



HRZL-ISW horizontal single stage pump



Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

Sales Tel: +86 138 6435 8861

Email: admin@hrzlpumps.com

Web: www.sdhrzl.com

Add: Yinma Village, Baita Town,

Boshan District, Zibo city, Shandong Province, China

Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

Company Profile

ISW horizontal single stage pump

Shandong Hairui Zhonglian Fluid Technology Co., Ltd. is located in Boshan, pump capital" in Shandong province, China. We are one of the biggest qualified enterprise integrating research, development, production, sales and service with a registered capital of 30 million yuan. HRZL pumps are well known from home to abroad.

We manufacture a wide range of pumps: HR, DL, DLR vertical multistage centrifugal pump series, HR, ISL vertical singlestage pipeline pumps, HR, ISW horizontal singlestage centrifugal pump series, HR, DBLstainless steel vertical multistage pump series, HR, GDL highrise building waterfeeding pump series, HR, D horizontal multistage centrifugal pump series, HR, DLG highrise building waterfeeding pumps series, DSQ Submersible sand pump, ZJQ submersible slurry pump, HRYT integrated prefabricated pump station, XBDHRZL axialflow deep well fire pump, XBCHRZL diesel engine axialflow deep well fire pump, XBC diesel engine firepump, HRHY constant current fire pump, HRG vertical pipeline Pump, HRKT air conditioning pump, HRWF nonegative water supply complete equipment, HRDL vertical multistage fire pump, vertical singlestage fire pump series, vertical multistage fire pump series, variable constant tangent pump series, horizontal multistage fire pumps , submersible fire pumps, fire stabilized water supply equipment, fire electrical control cabinets, fire water tank series (stainless steel, galvanized steel, etc.).

Our pumps are widely used in construction, fire protection, chemical industry, refrigeration, power station, thermal power, mining, sewage treatment, agricultural irrigation and drainage and other industries. It is also used in major projects across the country, such as the Olympic Stadium, airport, tower, oil field, etc..

We have branches and offices in many countries, all of which have professional aftersales technicians, to provide comprehensive presales, sales and aftersales services. We will vigorously promote the company philosophy of "Quality Hairui, Technology Hairui", constantly improve services and product quality, to satisfy users!



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Product overview

This series is a single-stage single-suction cantilever centrifugal pump, with a total of 34 basic types and 242 specifications. For pumping clean water and non-corrosive liquids, the maximum temperature of the medium can reach 80 °C. The bearing part has a water cooling chamber, and the maximum temperature of the medium can reach 120 °C (ISR type hot water pump). There are three types of shaft seals: soft packing seal, mechanical seal and skeleton oil seal, changing the material of some parts can be used to pump light oil (ISY light oil pump)

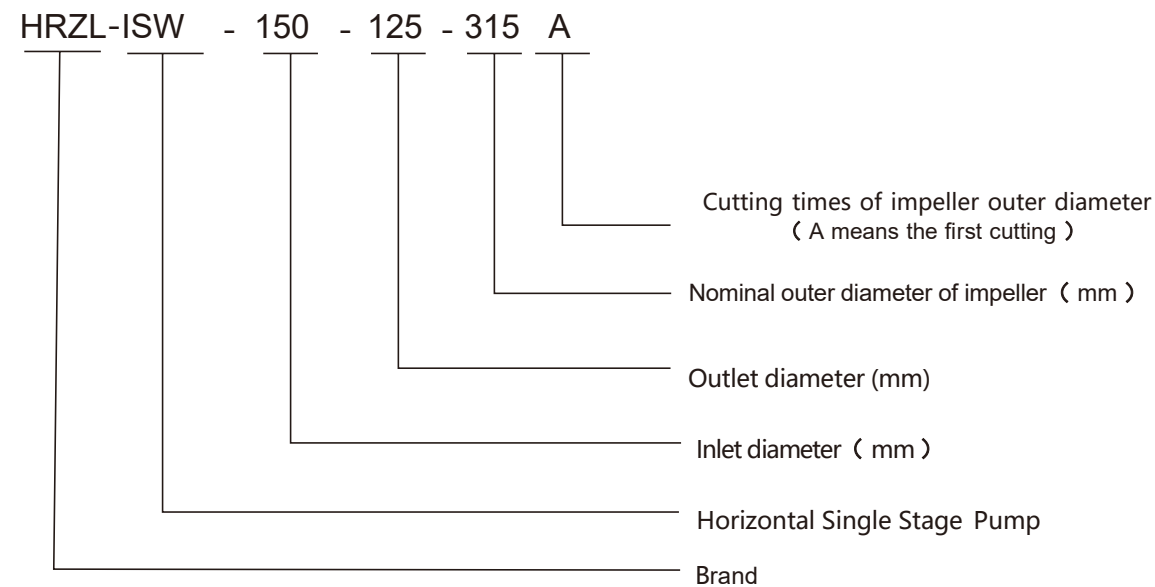
Performance range: (by design point)

Flow: 6.3m³/h~1920m³/h

Lift: 5m~133m

This series of pumps is installed horizontally and has a suspended structure. It sucks in horizontally and axially and discharges radially. The lower coupling can be overhauled after withdrawing from the rotor part, and the pump shaft adopts packing seal and mechanical seal. The direction of rotation of the pump is clockwise viewed from the motor side.

Pump model meaning

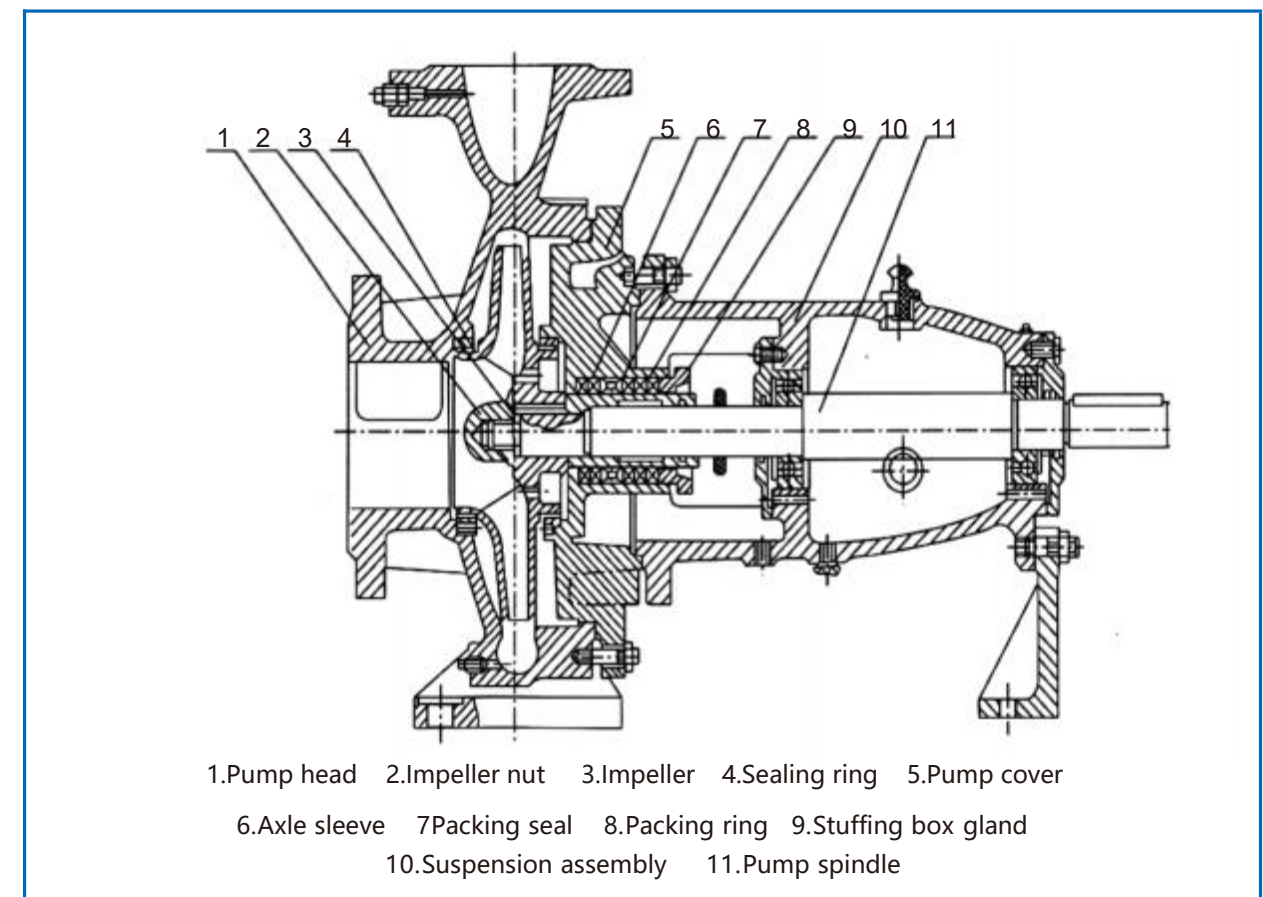


According to user requirements, our factory can supply ISW pumps with a working pressure of 1.6MPa. When the pump leaves the factory, the static pressure test is done, and the pressure is 2.4MPa, so as to adapt to the water circulation system with high pressure (please specify the inlet pressure of the pump when ordering) Require).

Application

1. ISW horizontal single-stage pump is used for conveying clean water and other liquids with similar physical and chemical properties to clean water. It is suitable for industrial and urban water supply and drainage, and can also be used for agricultural drainage and irrigation. The temperature of the medium used shall not exceed 80 °C.
2. ISW horizontal single-stage pumps are suitable for energy metallurgy, chemical industry, textile, papermaking and restaurants, bathrooms, hotels and other boiler hot water pressurized circulation pumps and urban heating system circulation pumps. The temperature of the medium used does not exceed 120 °C
3. ISW horizontal single-stage pump is suitable for pressurized transportation of corrosive medium, and the temperature of the medium used is -20 °C to 120 °C
4. ISW horizontal single-stage pump is used to transport gasoline, kerosene, diesel and other petroleum products, and the temperature of the transported medium is 20 °C to 120 °C
5. ISW horizontal single-stage pump is suitable for occasions with low environmental noise requirements, especially for chilled water in air-conditioning systems, cooling water circulation and terminal pressurization, and the temperature of the medium used does not exceed 120 °C.

ISW pump structure drawing



Property parameter list

Table of performance parameters

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

		2900r/min					1450r/m							
50-32-125	O	7.5	22.0	0.96		47	2.0		3.8	5.4	0.13		43	2.0
		12.5	20.0	1.13	2.2	60	2.0	6.3	5.0	0.16	0.55	54	2.0	
		15.0	18.5	1.26		60	2.5	7.5	4.6	0.17		55	2.5	
	A	7.2	20.0	0.85		46	2.0	3.6	4.9	0.11		42	2.0	
		11.9	18.2	1.02	1.5	58	2.0	6.0	4.6	0.14	0.55	52	2.0	
		14.3	16.8	1.13		58	2.25	7.2	4.2	0.15		53	2.25	
	B	6.7	17.5	0.71		45	2.0	3.4	4.3	0.10		41	2.0	
		11.2	15.9	0.86	1.5	56	2.0	5.6	4.0	0.12	0.55	50	2.0	
		13.4	14.7	0.96		56	2.05	6.7	3.7	0.13		51	2.05	
	C	6.2	15.2	0.59		44	2.0	3.1	3.7	0.08		40	2.0	
		10.4	13.8	0.72	1.1	54	2.0	5.2	3.5	0.10	0.55	48	2.0	
		12.5	12.8	0.80		54	2.0	6.2	3.2	0.11		49	2.0	
50-32-160	O	7.5	34.3	1.59		44	2.0	3.8	8.5	0.25		35	2.0	
		12.5	32.0	2.02	3	54	2.0	6.3	8.0	0.29	0.55	48	2.0	
		15.0	29.6	2.16		56	2.5	7.5	7.5	0.31		49	2.5	
	A	6.8	28.4	1.27		41.5	2.0	3.4	7.1	0.19		34	2.0	
		11.4	26.6	1.59	2.2	52	2.0	5.7	6.7	0.23	0.55	45.5	2.0	
		13.7	24.6	1.73		53	2.16	6.8	6.2	0.25		46	2.16	
	B	6.1	22.5	0.95		39	2.0	3.0	5.6	0.14		32	2.0	
		10.1	21.0	1.16	1.5	50	2.0	5.1	5.3	0.17	0.55	42	2.0	
		12.2	19.4	1.26		51	2.0	6.1	4.9	0.19		42.5	2.0	
	C	5.4	17.9	0.73		36	2.0	2.7	4.4	0.11		30	2.0	
		9.0	16.7	0.91	1.5	45	2.0	4.6	4.2	0.14	0.55	38	2.0	
		10.8	15.4	1.0		45.5	2.0	5.4	3.9	0.15		38.5	2.0	

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		2900r/min					1450r/m							
50-32-200	O	7.5	52.5	2.82		38	2.0		3.8	13.1	0.41		33	2.0
		12.5	50.0	3.54	5.5	48	2.0	6.3	12.5	0.51	0.75	42	2.0	
		15.0	48.0	3.95		51	2.5	7.5	12	0.56		44	2.5	
	A	7.3	49.4	2.61		37.5	2.0	3.6	12.3	0.38		32.5	2.0	
		12.1	47.0	3.30	4	47	2.0	6.1	11.8	0.47	0.75	41.5	2.0	
		14.6	45.1	3.58		50	2.3	7.3	11.3	0.52		43.2	2.3	
	B	7.0	45.3	2.33		37	2.0	3.5	11.3	0.34		32	2.0	
		11.7	43.2	2.96	4	46.2	2.0	5.9	10.8	0.42	0.55	40.7	2.0	
		14.0	41.5	3.20		49.2	2.15	7.0	10.4	0.46		42.5	2.15	
	C	6.5	39.6	1.95		36	2.0	3.3	9.9	0.28		31	2.0	
		10.9	37.7	2.47	3	45.2	2.0	5.5	9.4	0.36	0.55	39.5	2.0	
		13.0	36.2	2.67		48.2	2.0	6.5	9.1	0.39		41.2	2.0	
50-32-250	O	7.5	82.0	5.87		28.5	2.0	3.8	20.5	0.91		23	2.0	
		12.5	80.0	7.16	11	38	2.0	6.3	20.0	1.07	1.5	32	2.0	
		15.0	78.5	7.83		41	2.5	7.5	19.5	1.14		35	2.5	
	A	7.0	70.6	4.78		28	2.0	3.5	17.7	0.76		22.1	2.0	
		11.6	68.9	5.80	7.5	37.5	2.0	5.9	17.2	0.88	1.1	31.2	2.0	
		13.9	67.6	6.41		40	2.25	7.0	16.8	0.93		34.2	2.25	
	B	6.5	61.2	3.93		27.5	2.0	3.2	15.3	0.63		21.5	2.0	
		10.8	59.7	4.84	5.5	36.3	2.0	5.4	14.9	0.73	1.1	30.5	2.0	
		13.0	58.6	5.30		39	2.05	6.5	14.6	0.77		33.5	2.05	
	C	6.0	52.5	3.18		27	2.0	3.0	13.1	0.51		21	2.0	
		10.0	51.2	3.98	5.5	35	2.0	5.0	12.8	0.60	0.75	29.5	2.0	
		12.0	50.2	4.38		37.5	2.0	6.0	12.5	0.63		32.5	2.0	

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

65-50-125	O	15.0	21.8	1.54	3	58	2.0	7.5	5.4	0.21	0.55	53	2.0
		25.0	20.0	1.97		69	2.5	12.5	5.0	0.27		64	2.0
		30.0	18.5	2.22		68	3.0	15	4.7	0.30		65	2.5
	A	14.1	19.2	1.33	2.2	55	2.0	7.0	4.7	0.18	0.55	50.5	2.0
		23.5	17.6	1.68		67	2.4	11.7	4.4	0.23		61.5	2.0
		28.2	16.3	1.89		66	2.8	14.1	4.1	0.26		62	2.3
	B	13.2	16.8	1.19	2.2	50.5	2.0	6.6	4.1	0.16	0.55	46.5	2.0
		21.9	15.4	1.48		62	2.3	11.0	3.8	0.20		57	2.0
		26.3	14.2	1.67		61	2.6	13.2	3.6	0.23		57.5	2.15
	C	11.3	12.4	0.88	1.5	43.5	2.0	5.7	3.0	0.11	0.55	51.5	2.0
		18.9	11.4	1.10		53	2.1	9.4	2.8	0.15		48	2.0
		22.6	10.5	1.25		52	2.4	11.3	2.7	0.17		48.5	2.0
65-50-160	O	15.0	35.0	2.65	5.5	54	2.0	7.5	8.8	0.36	0.55	50	2.0
		25.0	32.0	3.35		65	2.0	12.5	8.0	0.45		60	2.0
		30.0	30.0	3.71		66	2.5	15	7.2	0.49		60	2.5
	A	14.1	30.8	2.25	4	52.5	2.0	7.0	7.8	0.32	0.55	47	2.0
		23.5	28.2	2.86		63	2.0	11.7	7.0	0.39		58	2.0
		28.2	26.4	3.16		64	2.25	14.1	6.3	0.42		58	2.25
	B	13.0	26.1	1.86	3	49.5	2.0	6.5	6.6	0.25	0.55	45.5	2.0
		21.6	23.9	2.42		58	2.0	10.8	6.0	0.32		55	2.0
		25.9	22.4	2.68		49	2.05	13.0	5.4	0.35		55	2.05
	C	12.0	22.5	1.58	3	46.8	2.0	6.0	5.7	0.22	0.55	53	2.0
		20.1	20.6	2.05		55	2.0	10.0	5.2	0.27		52	2.0
		24.1	19.3	2.30		55	2.0	12.0	4.6	0.29		52	2.0

2900r/min

1450r/m

65-40-200	O	15.0	53.0	4.42	7.5	49	2.0	7.5	13.2	0.63	1.1	43	2.0
		25.0	50.0	5.67		60	2.0	12.5	12.5	0.77		55	2.0
		30.0	47.0	6.29		61	2.0	15	11.8	0.85		57	2.0
	A	14.3	47.8	3.81	7.5	48.7	2.0	7.1	11.9	0.54	1.1	43	2.0
		23.8	45.1	4.91		59.5	2.0	11.9	11.3	0.66		55	2.0
		28.5	42.4	5.44		60.5	2.3	14.3	10.7	0.73		57	2.3
	B	13.5	42.9	3.27	5.5	48.3	2.0	6.8	10.7	0.46	0.75	43	2.0
		22.5	40.5	4.21		59	2.0	11.3	10.1	0.56		55	2.0
		27.0	38.1	4.67		60	2.1	13.5	9.6	0.62		57	2.1
	C	12.8	38.3	2.77	5.5	48	2.0	6.4	9.5	0.39	0.75	42	2.0
		21.3	36.1	3.64		57.5	2.0	10.6	9.0	0.48		54	2.0
		25.5	34.0	4.00		59	2.0	12.8	8.5	0.52		57	2.0
65-40-250	O	15.0	82.0	9.05	15	37	2.0	7.5	21	1.23	2.2	35	2.0
		25.0	80.0	10.9		50	2.0	12.5	20	1.48		46	2.0
		30.0	78.0	12.0		53	2.5	15	19.4	1.65		48	2.5
	A	14.0	72.0	7.55	11	36.5	2.0	7.0	18.4	1.01	1.5	35	2.0
		23.4	70.2	9.14		49	2.0	11.7	17.6	1.25		44.8	2.0
		28.1	68.5	10.0		52.4	2.26	14.1	17.0	1.39		47	2.26
	B	13.1	62.7	6.21	11	36	2.0	6.6	16.0	0.82	1.5	34.8	2.0
		21.9	61.1	7.64		47.6	2.0	10.9	15.3	1.04		43.8	2.0
		26.2	59.6	8.34		51	2.07	13.1	14.8	1.15		46.2	2.07
	C	12.3	55.0	5.18	11	35.5	2.0	6.1	14.1	0.68	1.1	34.5	2.0
		20.5	53.7	6.46		46.3	2.0	10.2	13.4	0.87		43	2.0
		24.6	52.3	7.04		49.7	2.0	12.3	13.0	0.97		45	2.0

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
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Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

65-40-315	O	15	127	18.5		28	2.5	7.5	32.3	2.63		25	2.5
		25	125	21.3	30	50	2.5	12.5	32.0	2.94	4	37	2.5
		30	123	22.8		44	3.0	15	31.7	3.16		41	3.0
	A	14	111	15.0		28	2.5	7.6	28.1	2.15		25	2.5
		23.3	109	17.5	22	39.5	2.5	11.7	27.9	2.42	3	36.6	2.5
		28.0	107	18.8		43.5	2.75	14.0	27.6	2.58		40.8	2.75
	B	13.1	97.5	12.5		28	2.5	6.6	24.8	1.78		25	2.5
		21.9	96.0	14.7	18.5	39	2.5	11.0	24.6	2.02	3	36.3	2.5
		26.3	94.4	15.7		43	2.56	13.1	24.3	2.15		40.6	2.56
	C	12.1	83.2	9.83		28	2.5	6.1	21.2	1.41		25	2.5
		20.2	81.9	11.7	15	38.5	2.5	10.1	21.0	1.61	2.2	36	2.5
		24.3	80.6	12.5		42.5	2.5	12.1	20.8	1.70		40.4	2.5
80-65-125	O	30	22.5	2.87		64	3.0	15	5.6	0.42		55	2.5
		50	20	3.63	5.5	75	3.0	25	5.0	0.48	0.75	71	2.5
		60	18	3.98		74	3.5	30	4.5	0.51		72	3.0
	A	28.7	20.6	2.56		63	3.0	14.4	5.1	0.37		54.5	2.5
		47.9	18.3	3.27	4	73	3.0	23.9	4.6	0.43	0.75	70	2.5
		57.4	16.5	3.56		72.5	3.3	28.7	4.1	0.45		71	2.8
	B	26.1	17.1	2.01		60.5	3.0	13.1	4.3	0.29		53	2.5
		43.6	15.2	2.59	4	69.5	3.0	21.8	3.8	0.34	0.55	66	2.5
		52.3	13.7	2.84		68.5	3.1	26.1	3.4	0.36		67	2.55
	C	23.1	13.4	1.45		58	3.0	11.6	3.3	0.21		51	2.5
		38.6	11.9	1.91	3	65.5	3.0	19.3	3.0	0.25	0.55	62	2.5
		46.3	10.7	2.09		64.5	3.0	23.1	2.7	0.27		63	2.5

2900r/min

1450r/m

80-65-160	O	30	36	4.82		61	2.5	15	9	0.67		55	2.5
		50	32	5.97	7.5	73	2.5	25	8	0.79	1.5	69	2.5
		60	29	6.59		72	3.0	30	7.2	0.86		68	3.0
	A	28.2	31.7	4.05		60	2.5	14.1	7.9	0.57		53.5	2.5
		46.9	28.2	5.07	7.5	71	2.5	23.5	7.0	0.68	1.1	66.5	2.5
		56.3	25.5	5.59		70	2.8	28.2	6.3	0.74		66.5	3.0
	B	25.9	26.9	3.21		59	2.5	13.0	6.7	0.47		51	2.5
		43.2	23.9	4.20	5.5	67	2.5	21.6	6.0	0.56	0.75	63	2.5
		51.9	21.7	4.63		76	2.5	25.9	5.4	0.61		62	2.6
	C	24.1	23.0	2.67		67	2.5	12.0	5.8	0.40		48	2.5
		40.1	20.6	3.52	5.5	64	2.5	20.1	5.2	0.47	0.75	60	2.5
		48.2	18.7	3.89		63	2.5	24.1	4.6	0.52		59	2.5
80-50-200	O	30	53	7.87		55	2.5	15	13.2	1.06		51	2.5
		50	50	9.87	15	69	2.5	25	12.5	1.31	2.2	65	2.5
		60	47	10.8		71	3.0	30	11.8	1.44		67	3.0
	A	28.0	46.0	6.42		54.5	2.5	14.0	11.5	0.86		50.6	2.5
		46.6	43.4	8.21	11	67	2.5	23.3	10.9	1.09	1.5	63	2.5
		55.6	40.8	8.93		69.5	2.7	27.9	10.2	1.2		65	2.7
	B	25.6	38.6	5.02		53.5	2.5	12.8	9.6	0.68		49.4	2.5
		42.7	36.4	6.40	11	66	2.5	21.3	9.1	0.86	1.1	61.5	2.5
		51.2	34.2	6.96		68.5	2.53	25.6	8.6	0.96		62.5	2.53
	C	23.5	32.6	3.98		52.5	2.5	11.8	8.1	0.54		48	2.5
		39.2	30.8	5.09	7.5	64.5	2.5	19.6	7.7	0.68	1.1	60.5	2.5
		47.1	28.9	5.45		68	2.5	23.5	7.3	0.76		61.5	2.5

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

80-50-250	O	30	84	13.2		52	2.5	15	21	1.75		49	2.5
		50	80	17.3	22	63	2.5	25	20	2.27	3	60	2.5
		60	75	19.2		64	3.0	30	18.8	2.52		61	3.0
	A	28.3	74.9	11.0		52.3	2.5	14.2	18.7	1.47		49	2.5
		47.2	71.3	14.6	22	62.6	2.5	23.6	17.8	1.95	3	58.7	2.5
		56.6	66.8	16.1		64	2.8	28.3	16.8	2.16		59.7	2.8
	B	26.6	66.2	9.1		52.7	2.5	13.3	16.6	1.23		49	2.5
		44.4	63.1	12.3	18.5	62.2	2.5	22.2	15.8	1.46	2.2	58	2.5
		53.3	59.1	13.4		64	2.6	26.6	14.8	1.81		59.5	2.6
	C	23.8	52.7	6.43		53	2.5	11.9	13.2	0.87		49	2.5
		39.6	50.2	8.90	15	60.8	2.5	19.8	12.6	1.19	2.2	57	2.5
		47.5	47.0	9.59		63.5	3.0	23.8	11.8	1.29		59	2.5
80-50-315	O	30	128	25.5		41	2.5	15	32.5	3.4		39	2.5
		50	125	31.5	37	54	2.5	25	32	4.19	5.5	52	2.5
		60	123	35.3		57	2.5	30	31.5	4.6		56	3.0
	A	28.0	112	20.7		41	2.5	14.0	28.8	2.77		39	2.5
		46.7	109	25.9	37	53.5	2.5	23.3	27.9	3.43	5.5	51.7	2.5
		56.0	107	28.8		56.7	2.7	28.0	27.4	3.75		55.8	2.7
	B	26.3	98.3	17.2		41	2.5	13.1	25.0	2.29		39	2.5
		43.8	96.0	21.6	30	53	2.5	21.9	24.6	2.85	4	51.4	2.5
		52.6	94.4	24.0		56.3	2.63	26.3	24.2	3.11		55.6	2.63
	C	24.3	83.9	13.5		41	2.5	12.1	21.3	1.81		39	2.5
		40.5	81.9	17.2	22	52.5	2.5	20.2	21.0	2.26	4	51.1	2.5
		48.6	80.6	19.0		56	2.5	24.3	20.6	2.46		55.4	2.5

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

100-80-125	O	60	24	5.86		67	4.0	30	6.5	0.77		64	2.5
		100	20	7.0	11	78	4.5	50	5.0	0.91	1.5	75	2.5
		120	16.5	7.28		74	5.0	60	4.7	0.92		71	3.0
	A	56.6	21.3	5.17		63.5	4.0	28.3	5.3	0.67		61	2.5
		94.2	17.8	6.25	7.5	73	4.4	47.1	4.4	0.79	1.5	72	2.5
		113	14.7	6.45		70	4.8	56.6	3.6	0.83		66	2.8
	B	53.5	19.1	4.64		60	4.0	26.8	4.8	0.61		57	2.5
		89.2	15.9	5.52	7.5	70	4.3	44.6	4.0	0.73	1.1	66	2.5
		107	13.1	5.89		65	4.65	53.5	3.2	0.73		64	2.6
	C	47.9	15.0	3.57		54.5	4.0	23.7	3.8	0.51		48	2.5
		79.1	12.5	4.22	5.5	64	4.2	39.6	3.1	0.55	0.75	61	2.5
		95.0	10.3	4.28		62.5	4.4	47.5	2.5	0.55		59	2.5
100-80-160	O	60	36	8.42		70	3.5	30	9.2	1.12		67	2.0
		100	32	11.2	15	78	4.0	50	8.0	1.45	2.2	75	2.5
		120	28	12.2		75	5.0	60	6.8	1.57		71	2.5
	A	56.9	32.4	7.19		69.7	3.5	28.4	8.3	0.96		66.5	2.0
		94.8	28.8	9.58	15	77.5	3.97	47.4	7.2	1.22	1.5	76	2.34
		114	25.2	10.5		74.2	4.5	56.9	6.1	1.35		70	2.6
	B	53.4	28.5	5.99		69.3	3.5	26.7	7.3	0.8		66	2.0
		89.0	25.4	8.02	11	76.6	3.77	44.5	6.3	1.05	1.5	73.3	2.25
		107	22.2	8.75		73.8	4.1	53.4	5.4	1.14		69	2.9
	C	506	25.6	5.12		69	3.5	25.3	6.6	0.69		65.5	2.0
		84.4	22.2	6.89	11	76	3.65	42.2	5.7	0.9	1.1	73	2.17
		101	19.9	7.48		73.5	3.93	50.6	4.8	0.97		68.5	2.4

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

100-65-200	O	60	54	13.6		65	3.0	30	13.5	1.84		60	2.0
		100	50	17.9	22	76	3.6	50	12.5	2.33	3	73	2.0
		120	47	19.9		77	4.8	60	11.8	2.61		74	2.5
	A	56.4	47.8	11.3		65	3.0	28.2	11.9	1.53		60	2.0
		94.1	44.2	14.8	18.5	76.5	3.45	47.0	11.1	1.95	3	72.7	2.0
		113	41.6	16.6		77	4.3	56.4	10.4	2.18		73.7	2.29
	B	53.5	42.9	9.6		65	3.0	26.7	10.7	1.3		60	2.0
		89.1	39.7	12.9	18.5	74.5	3.35	44.6	9.9	1.67	2.2	72.3	2.0
		107	37.3	14.3		76	3.6	53.5	9.4	1.86		73.3	2.15
	C	50.5	38.3	8.09		65	3.0	25.3	9.6	1.1		60	2.0
		84.2	35.4	11.1	15	73	3.25	42.1	8.9	1.41	2.2	72	2.0
		101	33.3	12.2		75	3.6	50.5	8.4	1.57		73	2.0
100-65-250	O	60	87	23.4		61	3.5	30	21.3	3.16		55	2.0
		100	80	30.3	37	72	3.8	50	20	4.00	5.5	68	2.0
		120	74.5	33.3		73	4.8	60	19	4.44		70	2.5
	A	56.0	75.8	19.4		59.5	3.5	28.0	18.6	2.67		53	2.0
		93.3	68.7	25.6	30	69.3	3.7	46.7	17.4	3.38	4	65.5	2.0
		112	64.9	28.1		70.5	4.35	56.0	16.6	3.72		67.8	2.25
	B	52.2	65.9	16.6		56.5	3.5	26.1	16.1	2.25		51	2.0
		87.1	60.6	21.8	30	66.1	3.6	43.5	15.2	2.9	4	62	2.0
		104	56.5	24.0		67	4.0	52.2	14.4	3.17		64.6	2.05
	C	48.5	56.8	14.1		53	3.5	24.2	13.9	1.87		49	2.0
		80.8	52.2	18.3	22	62.8	3.5	40.4	13.1	2.45	3	58.5	2.0
		96.6	48.6	20.1		67	3.75	48.5	12.4	2.7		60.6	2.0

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power					Shaft power	Motor power		

2900r/min

1450r/m

100-65-315	O	60	133	39.6		55	3.0	30	34	5.44		51	
		100	125	51.6	75	60	3.6	50	32	6.92	11	63	
		120	118	57.5		67	4.2	60	30	7.67		64	
	A	56	116	32.1		55	3.0	28	29.6	4.43		51	
		93.3	109	42.5	55	65.2	3.45	46.7	27.9	5.64	7.5	62.8	
		112	103	47.5		66	3.95	56	26.1	6.3		63.3	
	B	52.6	102	26.6		55	3.0	26.3	26.1	3.66		51	
		87.6	96	35.5	45	64.5	3.32	43.8	24.6	4.67	5.5	62.7	
		105	90.6	39.9		65	3.7	52.6	23.0	5.3		62.2	
	C	48.5	87.2	21		55	3.0	24.3	22.3	2.89		51	
		81.0	81.9	28.7	37	63	3.2	40.5	21	3.76	5.5	61.5	
		97.1	77.3	32		64	3.5	48.6	19.7	4.25		61.2	
125-80-160	Z	105	42.8	16.9		72		52.3	10.7	2.21		69	
		174	38	22.6	30	80	5.6	87.2	9.5	2.93	4	77	2.5
		209	33.3	24.6		77		105	8.31	3.2		74	
	O	96	36	13.1		72		48	9	1.71		69	
		160	32	17.5	22	80	5.6	80	8	2.26	3	77	2.5
		192	28	19		77		96	7	2.47		74	
	A	89.8	31.5	11		70		44.9	7.9	1.44		67	
		150	28	14.7	18.5	78	5.6	74.8	7	1.9	2.2	75	2.5
		180	24.5	16		75		89.8	6.1	2.08		72	
	B	83.1	27	8.99		68		41.6	6.8	1.18		65	
		139	24	11.9	15	76	5.6	69.3	6	1.55	2.2	75	2.5
		166	21	13		73		83.1	5.3	1.7		70	

Model	Impeller nut	Capacity m³/h	Lift m	Power			NPSH	Capacity m³/h	Lift m	Power			NPSH
				Shaft power	Motor power	Efficiency %				Shaft power	Motor power	Efficiency %	

Model	Impeller nut	Capacity m³/h	Lift m	Power			NPSH	Capacity m³/h	Lift m	Power			NPSH
				Shaft power	Motor power	Efficiency %				Shaft power	Motor power	Efficiency %	

2900r/min

1450r/m

125-80-200	Z	105	66	28.6		66		52.6	16.5	3.75		63	
		175	60	35.8	45	80	5.2	87.6	15	465	5.5	77	2.5
		210	55.2	40.5		78		105	13.8	5.27		75	
	O	96	55	21.8		66		48	13.6	2.85		63	
		160	50	27.2	37	80	5.2	80	12.5	3.54	5.5	77	2.5
		192	46	30.8		78		96	11.5	4.0		75	
	A	90.1	48.4	18.3		64		45	12.1	2.39		62	
		150	44	22.8	30	78	5.2	75.1	11	2.96	4	76	2.5
		180	40.5	25.8		76		90.1	10.1	3.35		74	
	B	83.6	41.8	14.9		64		41.9	10.5	1.95		61	
		139	38	18.5	22	78	5.2	69.7	9.5	2.41	3	75	2.5
		167	35.0	21.0		76		83.7	8.7	2.73		73	
125-80-250(I)	Z	103	100	43.2		65		51.5	25	5.66		62	
		172	92	55.8	75	77	4.8	85.8	23	1.26	11	74	2.2
		206	84	63.9		74		102	21.3	8.40		71	
	O	96	87	35		65		48	21.8	4.59		62	
		160	80	45.3	55	77	4.8	80	20	5.89	7.5	74	2.2
		192	73	51.6		74		96	18.3	6.72		71	
	A	89.8	76.1	29.1		64		44.9	19	3.81		61	
		150	70	37.5	45	76	4.8	74.8	17.5	4.89	5.5	73	2.2
		180	63.9	42.8		73		89.8	16	5.58		70	
	B	83.1	65.3	23.5		63		41.6	16.3	3.08		60	
		139	60	30.2	37	75	4.8	69.3	15	3.93	5.5	72	2.2
		166	54.8	34.4		72		83.1	13.7	4.49		69	

2900r/min

1450r/m

125-80-315(I)	Z	100	145	68.0		58		49.5	35.6	8.72		55	
		167	136	84.7	110	73	4.5	82.5	34	10.9	15	70	2.1
		200	129	96.7		73		99.0	31.9	12.3		70	
	O	96	133	60.0		58		48	33.8	7.96		55	
		160	125	74.6	90	73	4.5	80	32	9.96	15	70	2.1
		192	119	85.2		73		96	30	11.2		70	
	A	91.7	121	53.1		57		45.3	29.8	6.82		54	
		153	114	65.9	90	72	4.5	75.5	28.5	8.49	11	69	2.1
		183	109	75.3		72		90.6	26.7	9.55		69	
	B	87.1	110	46.4		56		43.1	27.0	5.97		53	
		145	103	57.4	75	71	4.5	71.1	25.8	7.40	11	68	2.1
		174	98.1	65.6		71		86.8	24.1	8.33		68	
C	82.4	97.9	39.9		55		40.7	24.1	5.13		52		
	137	92	49.1	75	70	4.5	67.8	23	6.34	7.5	67	2.1	
	165	87.6	56.1		70		81.4	21.6	7.13		67		
125-80-315(II)	O	120	133	72.1		60.0	5.0	60	33.5	9.4		58	2.5
		200	125	90.8	110	75	4.5	100	32	11.9	15	73	2.5
		240	120	102		77	5.0	120	30.5	13.5		74	3.0
	A	112	116	60.4		59	4.9	56.2	29.4	8.04		56	2.5
		187	110	76.4	90	73.3	4.7	73.7	28.1	10.0	15	71.5	2.5
		225	105	85.9		75.1	4.4	112	26.8	11.3		72.5	2.8
	B	104	100	49.3		58	4.3	52.2	25.4	6.96		54	2.5
		174	94.8	63.5	75	70.8	4.5	87.7	24.3	8.23	11	69.5	2.5
		209	91.0	70.8		73.1	4.0	104	23.1	9.33		70.5	2.6
	C	96.5	85.7	39.5		57	4.0	48.3	21.7	5.38		53	2.5
		161	80.9	51.8	75	68.4	4.2	80.4	20.7	6.67	11	67	2.5
		193	77.7	57.3		71.3	4.4	96.5	19.7	7.63		68	2.5

Model	Impeller nut	Capacity m³/h	Lift m	Power			NPSH	Capacity m³/h	Lift m	Power			NPSH
				Shaft power	Motor power	Efficiency %				Shaft power	Motor power	Efficiency %	

2900r/min

1450r/m

125-100-200(II)	O	120	57.5	28.0		67	4.5	60	14.5	3.83		62	2.5
		200	50	33.6	45	81	4.5	100	12.5	4.48	5.5	76	2.5
		240	44.5	36.4		80	5.0	120	11.0	4.79		75	3.0
	A	111	49.3	23.1		64.5	4.5	55.6	12.4	3.08		61	2.5
		185	42.9	27.7	37	78	4.5	92.6	10.7	3.68	5.5	73.5	2.5
		222	38.2	30.0		77	4.7	111	9.4	3.9		73	2.75
	B	103	42.6	19.2		62.5	4.5	51.7	10.8	2.61		58	2.5
		172	37.1	23.2	30	75	4.5	86.1	9.3	3.11	4	70	2.5
		207	33.0	25.1		74	4.55	103	8.2	3.33		69	2.55
C	94.4	35.6	15.3		60	4.5	47.2	9.0	2.10		55	2.5	
	157	31.0	18.7	30	71	4.5	78.7	7.7	2.51	3	66	2.5	
	189	27.9	20.3		70	4.5	94.4	6.8	2.66		66	2.5	
125-100-250(II)	O	120	87	43.0		66	3.8	60	21.5	5.59		63	2.5
		200	80	55.9	75	78	4.2	100	20	7.17	11	76	2.5
		240	72	62.8		75	5.0	120	18.5	7.84		77	3.0
	A	112	75.8	35.0		66	3.8	56	18.7	4.53		63	2.5
		187	69.7	45.3	55	78.2	4.08	93.3	17.4	5.83	7.5	76	2.5
		224	62.7	52.1		73.5	4.6	112	16.1	6.38		77	2.7
	B	104	65.6	28.4		66	3.8	52.2	16.3	3.68		63	2.5
		174	60.6	36.9	45	78	4.0	87.1	15.2	4.76	7.5	75.5	2.5
		209	54.6	42.5		73	4.4	104	14.0	5.19		76.8	2.53
C	96.9	54.8	22.7		66	3.8	48.5	14.0	2.94		63	2.5	
	162	52.2	29.5	37	77.8	3.9	80.8	13.1	3.82	5.5	75.2	2.5	
	194	47	34.0		73	4.15	96.9	12.1	4.17		76.5	2.5	

Model	Impeller nut	Capacity m³/h	Lift m	Power			NPSH	Capacity m³/h	Lift m	Power			NPSH
				Shaft power	Motor power	Efficiency %				Shaft power	Motor power	Efficiency %	

2900r/min

1450r/m

125-100-315(II)	O	120	133	72.1		60	5.0						
		200	125	90.8	110	75	4.5						
		240	120	102		77	5.0						
	A	112	116	60.4		59	4.9						
		187	110	76.4	90	73.3	4.7						
		225	105	85.9		75.1	4.4						
	B	104	100	49.3		58	4.3						
		174	94.8	63.5	75	70.8	4.5						
		209	91.0	70.8		73.1	4.0						
C	96.5	85.7	39.5		57	4.0							
	161	80.9	51.8	75	68.4	4.2							
	193	77.7	57.3		71.3	4.43							
400(I)	Z	52.6	63.6	17.7		51							
		87.6	60	22.7	30	63	2.0						
		105	55.2	25.1		63							
	O	48	53	13.6		51							
		80	50	17.3	22	63	2.0						
		96	46	19.1		63							
	A	45.0	46.6	11.4		50							
		75.1	44	14.5	18.5	62	2.0						
		90.1	40.5	16.0		62							
B	41.9	40.3	9.4		49								
	69.7	38	11.8	15	61	2.0							
	83.7	35.0	13.1		61								
125-100-400(II)	O	60	52	16.1		53	2.5						
		100	50	21.0	30	65	2.5						
		120	48.5	23.6		67	3.0						
	A	56.4	45.9	13.3		53	2.5						
		93.9	44.1	17.4	22	65	2.5						
		113	42.8	19.7		66.8	2.75						
	B	52.3	39.4	10.6		53	2.5						
		87.1	37.9	13.9	18.5	64.7	2.5						
		105	36.8	15.7		66.5	2.6						
C	48.6	34.1	8.5		53	2.5							
	81.0	32.8	11.2	15	64.4	2.5							
	97.2	31.8	12.7		66.2	2.5							

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power		

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power		

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power		

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power		

1450r/m

1450r/m

1450r/m

1450r/m

150-125 -250	O	120	23.2	10.7		71	3.0
		200	20	13.5	18.5	81	3.0
		240	17.0	14.3		78	3.5
	A	112	20.2	9.0		68.5	3.0
		187	17.4	11.5	15	77	3.0
		224	14.8	12.0		75	3.2
	B	103	16.9	7.3		64.5	3.0
		171	14.6	9.1	11	75	3.0
		205	12.4	9.8		71	3.05
	C	95.4	14.7	6.2		61.5	3.0
		159	12.6	7.7	11	71	3.0
		191	10.7	8.2		68	3.0
150-125 -400	O	120	53	27.9		62	2.0
		200	50	36.3	45	75	2.8
		240	46	40.6		74	3.5
	A	112	46.1	22.6		62	2.0
		186	43.5	29.4	37	74.5	2.65
		224	40.1	32.9		73	3.2
	B	105	40.3	18.5		62	2.0
		174	38.0	24.4	30	74	2.5
		209	35.0	27.5		72.4	2.95
	C	96	34.3	14.5		62	2.0
		161	32.3	19.4	30	72.8	2.35
		193	29.7	21.9		71.5	2.7

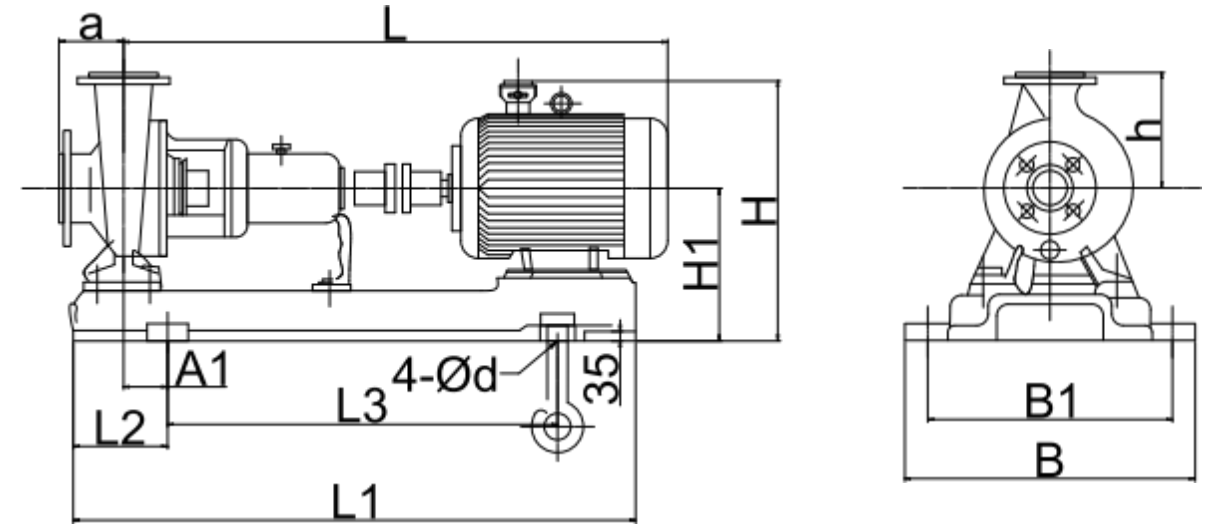
150-125 -315	O	120	34	15.9		70	2.5
		200	32	22.1	30	79	2.5
		240	29	23.7		80	3.0
	A	112	29.6	13.0		69	2.5
		186	22.8	18.0	22	78.7	2.5
		224	25.2	19.4		79	2.7
	B	104	25.6	10.7		68	2.5
		174	24.1	14.7	18.5	77.7	2.5
		208	21.8	15.9		78	2.55
	C	96.4	21.7	8.6		77	2.5
		161	20.6	11.8	15	76.7	2.5
		193	18.7	12.7		77.2	2.5
200-150 -250	O	240	25	23.7		69	3.0
		400	22	29.1	37	82.5	3.5
		460	20	30.6		82	4.0
	A	223	21.5	19.5		67	3.0
		371	18.9	23.9	30	80	3.4
		427	17.2	25.2		79.5	3.7
	B	207	18.6	16.0		65.4	3.0
		345	16.4	19.8	30	77.5	3.3
		397	14.9	20.9		77	3.5
	C	190	15.7	12.7		64.4	3.0
		317	13.8	16.2	22	74	3.2
		365	12.6	17.0		73.5	3.35

200-150 -315	O	240	37	34.6		70	3.0
		400	32	42.5	55	82	3.5
		460	28.5	44.6		80	4.0
	A	219	30.9	27.2		68	3.0
		369	26.7	35.0	45	76.2	3.35
		420	23.8	36.4		75	3.6
	B	198	25.2	22.1		61.5	3.0
		330	21.8	28.3	37	69.3	3.2
		380	19.4	29.1		69	3.4
	C	182	21.2	18.1		58	3.0
		303	18.3	23.6	30	64	3.1
		348	16.3	24.9		62	3.25
Z	380	41	59.7		71		
	630	38	77.1	110	84.5	5.5	
	760	35	86.2		84		
250-200- 315	O	380	35.5	51.7		71	
		630	32	6	90	84.5	5.5
		760	29	71.4		84	
	A	360	31.6	44.6		69.5	
		590	28.5	55.1	75	83	5.4
		720	25.8	61.3		82.5	
	B	340	27.7	37.4		68.5	
		560	25	46.5	75	82	5.3
		670	22.6	50.6		81.5	

200-150 -400	O	240	55	48.6		74	3.0
		400	50	67.2	90	81	3.8
		460	45	74.2		76	4.5
	A	224	47.7	39.8		73	3.0
		373	43.4	55.2	75	79.8	3.6
		429	39.1	62.0		73.5	4.1
	B	209	41.7	33.0		72	3.0
		348	37.9	45.8	55	78.6	3.4
		401	34.1	51.7		72	3.8
	C	194	36.1	26.9		71	3.0
		324	32.8	37.6	45	77	3.25
		373	29.5	42.5		70.5	3.9
Z	380	56.3	82.0		71		
	630	54.5	110	160	84.5	5.5	
	760	51.5	129		82.5		
250-200- 400	O	380	52	75.8		71	
		630	50	102	132	84.5	5.5
		760	46.7	117		82.5	
	A	360	46.8	66		70	
		600	45	88.6	110	83	5.4
		720	42	102		81	
	B	340	41.6	56.2		68.5	
		560	40	74.4	90	82	5.3
		680	37.4	86.5		80	
	C	720	36.4	47		67.5	
		530	35	62.3	75	81	5.1
		640	32.7	72.1		32.7	

Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH	Model	Impeller nut	Capacity m³/h	Lift m	Power		Efficiency %	NPSH
				Shaft power	Motor power							Shaft power	Motor power		
1450r/m								1450r/m							
300-250-315	Z	600	43.8	99.4		72		Z	600	66.5	149		73		7.5
		1000	37.5	119	160	86			1000	65	206	250	86		
		1200	34	129		86			1200	62	241		84		
	O	600	38	86.2		72		O	600	53.5	120		73		7.5
		1000	32	101	132	86			1000	50	158.3	200	86		
		1200	28	108		85			1200	47.2	184		84		
	A	570	33.8	74.4		70.5		A	570	48	105		71		7.3
		940	28.5	86.8	110	84			950	45	139	200	84		
		1130	24.8	91.4		83.5			1140	42.5	161		82		
	B	530	29.7	61.7		69.5		B	540	42.8	89.2		70.5		7.1
		880	25	72.2	90	83			890	40	116	160	83.5		
		1060	21.9	76.6		82.5			1070	37.7	136		81		
350-300-315	O	960	38.4	130		77		O	960	56.5	192		77		7.2
		1600	32	164	200	85			1600	50	250	280	87		
		1920	26.5	169		82			1920	44	274		84		
	A	910	34.2	113		75		A	910	50.8	167		75.5		6.8
		1510	28.5	141	160	83			1520	45	218	250	85.5		
		1810	23.6	145		80			1820	39.5	237		82.5		
	B	850	30	93.8		74		B	860	45.2	141		75		6.5
		1410	25	118	132	81.5			1430	40	184	250	84.5		
		1700	20.5	120		79			1720	35.2	202		81.5		
	C	800	39.5	116		74		C	800	39.5	116		74		6.4
		1340	35	153	200	83.5			1340	35	153	200	83.5		
		1610	30.8	168		80.5			1610	30.8	168		80.5		

ISW pump installation size chart



Y series motor and YB explosion-proof series motor

Pump	electric engine		A1	L1	L2	L3	H1	B1	B	b	a	h	L		total mass KG	
	Model	Power KW											Y	YB	Y	YB
50-32-125	90L-2	2.5	90	755	170	480		350	400				800	850	95	107
	90S-2	1.5		730			200			16			755	805	90	100
	802-2	1.1	70	705	150	440		320	370		80	140	750	795	82	90
	801-4	0.55	70	705	150	440	200	320	370	16			750	795	83	90
50-32-160	100L-2	3		780			365						845	895	113	125
	90L-2	2.2	90	755	170	480		350	400	16			800	850	105	117
	90S-2	1.5		755			320				80	160	775	825	102	110
	801-4	0.55	70	705	150	440	310	320	370	16			750	795	92	98
50-32-200	132S1-2	5.5	110	830	190	540		400	450				940	975	152	165
	112M-2	4	90	790	170	480		350	400				865	625	131	140
	802-4	0.75					250	320	370	16	80	180	750	795	97	102
	801-4	0.55	70	705	150	440	250	320	370	16			750	795	96	103
50-32-250	160M1-2	11	130	1125	220	660		490	540				1200	1225	256	274
	132S2-2	7.5					270			16					205	219
	132S1-2	5.5	115	1005	205	600		440	490				1075	1110	199	212
	90L-4	1.5	95	885	185	540		400	450	16	100	225	935	985	158	168
60S-4	1.1											910	960	153	164	

Pump	electric engine		A1	L1	L2	L3	H1	B1	B	b	■	h	L		total mass KG		
	Model	Power KW											Y	YB	Y	YB	
65-50-125	100L-2	3	90	780	170	480	345	350	400	16		80	140	845	895	113	125
	90L-2	2.2		755			300							800	850	103	115
	801-4	0.55	70	705	150	440	290	320	370	16				750	795	91	97
65-50-160	132S1-2	5.5	110	830	190	540		400	450					940	978	148	183
	112M-2	4	90	790	170	480	220	350	400	16				865	925	130	138
	100L-2	3		780							80	160		845	895	117	129
	802-4	0.75	70	705	170	440	220	320	370	16				750	795	96	101
65-40-200	801-4	0.55															
	132S2-2	7.5	110	830	185	540	250	400	450	16				1075	1110	170	184
	132S1-2	5.5									100	180				164	177
	90S-4	1.1	90	755	170	480	250	350	400	16				910	960	119	130
65-40-250	802-4	0.75	90	715	165									885	930	111	116
	160M2-2	15	130	1125	220	660	270	490	540	16				1200	1255	278	303
	160M1-2	11									100	225				270	288
	100L1-4	2.2	95	910	185	540	270	400	450	16				980	1030	178	189
65-40-250	90L-4	1.5		885										935	980	170	180

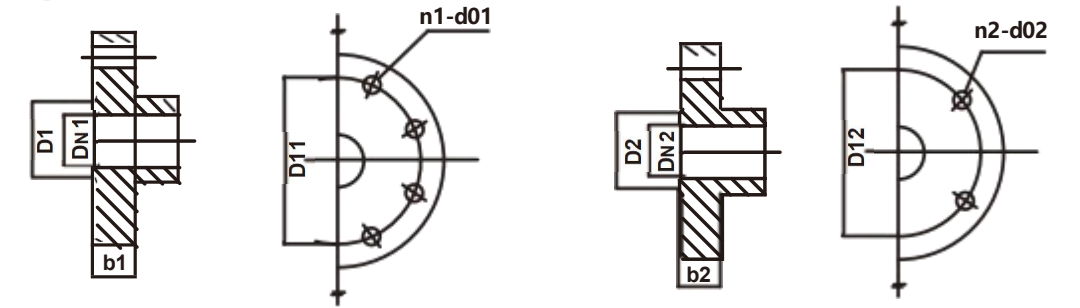
Pump	electric engine		A1	L1	L2	L3	H1	B1	B	d	n	h	L		total masskg		
	Model	KW											Y	YB	Y	YB	
65-40-315	200 L1-2	30	155	1200	245			550	600					1406	1430	417	441
	180 M-2	22		1135		740				20				1295	1355	365	370
	160L-2	18.5	130	1125	220	660	290	490	540	16	125	250		1270	1325	320	343
	160M2-2	15												1225	1280	198	326
	112M-4	4	115	915	200	600		440	490	16				1205	1265	212	217
80-65-125	100L2-4	3												1005	1055	205	214
	132S1-2	5.5	110	830	190	540		400	450					960	995	138	151
	112M-2	4	90	790	170	480	220	350	400					885	945	124	132
	100L-2	3		780							16	100	160	865	915	124	149
	802-4	0.75	70	705	150	440	220	320	370					770	815	84	89
80-65-160	801-2	0.55														83	88
	132S2-4	7.5	110	830	185	540	250	400	450					960	995	155	169
	132S1-2	5.5														149	162
	90L-4	1.5	90	755	170	480	250	350	400	16	100	180		820	870	108	118
80-65-160	90S-4	1.1												790	840	105	116
	802-4	0.75		715	165									770	815	95	100

Pump	electric engine		A1	L1	L2	L3	H1	B1	B	d	n	h	L		total mass KG		
	Model	Power KW											Y	YB	Y	YB	
80-50-200	160M-2	15	130	955	210	600		440	490					1085	1140	230	256
	160M-2	11					250									222	240
	132S-2	7.5	110	830	185	540		400	450					960	955	160	174
	100L1-4	2.1	90	780	170	480	250	350	400	16	100	200		865	915	120	130
80-50-200	90L-4	1.5		755										820	870	114	124
	90S-4	1.1												795	845	106	120
	180M-2	22		1135						20				1270	1330	335	370
	160L-2	18.5	130	3010	220	560		490	540	16	125	225		1245	1300	305	328
80-50-250	160M2-2	15					270							1200	1255	270	330
	100L2-4	3	95	910	185	540		400	450	16				980	1030	175	184
	100L1-4	2.2														171	182
	200L2-2	37	115	1200	245	740	315	550	640	20				590	620	430	465
80-50-315	200L1-2	30														416	440
	180M-2	22	130	1135	220	660		490	540	16	125	280		505	595	363	398
	132S-4	5.5	115	1005	205	600	315	440	490	16				500	535	235	247
	112M-2	4		915	200									470	530	207	215
100-80-125	160M1-2	11	115	955	205	600		440	490					1085	1410	210	228
	132S2-2	7.5	95	850	185	540	250	400	450	16	100	180		960	995	157	171
	132S1-2	5.5														151	164
	90L-4	1.5	75	765	165	480		350	480					820	875	111	121
	90S-4	1.1												795	845	106	117
100-80-160	160M2-2	15	130	1075	220	660		490	540	16	100	200		1200	1255	250	276
	160M1-2	11					250									242	260
100-80-160	100L1-4	2.2	95	910	185	540		400	450					980	1030	150	161
	90L-4	1.5		855										935	985	141	151
	180M-2	22		1135						20				1270	1330	335	370
	160L-2	18.8	130	1125	220	660	270	490	540					1245	1300	303	326
100-65-200	160M2-2	15												1200	1255	270	296
	112M-4	4	115	915	200	600	270	440	490	16	100	225		1000	1060	181	189
	100L2-4	3												980	1030	177	186
	100L1-4	2.2														173	184
100-65-250	200L2-2	37	140	1215	245	740	290	550	600	20				1400	1430	440	475
	200L1-2	30														425	450
	132S-4	5.5	100	1015	210	600		440	490	16	125	250		1100	1135	231	243
100-65-250	112M-4	4		940										1025	1085	203	211

ISW flange size

IS pump flange dimensions

Pump	electric engine		A1	L1	L2	L3	H1	B1	■	d	n	h	■		total mass KG							
	Model	KW											■	YB	■	YB						
125-80-250	260S-2	75	210	1505	325	940	390	670	320	20	100	280	1635	1645	875	961						
	250M-2	55		1358													840	360	660	600		
	225M-2	45		1295													295	840	335	660	600	
125-80-315	315S-2	110	210	1540	325	940	425	670	720	20	125	315	1855	1905	1290	1310						
	280M-2	90		1505													415	670	720	910	1010	
	280S-2	75		1505													415	670	720	910	1010	
125-100-200	160L-4	15	140	1180	250	740	340	550	600	20	125	280	1310	1365	400	420						
	160M-4	11		1125													250	740	340	550	600	20
	132M-4	7.5		1055													220	660	385	490	540	20
125-100-250	225M-2	45	140	1270	260	740	315	550	600	20	125	280	1440	1465	500	610						
	200L-2	37		1215													245	290	550	600	20	
	200L-2	30		1215													245	290	550	600	20	
125-100-400	132M-4	7.5	100	1015	210	600	290	440	490	16	125	280	1140	1175	227	241						
	132S-4	5.5		1015													210	600	290	440	490	16
	112M-4	4		940													210	600	290	440	490	16
125-80-400	280S-2	75	210	1505	325	940	390	670	720	20	125	315	1440	1465	500	610						
	250M-2	55		1385													295	840	360	660	600	
	225M-2	45		1395													295	840	335	660	600	
125-100-315	315S-4	110	140	1540	325	940	425	670	720	20	125	315	1855	1905	1290	1310						
	280M-2	90		1505													415	670	720	910	1010	
	280S-2	75		1505													415	670	720	910	1010	
125-100-200	160L-4	15	140	1180	250	740	340	550	600	20	125	280	1310	1365	400	422						
	160M-4	11		1125													250	740	340	550	600	20
	132M-4	7.5		1055													220	660	285	490	540	20
125-100-250	226M-2	45	140	1270	260	740	315	550	600	20	125	280	1440	1465	500	610						
	200L-2	37		1215													245	290	550	600	20	
	200L-2	30		1215													245	290	550	600	20	
125-100-400	132M-4	7.5	100	1015	210	600	290	440	490	16	125	280	1140	1175	227	241						
	132S-4	5.5		1015													210	600	290	440	490	16
	112M-4	4		940													210	600	290	440	490	16
150-125-250	280S-2	75	180	1505	325	940	390	670	720	20	140	280	1690	1700	817	923						
	250M-2	55		1385													295	840	360	660	600	
	225M-2	45		1205													295	840	335	660	600	
150-125-315	315S-2	110	210	1540	325	940	425	670	720	20	140	315	1870	1920	1290	1310						
	280M-2	90		1505													415	670	720	920	1000	
	280S-2	75		1505													415	670	720	920	1000	
150-125-400	160L-4	15	140	1180	250	740	340	550	600	20	140	355	1325	1380	410	432						
	160M-4	11		1125													220	660	340	490	540	20
	132M-4	7.5		1055													220	660	285	490	540	20
200-150-250	200L-4	30	160	1260	250	840	390	600	650	20	160	375	1440	1470	575	605						
	180L-4	22		1230													245	740	870	550	600	20
	180M-4	18.5		1180													245	740	870	550	600	20
200-150-315	200L-4	30	160	1260	250	840	390	600	650	20	160	400	1455	1485	700	730						
	180L-4	22		1230													245	740	870	550	600	20
	180M-4	18.5		1180													245	740	870	550	600	20
200-150-400	225M-4	45	160	1345	290	840	425	600	650	20	160	400	1545	1570	640	750						
	225S-4	37		1285													290	840	425	600	650	20
	200L-4	30		1285													290	840	425	600	650	20
200-150-250	225S-4	37	160	1320	200	840	390	600	650	20	160	375	1500	1525	635	740						
	200L-4	30		1285													200	840	390	600	650	20
	180L-4	22		1245													200	840	390	600	650	20
200-150-315	250M-4	55	190	1595	320	940	425	670	720	20	160	400	1750	1800	825	900						
	225M-4	45		1495													320	940	425	670	720	20
	225S-4	37		1430													320	940	425	670	720	20
200-150-400	280M-4	90	190	1665	320	940	425	670	720	20	160	450	1890	1900	1110	1243						
	280S-4	75		1555													320	940	425	670	720	20
	250S-4	55		1555													320	940	425	670	720	20



Model	Inlet flange					Outlet flange				
	DN1	D1	D11	b1	n1-d01	DN2	D2	D12	b2	N2-d02
50-32-125	50	165	125	20	4-17.5	32	140	100	18	4-17.5
50-32-160										
50-32-200										
50-32-250	65	185	145	20	4-17.5	40	150	110	18	4-17.5
65-50-125										
65-50-160										
65-40-200	80	200	160	20	8-17.5	65	185	145	20	4-17.5
65-40-250										
65-40-315										
80-65-125	80	200	160	20	8-17.5	80	200	160	20	8-17.5
80-65-160										
80-50-200										
80-50-250	100	220	180	22	8-17.5	65	185	145	20	4-17.5
80-50-315										
100-80-125										
100-80-160	125	250	210	22	8-17.5	80	200	160	20	8-17.5
100-65-200										
100-65-250										
100-65-315	125	250	210	22	8-17.5	100	220	180	22	8-17.5
125-80-200I										
125-80-250I										
125-80-315I	150	285	240	24	8-22	125	250	210	22	8-17.5
125-80-400I										
125-100-200II										
125-100-250II	150	285	240	24	8-22	125	250	210	22	8-17.5
125-100-315II										
125-80-400II										
150-125-250	200	340	295	24	12-22	150	285	240	24	8-22
150-125-315										
150-125-400										
200-150-250	200	340	295	24	12-22	150	285	240	24	8-22
200-150-315										
200-150-400										
200-150-250	200	340	295	24	12-22	150	285	240	24	8-22
200-150-315										
200-150-400										

Model	Inlet flange					Outlet flange				
	DN1	D1	D11	b1	n1-d01	DN2	D2	D12	b2	N2-d02
250-200-315	250	405	355	28	12-24	200	340	295	28	12-22
250-200-400										
300-250-315	300	460	410	28	12-26	250	405	355	30	12-24
300-250-400										
350-300-315	350	520	470	30	16-28	300	485	410	32	12-26
350-300-400										

Common Faults and Solutions

Faults and solutions

Faults	Reason	Solutions
Pump not lift water, and the pressure gauge shaking fiercely	Insufficient filling water, air in the pump, air leakage in the suction pipe and pressure gauge pipe	Filling enough water and check the pipeline to eliminate air leakage.
The vacuum gauge indicates high vacuum but pump not lift water	The bottom valve not opened or seriously blocked, the large resistance of the suction pipe large, and the water absorption height is too high	Check the flexibility of the bottom valve port, remove the blockage, try to make the suction pipeline unobstructed, and reduce the water suction height.
The outlet gauge shows normal pressure, and the pump produces little or no water	The outlet pipe has large resistance, the steering wrong, the impeller blocked, and the speed not enough	Reduce pipe resistance, check motor rotation, clear impeller blockage, increase speed
The flow rate lower than the design one	The impeller clogged, the seal ring gap too worn, and the speed not enough.	Remove the blockage, replace the sealing ring, and increase the speed to the specified one.
Too much power consuming	The packing pressure too tight, the packing space too hot, the impeller worn, and the water supply too large	Loosen the packing gland, replace the impeller, close the gate valve, and reduce the flow
Strange noise in the pump, and the pump not lift water	The resistance of the suction pipe is too large, air is sucked into the suction pipe, the suction height is too large, and the temperature of the liquid is too high	Check whether the suction pipe blocked, clean the bottom valve, reduce the suction height, and lower the liquid temperature
Pump vibration	The water pump shaft not concentric with the motor shaft, the impeller unbalanced, and the bearing clearance too large.	Adjust the motor to align with the axis of the pump. The impeller passed the balance test. The unbalanced weight requires about 3g, replace the bearing
Bearing heating	Lack of oil in the bearing or too much oil viscosity affects lubrication, severe bearing wear and excessive clearance, misalignment between the pump and the motor.	Add oil, replace oil with less viscosity, replace bearings, adjust motor and pump to ensure concentricity
Loud noise	The pump and the motor are out of concentricity, the pump or the motor is worn out, resulting in beating	Adjust the motor and pump to ensure concentricity and replace with new bearings

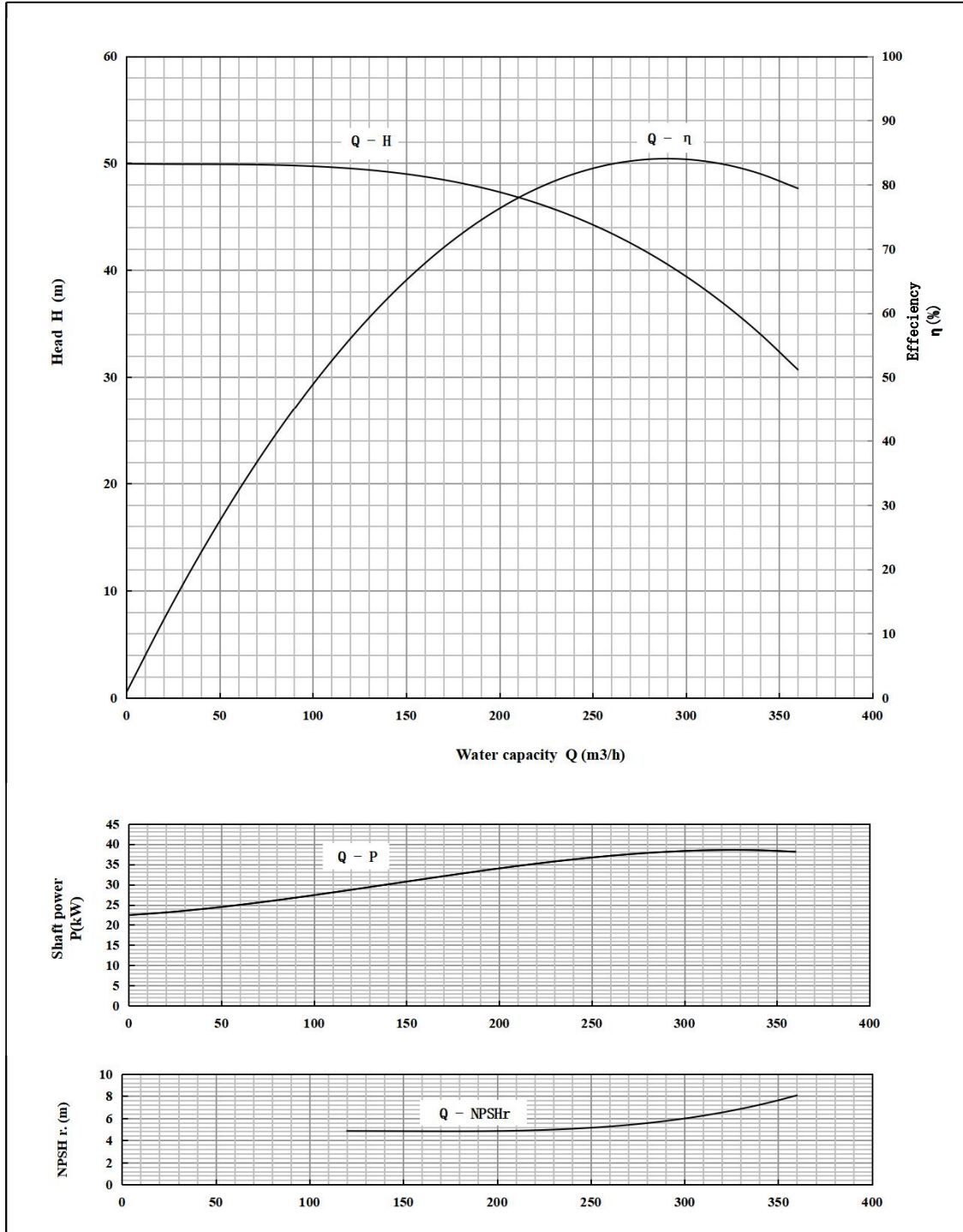
Technical Specifications

Equipment Name: Horizontal Single-Stage Double-Suction Diesel Split-Case Pump Truck			
Equipment Model: 8Sh-13			
Equipment data			
1	Transport medium: clean water	2	Medium density: 1000 kg/ m ³
3	Medium temperature: ≤80°C		
4	Media characteristics: <input type="checkbox"/> Corrosive <input type="checkbox"/> Abrasive <input type="checkbox"/> Flammable <input type="checkbox"/> Other ()		
5	Water pump structural types: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Single-stage <input type="checkbox"/> Multi-stage <input type="checkbox"/> Single-suction <input checked="" type="checkbox"/> Double-suction <input type="checkbox"/> Self-priming		
6	Transmission method: <input type="checkbox"/> Direct drive <input checked="" type="checkbox"/> Flexible coupling <input type="checkbox"/> Belt <input type="checkbox"/> Gearbox <input type="checkbox"/> Other ()		
7	Pump body support methods: <input checked="" type="checkbox"/> Foot support <input type="checkbox"/> Centerline support <input type="checkbox"/> Bracket support <input type="checkbox"/> Suspension (vertical)		
8	Shaft seal type: <input checked="" type="checkbox"/> Packing seal <input type="checkbox"/> Mechanical seal	9	Impeller type: <input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed
10	Sealed flushing: <input checked="" type="checkbox"/> Self-flushing <input type="checkbox"/> External flushing	11	Bearing cooling: <input checked="" type="checkbox"/> Air cooling <input type="checkbox"/> Water cooling <input type="checkbox"/> Air cooling
12	Bearing type: <input type="checkbox"/> Sliding <input checked="" type="checkbox"/> Rolling	13	Bearing lubrication: <input checked="" type="checkbox"/> Grease <input type="checkbox"/> Oil bath <input type="checkbox"/> Water lubrication
14	Drive type: <input type="checkbox"/> Electric motor <input checked="" type="checkbox"/> Diesel engine	15	Pump rotation direction: Viewed from the drive end <input checked="" type="checkbox"/> Clockwise <input type="checkbox"/> Counterclockwise
16	Rated flow rate: 300 m ³ /h	17	Rated head: 40 m
18	Rated speed: 2900 r/min	19	Efficiency: 84%
20	Inlet diameter: DN200	21	Outlet diameter: DN200
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 56 kW	27	Crankshaft rotation direction: Counterclockwise when viewed from the flywheel end
28	Trailer chassis: National standard square steel	29	Trailer type: Four-wheel

PERFORMANCE CURVE

Date:

Type	: Double Suction Split Pump	Model	: 8Sh-13
Capacity Q	: 300 m ³ /h	Head H	: 40 m
NPSHr	: 6 m	Effeciency η	: 84 %
Speed n	: 2900 rpm	Power N	: 56 kW/diesel engine





European Certification Services

Name and Address of Attestation Holder:

Shandong Hairui zhonglian Fluid Technology Co., Ltd.
Xishou, Yinma village, Baita Town, zibo city, shandong,
China

Name and Address of Manufacturer:

Shandong Hairui zhonglian Fluid Technology Co., Ltd.
Xishou, Yinma village, Baita Town, zibo city, shandong,
China

Brand:

N/A

Product Name:

mobile diesel engine pump

Product Model:

See Annex I

Document Number:

CE-5077-160326

Date of Issue:

16-03-2026

Expiration Date:

16-03-2031

Test Report Number:

MD-TCF-260310-83395

Test Required:

EN ISO 12100:2010

EN 60204-1:2018

EN 809:1998 +A1:2009

The product meets the technical requirement of the above standards as mentioned in the reference test reports and hence fulfils the technical requirements of the following directives.

2006/42/EC Machinery Directive

ECES confirms type which is mentioned above according to the [Annex I] Essential Health and Safety Regulations of 2006/42/EC Machinery Directive with inspection report. Manufacturer must ensure that assessment of conformity with internal checks on the manufacture of above product according to the Annex VIII of 2006/42/EC.

This document is only valid for the equipment and configuration described, in conjunction with the test data detailed above reference test reports. Document was issued on voluntary basis and does not imply meeting Notified Body conformity assessment procedure for the product.

The CE Mark, under the responsibility of the manufacturer or the importer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

Signature:

Address: İmbatlı Mahallesi
Anadolu Caddesi No: 340/38
Karşıyaka İzmir/TÜRKİYE

Web: www.eces.com.tr

E-mail: info@eces.com.tr

ECES ULUSLARARASI SERTİFİKASYON MUAYENE LABORATUVAR EĞİTİM
HİZMETLERİ SANAYİ VE TİCARET LİMİTED ŞİRKETİ





European Certification Services

Product Model:

IS200-150-400, IS100-65-200, 8SH-13, ZW150-200-20, ZW150-200-40, ZW200-280-28, ZW250-420-20, ZW300-800-20, IS300-250-315, IS300-250-400, IS100-65-315, OS150-605, OS200-670, OS250-600, IS125-100-200, IS125-100-250, IS125-100-315, IS125-80-400, IS150-125-250, IS150-125-315, IS150-125-400, IS200-150-250, IS200-150-250, IS200-150-315, ZW300-1200-20, IS250-200-315, IS250-200-400, 8SH-6, 8SH-9, 10SH-6, 10SH-9, 10SH-13, 10SH-19, 12SH-6, 12SH-9, 12SH-13, 12SH-19, 12SH-28, 14SH-6, 14SH-9, 14SH-19, 20SH-6, 20SH-9, 20SH-13, 20SH-19, 20SH-28, OS100-310, OS125-290, OS300-700

Document Number:

CE-5077-160326

Date of Issue:

16-03-2026

Expiration Date:

16-03-2031

Test Report Number:

MD-TCF-260310-83395

Test Required:

EN ISO 12100:2010
EN 60204-1:2018
EN 809:1998 +A1:2009

The product meets the technical requirement of the above standards as mentioned in the reference test reports and hence fulfils the technical requirements of the following directives.

2006/42/EC Machinery Directive

ECES confirms type which is mentioned above according to the [Annex I] Essential Health and Safety Regulations of 2006/42/EC Machinery Directive with inspection report. Manufacturer must ensure that assessment of conformity with internal checks on the manufacture of above product according to the Annex VIII of 2006/42/EC.

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Signature:

Address: İmbatlı Mahallesi
Anadolu Caddesi No: 340/38
Karşıyaka İzmir/TÜRKİYE

Web: www.eces.com.tr

E-mail: info@eces.com.tr

ECES ULUSLARARASI SERTİFİKASYON MUAYENE LABORATUVAR EĞİTİM
HİZMETLERİ SANAYİ VE TİCARET LİMİTED ŞİRKETİ





MACHINERY DIRECTIVE ATTESTATION OF CONFORMITY

Technical file of the company mentioned below has been inspected and audit has been completed successfully.

2006/42/EC Machinery Directive Annex VIII has been taken as references for these processes.

Company Name	: Zhengzhou Zhongpump Technology Co., Ltd.
Company Address	: Unit 1, Building 6, Zhongwu Science Park, Mazhai Town, Zhengzhou city, Henan, China
Manufacturer Name	: Shandong Hairui Zhonglian Fluid Technology Co., Ltd.
Manufacturer Address	: Xishou, Yinma Village, Baita Town, Zibo city, Shandong, China
Related Directives and Annex	: 2006/42/EC Machinery Directive/Annex VIII
Related Standards	: EN ISO 12100:2010, EN 60204-1:2018, EN 809:1998+A1:2009/AC:2010
Product Name	: Pumps
Report No and Date	: TCF-OY20230620-MD
Product Brand/Model/Type	: HRZL-ISW150-125-315,HRZL-D/MD280*3,HRZL-DA1-100-5,HRZL-1. ¼ GL*5,HRZL-D800G50*6,HRZL-10sh-6,HRZL-OS150-605,HRZL-350SN-60,HRZL-ISL100-160-252,HRZL-ZW/ZX100Z-100-20,HRZL-250ZJW-510,HRZL-350-ZJQ2106-36,HRZL-150ZTL200-30,HRZL-QJ200QT80-198,HRZL-QW40-15-4,HRZL-QW1360-80-30,HRZL-CZX350-20,HRZL-CZSW125-100-250,HRZL-C12SH-9,HRZL-C/D155-30*5,HRZL-C/DM200-60*10,HRZL-C/CYC200-150,HRZL-C/2JW300-650,HRZL-C/HW300-8,HRZL-TC/ZX500-15,HRZL-TC/ISW100-65-200,HRZL-12SH-19,HRZL-D450-60*2,HRZL-DM400-85*3,HRZL-250-2JW-600,HRZL-400HW-10,HRZL-250-2JW-600,HRZL-650HW-7,HRZL-350 ZLB-100,HRZL-150LYC200-150,HRZL-600QHB-70,HRZL-IH80-65-160,HRZL-CD/IS100-80-125,HRZL-CD150HW-5,HRZL-350LG,HRZL-100DBL*5

Certificate Number	: M.2023.206.C87037
Initial Assessment Date	: 29.06.2023
Registration Date	: 30.06.2023
Reissue Date/No	: -
Expiry Date	: 29.06.2028

UDEM International Certification
Auditing Training Centre Industry
and Trade Inc. Co.

The validity of the certificate can be checked through www.udem.com.tr. Upon completion of EC declaration of conformity, it is used solely at the manufacturer's responsibility. This certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 15 years from the registration of certificate. This certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s)

Address: Mutlukent Mahallesi 2073 Sokak (Eski 93 Sokak) No:10 Çankaya – Ankara – TURKEY

Phone: +90 0312 443 03 90 **Fax:** +90 0312 443 03 76

E-mail: info@udem.com.tr www.udem.com.tr



EC Declaration of Conformity

Manufacturer: **Shandong Hairui Zhonglian Fluid Technology Co., Ltd.**

Address: Xishou, Yinma Village, Baita Town, Zibo city, Shandong, China

We, Shandong Hairui Zhonglian Fluid Technology Co., Ltd., hereby declare under our sole responsibility that the products described below comply with the relevant provisions of the following directives and standards.

Applicable Standards:

- EN ISO 12100:2010
- EN 60204-1:2018
- EN 809:1998+A1:2009/AC:2010

Products Covered:

The following pump models produced by Shandong Hairui Zhonglian Fluid Technology Co., Ltd. are covered by this declaration:

HRZL-ISW150-125-315, HRZL-D/MD280*3, HRZL-DA1-100-5, HRZL-1 1/4GL*5, HRZL-D800QG50*6, HRZL-10sh-6, HRZL-OS150-605, HRZL-350SN-60, HRZL-ISH100-160-252, HRZL-ZW/ZX100Z-100-20, HRZL-250ZW-510, HRZL-350-ZJQ2106-36, HRZL-1507TL200-30, HRZL-QJ200Q780-198, HRZL-QW40-15-4, HRZL-QW1360-80-30, 14Sh-13 OA, 14Sh-13A, HRZL-CZX350-20, HRZL-CZSW125-100-250, HRZL-C12SH-9, HRZL-C/D155-30*5, HRZL-C/DM200-60*10, HRZL-C/CYC200-150, HRZL-C/2JW300-650, HRZL-C/HW300-8, HRZL-TC/ZX500-15, HRZL-TC/ISW100-65-200, IS100-65-200B, HRZL-12SH-19, 12SH-9B HRZL-D145-60*2, HRZL-DM400-85*3, HRZL-250-2JW-600, HRZL-400HW-10, HRZL-250-2JW-600, HRZL-650HW-7, HRZL-350 ZLB-100, HRZL-150LYC200-1500, HRZL-600QHB-70, HRZL-IH80-65-160, HRZL-CD/ISH100-80-125, HRZL-CD150HW-5, HRZL-350LG, HRZL-100DBL*5.

Declaration:

We hereby declare that the above-mentioned products conform to the essential requirements of the applicable directives and standards listed above.

This declaration is issued under the sole responsibility of the manufacturer.

Place and date of issue: Xishou, Yinma Village, Baita Town, Zibo city, Shandong, China,
30.06.2025

Name and function: _____

Signature: _____



Declaration

Date:10.09.2025

Shandong Hairui Zhonglian Fluid Technology Co., Ltd. provides after-sales service guarantee for SA C ombinatul Auto Nr.4.

1. The warranty period is 24 months from the date of shipment.
2. During the warranty period, any quality defects will be repaired free of charge by the seller. However, equipment failures caused by human error, natural disasters, improper use, or external factors are not covered by the warranty.
3. For products beyond the warranty period, the seller is responsible for lifetime repairs, and all costs are borne by the user. The seller provides 24/7 after-sales service and will respond (primarily providing solutions) within 2 hours of receiving a repair call.
4. For product maintenance and servicing issues, the seller is responsible for training the buyer's designated personnel and will provide technical guidance during the warranty period.
5. After product delivery, the seller will strive to cooperate with the buyer in all product-related services and strive to provide the best service possible.
6. During the pre-sales, sales, and after-sales service process, the seller will promptly respond to any questions raised by the buyer or send personnel to resolve them.

Seller: Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

Name: (Seal)

Address: Middle Section of North Outer Ring Road, Boshan District, Zibo City, Shandong Province

Tel: 0533-4684117

Bank: Bank of Communications, Boshan Branch

Account Number: 373020602018170025282



Technical Specifications

Equipment Name: Horizontal Single-Stage Single-Suction Diesel Centrifugal Pump Truck

Equipment Model: IS100-65-200B

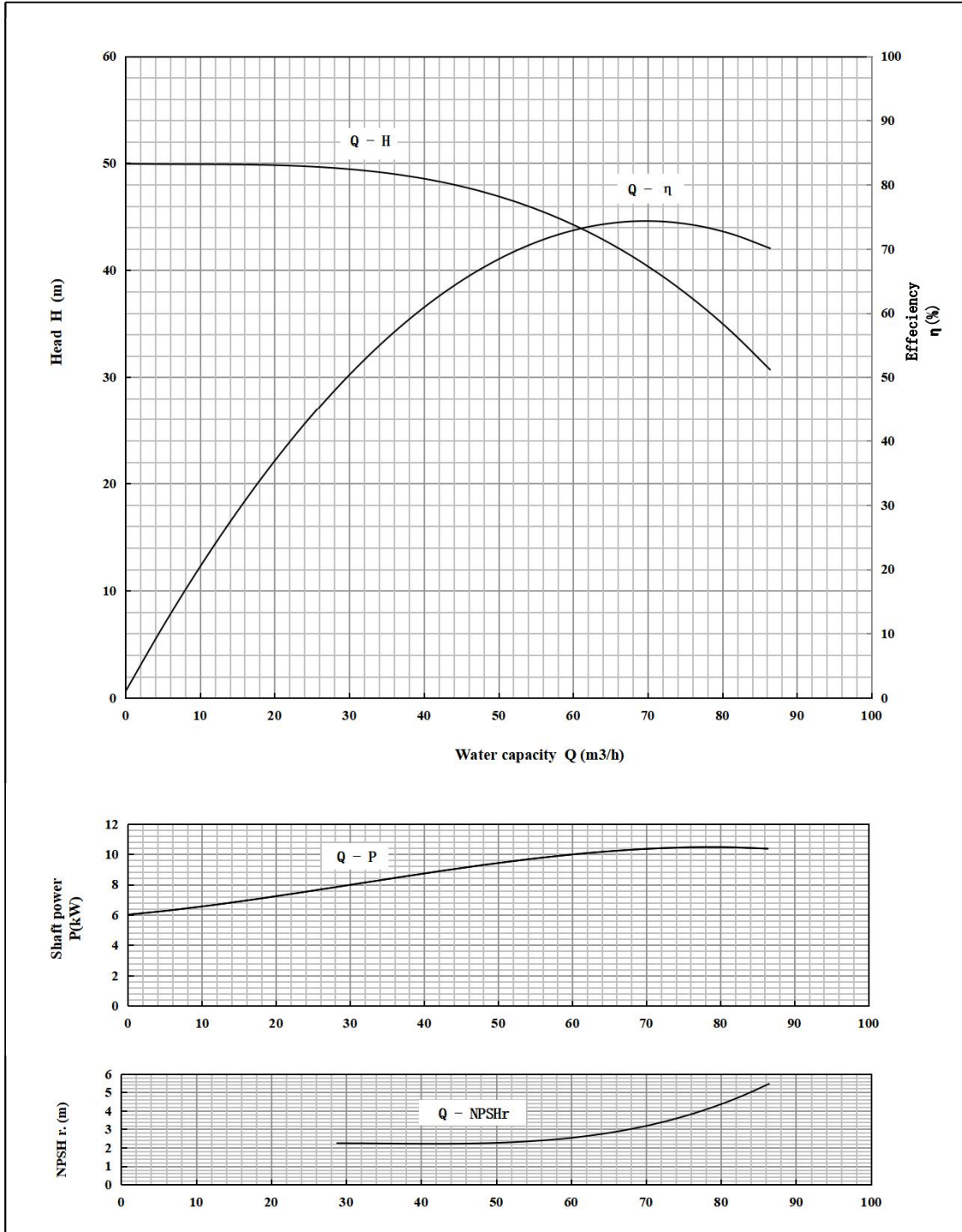
Equipment data

1	Transport medium: clean water	2	Medium density: 1000 kg/m ³
3	Medium temperature: ≤80 °C		
4	Media characteristics: <input type="checkbox"/> Corrosive <input type="checkbox"/> Abrasive <input type="checkbox"/> Flammable <input type="checkbox"/> Other ()		
5	Water pump structural types: <input type="checkbox"/> Vertical <input checked="" type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Single-stage <input type="checkbox"/> Multi-stage <input checked="" type="checkbox"/> Single-suction <input type="checkbox"/> Double-suction <input type="checkbox"/> Self-priming		
6	Transmission method: <input type="checkbox"/> Direct drive <input checked="" type="checkbox"/> Flexible coupling <input type="checkbox"/> Belt <input type="checkbox"/> Gearbox <input type="checkbox"/> Other ()		
7	Pump body support methods: <input checked="" type="checkbox"/> Foot support <input type="checkbox"/> Centerline support <input type="checkbox"/> Bracket support <input type="checkbox"/> Suspension (vertical)		
8	Shaft seal type: <input checked="" type="checkbox"/> Packing seal <input type="checkbox"/> Mechanical seal	9	Impeller type: <input type="checkbox"/> Open <input checked="" type="checkbox"/> Closed
10	Sealed flushing: <input checked="" type="checkbox"/> Self-flushing <input type="checkbox"/> External flushing	11	Bearing cooling: <input checked="" type="checkbox"/> Air cooling <input type="checkbox"/> Water cooling <input type="checkbox"/> Air cooling
12	Bearing type: <input type="checkbox"/> Sliding <input checked="" type="checkbox"/> Rolling	13	Bearing lubrication: <input type="checkbox"/> Grease <input checked="" type="checkbox"/> Oil bath <input type="checkbox"/> Water lubrication
14	Drive type: <input type="checkbox"/> Electric motor <input checked="" type="checkbox"/> Diesel engine	15	Pump rotation direction: Viewed from the drive end <input checked="" type="checkbox"/> Clockwise <input type="checkbox"/> Counterclockwise
16	Rated flow rate: 72 m ³ /h	17	Rated head: 40 m
18	Rated speed: 2900 r/min	19	Efficiency: 74.5%
20	Inlet diameter: DN100	21	Outlet diameter: DN80
22	Pump body material: cast iron	23	Impeller material: cast iron
24	Pump shaft material: 45#	25	Base material: carbon steel
26	Diesel engine power: 24 kW	27	Crankshaft rotation direction: Counterclockwise when viewed from the flywheel end
28	Trailer chassis: National standard square steel	29	Trailer type: Four-wheel

PERFORMANCE CURVE

Date:

Type	: Single stage centrifugal pump	Model	: IS100-65-200B
Capacity Q	: 72 m ³ /h	Head H	: 40 m
NPSHr	: 3.4 m	Efficiency η	: 74.5 %
Speed n	: 2900 rpm	Power N	: 24 kW/diesel engine





Brussels, 14 September 2022

布鲁塞尔, 2022 年 9 月 14 日

grow.d.3(2022)7036064

[grw.d.3 \(2022\) 7036064](#)**NOTE FOR THE ATTENTION OF MARKET SURVEILLANCE AUTHORITIES AND NOTIFYING AUTHORITIES**

市场监督机构和通知机构注意事项

Subject: Voluntary certification for products subject of EU technical harmonisation legislation

主题: 欧盟技术协调立法对象产品的自愿认证

Some market surveillance authorities have brought to the attention of the Commission and other authorities that a practice of 'voluntary certification' exists for some products, which are subject of EU technical harmonisation legislation (namely for PPE, Medical Devices, ATEX, RED and PED), especially during the COVID-19 crisis. However, later the application of this practice has been noticed for a number of other harmonised products, including very dangerous products (such as machines used in explosive environments, civil explosives or pyrotechnic articles) for which participation of a notified body in the conformity assessment is always necessary.

一些市场监督机构已提请委员会和其他机构注意, 某些产品存在“自愿认证”的做法, 这些产品受欧盟技术协调立法的约束(即 PPE、医疗器械、ATEX、RED 和 PED), 尤其是在 COVID-19 危机期间。然而, 后来这种做法的应用已经被注意到用于许多其他协调产品, 包括非常危险的产品(例如在爆炸环境中使用的机器、民用爆炸物或烟火制品), 对于这些产品, 指定机构参与合格评定总是必要的。

While the websites for such 'voluntary certification' usually indicate that this activity is not performed in the capacity of the certification body as notified body as such, and it is usually presented as something similar to a 'quality marking', the notified body number has been used in some cases on such documents (whereas the body is not notified for the products in question), these documents are called certificates, and very often the CE marking is present on these documents issued¹. This is not compatible with the Union product legislation as detailed below, as such a practice leads to confusion and misunderstandings on the effective value of such documents, including also uncertainties about the effective safety and compliance of the concerned products.

虽然此类“自愿认证”的网站通常表明该活动不是以认证机构作为公告机构的身份进行的, 并且通常以类似于“质量标志”的形式呈现, 但公告机构编号已在某些情况下用于此类文件(而相关产品未通知机构), 这些文件称为证书, 并且 CE 标志通常出现在这些签发的文件上¹。这与下文详述的欧盟产品立法不兼容, 因为这种做法会导致对此类文件的有效价值产生混淆和误解, 包括对相关产品的有效安全性和合规性的不确定性。

It is also to be noted that the terms *certification*, *independent third party* and similar have a specific meaning as it comes to harmonised Union product legislation, essentially related to the work carried out by notified bodies in their capacity and according to the relevant conformity assessment procedure(s), and their use for other types of assessments of products falling under this legislation may be misleading. *Certificate* is a document issued by a body that takes responsibilities in areas of public interest. Therefore, if a Union product legislation does not provide for a third-party involvement in the
 还需要注意的是, 认证、独立第三方和类似术语在涉及统一的欧盟产品立法时具有特定含义, 主要与指定机构根据相关合格评定程序开展的工作有关(s), 以及将它们用于对本立法规定的产品进行其他类型的评估可能会产生误导。证书是由在公共利益领域承担责任的机构颁发的文件。因此, 如果欧盟产品立法未规定第三方参与

¹ The European Safety Federation (ESF), which groups national associations of manufacturers, importers and distributors of Personal Protective Equipment in Europe prepared a list of such certificates and published it on its website: <https://www.eu-esf.org/covid-19/4513-covid-19-suspicious-certificates-for-ppe>

¹ 欧洲安全联盟 (ESF) 由欧洲个人防护设备制造商、进口商和分销商组成的国家协会编制了一份此类证书清单并在其网站上发布: <https://www.eu-esf.org/covid-19/4513-covid-19-可疑证书换个人防护用品>

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 Commission européenne/European Commission, 1049 Bruxelles/Brussels, BELGIQUE/BELGIUM –

Commission européenne/Europese Commissie, 1049 Bruxelles/Brussel, BELGIQUE/BELGIË - Tel. +32 22991111 Office: N105 04/044 - Tel. direct line +32 229-81579 Lina.KARBAUSKAITE@ec.europa.eu
 电话。 +32 22991111 办公室: N105 04/044 - 电话。直线 +32 229-81579 Lina.KARBAUSKAITE@ec.europa.eu

conformity assessment but the economic operator opts for a voluntary involvement of a third party, the document issued by that third party could bear the name 'certificate' only if the body involved on a voluntary basis is a notified body for the specific area. A notified body may carry out activities in areas where it is not notified (for example, in non-harmonised areas or when products are intended for third countries); but it has to clearly mention that these activities are not in the scope of their notification under harmonised Union product legislation, as notified by the competent authorities and listed in the Commission's NANDO information system and these activities cannot be in an area of harmonised Union product legislation which requires assessment by a notified body. The notified body cannot use its notified body number in relation to assessments, tests, certificates or other activities for the legislation it is not notified for. The non-notified activities may not overlap with the notified ones, they must be clearly distinguished from the notified ones, they may not create confusion and they must be clearly mentioned as "non-notified"; otherwise the notifying authority must take appropriate action.

如果符合性评估，但经济运营商选择第三方自愿参与，则该第三方签发的文件只有在自愿参与的机构是特定领域的公告机构时才能使用“证书”的名称。指定机构可在其未获通知的区域开展活动（例如，在非协调区域或产品用于第三国时）；但必须明确指出，这些活动不在统一的欧盟产品立法的通知范围内，如主管当局通知并在委员会的 NANDO 信息系统中列出的那样，这些活动不能属于统一的欧盟产品立法的领域这需要由指定机构进行评估。公告机构不能将其公告机构编号用于其未获公告的立法的评估、测试、证书或其他活动。未通知的活动不得与已通知的活动重叠，必须与已通知的活动明确区分，不得造成混淆，并且必须明确注明“未通知”；否则，通知当局必须采取适当的行动。

The notified body must have policies and procedures that distinguish between the tasks it carries out as a notified body and any other activity in which it is engaged, and it must make this distinction clear to its customers. Accordingly, marketing material must not give any impression that assessment or other activities carried out by the body are linked with tasks described in the applicable Union harmonisation legislation. Also to be emphasized that CE marking is only to be affixed after testing the product and performing the prescribed conformity assessment procedure or procedures according to the applicable Union harmonisation legislation. For some product legislation² and for medium-high risk products³, involvement of a notified body is mandatory – the manufacturer cannot perform the assessment alone, nor use of a non-notified conformity assessment body is enough either to issue the EC/EU declaration of conformity or to affix the CE marking.

公告机构必须制定政策和程序，将其作为公告机构执行的任务与其参与的任何其他活动区分开来，并且必须向其客户明确区分。因此，营销材料不得给人任何印象，即该机构进行的评估或其他活动与适用的欧盟统一立法中描述的任务相关联。还要强调的是，只有在对产品进行测试并根据适用的欧盟协调立法执行规定的合格评定程序或程序后才能加贴 CE 标志。对于某些产品法规²和中高风险产品³，指定机构的参与是强制性的——制造商不能单独进行评估，使用未指定的合格评定机构也不足以发布 EC/EU 合格声明或贴上 CE 标志。

Article 30(2) of Regulation (EC) No 765/2008 states that *the CE marking <...> shall be affixed only to products to which its affixing is provided for by specific Community harmonisation legislation, and shall not be affixed to any other product*. Article R12(1) of Decision 2008/768/EC, which is integrated in most of the pieces of sectoral legislation⁴, foresees a possibility to affix the CE marking to the packaging or the accompanying documents only if fixing it to the product or its data plate is not possible and if the product legislation provides for such documents. Therefore, it is not acceptable for such 'voluntary certificates' to bear a CE marking.

第 765/2008 号法规 (EC) 第 30(2) 条规定，CE 标志 <...> 只能贴在特定的共同体协调立法规定的产品上，不得贴在任何产品上。其他产品。第 2008/768/EC 号决议的第 R12(1) 条已纳入大多数行业立法⁴，预计只有在将 CE 标志固定在产品或其数据上时，才有可能将 CE 标志附加到包装或随附文件上如果产品法规规定了此类文件，则无法使用铭牌。因此，此类“自愿证书”带有 CE 标志是不可接受的。

Article 30(5) of Regulation (EC) No 765/2008 states that *the affixing to a product of markings, signs or inscriptions, which are likely to mislead third parties regarding the meaning or form of the CE marking, shall be prohibited*. Clearly, this is the case for 'voluntary certificates' bearing CE marking. Such a 'certificate' leads to understanding that the product is in conformity with applicable Union legislation, however the 'voluntary certificate' is issued without any product checks and is not foreseen in any of the legislation. As stated on the concerned websites, it is usually issued following documentation checks only.

第 765/2008 号法规 (EC) 第 30(5) 条规定，应禁止在产品上粘贴可能在 CE 标志的含义或形式上误导第三方的标记、标志或铭文。显然，带有 CE 标志的“自愿证书”就是这种情况。这样的“证书”可以让人理解该产品符合适用的欧盟立法，但是“自愿证书”是在没有任何产品检查的情况下颁发的，并且在任何立法中都没有预见到。如相关网站所述，通常仅在文件检查后发布。

2 Directive 2013/29/EU on pyrotechnic articles, Directive 2014/28/EU on civil explosives

2 关于烟火制品的指令 2013/29/EU, 关于民用爆炸物的指令 2014/28/EU

3 Regulation (EU) 2016/425 on personal protective equipment, Regulation (EU) 2017/745 on medical devices, Regulation (EU) 2017/746 on *in vitro* diagnostic medical devices Directive 2013/29/EU on pyrotechnic articles, Directive 2014/28/EU on civil explosives; under Directive 2014/53/EU on radio equipment, it is mandatory for certain requirements, if relevant harmonised standards do not exist or are not applied.

3 关于个人防护设备的法规 (EU) 2016/425、关于医疗器械的法规 (EU) 2017/745、关于体外诊断医疗器械的法规 (EU) 2017/746、关于烟火制品的指令 2013/29/EU、指令 2014/关于民用爆炸物的 28/EU; 根据关于无线电设备的指令 2014/53/EU, 如果相关协调标准不存在或未应用, 则对于某些要求是强制性的。

4 Article 20(41) of Directive 2013/29/EU, Article 23(1) of Directive 2014/28/EU, Article 19(1) of Directive 2014/53/EU (CE marking on the packaging is always mandatory)

4 指令 2013/29/EU 第 20(41) 条、指令 2014/28/EU 第 23(1) 条、指令 2014/53/EU 第 19(1) 条 (包装上的 CE 标志始终是强制性的)

Article 30(6) of Regulation (EC) No 765/2008 obliges Member States to *take appropriate action in the event of improper use of the marking. Member States shall also provide for penalties for infringements, which may include criminal sanctions for serious infringements.*

(EC) No 765/2008 条例第 30(6) 条要求成员国在标志使用不当的情况下采取适当行动。成员国还应规定对侵权行为的处罚, 其中可能包括对严重侵权行为的刑事制裁。

Article R34(1)(a) of Decision 2008/768/EC, which is integrated in most of the pieces of sectoral legislation, requires that where a Member State finds that the conformity marking has been affixed in violation of Article [R11] or of Article [R12], it shall require the relevant economic operator to put an end to the non-compliance concerned. Article R34(2) further requires that where such the non-compliance persists, *the Member State concerned shall take all appropriate measures to restrict or prohibit the product being made available on the market or ensure that it is recalled or withdrawn from the market.*

第 2008/768/EC 号决定的第 R34(1)(a) 条被整合到大多数部门立法中, 它要求如果成员国发现粘贴符合性标志的行为违反了第 [R11] 条或第[R12]条规定, 应当要求相关经营者停止相关违规行为。第 R34(2) 条进一步要求, 如果此类违规行为持续存在, 相关成员国应采取一切适当措施限制或禁止该产品投放市场, 或确保将其召回或退出市场。

Taking into account the above:

考虑到上述情况:

(1) **Market surveillance authorities** are requested to take notice of the above and check their respective markets for products, which bear incorrect documentation and, subsequently, take appropriate action. Special attention is to be paid to conformity assessment of products. All products falling under harmonised Union product legislation for which conformity assessment procedures foreseen in the respective legislation have not been followed, shall be taken off the market and this shall be considered as a serious infringement by the economic operator.

(1) 要求市场监督机构注意上述情况, 检查其各自市场是否存在文件不正确的产品, 并随后采取适当措施。应特别注意产品的合格评定。所有属于统一的欧盟产品立法的产品, 如果没有遵循相应立法中规定的合格评定程序, 则应从市场上撤下, 这应被视为经济运营商的严重侵权行为。

(2) **Notifying/designating authorities** are requested to also take notice of the above and make sure that the bodies they have notified or designated are not performing any misleading activities using their notification, also that they use their notified body number properly and only for the sectors they are notified for. The activities outside the scope of technical harmonisation legislation of the notified bodies should not compromise or diminish confidence in their competence, objectivity, impartiality or operational integrity. Where the notification is misused, a withdrawal of notification shall be considered.

(2) 通知/指定机构也应注意上述情况, 并确保其通知或指定的机构没有使用其通知进行任何误导性活动, 并正确使用其指定机构编号, 并且仅用于他们被通知的部门。公告机构技术协调立法范围之外的活动不应损害或削弱对其能力、客观性、公正性或运营完整性的信心。通知被滥用的, 应当考虑撤回通知。

Commission reserves the right to also take any necessary action to challenge the competence of notified bodies involved in such practices, or to withdraw their notification by using the specific provisions laid down in EU harmonisation legislation 5.

(e-signed) Matthias SCHMIDT-GERDTS Head of Unit

委员会还保留采取任何必要行动质疑涉及此类做法的公告机构的能力, 或使用欧盟统一立法中规定的具体规定撤回其通知的权利 5。

(电子签名) Matthias SCHMIDT GERDTS 部门负责人

Sh type double suction middle open pump



Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

Sales Tel: +86 138 6435 8861

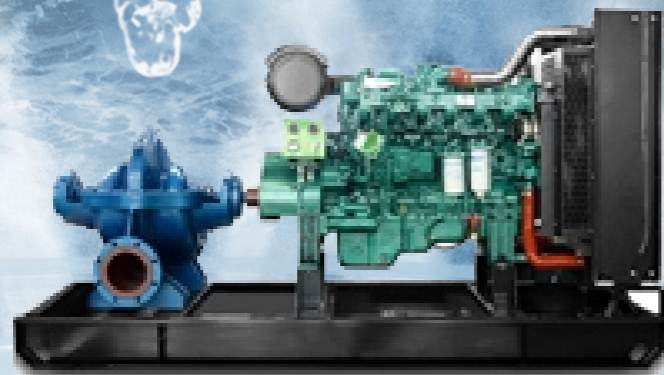
Email: admin@hrzlpumps.com

Web: www.sdhrzl.com

Add: Yinma Village, Baita Town,
Boshan District, Zibo city, Shandong Province, China

Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

Sh type double suction middle open pump



COMPANY PROFILE

Company Profile

Shandong Hairui Zhonglian Fluid Technology Co., Ltd. is located in Boshan, "pump capital" in Shandong province, China. We are one of the biggest qualified enterprise integrating research, development, production, sales and service with a registered capital of 30 million yuan. HRZL pumps are well known from home to abroad.

We manufacture a wide range of pumps: HR, DL, DLR vertical multi-stage centrifugal pump series, HR, ISL vertical singlestage pipeline pumps, HR, ISW horizontal singlestage centrifugal pump series, HR, DBL stainless steel vertical multi-stage pump series, HR, GDL high-rise building water-feeding pump series, HR, D horizontal multi-stage centrifugal pump series, HR, DLG high-rise building water-feeding pumps series, DSQ Submersible sand pump, ZJQ submersible slurry pump, HRYT integrated prefabricated pump station, XBD-HRZL axial-flow deep well fire pump, XBC-HRZL diesel engine axial-flow deep well fire pump, XBC diesel engine fire pump, HRHY constant current fire pump, HRG vertical pipeline Pump, HRKT air conditioning pump, HRWF nonnegative water supply complete equipment, HRDL vertical multi-stage fire pump, vertical single-stage fire pump series, vertical multi-stage fire pump series, variable constant tangent pump series, horizontal multi-stage fire pumps, submersible fire pumps, fire stabilized water supply equipment, fire electrical control cabinets, fire water tank series (stainless steel, galvanized steel, etc.).

Our pumps are widely used in construction, fire protection, chemical industry, refrigeration, power station, thermal power, mining, sewage treatment, agricultural irrigation and drainage and other industries. It is also used in major projects across the country, such as the Olympic Stadium, airport, tower, oil field, etc..

We have branches and offices in many countries, all of which have professional after-sales technicians, to provide comprehensive pre-sales, sales and aftersales services. We will vigorously promote the company philosophy of "Quality Hairui, Technology Hairui", constantly improve services and product quality, to satisfy users!



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» Product Introduction

1. Sh type pump series single stage, double suction, pump shell horizontal open centrifugal pump, for conveying temperature does not exceed 80°C water and other liquids similar to the physical and chemical properties of water, bearing body through the cooling water, can transport 130°C hot water. Changing the material of the impeller, seal ring and shaft sleeve can drain muddy water containing sediment. The shaft seal of the pump generally uses soft packing. If there are special requirements, mechanical seals can also be installed.

2. This series of pumps by the implementation of the standard is: GB/T5657 “centrifugal pump technical conditions Class”.

3 Pump model meaning such as: 10Sh-13A

10—The suction pipe is divided by 25 (that is, the pump suction pipe is 250mm)

Sh – Single stage double suction centrifugal pump

13 one specific revolution divided by 10 (i.e. the specific revolution of the pump is 130)

A – First turning of impeller outside diameter

4. From the direction of the prime mover, the pump rotates counterclockwise (if there are special requirements, it can also be changed to clockwise rotation)

» Structure Description

1. The suction and discharge of this series of pumps are under the axial line of the pump, in a horizontal direction and in a vertical position with the axis. The pump cover is fixed to the pump body with bolts and positioning pins, and the pump rotor components can be repaired without disassembling the pipeline and prime

2. The main parts of the pump are pump body, pump cover, impeller, shaft, double suction seal ring, shaft sleeve and bearing body.

a. The pump body and the pump cover are made of cast iron, which together constitute the workshop of the impeller. The inlet and outlet flange of the pump body is provided with a pipe screw hole for installing a pressure gauge and a vacuum gauge, and the lowest diameter of the pipe is provided with a pipe screw hole for discharging water.

b, the impeller is double-sided water, its shape is symmetrical, after the static balance test.

c, bearing: the structure of this series of pumps, using rolling bearings, with butter lubrication.

c, bearing: the structure of this series of pumps, using rolling bearings, with butter lubrication.

The bearing body parts are fixed on the pump body by the bearing body gland. Because the gland is assembled and the pump body are porous at the same time, it does not have interchangeability, so the gland can not be replaced after damage.

d, shaft seal: the shaft seal of the pump is composed of packing chamber, packing ring, packing gland, seasoning sleeve, packing, shaft sleeve, a small amount of high pressure water in the pump cover through the water seal tube to the packing chamber, some pumps do not have an external water seal tube, in the middle of the pump cover there are two grooves cast in advance, instead of the external water seal tube.

The tightness of the packing is determined by the fact that the liquid can exude a drop. The packing pressure is too tight, the shaft sleeve is easy to heat, and the surface of the shaft sleeve is soon worn.

» Assembly and disassembly

1 Pump assembly

1.1 Install all bolts in the pump body, and lay a layer of green shell paper on the middle sealing surface.

1.2 Insert the flat key in the middle of the shaft, install the impeller, install the shaft sleeve at both ends, screw on the left and right nuts, install the packing sleeve, packing ring and packing gland at both ends in succession, and put on the double suction sealing ring.

a. a type of structure of the pump shaft mounted bearing sleeve, bearing end cover 'Dong dong bearing, screw on the round nut, again the bearing into the bearing body, install the two ends of the bearing end cover.

b, for the B structure of the pump, the bearing body has been installed on the shaft, the bearing body B end is installed on the rolling bearing, screw on the round nut.

1.3 Put the installed rotor components on the pump body, fix the bearing body on the pump body with the bearing gland, and insert the half ring of the double suction sealing ring into the groove of the pump body. Use the bearing nut to adjust the center of the impeller to the center of the flow channel of the pump body, and then tighten the shaft sleeve nut and the round nut of the bearing.

1.4 Check whether the water seal tube on the pump cover is smooth, then cover the pump body, install the conical positioning pin, good pump cover and both ends of the packing gland.

2 Disassemble in the opposite direction.

» Installation and operation

1. Precautions for installation and test

a, the coupling end of the pump is not allowed to use the belt drive, if you need to use the belt drive, the pulley should have an independent fixed support.

b, when the pump is running, the water pressure in the outlet pipe is greater than the water pressure in the inlet pipe, and the instantaneous water pressure impact force makes the pump shift in the direction of the water. Because of this, for larger pumps (lift > 50 meters, aperture mm N500 mm), the side of the pump should be installed on the basis of anti-movement mechanism (generally used is a screw nut mechanism).

c, in order to reduce the impact force of the water hammer, for the caliber *350 or more, the lift of more than 50 meters of the pump, it is recommended that the check valve on the water pipe use a slowly closed hydraulic control butterfly valve (the double role of gate valve and check valve) or a slowly closed check valve. When the head is less than 20 meters, no check valve is required. The installation sequence of gate valve and check valve is: pump outlet gate valve check valve.

d. Pump the suction water pump with a vacuum pump, and install a water filter at the end of the suction pipe without installing a bottom valve.

e. After the pump and motor are installed, check whether the axis of the pump and motor coincide. Use a square to check that the gap between the outer circle of the two couplings in the left and right direction should not exceed 0.1 mm. After the pump is connected to the pipeline, the axis should be corrected for the last time.

f, the inlet and outlet pipes should have their own supports to avoid excessive stress and damage to the pump.

g, check the steering of the motor, should remove the pin of the coupling, is strictly prohibited in the pump no water time and space transfer test.

h, pump perfusion water, suction pipe diameter less than or equal to 300 mm pump, remove the three wire plug on the pump cover, water from the highest hole, two lower holes on both sides for exhaust; For pumps with suction pipe diameter greater than 300 mm, remove the 1 "wire plug on the reducing four-way pipe in the middle of the pump cover to connect to the vacuum pump exhaust.

Step 2 Run

a, start the motor, open the pressure gauge cock.

b, when the pump to the normal speed, the pressure gauge has shown the appropriate pressure, then open the vacuum gauge cock, and gradually open the gate valve (or butterfly valve) on the drainage pipe, until the required pressure is reached.

c, when stopping the pump, should first close the outlet gate valve and vacuum gauge cock, and then close the pressure gauge cock, stop the motor operation.

d, when the external environment is low, the water storage in the pump should be removed after stopping the pump, and when the pump is stopped for a long time, the water storage on the parts should be removed and coated with anti-rust grease on the relative sliding surface.

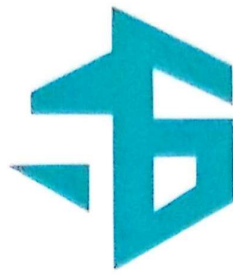
Step 3: Maintenance

a, pay attention to the temperature of the pump bearing, the temperature rise of the pump bearing should not exceed 35 tubes of the external temperature, but the maximum should not be greater than 70 tubes (both ends of the bearing body have G3/4 "inlet and outlet pipe screw holes for cold water).

b, the pump oil change time, the first time after 80 hours of work, after every 2400 hours or check the pump oil change.

c, the normal level of water leakage in the packing room is about 10 to 20 drops per minute. If it exceeds or is too small, the packing room gland should be pressed or relaxed

d. Check the elastic coupling regularly and pay attention to the temperature rise of the motor bearing.



环境管理体系认证证书

证书编号：71624E4138R0S

兹证明

山东海瑞众联流体科技有限公司

(组织机构代码/统一社会信用代码：913703045509307209)

注册地址：博山区白塔镇饮马村西首

经营地址：山东省淄博市博山区白塔镇小微产业园北区 8 号 1 楼

环境管理体系符合标准

GB/T24001-2016/ISO14001:2015

认证范围：资质范围内泵的制造；电器柜、发电机的制造（需资质许可的除外）
所涉及的相关环境管理活动

初次发证日期：2024 年 12 月 14 日

本次获证日期：2024 年 12 月 14 日

证书有效期至：2027 年 12 月 13 日



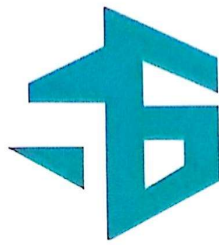
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本证书在国家规定的各行政许可、资质许可有效期内使用有效
获证组织必须定期接受监督审核并经审核合格后，方可保持证书有效性
国家认证认可监督管理委员会官方查询网站<http://cx.cnca.cn>
此认证证书的有效性以左下角二维码扫描结果为准

山东赛格认证技术有限公司

中国·山东·济南·融基大厦 22楼 2202室



CERTIFICATE OF ENVIRONMENTAL MANAGEMENT SYSTEM

Certificate No: 71624E4138R0S

In witness whereof

Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

(Organization Code/Credit No. : 913703045509307209)

Registration Address: West Head of Yinma Village, Baita Town, Boshan District
Business Address: 1st Floor, No. 8, North District, Small and Micro Industrial Park, Baita Town, Boshan District, Zibo City, Shandong Province

has been assessed and is in conformity with

GB/T24001-2016/ISO14001:2015

Certification Scope: Manufacturing of pumps within the scope of qualifications; Environmental management activities related to the manufacturing of electrical cabinets and generators (excluding those requiring qualification permits)

Issue Date: December 14th, 2024

Renewal Date: December 14th, 2024

Valid Until: December 13th, 2027



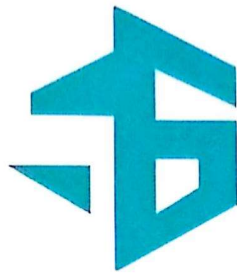
Issuer by: _____



The certificate is valid within the term of validity of all administrative and qualification license subject to the regulation of P.R.China.
Certified organizations must undergo regular monitoring audits and pass the audit before they can maintain the validity of their certificates
Official inquiry website of China National Certification and Accreditation Administration: <http://cx.cnca.cn>.
The validity of this certificate is subject to the scan result of the Qr Code in the lower left corner

Shandong Saige Certification Technology Co., Ltd

2202, 22nd floor, Rongji Building, Jinan, Shandong, China



职业健康安全管理体系认证证书

证书编号：71624S4139R0S

兹证明

山东海瑞众联流体科技有限公司

(组织机构代码/统一社会信用代码：913703045509307209)

注册地址：博山区白塔镇饮马村西首

经营地址：山东省淄博市博山区白塔镇小微产业园北区 8 号 1 楼

职业健康安全管理体系符合标准

GB/T45001-2020/ISO45001:2018

认证范围：资质范围内泵的制造；电器柜、发电机的制造（需资质许可的除外）
所涉及的相关职业健康安全管理体系活动

初次发证日期：2024 年 12 月 14 日

本次获证日期：2024 年 12 月 14 日

证书有效期至：2027 年 12 月 13 日



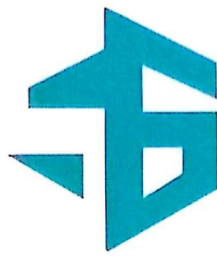
签发人：3701027664041



本证书在国家规定的各行政许可、资质许可有效期内使用有效
获证组织必须定期接受监督审核并经审核合格后，方可保持证书有效性
国家认证认可监督管理委员会官方查询网站<http://cx.cnca.cn>
此认证证书的有效性以左下角二维码扫描结果为准

山东赛格认证技术有限公司

中国·山东·济南·融基大厦 22楼 2202室



CERTIFICATE OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

Certificate No: 71624S4139R0S

In witness whereof

Shandong Hairui Zhonglian Fluid Technology Co., Ltd.
(Organization Code/Credit No.: 913703045509307209)

Registration Address: West Head of Yinma Village, Baita Town, Boshan District
Business Address: 1st Floor, No. 8, North District, Small and Micro Industrial Park, Baita Town, Boshan District, Zibo City, Shandong Province

has been assessed and is in conformity with
GB/T45001-2020/ISO45001:2018

Certification Scope: Manufacturing of pumps within the scope of qualifications; Related occupational health and safety management activities involved in the manufacturing of electrical cabinets and generators (excluding those requiring qualification permits)

Issue Date: December 14th, 2024

Renewal Date: December 14th, 2024

Valid Until: December 13th, 2027

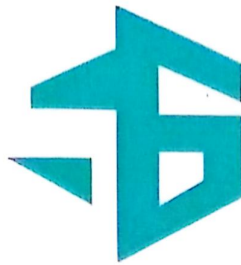


Issuer by:  370102766488



The certificate is valid within the term of validity of all administrative and qualification license subject to the regulation of P.R.China.
Certified organizations must undergo regular monitoring audits and pass the audit before they can maintain the validity of their certificates
Official inquiry website of China National Certification and Accreditation Administration: <http://cx.cnca.cn>.
The validity of this certificate is subject to the scan result of the Qr Code in the lower left corner

Shandong Saige Certification Technology Co., Ltd
2202, 22nd floor, Rongji Building, Jinan, Shandong, China



质量管理体系认证证书

证书编号：71624Q4137R0S

兹证明

山东海瑞众联流体科技有限公司

(组织机构代码/统一社会信用代码：913703045509307209)

注册地址：博山区白塔镇饮马村西首

经营地址：山东省淄博市博山区白塔镇小微产业园北区 8 号 1 楼

质量管理体系符合标准

GB/T19001-2016/ISO9001:2015

认证范围：资质范围内泵的制造；电器柜、发电机的制造（需资质许可的除外）

初次发证日期：2024 年 12 月 14 日

本次获证日期：2024 年 12 月 14 日

证书有效期至：2027 年 12 月 13 日



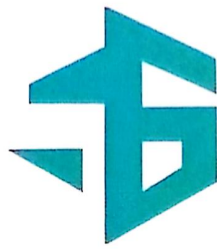
签发人：3701027664841



本证书在国家规定的各行政许可、资质许可有效期内使用有效
获证组织必须定期接受监督审核并经审核合格后，方可保持证书有效性
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此认证证书的有效性以左下角二维码扫描结果为准

山东赛格认证技术有限公司

中国·山东·济南·融基大厦 22楼 2202室



CERTIFICATE OF QUALITY MANAGEMENT SYSTEM

Certificate No: 71624Q4137R0S

In witness whereof

Shandong Hairui Zhonglian Fluid Technology Co., Ltd.

(Organization Code/Credit No. : 913703045509307209)

Registration Address: West Head of Yinma Village, Baita Town, Boshan District
Business Address: 1st Floor, No. 8, North District, Small and Micro Industrial
Park, Baita Town, Boshan District, Zibo City, Shandong Province

has been assessed and is in conformity with
GB/T19001-2016/ISO9001:2015

Certification Scope: Manufacturing of pumps within the scope of qualifications;
Manufacturing of electrical cabinets and generators (excluding those requiring
qualification permits)

Issue Date: December 14th, 2024

Renewal Date: December 14th, 2024

Valid Until: December 13th, 2027



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