SH CATALOG

CONTENTS

简介
Brief introduction

产品概述General

- S、Sh单级双吸离心泵是我公司在国内、外同行老型双吸泵的基础上新开发的新型节能卧式中开泵，供输送不含固体颗粒的清水或物理化学性质类似于水的其它液体，介质温度不超过80℃，该系列泵适用于工厂、矿山、城市给排水、电站、农田排灌及各种水利工程。

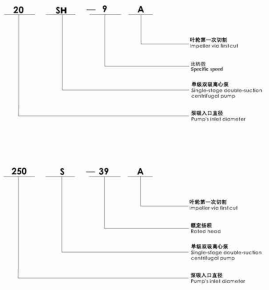
S、Sh type pump is a single-stage double-suction horizontal split centrifugal pump. It is used to transport pure water and the liquid which physical and chemical nature is similar with water, the maximum temperature isn't more than 80℃, this series of pump is suitable for water supply and drainage in factories, mines and cities, power station, drainage and irrigation of farming, and kinds of hydraulic projects.

产品特点Characteristic

- 结构紧凑、外形美观、运行平稳、躁声低；
  Compact structure, beautiful outline, stable operation, low noise;
- 该系列泵的吸入口与排出口均在水泵轴心线的下方，检修时无需拆卸进出口管路及电机，只要将泵盖揭开即可将全部零件拆下进行维修；
  Both inlet and outlet of this pump are placed under the axial line, so it is unnecessary to remove the inlet and outlet pipeline and motor;
- 水泵轴封有优质机械密封和软填料密封两种方式,可供用户在不同使用场合下选用;
  The shaft seal of water pump has fine mechanical seal and soft stuffing seal, which can be selected according to different condition by user;
- 经过静平衡校验的叶轮,用圆螺母固定在泵轴上,其轴向位置可通过圆螺母进行调整;
  The impeller is static-balance calibrated, fixed on the shaft with round nut, and its axial position can be adjusted via the round nut;
- 泵通过弹性联轴器由电动机直接传动,必要时也可用内燃机传动;
  The pump is direct drived by motor via resilient coupling, it can be drived by internal combustion engine if it is necessary;
- 从传动方向看去,水泵为顺时针方向旋转(根据用户需要亦可改为逆时针方向旋转);
  The pump is clockwise viewing from driving end (It can be changed to anticlockwise according to users' need)

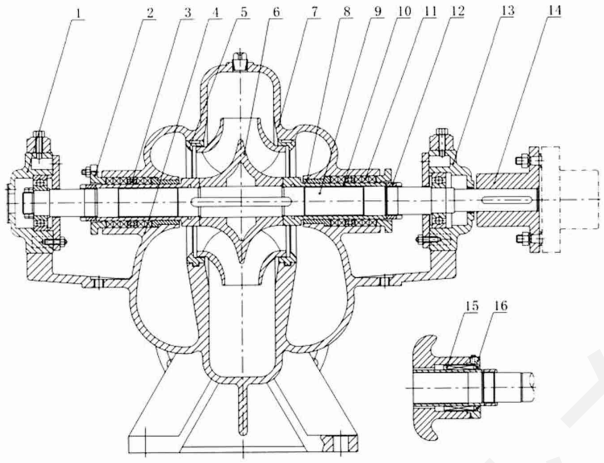
型号意义Model meaning

SH	S	SH	S	SH	S	SH	S
	150S97	12SH-19	300S19	24SH-6	600S100		900S35
6SH-6	150S78	12SH-28	300S12	24SH-9	600S75		900S23
6SH-9	150S50	14SH-6	350S125	24SH-13	600S47		1000S46
8SH-6	200S95	14SH-9	350S75	24SH-19	600S32		1000S31
8SH-9	200S63	14SH-13	350S44	24SH-28	600S22		1000S22
8SH-13	200S42	14SH-19	350S26		700S90		1000S44
	250S95	14SH-28	350S16		700S56		1100S28
10SH-6	250S65		400S90		700S35	48SH-22	1200S24
10SH-9	250S39		400S57		800S76		1200S35
10SH-13	250S24	20SH-6	500S98		800S47		1400S52
10SH-19	250S14	20SH-9	500S59	32SH-19	800S32		1400S30
12SH-6	300S90	20SH-13	500S35		800S22		1400S22
12SH-9	300S58	20SH-19	500S22		900S80		1400S15
12SH-13	300S32	20SH-28	500S13		900S58		



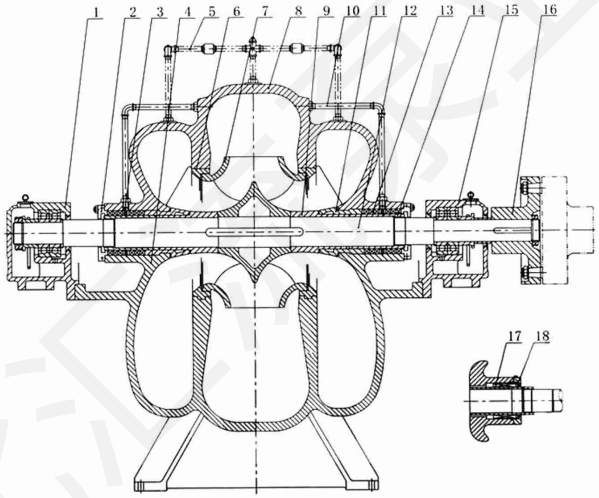
■ **结构图** Structural drawing

小型泵结构图
Structure Drawing of Small Size Pump



1 轴承乙部件 Bearing parts B
2 填料压盖 Packing Gland
3 填料环 * Packing Ring *
4 泵体 Pump Casing
5 双吸密封环 * Double Suction Sealing Ring *
6 叶轮 Impeller
7 泵盖 Pump Cover
8 填料套 * Packing Sleeve *
9 轴 Shaft
10 轴套 * Shaft Sleeve *
11 填料 * Packing *
12 轴套螺母 Shaft Sleeve Nut
13 轴承甲部件 Bearing Parts A
14 联轴器部件 Coupling Parts
15 机械密封 * Mechanical Seal *
16 机械端盖 Shell Cover of Mechanical Seal
注：带 * 号的为易损件
Remarks: The part with mark"*"is wearing part.

大型泵结构图
Structure Drawing of Big Size Pump



1 轴承乙部件 Bearing parts B
2 填料压盖 Packing Gland
3 填料环 * Packing Ring *
4 泵体 Pump Casing
5 排气管部件 Vent-pipe Parts
6 双吸密封环 * Double Suction Sealing Ring *
7 叶轮 Impeller
8 泵盖 Pump Cover
9 护套 * Guard Sleeve *
10 水封管部件 Water Sealing Pipe Parts
11 填料套 * Packing Sleeve *
12 轴 Shaft
13 填料 * Packing *
14 轴套 * Shaft Sleeve *
15 轴承甲部件 Bearing Parts A
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17 机械密封 * Mechanical Seal *
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注：带 * 号的为易损件
Remarks: The part with mark"*"is wearing part.

装配与拆卸、安装说明
Assemble and disassemble & instruction of installation

装配与拆卸Assemble and disassemble

- **装配转子部件：依次将叶轮、叶轮螺母、轴套、填料套、填料环、填料压盖、挡水圈、轴承部件装在泵轴上，并套上双吸密封环，然后装上联轴器。**
  Assemble the rotor's parts: Mounting the impeller, impeller nut, shaft sleeve, stuffing sleeve, stuffing ring, stuffing gland, water retaining ring, bearing on the pump shaft in turn, and putting on dual-suction seal ring, then installing the coupling.
- **将转子部件装在泵体上，调整叶轮的轴向位置到双吸密封环的中间加以固定，将轴承体压盖同固定螺钉坚固。**
  Mount the rotor on the pump casing, adjusting the impeller to have its axial position in the middle of the dual-suction sea ring and then fixed, then fixing the gland of bearing's body with the terminal screw.
- **装上填料，放好中开面纸垫，盖上泵盖打紧螺尾柱销后，拧紧泵盖螺母，最后装上填料压盖。但不要将填料压得太紧，填料过紧会使轴套发热，耗费功率较大，也不要压得太松，过松会使液体渗漏大，水泵效率降低。装配完成后，用手转动泵轴，没有擦碰现象，转动比较轻滑均匀即可，拆卸可按上述装配顺序相反进行。**
  Put on the stuffing, the paper pad on the middle opened surface and the pump cover and tighten the threaded-tail conical pin first and the pump's cover nut, then mounting the stuffing gland. But do not press the stuffing too tightly, otherwise the shaft sleeve may get heated to leave a bigger power consumption; while not too loose, or else may result in a big leakage of liquid and reduced pump efficiency. After assembly, move the pump shaft by hand, it should be smooth and uniform without rubbing, disassembly can be made with the above steps contrary.

安装说明The instruction of installation

- **检查水泵和电动机应无损坏；**
  Check pump and motor to see if there are any damages with them.
- **水泵的安装高度，加上吸入管路的水力损失，及其速度能，不得大于样本规定的允许吸上真空高度值。基础尺寸应符合泵机组的安装尺寸；**
  The installation height of the pump plus the hydraulic loss of the suction pipeline and its speed energy is just the NPSHa of the unit, which should be higher than NPSHr. The dimension of the basis should be in line with those of installation of the pump unit.
  安装顺序Installation sequences：
  1.**将水泵放在埋有地脚螺栓的混凝土基础上，有调整其间的楔型垫块的方法校正水平，并适当拧紧地脚螺栓，以防走动；**
  Place the pump on the concrete basis with built-in foot bolts, correct the levelness with the method adjusting the wedge cushion block and properly tighten the bolts to prevent them from displacement;
  2.**在基础与泵地脚之间灌注混凝土；**
  Grout concrete between the basis and the pump foot;
  3.**待混凝土干固后，拧紧地脚螺栓，并重新检查水泵的水平度；**
  After the concrete gets solidified, tighten the foot bolts and check the pump's levelness again;
  4.**校正电动机轴与泵轴的同心度。使两轴成一直线，在两轴外圆上的同轴度允差为**0.1mm，**端面间隙沿圆周的不均匀度允差**0.3mm（**在联接进出水管路及试运行后再分别校正一遍，仍应符合上述要求**）；
  Correct the concentricity between the axles of pump and motor to have them in a straight line. The allowed tolerance of the non-concentricity of the outer circles of two couplings is 0.1mm and the one of the non-uniform end-surface intervals along with the circumference is 0.3mm(another correction after connecting inlet and outlet pipelines and trial movement, the above requirement should also be met with);
  5.**在检查电动机转向与水泵转向一致后，装上联轴器及联接柱销。**
  After finding out the rotating direction of the motor is identical to that of the pump, mounting the link pin of the coupling.
- **进出水管路应另设支架支撑，不得借泵体支承；**
  Both inlet and outlet pipelines should be supported by a separate stand and not by the pump body;
- **水泵与管路之间的结合面，应保证良好的气密性，尤其是进水管路，应严格保证不漏气，并且在装置上应无窝存空气的可能；**
  A good air tightness of the combined surface between pump and pipeline should be kept, especially the inlet pipeline, it must be guaranteed without air leak and without the possibility for air to be nested on the unit;
- **如水泵安装在进水水位上时，为了灌泵起动，一般可装底阀。也可采用真空引水的方法；**
  In general, a foot valve can be mounted if the pump is mounted above the water level of the inlet so as to start the pump with priming, it can also use the way of vacuum pump water leading;
- **水泵与出水管路之间一般需装闸阀和止回阀（扬程小于**20mm**的可不用），止回阀装在闸阀后面。**
  In general, gate valve and check valve are required to be mounted in the outlet pipeline of the pump(unnecessary for those of a head less than 20m), with the check valve mounted after the gate valve;
- **以上所述的安装方法是指不配带公共底座的水泵机组；**
  The above mentioned methods of installation mean the pump without a common foundation;
- **安装配带公共底座的泵，用调整底座与混凝土基础之间的楔形垫铁来校正机组的水平。然后在其间灌注混凝土，其安装原则与要求，和不配带公共底座的机能相同。**
  For the pump with a common foundation, use the wedge iron-pad between foundation and concrete to correct the levelness of the unit, then grout concrete between them. The installation principle and requirement are the same as those for the pump without a common foundation.

起动与停车、维护
Start, stop and maintenance

起动前准备Ready before starting

- **用手拨动电机风叶，叶轮应无卡磨现象，转动灵活。**
  Moving the motor vane by hand, the impeller shouldn't rub, the rotation is nimble.
- **打开进口阀门、打开排气阀使液体充满整个泵腔，然后关闭排气阀。**
  Open inlet valve and discharge valve to fill whole pump with liquid, then close discharge valve after it is full.
- **用手盘动泵以使润滑液进入机械密封端面。**
  Start pump by hand, to make lubrication enter into mechanical seal surface.
- **点动电机，确定转向是否正确。**
  Start motor , check revolving direction is right or not.

起动与运行Start and running

- **全开进口阀门，关闭吐出管路阀门。**
  Full-open inlet valve, close the valve of discharge pipeline.
- **接通电源、当泵达到正常转速后，再逐渐打开吐出管道路上的阀门，并调节到所需工况。**
  Turn on power source, open the valve on discharge pipeline to regulate work condition after revolving speed of pump keep normal.
- **注意观察仪表读数，检查轴封泄漏情况，正常时机械密封泄漏量〈3滴/分，填料泄漏量〈10ml/h。**
  Observing gauge data carefully, checking the leakage condition of shaft's seal. When it is normal, the leakage quantity of mechanical seal is<3 drop/minute, the leakage quantity of stuffing is <10 ml/h.
- **检查电机、轴承处温升≤70℃，如果发现异常情况，应及时处理。**
  Check the motor and bearing, its temperature should be ≤70℃, if they aren't normal, it should treat in time.

停车Stop

- **逐渐关闭吐出管路阀门，切断电源。**
  Close the valve of discharge pipeline, turn off power source.
- **关闭进口阀门**
  Close the valve of inlet.
- **如环境温度低于0℃，应将泵内液体放尽，以免冻裂。**
  If ambient temperature is lower than 0℃, all the liquid in pump should discharge to avoid freezing and cracking.
- **如长期停用，应将泵拆卸清洗，加防锈油，包装保管。**
  If unit keeps stop condition for long time, we should disassemble pump and coat rust-proof grease on it.

运行中的维护Maintenance during operation

- **进口管道必须充满液体、禁止泵在汽蚀状态下长期运行。**
  Inlet pipeline should full with liquid, prohibit pump to operate in cavitate condition;
- **定时检查电机电流值，不用超过电机额定电流。**
  Check the current value of motor periodically, it shouldn't higher than rated current of motor;
- **泵进行长期运行后，由于机械磨损，使机组噪音及振动增大时，应停车检查，必要时可更换易损件，机组大修期一般为一年。**
  If pump operates for long time, you should replace damageable parts and check unit periodically, the check time is one year in a general way.

机构密封维护Maintenance for mechanism seal

- **机构密封润滑应清洁无固体颗粒。**
  The lubrication of mechanism seal should clean without solid particle.
- **严禁机构密封在干磨情况下工作。**
  Prohibiting mechanism seal working in the dry grinding condition.
- **起动前应先盘动泵（电机）几圈，以免突然起动造成石墨环断裂损坏。**
  Start pump (motor)for several circle before starting, to avoid graphite ring to be damaged.
- **密封泄漏允差3滴/分，否则应检修。**
  The leakage tolerance of mechanical seal is about 3 drop/minute, or else it should be checked.

故障原因及排除方法
Malfunction reason and troubleshooting

■ 故障原因及排除方法

常见故障	原因分析	处理方法
水泵不出水	a.进出口阀门未打开，进出管道阻塞，叶轮流道阻塞。 b.电机运行方向不对，电机缺相转速很慢。 c.吸入管漏气。 d.没有灌满液体，泵腔有空气。 E.进口供水不定，吸程过高，底阀漏水。 f.管路阻力过大，选型不当。	A.检查，去除阻塞物。 b.调整电机方向，紧固电机接线。 c.拧紧各密封面，排除空气。 d.打开泵上盖或打开排气阀，排除空气。 e.停机检查、调整（并网自来水管和带吸程使用易出现此现象。 f.减少管路弯道，重新选泵
水泵流量不足	a.先按1.原因检查。 b.管道、泵叶轮流道部分阻塞，水垢沉积，阀门开度不足。 c.电压偏低。 d.叶轮磨损。	A.先按1.排除。 b.去除阻塞物，重新调整阀门开度。 c.稳压。 d.更换叶轮
功率过大	a.超过额定流量使用。 b.吸程过高。 c.泵轴承磨损。	a.调节流量，关小出口阀门。 b.降底吸程。 c.更换轴承。
杂音振动	a.管路支撑不稳。 b.液体混有气体。 C.产生汽蚀。 d.轴承损坏。 e.电机超载，发热运行。	a.稳固管路。 b.提高吸入压力、排气。 c.降低真空度。 d.更换轴承。 e.调整按5。
电机发热	a.流量过大，超载运行。 b.碰擦。 c.电机轴承损坏。 d.电压不足。	A.关小出口阀。 b.检查排除。 c.更换轴承。 d.稳压。
水泵漏水	a.机械密封磨损。 b.泵体有砂孔或破裂。 c.密封面不平整。 d.安装螺栓松懈。	a.更换。 B.焊补或更换。 c.修整。 d.紧固。

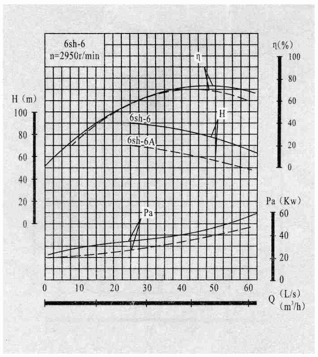
故障原因及排除方法
Malfunction reason and troubleshooting

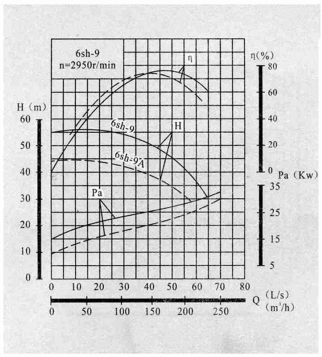
■ Malfunction reason and troubleshooting

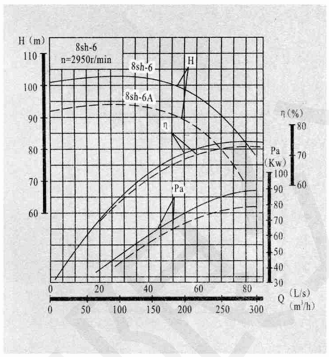
Malfunction	Reason	Troubleshooting
Water pump couldn't discharge water	a. The valve of inlet and outlet isn't open, inlet pipeline and flow passage of impeller is blocked; b. The revolving direction of motor isn't right, motor is short of phase and revolving speed is slow; c. Suction pipe leaks gas; d. Pump isn't full of liquid, there is air in pump chamber; e. There isn't enough water in inlet, the suction head is too high and the bottom valve leaks water; f. The resistance in pipeline is too large, the type of pump Isn't suitable.	a.Check and remove the block; b.Adjust the direction of motor, tighten the joint of Motor, and check electrical part; c.Tighten every seal surface and discharge air; d.Open pump upper cover or open discharge valve To discharge air; e.Stop unit to check and adjust; f.Reduce elbow of pipeline, select pump again.
Flow capacity of water pump isn't enough	a.Check it according to the reason that water pump Can't discharge water; b.Pipeline, flow passage of pump or impeller is blocked, sediment of scale, valve aperture isn't enough; c.Voltage is too lower; D.Impeller is wore out.	a.Remove it according to the reason that water Pump can't discharge water; b.Remove block, adjust valve aperture again; c.Steady voltage; d. Replace impeller.
The power is too large	a. It is used over rated flow capacity; b. The suction head is too high; c. Pump bearing is wore out.	a.Adjust flow capacity, turn outlet valve down; b.Reduce it; C.Replace bearing.
Noise and shake	a.The support of pipeline isn't stable; b.There is gas in liquid; c.There is NPSH; d.The bearing is wore out; E.The motor operates over load.	a.Reinforce pipeline; b.Increase suction pressure, discharge gas; c.Reduce the degree of vacuum; D.Replace bearing;
The motor is heat	a.The flow capacity is too large, and it operates over Load; b.There is friction partly; c.The bearing of motor is damaged; d.The voltage isn't enough.	A.Turn outlet valve down; b.Check and remove; c.Replace the bearing; d.Steady voltage.
Water pump leaks water	A.Mechanical seal is damaged; b.There is sand hole or cracking in pump; c.Seal surface isn't smooth; d.Installed bolt is loose.	a.Replace it; b.Weld or replace it; c.Repair it; D.Tighten it.

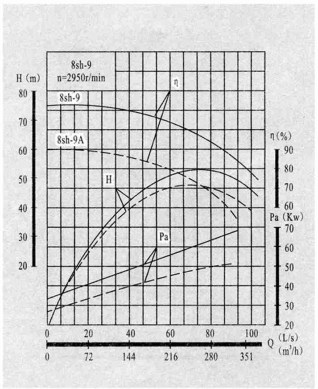
性能曲线图
Performance curve

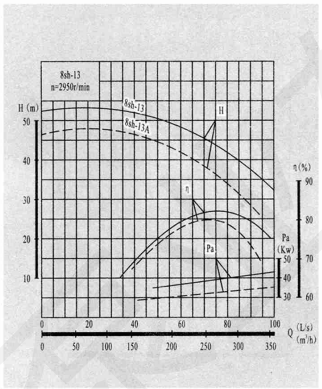
■ **性能曲线图** Performance curve

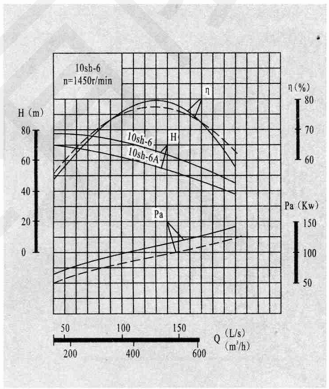


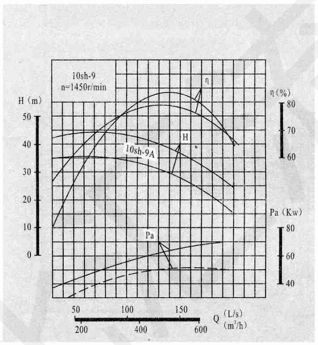


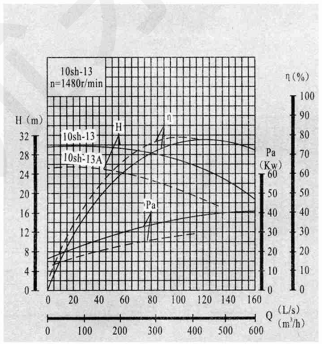


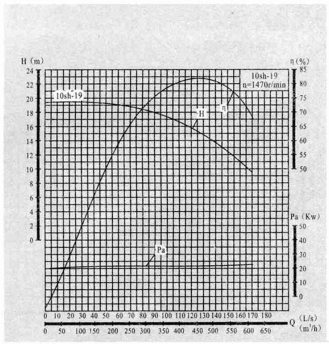






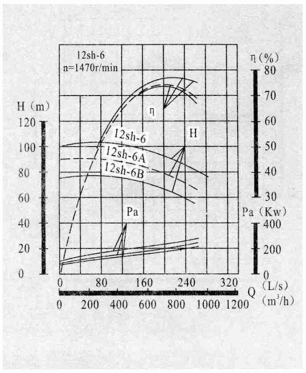


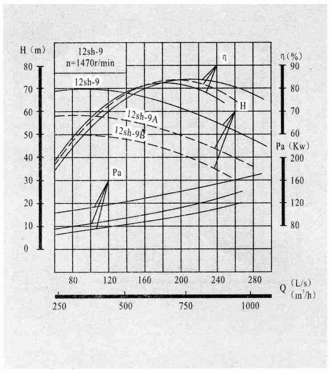


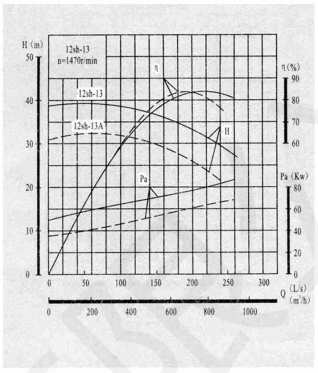


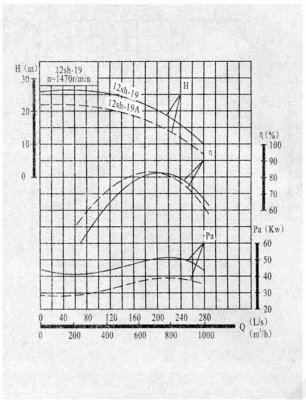
性能曲线图
Performance curve

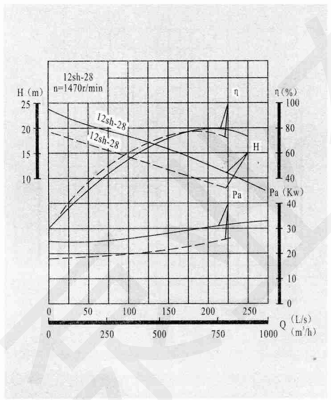
■ **性能曲线图** Performance curve

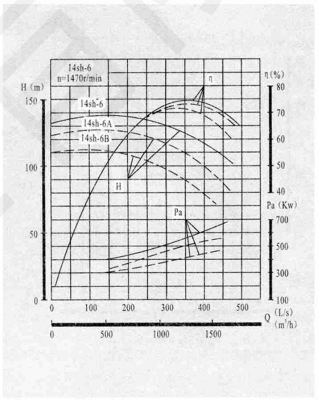


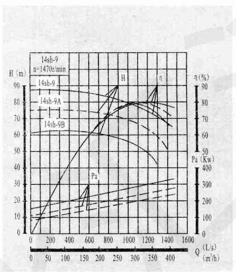


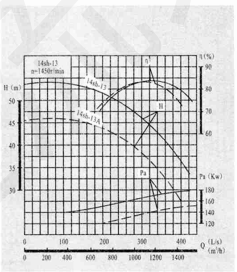


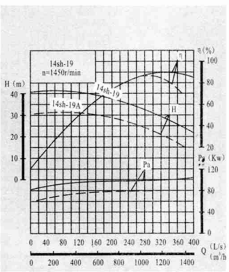


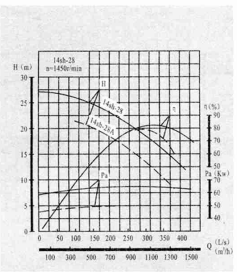






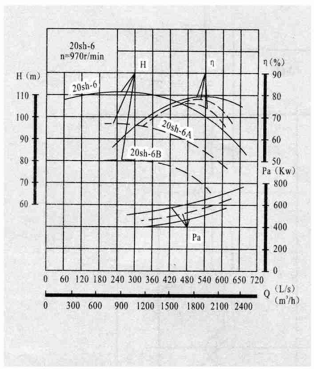


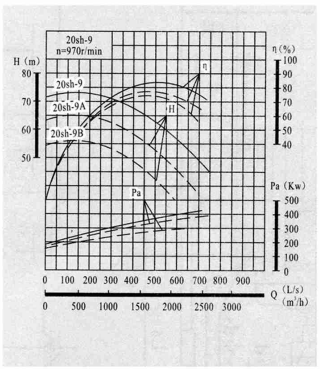


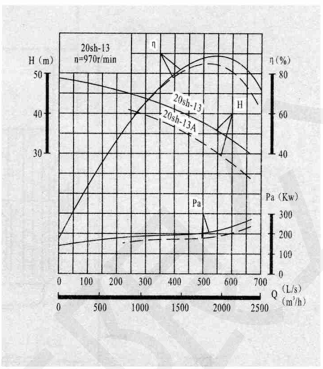


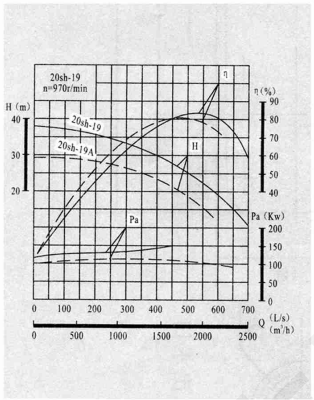
性能曲线图
Performance curve

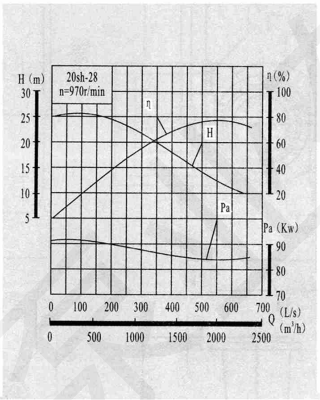
■ **性能曲线图** Performance curve

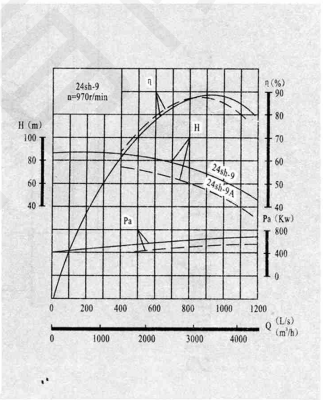


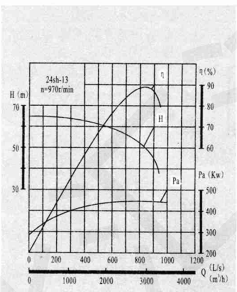


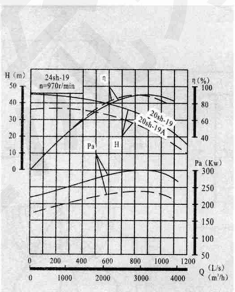


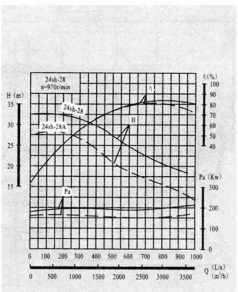


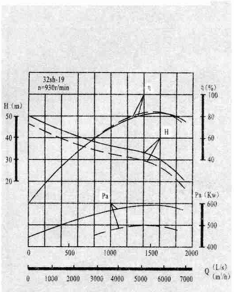












性能参数表
Performance parameter table

■ **性能参数表** Performance parameter table

型号 Pump Model	流量 m^3/h Capacity	扬程 m Head	转速 rpm Revolving Speed	轴功率 kW Shaft Power	电机功率 kW Motor Power	效率% Efficiency	必需汽蚀余量 m NPSHr	净重 kg Weight
6SH-6	126	85	2950	41.4	55	70.5	3.0	165
	160	78		46.9		72.5	3.6	
	200	70		54.2		70.5	4.4	
6SH-6A	111.6	67	2950	30	45	68	2.7	165
	144	63		33.8		72	3.5	
	180	55		38.5		70	4.0	
6SH-9	130	52.5	2950	25.6	37	72.5	3.5	155
	160	50		282		77.5	4.0	
	180	44		23.9		75	4.5	
6SH-9A	111.6	44.8	2950	18.5	30	72	3.0	155
	144	40		20.9		75	3.6	
	180	35		24.5		70	4.5	
8SH-6	216	108	2950	87.7	110	72.5	4.2	309
	280	95		94.4	132	77.7	5.5	
	342	84		10.1		77.5	3.6	
8SH-9	216	69	2950	54.2	75	75	4.9	242
	280	63		59.9		80.5	6.2	
	351	50		66.9		71.5	6.8	
8SH-9A	180	54.5	2950	41	50	67	4.5	241
	270	46		38.3		76	5.8	
	324	37.5		51		72	6.6	
8SH-13	216	48	2950	35.8	55	79	5.0	195
	280	42		39.2		82	6.5	
	342	35		42.2		77	7.0	
8SH-13A	198	43	2950	30.5	45	76	5.8	195
	270	36		33.1		80	6.4	
	310	31		34.4		76	6.8	
10SH-6	360	71.5	1450	100.2	132	70	2.5	528
	486	65.1		112.6	135	76.2	3.1	
	576	57		119.3		75	3.6	
10SH-6A	342	61	1450	83	110	70	2.4	528
	468	54		91.8	115	75	3.0	
	540	50		101		73	3.5	
10SH-9	360	42.5	1450	55.6	75	75	2.8	428
	485	39		63.2		81..4	3.4	
	576	34		65.9		81	3.8	
10SH-9A	324	35.5	1450	42.3	55	75	2.5	428
	468	30.5		48.6		80	3.3	
	576	25		50.9		79	3.0	
10SH-13	360	28	1450	35.7	45	78	3.0	420
	485	24		37.9		83.6	3.8	
	576	20		39.2		80	4.2	
10SH-13A	342	22.2	1450	25.8	37	80	3.0	420
	414	20.3		27.6		83	3.3	

性能参数表
Performance parameter table

■ **性能参数表** Performance parameter table

型号 Pump Model	流量 m^3/h Capacity	扬程 m Head	转速 rpm Revolving Speed	轴功率 kW Shaft Power	电机功率 kW Motor Power	效率% Efficiency	必需汽蚀余量 m NPSHr	净重 kg Weight
	482	17.4		28.6		80	3.8	
10SH-19	365	16.5	1450	20.4	30	80.5	3.3	405
	485	14		22.1		83.6	4.0	
	576	11.5		23.1		78	4.5	
10SH-19A	320	13.7	1450	15.4	22	78	3.0	405
	432	11		15.8		82	3.7	
	504	8.6		15.8		75	4.1	
12SH-6	590	98	1450	213	300	74	3.6	857
	790	90		249.5	315	77.5	4.3	
	936	82		279		75	4.9	
12SH-6A	576	86	1450	190	260	71	3.5	857
	756	78		217	280	74	4.2	
	918	70		246		71	4.7	
12SH-6B	540	72	1450	151	220	70	3.4	857
	720	67		180	225	73	4.0	
	900	51		200	230	70	4.6	
12SH-9	576	65	1450	127.5	200	80	3.8	773
	790	58		151.2	190	82.4	4.8	
	927	50		176.5	180	79	5.2	
12SH-9A	529	55	1450	99.2	160	80	3.6	
	720	49		115.6	155	83	4.5	
	893	42		131		78	5.0	
12SH-9B	504	47.2	1450	82.5	132	79	3.5	
	684	43		97.7	135	82	4.2	
	835	37		108		78	4.8	
12SH-13	600	37.5	1450	75.7	110	81	4.2	709
	790	32		80.9		88.5	5.2	
	950	26.5		83.2		82.5	6.0	
12SH-13A	551	31	1450	56.9	75	79.3	4.1	
	720	26		66.7		82.5	6.0	
	810	24		65.8		80.5	5.3	
12SH-19	612	23	1450	46.2	55	83	4.6	478
	790	19		48		85	5.4	
	935	14.5		47.4		78	6.4	
12SH-19A	504	20	1450	34.8	45	79	4.0	
	720	16		38.3		82	5.3	
	900	11.5		37.6		75	6.1	
12SH-28	612	14.5	1450	28.5	37	82	5.0	471
	790	12		31		83	6.0	
	935	9		31.9		72	6.8	
12SH-28A	522	11.8	1450	23.3	30	72	4.5	
	685	10		24.4		78	5.5	
	792	8.7		25.5		76	6.2	
14SH-6	850	140	1450	462	680	70	4.5	1580
	1250	125		542		78	5.8	

性能参数表
Performance parameter table

■ **性能参数表** Performance parameter table

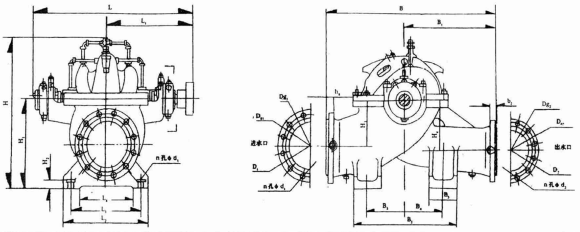
型号 Pump Model	流量m^3/h Capacity	扬程m Head	转速 rpm Revolving Speed	轴功率 kW Shaft Power	电机功率 kW Motor Power	效率% Efficiency	必需汽蚀余量m NPSHr	净重kg Weight
	1660	100		623		72.5	6.7	
14SH-6A	803	125	1450	391	570	70	4.4	1580
	1181	112		480		75	5.1	
	1570	90		562		68.5	6.5	
14SH-6B	745	108	1450	318	500	69	4.1	1580
	1098	96		388		74	5.1	
	1458	77		437		70	6.4	
14SH-9	972	80	1450	275	350	77	3.5	1200
	1260	75		322		80		
	1440	65		323		79		
14SH-9A	900	70	1450	223	300	77	3.5	1200
	1170	65		256		80		
	1332	56		260		78		
14SH-9B	828	59	1450	178	225	75	3.5	1200
	1080	55		205		79		
	1224	47.5		206		77		
14SH-13	972	50	1450	164	220	81	6.0	1105
	1260	44.4		176	225	86.2	7.0	
	1476	37		189		79	7.5	
14SH-13A	864	41	1450	121	155	80	5.6	1105
	1116	36		132		84	6.5	
	1322	30		136		80	7.0	
14SH-19	972	32	1450	99.7	115	83.2	6.0	8228
	1260	26		102		86.2	7.2	
	1440	22		105		80.2	8.0	
14SH-19A	864	26	1450	76	90	80	5.5	878
	1116	21.5		77		85	6.8	
	1296	16.5		80		73	7.5	
14SH-28	972	20	1450	63.8	75	80	6.2	760
	1260	16		65.4		84.2	7.8	
	1440	13.4		68.1		74	8.2	
14SH-28A	864	16	1450	50.8	55	74	6.0	760
	1044	13.4		48.8		78	6.8	
	1260	10		49		70	7.8	
20SH-6	1656	105	970	615.4	850	77	4	4324
	2016	98.4		680		79.5		
	2448	85		716.1		74.5		
20SH-9	1548	66	970	340	520	82	4	2747
	2016	59		390		83		
	2448	50		433		77		
20SH-9A	1404	58	970	300	380	74.5	4	2470
	1908	50		347		75		
	2268	42		360		72		
20SH-9B	1764	42	970	273	310	74	4	2735
				273				

性能参数表
Performance parameter table

■ **性能参数表** Performance parameter table

型号 Pump Model	流量 m^3/h Capacity	扬程 m Head	转速 rpm Revolving Speed	轴功率 kW Shaft Power	电机功率 kW Motor Power	效率% Efficiency	必需汽蚀余量 m NPSHr	净重 kg Weight
				273				
20SH-13	1656	40	970	215	280	84	4.7	2420
	2020	35.1		221		87.2	5.6	
	2412	30		246.5		80	6.1	
20SH-13A	1440	34	970	186	220	85	5.0	2420
	1872	31			215			
	2016	26						
20SH-19	1512	27	970	134	190	83	4.4	2010
	2020	22		138.8		87.2	5.8	
	2358	16		137.1		75	6.0	
20SH-19A	1296	23	970	111	135	73	4.0	2000
	1872	17		108		80	5.3	
	2016	14		101		76	5.8	
20SH-28	1620	15.2	970	78.9	110	85	6.0	2000
	2016	12.8		79.0		89	6.0	
	2325	10.6		78.0		86	6.0	
24SH-9	3420	71	970	727	780	91	1.3	4300
24SH-9A	3168	61	970	585	680	90	2.5	4300
24SH-13	3168	47.4	970	465	520	88	2.5	3850
32SH-19	4700	35	730	575	625	78	4.35	5100
	5500	32.5		580		84		
	6010	28.9		567		83.5		
	6460	25.4		567		80.4		
32SH-19B	5040	27.6	730	455	500	83.4	4.35	5100
48SH-22	9000	28.5	485	873	1150	80	4.3	17000
	11000	26.3		980		86.8	3.7	
	12500	23.6		913		88	3.2	
48SH-22A	8500	19.6	485	653	710	80.5	4.4	17000
	10000	18.5		588		86	4.1	
	12020	14.3		585		80	3.4	

■ **外形安装尺寸图表**Outline installation dimension drawing



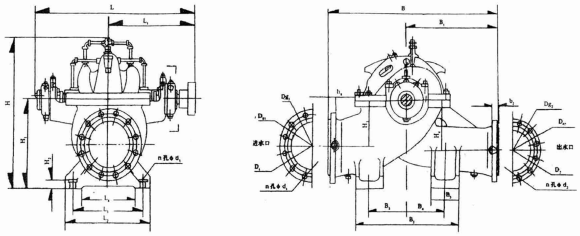
泵型号	泵外型尺寸																进水法兰尺寸					出水法兰尺寸				
	L	L_1	L_2	L_3	L_4	B	B_1	B_2	B_3	B_4	B_5	H	H_1	H_2	H_3	H_4	4孔 ød	D_{R1}	D_{01}	D_1	d_1	n-孔 $ød_1$	D_{R2}	D_{02}	D_2	d_2	n-孔 ød
6SH-6 150S-78	708	389	250	200	135	530	250	270	110	110	–	487	280	25	130	165	18	150	240	280	24	8孔 ø23	100	180	215	22	8孔 ø18
6SH-6A 150S-78A	708	389	250	200	135	530	250	270	110	110	–	487	280	25	130	165	18	150	240	280	24	8孔 ø18	100	180	215	22	8孔 ø18
6SH-9 150S-50	708	889	250	200	135	450	200	270	110	110	–	456	280	25	130	140	18	150	225	260	20	8孔 ø18	100	170	205	18	4孔 ø18
6SH-9A 150S-50A	708	389	250	200	135	450	200	270	110	110	–	456	280	25	130	140	18	150	225	260	20	8孔 ø18	100	170	205	18	4孔 ø18
8SH-6 200S-95	842	462	350	300	245	750	350	350	150	150	–	804	370	3	185	200	23	200	295	335	26	8孔 ø23	125	210	245	24	8孔 ø18
8SH-9 200S-63	822.5	450	250	300	245	620	720	350	150	150	–	568	350	30	175	172.5	23	200	295	335	26	8孔 ø23	125	210	245	24	8孔 ø18
8SH-9A 200S-63A	822.5	450	350	300	245	620	270	350	150	150	–	568	350	30	175	172.5	23	200	295	335	26	8孔 ø23	125	210	245	24	8孔 ø18
8SH-13 200S-42	765	416	350	300	230	550	250	350	150	150	–	549	350	30	160	165	23	200	280	315	22	8孔 ø18	125	200	235	20	8孔 ø18
8SH-13A 200S-42A	765	416	350	300	230	550	250	350	150	150	–	549	350	30	160	165	23	200	280	315	22	8孔 ø18	125	200	235	20	8孔 ø18
10SH-6 250S-65	1121	618	410	320	210	900	450	640	240	240	160	837	480	30	240	300	25	250	250	390	28	12孔 ø23	150	240	280	24	8孔 ø18
10SH-6A 250S-65A	1121	618	410	320	210	900	450	640	240	240	160	837	480	30	240	300	25	250	250	390	28	12孔 ø23	150	240	280	24	8孔 ø18
10SH-9 250S.3e	988.5	553	420	360	300	890	440	630	240	240	150	754	440	35	200	260	25	250	335	370	24	12孔 ø23	200	280	315	22	8孔 ø18
10SH-9A 250S-39A	988.5	553	420	360	300	890	440	630	240	240	150	754	440	35	200	260	25	250	335	370	24	12孔 ø18	200	280	315	22	8孔 ø18
10SH-13 250S-24	964.5	531	440	380	300	850	400	630	240	240	150	728	440	35	230	230	25	250	335	370	24	12孔 ø18	200	280	315	22	8孔 ø18
10SH-13A 250S-24A	964.5	531	440	380	300	850	400	630	240	240	150	728	440	35	230	230	25	250	335	370	24	12孔 ø18	250	335	370	22	8孔 ø18

外形安装尺寸图表
Outline installation dimension drawing

■ **外形安装尺寸图表**Outline installation dimension drawing

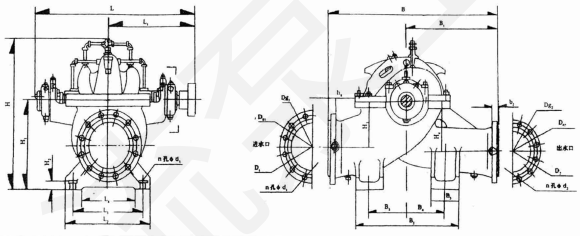
泵型号	泵外型尺寸														进水法兰尺寸					出水法兰尺寸			
	L	L_1	L_2	L_3	L_4	B	B_1	B_2	B_3	B_4	B_5	H	H_1	H_2	H_3	H_4	4孔 ød	D_{Sj}	D_{0j}	D_j	d_j	n 孔 ød$_1$	D_{Sc}	D_{0c}	D_c	d_c	n 孔 ød
10SH-19 250S-14	908	490	400	350	280	750	350	400	175	175	–	671	400	35	200	240	25	250	335	370	24	12 孔 ø18	200	280	315	22	8 孔 ø18
10SH-19A 250S-14A	908	490	400	350	280	750	320	400	175	175	–	671	400	35	200	240	25	250	335	370	24	12 孔 ø18	200	280	315	22	8 孔 ø18
12SH-6 300S-90	1185.5	660	500	380	240	1080	520	720	280	280	160	955	550	40	260	340	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø23
12SH-6A 300S-90A	1185.5	660	500	380	240	1080	520	720	280	280	160	955	550	40	260	340	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø23
12SH-6B 300S-90B	1185.5	660	500	380	240	1080	520	720	280	280	160	955	550	40	265	340	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø18
12SH-9 300S-58	1143.5	639	410	320	210	1020	500	670	260	260	150	890	520	40	265	304	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø23
12SH-9A 300S-58A	1143.5	639	410	320	210	1020	500	670	260	260	150	890	520	40	265	304	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø23
12SH-9B 300S-58B	1143.5	639	410	320	210	1020	500	670	260	260	150	890	520	40	265	304	25	300	400	440	28	12 孔 ø23	200	295	335	26	8 孔 ø23
12SH-13 300S-32	1209.5	662	640	520	330	1040	500	800	300	300	200	854.5	520	40	275	305	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
12SH-13A 300S-32A	1209.5	662	640	520	330	1040	500	800	300	300	200	854.5	520	40	275	305	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
12SH-19 300S-19	1028	563	640	520	400	1000	500	800	300	300	200	830	520	40	250	260	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
12SH-19A 300S-19A	1028	563	640	520	400	1000	500	800	300	300	200	830	520	40	250	260	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
12SH-28 300S-12	1028	563	640	520	400	1000	500	800	300	300	200	830	520	40	250	260	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
12SH-28A 300S-12A	1028	563	640	520	400	1000	500	800	300	300	200	830	520	40	250	260	25	300	395	435	24	12 孔 ø23	250	335	370	24	12 孔 ø18
14SH-6 350S-125	1625	937	690	560	382	1240	540	800	300	300	200	1119	635	50	320	433	34	350	470	520	38	16 孔 ø25	300	295	335	20	12 孔 ø23

■ **外形安装尺寸图表**Outline installation dimension drawing



泵型号	泵外型尺寸																进水法兰尺寸					出水法兰尺寸				
	L	L_1	L_2	L_3	L_4	B	B_1	B_2	B_3	B_4	B_5	H	H_1	H_2	H_3	H_4	4孔 ød	Dg_1	Do_1	D_1	b_1	n 孔 $ød_1$	Dg_2	Do_2	D_2	b_2	r 孔 ød
14SH-6A 350S-125A	1625	937	690	560	382	1240	540	800	300	300	200	1119	635	50	320	433	34	350	470	520	38	16 孔 ø25	200	295	335	30	12 孔 ø23
14SH-6B 350S-125B	1625	937	690	560	382	1240	540	800	300	300	200	1119	635	50	320	433	34	350	470	520	38	16 孔 ø25	200	295	335	30	12 孔 ø23
14SH-9 350S-75	1421	822	510	440	320	1300	650	900	360	360	180	980	560	50	260	360	34	350	460	500	30	16 孔 ø23	250	350	390	28	12 孔 ø23
14SH-9A 350S-75A	1421	822	510	440	320	1300	650	900	360	360	180	980	560	50	260	360	34	350	460	500	30	16 孔 ø23	250	350	390	28	12 孔 ø23
14SH-9B 350S-75B	1421	822	510	440	320	1300	650	900	360	360	180	980	560	50	260	360	34	350	460	500	30	16 孔 ø23	250	350	390	28	12 孔 ø23
14SH-13 350S-44	1291	713	720	600	400	1180	560	810	300	300	210	1008	620	50	320	383	34	350	445	485	26	12 孔 ø23	300	400	440	28	12 孔 ø23
14SH-13A 350S-44A	1291	713	720	600	400	1180	560	810	300	300	210	1008	620	50	320	383	34	350	445	485	26	12 孔 ø23	300	400	440	28	12 孔 ø23
14SH-19 350S-16	1271.5	693	570	480	370	1100	500	740	280	280	180	945	560	50	300	310	34	350	445	485	26	12 孔 ø23	300	395	435	24	12 孔 ø23
14SH-19A 350S-16A	1271.5	693	570	480	370	1100	500	740	280	280	180	945	560	50	300	310	34	350	445	485	26	12 孔 ø23	300	395	435	24	12 孔 ø23
14SH-28 350S-12	1186.5	652	570	480	270	1100	650	700	280	280	140	512	560	50	250	300	34	350	445	485	26	12 孔 ø23	300	395	435	24	12 孔 ø23
20SH-6 500S-98	1909.5	1025	910	780	400	1550	750	1100	400	400	300	1515	900	110	425	545	41	500	620	670	34	12 孔 ø25	300	400	440	28	12 孔 ø23
20SH-6A 500S-98A	1909.5	1025	910	780	400	1550	750	1100	400	400	300	1515	900	110	425	545	41	500	620	670	34	20 孔 ø25	300	400	440	28	12 孔 ø23
20SH-6B 500S-98B	1909.5	1025	910	780	400	1550	750	1100	400	400	300	1515	900	110	425	545	41	500	620	670	34	20 孔 ø25	300	400	440	28	12 孔 ø23
20SH-9 500S-58	1796	1022	910	780	400	1550	750	1100	400	400	300	1415	900	110	425	500	41	500	670	670	34	20 孔 ø25	300	400	440	28	12 孔 ø23

■ **外形安装尺寸图表**Outline installation dimension drawing



泵型号	泵外型尺寸																进水法兰尺寸					出水法兰尺寸				
	L	L_1	L_2	L_3	L_4	B	B_1	B_2	B_3	B_4	B_5	H	H_1	H_2	H_3	H_4	4孔 ød	Dg_1	Do_1	D_1	b_1	n 孔 $ød_1$	Dg_2	Do_2	D_2	b_2	n 孔 ød
20SH-9A 500S-59A	1796	1022	910	780	400	1550	750	1100	400	400	300	1415	900	110	425	500	41	500	620	670	34	20 孔 ø25	300	400	440	28	12 孔 ø23
20SH-9B 500S-59B	1790	1022	710	780	400	1550	750	1100	400	400	300	1415	900	110	425	500	41	500	620	670	34	20 孔 ø25	300	400	440	28	12 孔 ø23
20SH-13 500S-35	1569	897	740	600	400	1450	650	920	420	300	200	1280	800	50	450	450	41	500	620	670	34	20 孔 ø25	350	460	500	30	16 孔 ø23
20SH-13A 500S-35A	1569	897	740	600	400	1450	650	920	420	300	200	1280	800	50	450	450	41	500	620	670	34	20 孔 ø25	350	460	500	30	16 孔 ø25
20SH-19 500S-22	1568	890	740	600	400	1380	650	920	400	320	200	1305	800	50	430	455	41	500	620	670	34	20 孔 ø25	400	515	565	32	16 孔 ø25
20SH-19A 500S-22A	1568	890	740	600	400	1380	650	920	400	320	200	1305	800	50	430	455	41	500	620	670	34	20 孔 ø25	400	515	565	32	16 孔 ø25
20SH-28 500S-13	1568	890	740	600	400	1380	650	920	400	320	200	1305	800	50	430	455	41	500	620	670	34	20 孔 ø25	400	515	565	32	16 孔 ø25
24SH-9 600S-75	2029	1085	1100	900	600	1800	800	1300	500	500	300	1706	950	55	532	663	41	600	725	780	36	20 孔 ø30	400	515	565	32	16 孔 ø25
24SH-9A 600S-75A	2029	1085	1100	900	600	1800	800	1300	500	500	300	1706	950	55	532	663	41	600	725	780	36	20 孔 ø30	400	515	565	32	16 孔 ø25
24SH-13 600S-47	2029	1085	1100	900	600	1800	800	1300	500	500	300	1706	950	55	532	663	41	600	725	780	36	20 孔 ø30	400	515	565	32	16 孔 ø25
24SH-19 600S-32	1791	955	940	760	580	1580	750	1240	500	500	240	1586	900	55	500	530	41	600	725	780	36	20 孔 ø30	500	620	670	34	20 孔 ø25
24SH-19A 600S-32A	1791	955	940	760	580	1580	750	1240	500	500	240	1586	900	55	500	530	41	600	725	780	36	20 孔 ø30	500	620	670	34	20 孔 ø25
24SH-28 600S-22	1791	955	940	760	580	1580	750	1240	500	500	240	1586	900	55	500	530	41	600	725	780	36	20 孔 ø30	500	620	670	34	20 孔 ø25
24SH-28A 600S-22A	1791	955	940	760	580	1580	750	1240	500	500	240	1586	900	55	500	530	41	600	725	780	36	20 孔 ø30	500	620	670	34	20 孔 ø25