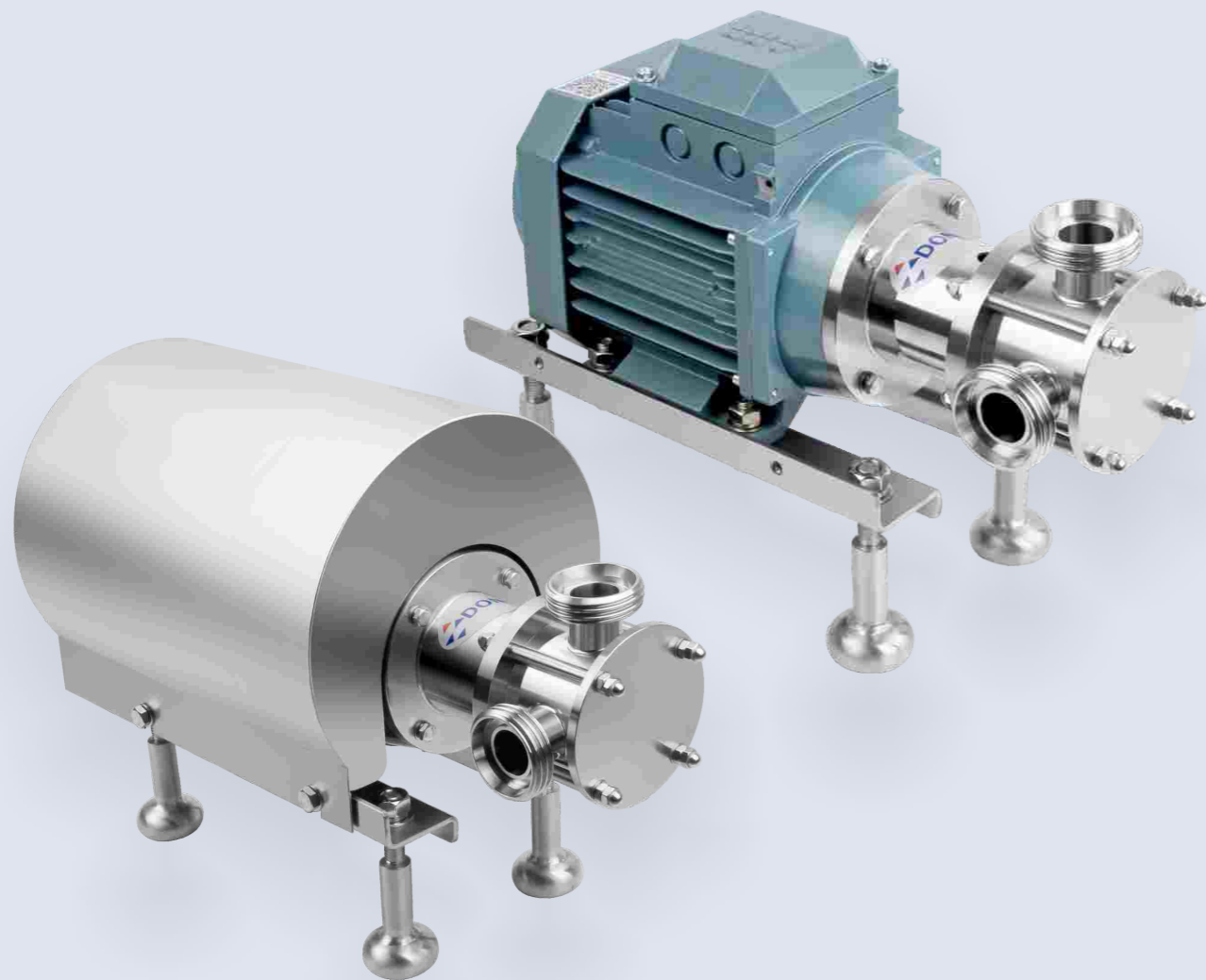


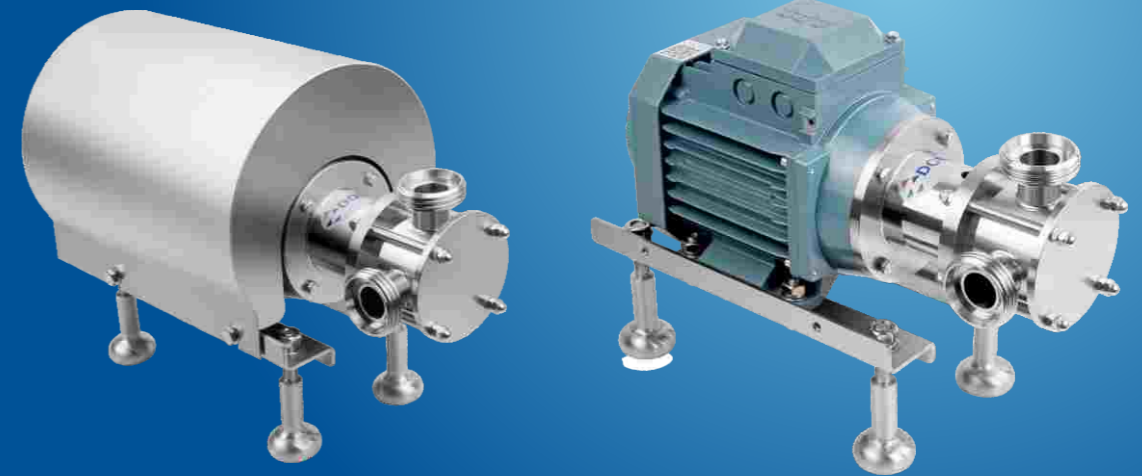
RX flexible pumps

2022 / 柔性叶轮泵 / 系列



RX SERIES FLEXIBLE IMPELLER PUMP RX 系列柔性叶轮泵

液体输送的柔性解决方案
Flexible solution for liquid conveying



- ◆ DONJOY 一直以来致力于改进柔性叶轮泵。耐压能力的提高，泵体和轴封的创新设计，以及新型叶轮材料的应用使得RX泵(柔性叶轮泵)的适用范围被大大拓宽。
- ◆ 出色的自吸特性
柔性叶片泵(RX)操作简单，是具有出色自吸性能的容积泵，其自吸能力可达6米。
- ◆ 应用范围广
RX泵结构，输送粘性的产品时效率几乎达到抽水的效果，因而其用途非常广泛。
- ◆ 非常温和的泵送处理
RX的抽吸处理非常平稳柔和，决不会搅打和损伤产品，即使像高脂肪乳脂那样脆弱的产品。大的浆果，即使有半个桃子大小都可以毫无损伤地通过泵，而且DONJOY的RX泵可保证运行完全无脉动。通过调节泵的转速，它还可以用作定量配料泵。
- ◆ 非常简单、维护成本低
与其它经典自吸泵，如气动隔膜式泵和可变容积泵等相比，RX泵的运行成本更低，维护更简便和停工时间更短。只要用一个标准的扳手将前盖拆掉，就可对柔性叶轮进行检修。更为重要的是，不需要将泵与管道系统脱离。

- ◆ DONJOY is committed to improve the flexible impeller pump. The application range of RX pump (flexible impeller pump) is being expanded by the improvement of pressure resistance, the innovative design of pump body and shaft seal, and the application of new impeller material.
- ◆ Excellent self-priming function
Flexibe impeller pump (RX), with easy operation, is volumetric pump with excellent self-priming function which could reach 6 meters.
- ◆ Wide application range
Because of structure, RX pump could get water drawing effect nearly when conveying viscous liquid, so it's with wide range of application.
- ◆ Moderate pumping
The pumping effect of RX pump is very stable and moderate. The medium won't be whipped and damaged, even if it's fragile media like high fat butterfat. Big berry, even if it's half size of a peach, could be passed through the pump without damage. Meanwhile our RX pump could be guaranteed to run without pulsation completely. It also could be used as dosing pump by adjusting pump speed.
- ◆ Simple operation, low maintenance cost.
Compared with other typical self-priming pumps, such as pneumatic diaphragm pumps and variable volumetric pumps, The operating cost of RX pump is lower, maintenance is more simple and downtime is shorter, just need to disassemble front cover by using standard wrench, maintenance could be done on the flexible impeller pump. More importantly, there is no need to detach the pump from piping system.



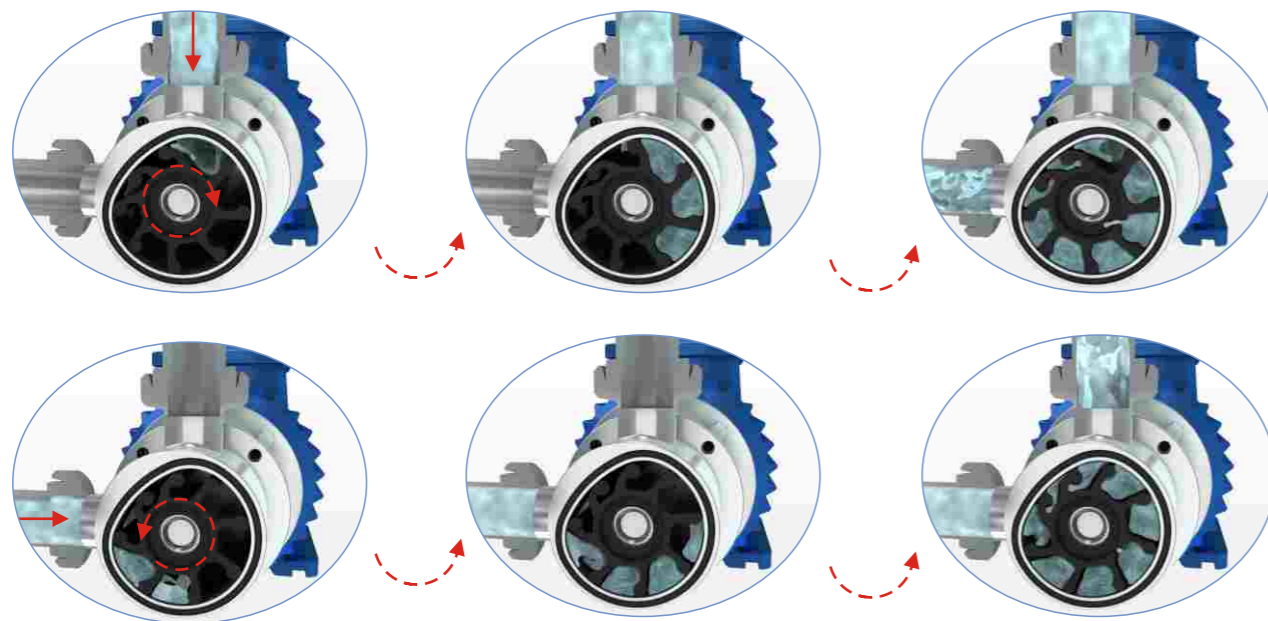
国家高新技术企业 浙江省著名商标

RX SERIES

FLEXIBLE IMPELLER PUMP

RX 系列柔性叶轮泵

工作原理 Operating principle



- ◆由于泵体定子内表面的偏心构造，在进口处，当体积增大时柔性叶轮的叶片间形成局部真空。由此形成的吸力将液体吸入泵腔中。
- ◆旋转的叶轮将液体从进口送到出口。在循环的这一阶段中，叶片间的空间实际上保持恒定。叶片之间的间隙允许体积大的固体颗粒能通过泵而对液体又毫无损伤。
- ◆叶片与泵体定子偏心内表面的平坦部分接触，当叶轮弯曲时，叶片间的容积减少，就将液体连续地、均衡地从泵中排出。
- ◆At pump inlet, due to the inner eccentric structure of pump stator, partial vacuum between the blades of flexible impeller will be formed when volume is increased. The consequently formed suction will draw liquid into pump chamber.
- ◆The rotating impeller was carried the liquid from inlet to outlet. At this stage, the space between blades actually was kept constant. The gap between blades allows big solid particles to pass through the pump and without damage on liquid.
- ◆The impeller is contacted with the flat part of the eccentric inner surface in pump stator. When impeller is bent, the volume between blades will be decreased, so the liquid will be discharged continuously and evenly from the pump.

技术参数 Technical Specifications

最大流量 Max flow	20m ³ /h
最大压力 Max pressure	4 bar
最大吸程 Max suction	6 M
最高温度 Max Temperature	80°C
转速 Rotating speed	950RPM-2900RPM
材质 Material	316L/1.4404
表面处理 Surface treatment	Ra≤0.6 μm; Ra≤0.4 μm
认证 Certification	3-A-02-12 No.1759; FDA 177.2600; CE-MD/06-42 No.705201616101-00

TYPICAL APPLICATIONS

典型应用



养殖场:
粪便和污水输送和抽取
Farm:
manure and sewage
transport and extraction



水处理厂:
污泥输送和抽取
Water treatment plant:
sludge transport and
extraction



化工厂:
污水、污泥输送和抽取
Chemical plant:
sewage, sludge transport
and extraction



造纸业和化工
Paper industry and
chemical industry



饮料和果汁
Drinks and juices



果汁和果酱
Juice, drink, jam



乳制品
Dairy products



葡萄酒和软饮料
Wine and soft drinks

RX卫生应用 RX Application of sanitary

在食品和奶制品的加工行业中，卫生是极为重要的。RX的设计采用抛光不锈钢和食品或牛奶等级的叶轮，以满足苛刻的卫生要求。不锈钢卫生型RX清洗简便，采用不会造成液体沉积的无槽轴封，采用的叶轮材料经过测试和核准，经鉴定符合美国食品和药物管理局规定。适合该型泵输送的典型产品包括：牛奶、脱脂乳、奶油、凝乳、酸奶、乳清、块状物、糖浆、调味品、凝胶、蜂蜜、果酱、药膏、罐装食品、饮料、葡萄酒、啤酒、果汁和香料。

Hygiene is of Paramount importance in the processing of food and dairy products. The RX is designed with polished stainless steel and food or milk grade impeller to meet rigorous hygiene requirements. The stainless steel sanitary RX is easy to clean, which use unsoltted shaft seal that does not cause liquid deposition and the used impeller material has been tested and approved, and is certified to comply with FDA regulations. Typical products suitable for delivery by the pump including: milk, skimmed milk, cream, curds, yoghurt, whey, lumps, syrup, condiments, gelatin, honey, jam, ointment, canned food, beverage, wine, beer, fruit juice and spices.

RX工业上应用 RX Application of industry

RX柔性叶轮泵同样可应用在没有卫生要求的应用场合，尽管如此，它仍然是最主要的不锈钢泵。RX 不锈钢型泵特别适用于输送如酸性液体、粘土、混凝土添加剂、清洁剂、染料、胶片处理化学品、墨料以及污水处理等。化妆品也经常用这种类型的泵输送，还包括以下产品：肥皂、洗发剂、洗涤剂 and 润肤乳。

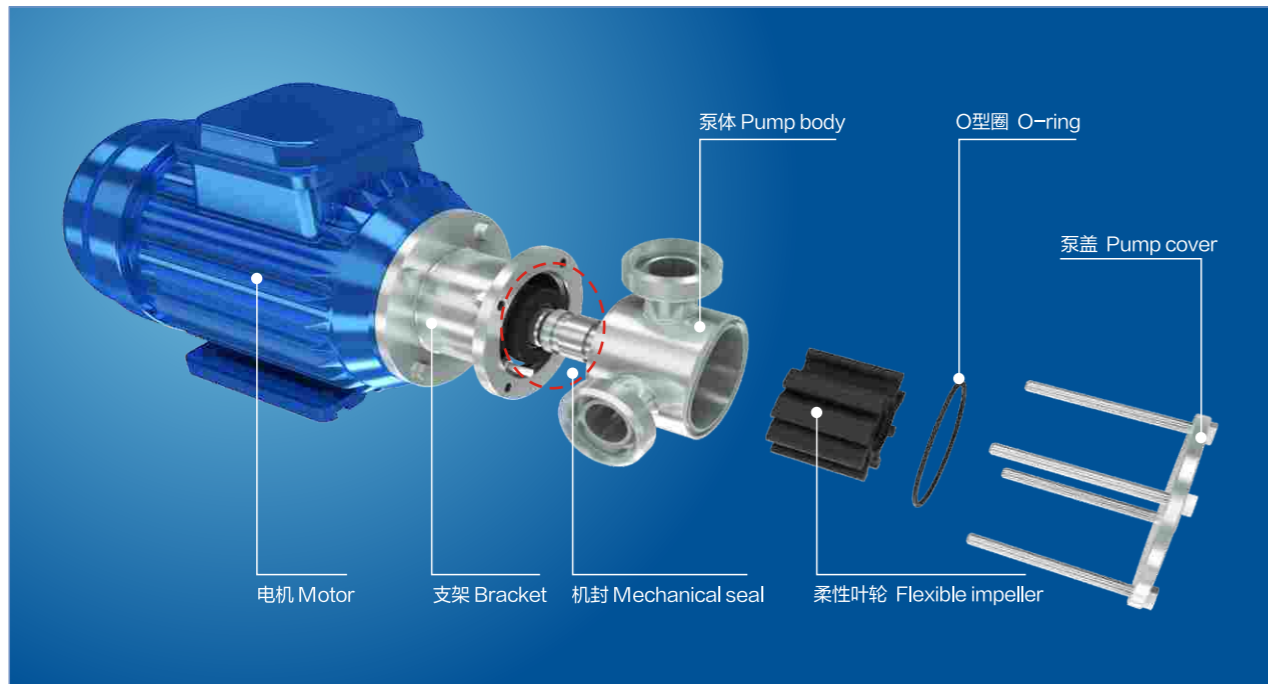
RX flexible impeller pump also could be applied to the situation without sanitary requirement, however, it is still as main stainless steel pump. RX stainless steel pump is particularly suitable for conveying acidic liquids, clays, concrete additives, detergents, dyes, film processing chemicals, ink and sewage treatment. Cosmetics are also pumped in this type of pump frequently, including the following products: soap, shampoo, detergent, and moisturizer.

ADVANCED DESIGN

SIMPLE CONSTRUCTION
先进的设计、简单的构造

维护简便又经济，泵盖由4个锁紧螺帽固定，当要维护泵的叶轮和轴封时，只需要拆掉螺帽。

Maintenance is simple and economical. The pump cover is fixed by four locking nuts. When maintaining the impeller and shaft seal of the pump, just need to unscrew the nuts.



电机安装 Motor installation

柔性叶轮作为泵的核心部件，转子柔性叶片具有很多优点。柔性转子有多种可供选用的组件，这一特点造就了RX不同凡响的自吸性能，而且允许所输送的液体中含有气体。

Flexible impeller as the core part of the pump, flexible rotor blades is with many advantages. Flexible rotor, with a variety of optional components, which makes Model RX with excellent self-priming performance, and it also could convey the liquid with gas.

泵可采用法兰直接与标准的IEC电动机连接,也可采用底座安装

The pump can be directly installed with standard IEC motor by flanges, and also can be installed with baseplate.

采用单机械密封，密封面为碳-金属陶瓷，使用寿命得到延长。在食品卫生级应用场合，机械密封的设计考虑了便于清洗、避免凹槽，因为液体可能在凹槽形成沉积物。

We adopt single mechanical seal, sealing surface is carbon - metal ceramics, service life is extended. In food sanitary application, mechanical seals are designed to be cleaned easily and to be avoided grooves where may be formed with sediment by liquid.

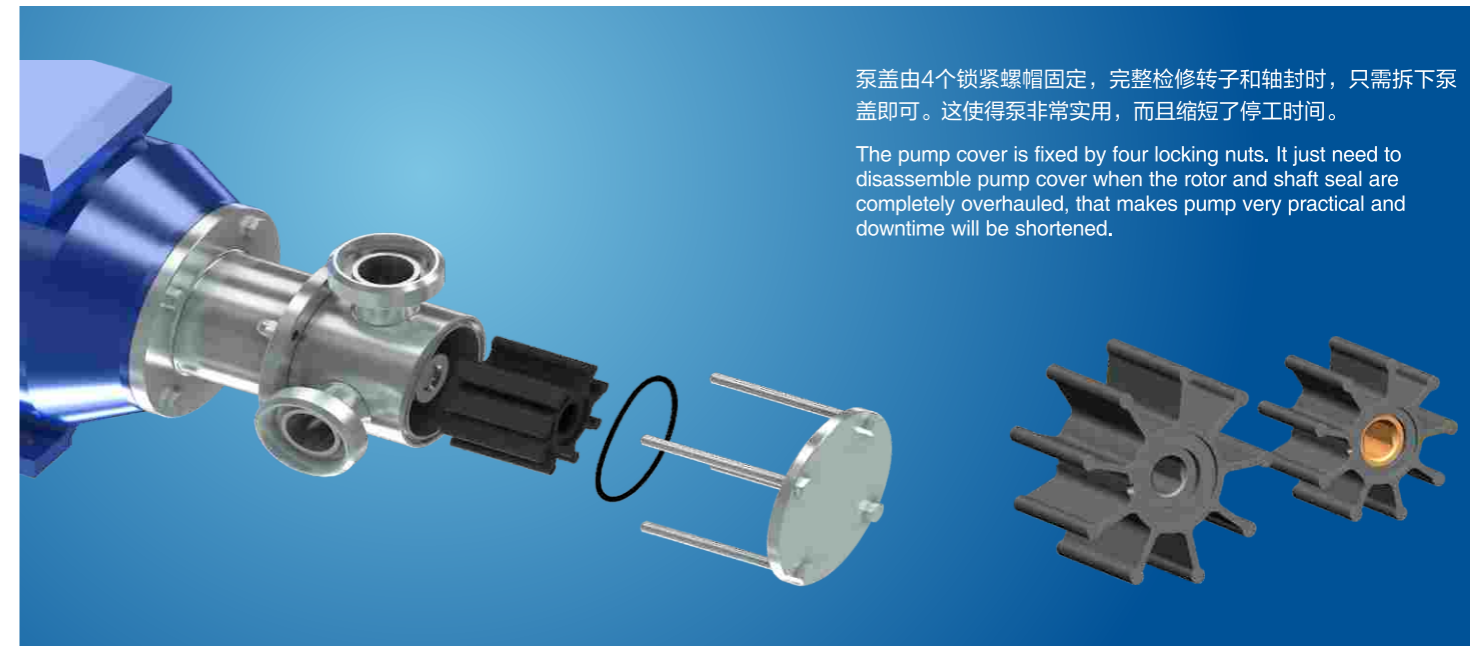
机封配置 Mechanical seal configuration

- 1) SIC/C/EPDM
- 2) SIC/C/FKM
- 3) SIC/C/HNBR



ECONOMIC MAINTENANCE

维护简便又经济



泵盖由4个锁紧螺帽固定，完整检修转子和轴封时，只需拆下泵盖即可。这使得泵非常实用，而且缩短了停工时间。

The pump cover is fixed by four locking nuts. It just need to disassemble pump cover when the rotor and shaft seal are completely overhauled, that makes pump very practical and downtime will be shortened.

柔性叶轮 Flexible impeller

柔性叶轮作为泵的核心部件，叶轮的柔性叶片造就了泵出色的运转性能。柔性叶片以及泵体定子内表面的偏心构造，使泵具有自吸性能。柔性叶轮还使泵能输送含有气体和空气的液体。由于RX叶轮的设计，RX泵可以输送各种物料以及含有固体和易脆微粒的液体，例如浆果，不会损伤产品也不会损坏泵。由于它是容积泵的设计，故也可用作定量配料泵。不同材质的叶轮适用于不同的应用场合。比如，当输送食品和奶制品时，食品等级的橡胶叶轮被证实和鉴定符合严格的要求规定。

Flexible impeller as the core part of the pump, the flexible blades of impeller forms pump excellent performance. The eccentric structure of the flexible blades and the inner surface of the stator of the pump body makes the pump with self-priming performance. It also could deliver liquid containing gas and air by such impeller. RX pump could be delivered various material and liquid with solid and brittle particle such as berry, without damage on product and pump, by such impeller design. Since it is a volumetric pump design, it can also be used as a dosing pump. Different material of impeller is suitable for different application. For example, when transporting food and dairy products, food-grade rubber impeller is certified and meet strict requirements.

宽电压电机 Wide Voltage Motor

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

注意：电机采用 IEC EN IE2 能效等级，PTC 热敏电阻。（相当于中国二级能效）

Note: The motor is adopted IEC EN IE2 energy efficiency class, PTC thermistor. (Corresponding to China level two energy efficiency)

注意：其他电机功率、电压、频率等，请联系东正。

Note: Other motor power, voltage, frequency, etc., please contact with DONJOY.

INLET AND OUTLET CONNECTION

各种进出口连接方式

RX FLEXIBLE

IMPELLER PUMP MODEL INSTRUCTION

RX 柔性泵型号说明



卡箍式
Clamped



螺母式
Nut



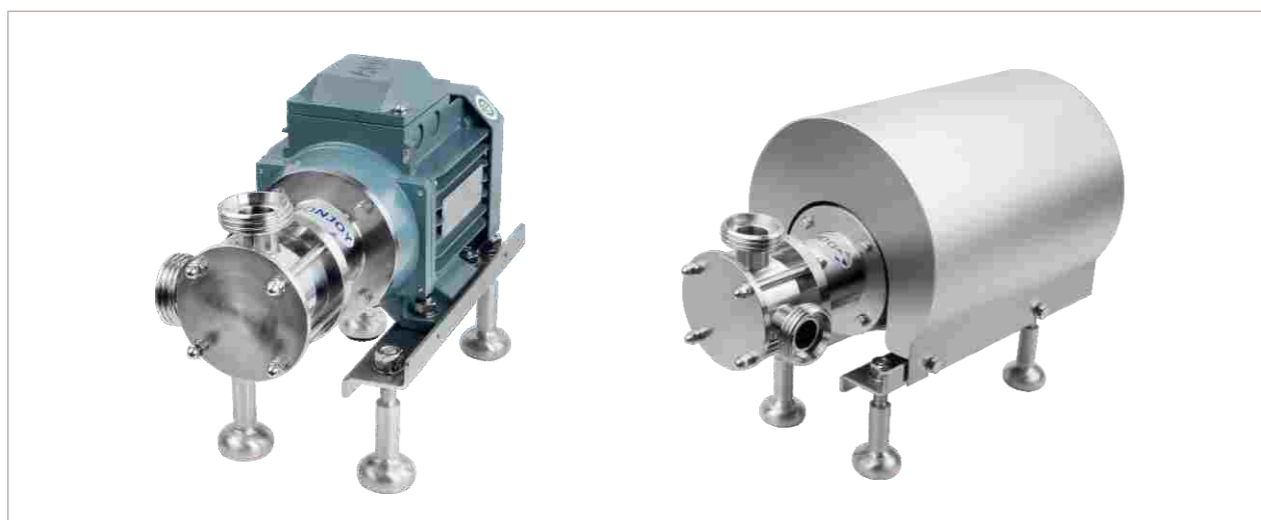
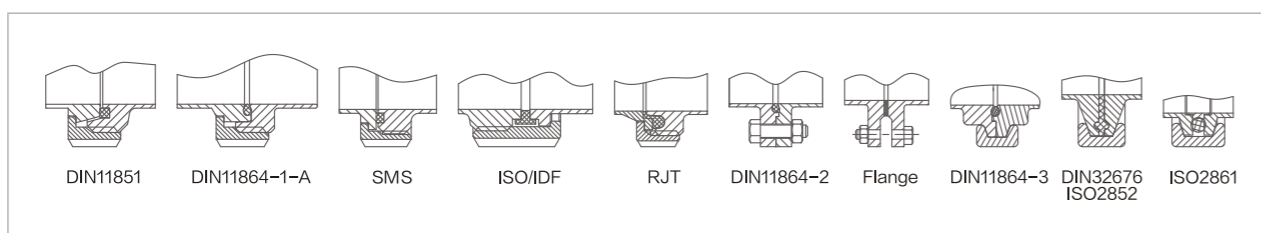
螺纹式
Threaded



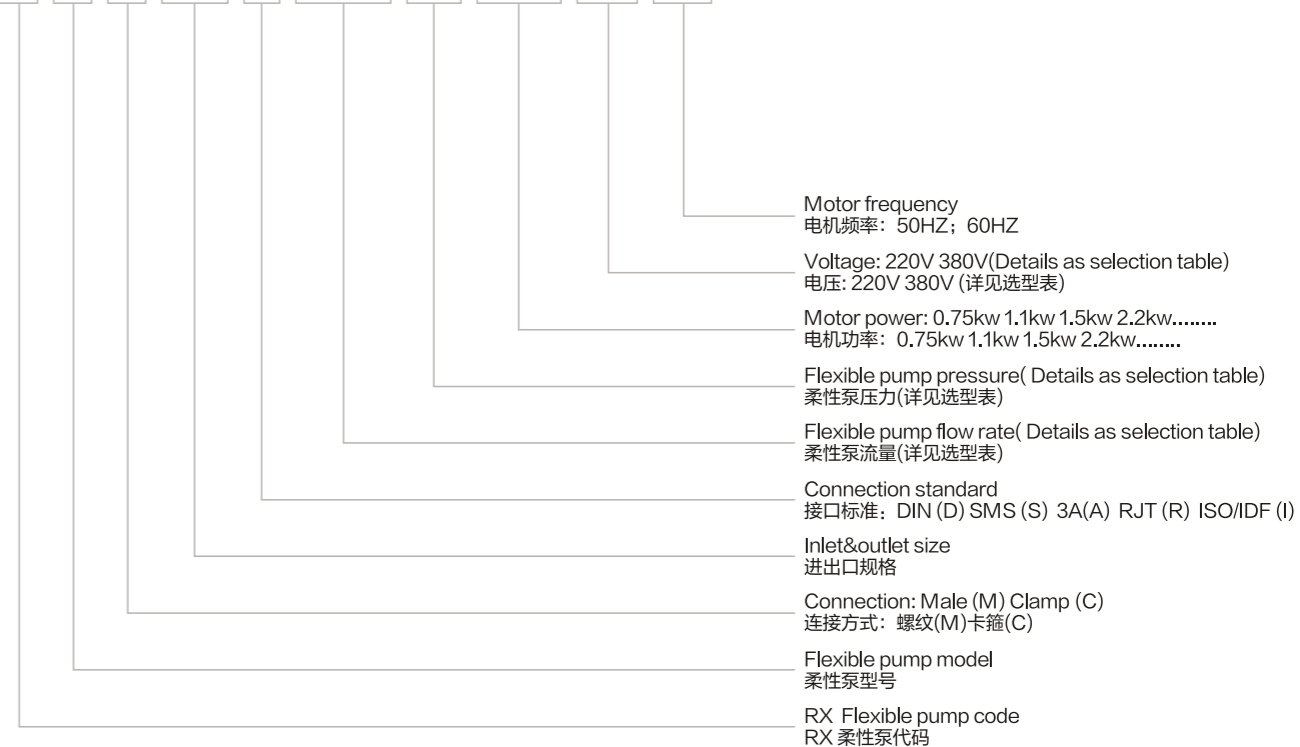
法兰式接口
Flanged interface



泵进口/出口连接标准 Pump Inlet/outlet Connection Standard



RX 04 M DN25 D 0.5-1.5T 3bar 0.75KW 380V 50HZ



For example:
举例: RX04-M-DN25-D/0.5-1.5T-3bar/0.75kw-380v-50Hz

表示RX04柔性泵-进出口螺纹连接DN25-DIN标准/流量0.5-1.5T-压力3bar/电机功率0.75kw-380v-50hz
RX04 flexible pump-DN25 threaded inlet/outlet-DIN standard/flow 0.5-1.5T/pressure 3bar/motor power 0.75kw-380V-50Hz

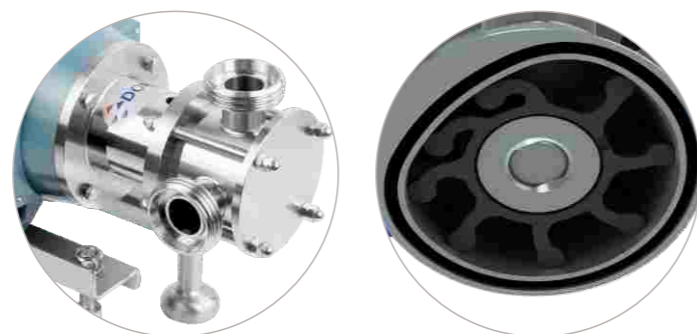
RX FLEXIBLE

IMPELLER PUMP SELECTION TABLE

RX 柔性叶轮泵选型表

RX 柔性泵选型表 Flexible impeller pump selection table

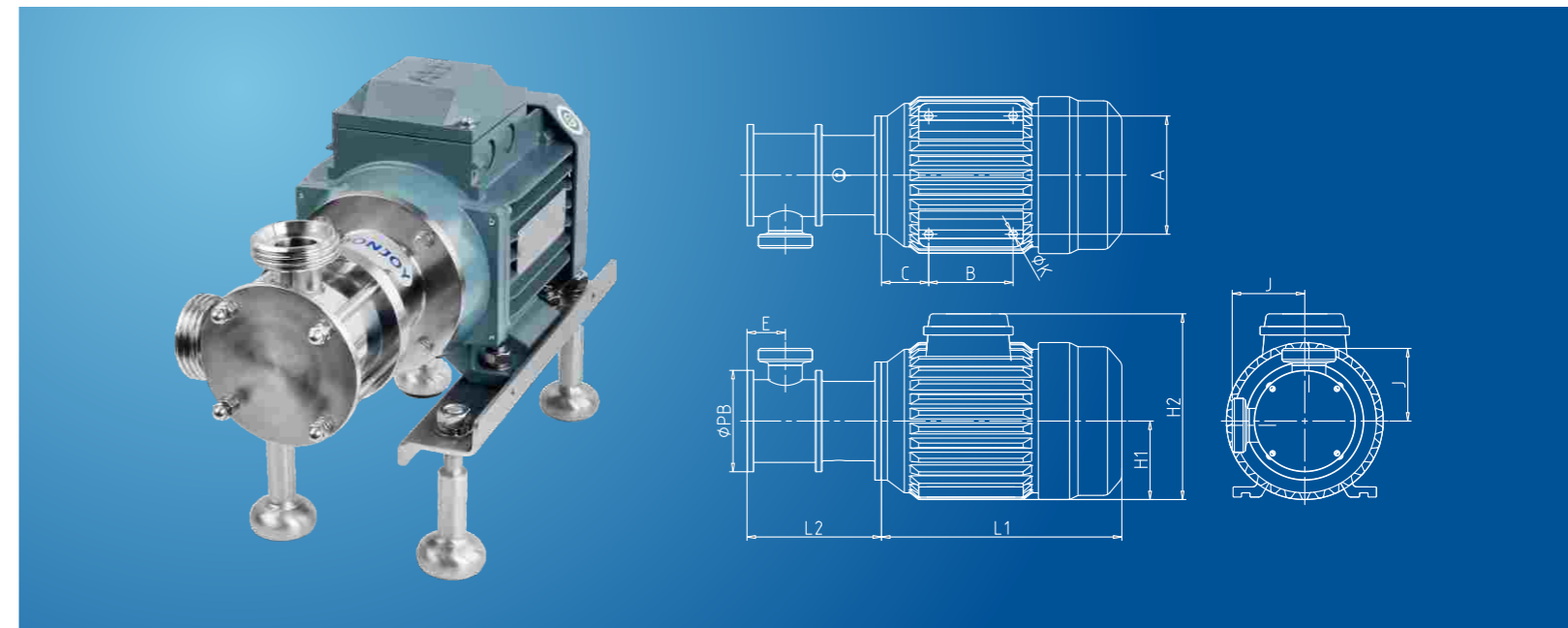
型号 Model	电机功率(KW) Motor power	转速(RPM) Speed	每转排量(L/R) Flow per rotation	流量(m³/h) Flow	可通过粒径 Max diameter of passed granule	压力(bar) Pressure	进口/出口 Inlet/Outlet	最大吸程(m) Max suction	重量(kg) weight
DJ-RX-04	1.5	2900 (2P)	0.060	2.4	≤2mm	2.5	1"/DN25	6	24
				3.5		2.0			
				4.8		1.5			
	0.75	1450 (4P)	0.060	5.6		1.0	1"/DN25	6	21
				6.5		0.5			
				1.2		1.6			
	0.55	950 (6P)	0.060	2.3		1.0	1"/DN25	6	18
				3.0		0.5			
				1.0		1.0			
DJ-RX-10	3.0	2900 (2P)	0.103	2.0	≤5mm	2.5	1.5"/DN40	5	40
				8.7		2.0			
				14.5		1.5			
	1.5	1450 (4P)	0.103	18.0		1.0	1.5"/DN40	6	31
				20.0		0.5			
				4.0		2.0			
	0.75	950 (6P)	0.103	8.0		1.5	1.5"/DN40	6	29
				11.0		1.0			
				13.0		0.5			
DJ-RX-20	4.0	1450 (4P)	0.214	2.0	≤8mm	1.9	2"/DN50	6	58
				5.0		1.5			
				7.5		1.0			
	3.0	950 (6P)	0.214	9.0		0.5	2"/DN50	6	71
				7.6		1.0			
				12.5		0.8			
				17.0		0.6			
				19.0		0.5			
				20.0		0.4			
			5.8	0.9					
			7.5	0.8					
			11.5	0.6					
			13.0	0.5					



RX SERIES

FLEXIBLE IMPELLER PUMP-DATA CHART

RX系列柔性叶轮泵数据图



系列 Model	电机功率 (power)	泵头规格 Pump head dimension		外形安装尺寸 Assembly dimension								
		进口/出口 Inlet/Outlet	ΦPB	B	C	E	H1	H2	K	L1	L2	A
DJ-RX-04	1.5KW(2P)	1"/DN25	100	100	56	31	90	217	10	305	143	140
DJ-RX-04	0.75KW(4P)	1"/DN25	100	100	50	31	80	192	10	269	143	125
DJ-RX-04	0.55KW(6P)	1"/DN25	100	100	50	31	80	192	10	269	143	125
DJ-RX-10	3.0KW(2P)	1.5"/DN40	138	125	63	42	100	240	10	316	191	160
DJ-RX-10	1.5KW(4P)	1.5"/DN40	138	100	56	42	90	217	10	285	179.5	140
DJ-RX-10	0.75KW(6P)	1.5"/DN40	138	100	56	42	90	217	10	336	179.5	140
DJ-RX-20	4KW(4P)	2"/DN50	180	140	70	50	112	252	12	396	229.5	190
DJ-RX-20	3KW(6P)	2"/DN50	180	140	89	50	132	252	12	399	229.5	216

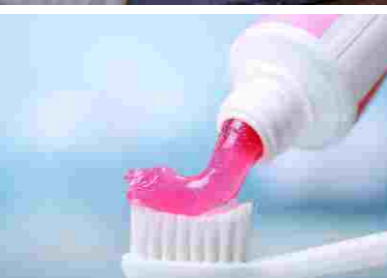
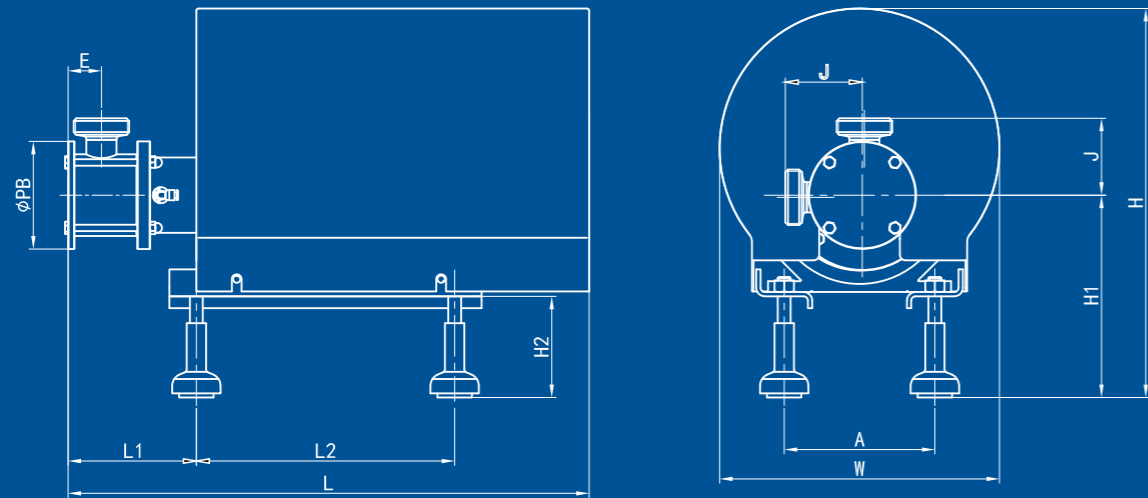
系列 Model	进/出口连接方式 Inlet / outlet connection			
	SMS螺纹连接 Thread	INCH卡箍连接 Clamp	DIN螺纹连接 Thread	DIN卡箍连接 DIN clamp
DJ-RX-04	J	J	J	J
DJ-RX-10	71	64.2	72	73
DJ-RX-10	101	94	101	102
DJ-RX-20	127	120	128	128

注意：以上数据图相关尺寸不作为实物最终依据，东正保留对于数据更新权限不再另行通知。
Note: The relevant dimensions of the above data diagrams are not regarded as the final basis of actual object. DONJOY reserves the right to update the data without further notice.

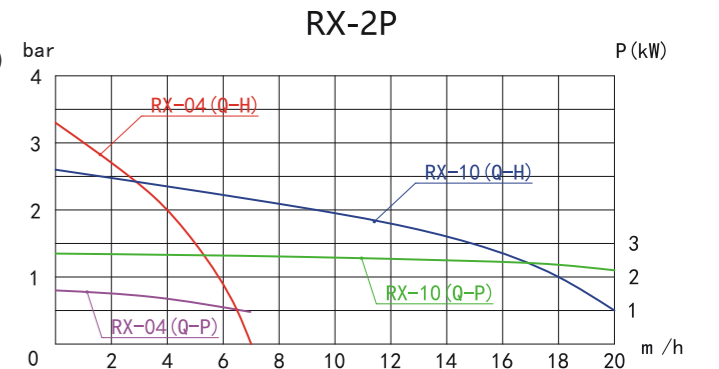
RX SERIES

FLEXIBLE IMPELLER PUMP-DATA CHART RX系列柔性叶轮泵数据图

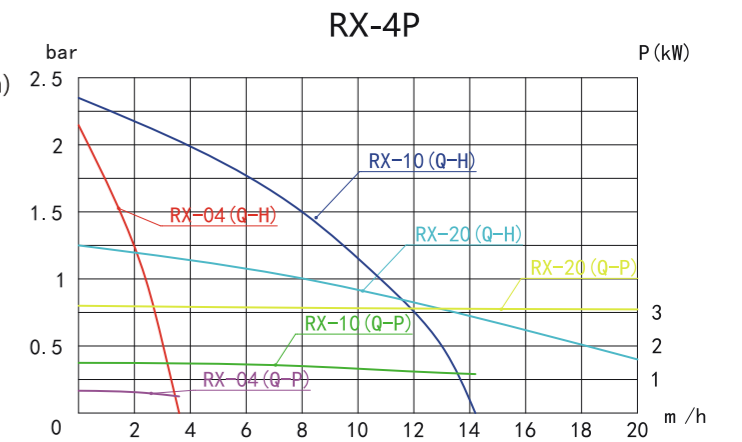
RX FLEXIBLE PUMP COMPREHENSIVE GRAPH RX 柔性泵综合曲线图



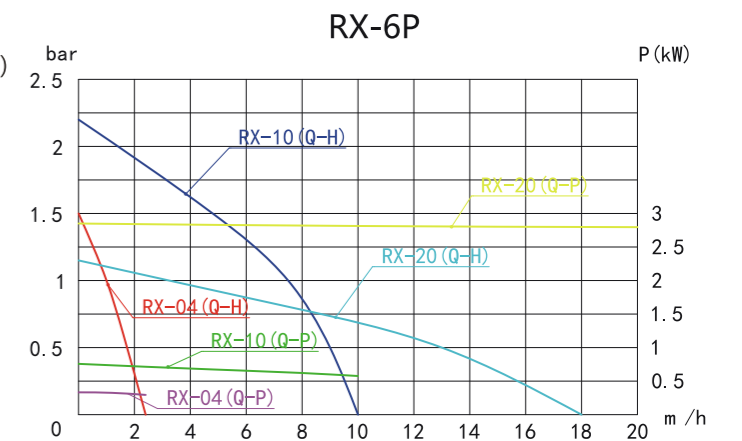
RX 柔性泵(带2P电机性能曲线图/Graph)
RX Flexible impeller pump
(graph for 2P motor performance)



RX-04(带2P电机性能曲线图/Graph)
RX-04 Flexible impeller pump
(graph for 2P motor performance)



RX-10(带2P电机性能曲线图/Graph)
RX-10 Flexible impeller pump
(graph for 2P motor performance)



系列 Model	电机功率 (power)	泵头规格 Pump head dimension		外形安装尺寸 Assembly dimension								
		进口/出口 Inlet/Outlet	ΦPB	E	L	L1	L2	H	H1	H2	W	A
DJ-RX-04	1.5KW(2P)	1"/DN25	100	31	484	119	240	362	189	94.8	260	140
DJ-RX-04	0.75KW(4P)	1"/DN25	100	31	459	113	240	337	179		240	125
DJ-RX-04	0.55KW(6P)	1"/DN25	100	31	459	113	240	337	179		240	125
DJ-RX-10	3.0KW(2P)	1.5"/DN40	138	42	554	149	300	409	199		320	160
DJ-RX-10	1.5KW(4P)	1.5"/DN40	138	42	521	155.5	240	362	189		260	140
DJ-RX-10	0.75KW(6P)	1.5"/DN40	138	42	572	155.5	240	362	189		260	140
DJ-RX-20	4KW(4P)	2"/DN50	180	50	662	173	300	411	211	330	190	
DJ-RX-20	3KW(6P)	2"/DN50	180	50	683	203.5	330	468	231	380	216	

系列 Model	进/出口连接方式 Inlet / outlet connection			
	SMS螺纹连接 Thread	INCH卡箍连接 Clamp	DIN螺纹连接 Thread	DIN卡箍连接 DIN clamp
	J	J	J	J
DJ-RX-04	71	64.2	72	73
DJ-RX-10	101	94	101	102
DJ-RX-20	127	120	128	128

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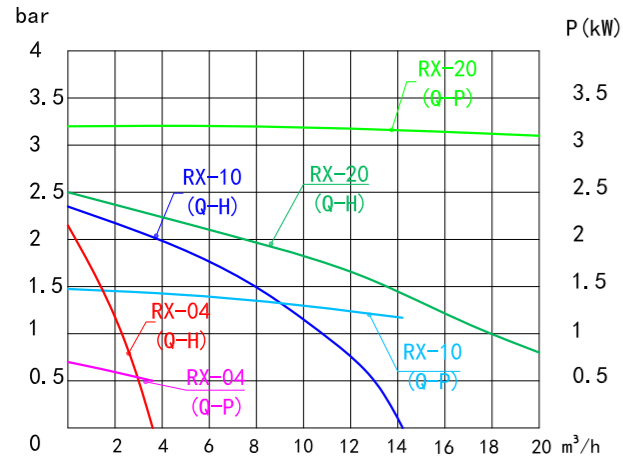
RX FLEXIBLE PUMP

COMPREHENSIVE GRAPH

RX 柔性泵综合曲线图

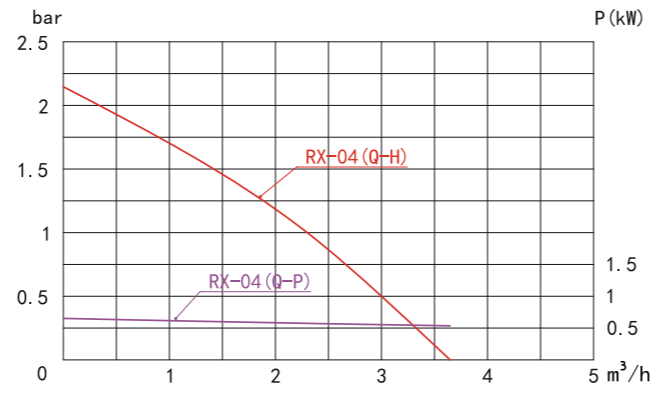
RX 柔性泵(带4P电机性能曲线图/Graph)

RX Flexible impeller pump
(graph for 4P motor performance)



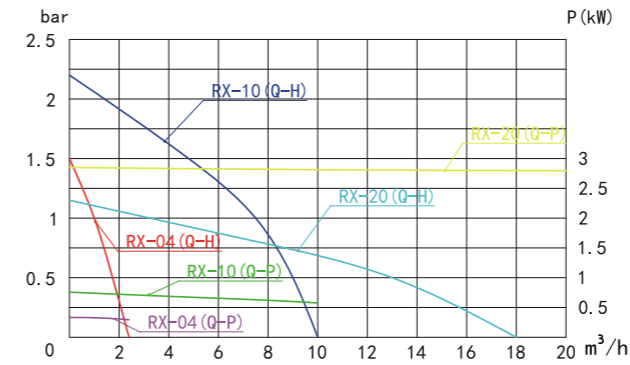
RX-04(带4P电机性能曲线图/Graph)

RX-04 Flexible impeller pump
(graph for 4P motor performance)



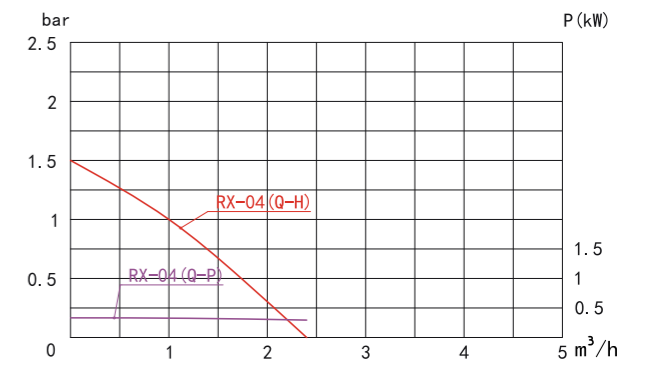
RX 柔性泵(带6P电机性能曲线图/Graph)

RX Flexible impeller pump
(graph for 6P motor performance)



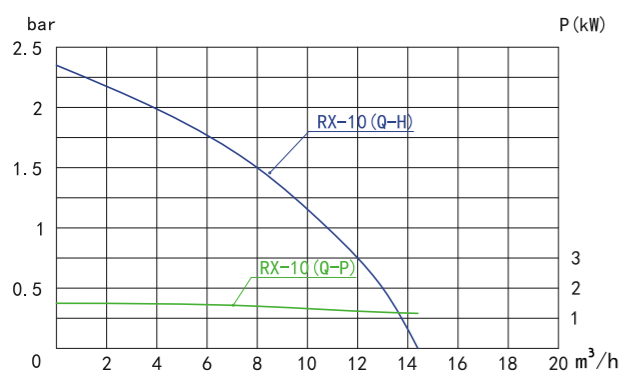
RX-04(带6P电机性能曲线图/Graph)

RX-04 Flexible impeller pump
(graph for 6P motor performance)



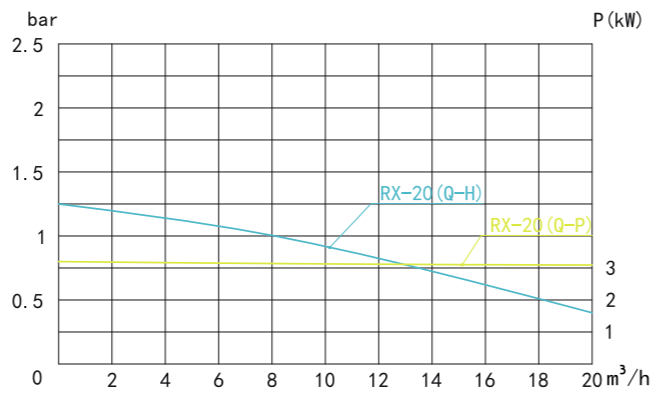
RX-10(带4P电机性能曲线图/Graph)

RX-10 Flexible impeller pump
(graph for 4P motor performance)



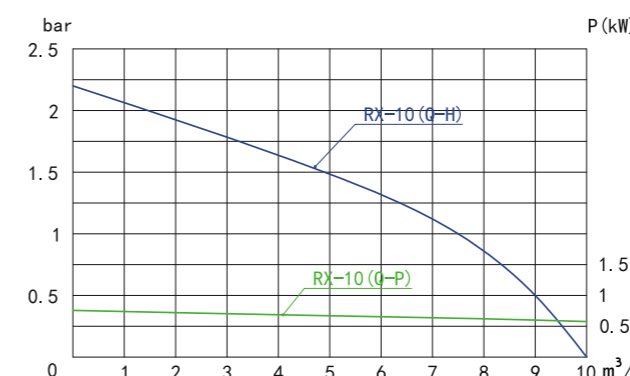
RX-20(带4P电机性能曲线图/Graph)

RX-20 Flexible impeller pump
(graph for 4P motor performance)



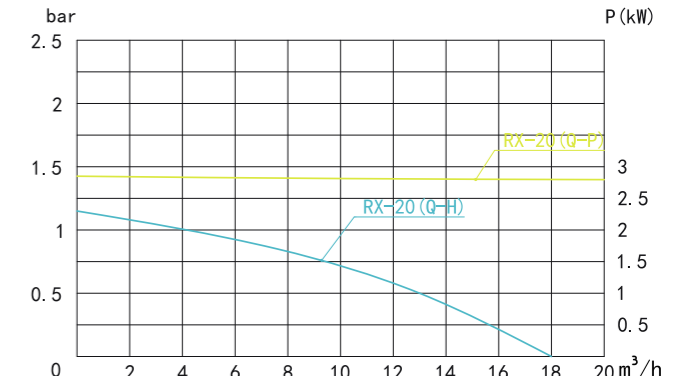
RX-10(带6P电机性能曲线图/Graph)

RX-10 Flexible impeller pump
(graph for 6P motor performance)



RX-20(带6P电机性能曲线图/Graph)

RX-20 Flexible impeller pump
(graph for 6P motor performance)



测试条件: 介质清水, 温度20℃, 叶轮转速950 R.P.M, Q-流量(m³/H), H-扬程(M), P-功率(KW).
Testing condition: medium water, temperature 20 °C, impeller speed 950 RPM, Q-Flow rate (m³/H), H-head (meter), P-power (KW).

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