

Horizontal split case pumps

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Type key

4 The example shows an LHC 100-400 pump with a 395 mm impeller diameter, PN-16 flanges, with cast iron casing & impeller and with a carbon/ceramic/NBR/S.S 304 mechanical shaft seal.

LHC

Example LHC 100 -400 /395 M1 2A A 1

Type range

Nominal diameter of discharge port (DN)

Nominal impeller diameter (mm)

Actual impeller diameter (mm)

Code for sealing arrangement

G = Gland packing*

M1 = Rubber bellows type mechanical seal

M2 = Cartridge type mechanical seal

Code for pipework connection

1 = ANSI-125 flange

2A = PN-16 flange*

2B = PN-25 flange

3 = ANSI-250 flange

Code for materials

A = Cast iron pump housing with cast iron impeller*

B = Cast iron pump housing with bronze impeller

C = Cast iron pump housing with CF-8 impeller

D = Cast iron pump housing with CF-8M impeller

Code for shaft seal material

1 = Carbon/Ceramic/NBR/S.S 304

2 = Sic/Sic/Viton/S.S 316

3 = Carbon/Sic/Viton/S.S 316

* Standard construction.

Introduction

Horizontal split case pumps have horizontal pump shaft and the volute casing can be dismantled in the horizontal plane along the drive shaft.

The Lubi horizontal split case pump, type LHC is available in two main designs:

- Single-stage
- Two-stage

Applications

- Water Supply.
- Pressure boosting for high rise buildings, hotels, industry etc.
- Industrial washing & cleaning systems.
- Fire Protection systems.
- Cooling & Air Conditioning systems.
- Boiler feed and condensate transfer system.
- Irrigation systems for fields including sprinkler & drip irrigation systems.



Features & benefits

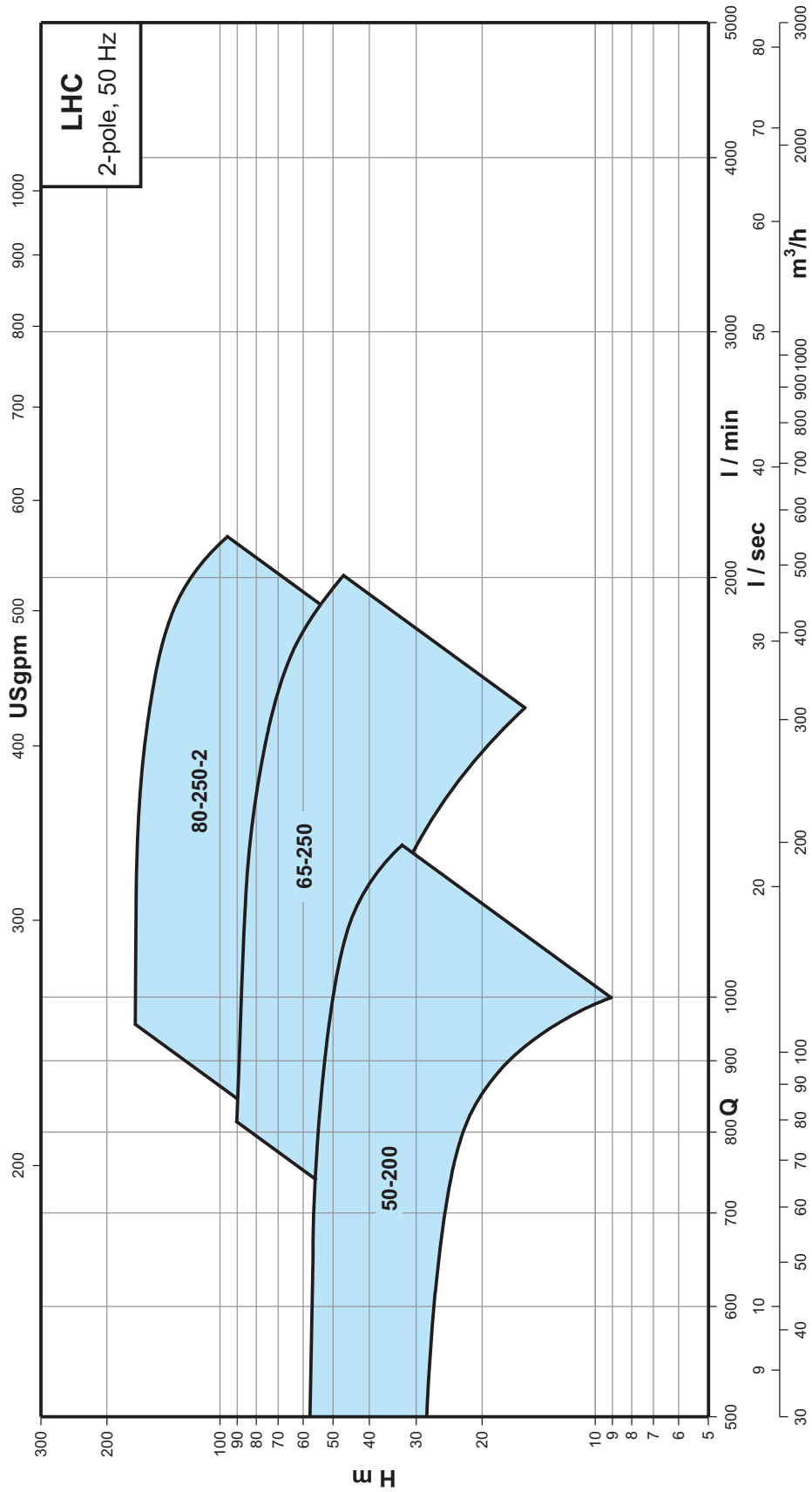
Following are the main features and benefits offered by the LHC pumps.

- The pumps are non self priming horizontal split case pumps with radial suction port and radial discharge port.
- Standard flanges for suction and discharge ports will be PN 16 as per DIN standard EN 1092-2 and PN 25 as per DIN standard EN 1092-2. ANSI 125 and ANSI 250 as per ASME B16.1 are available on request.
- These pumps are long coupled pumps with TEFC squirrel cage induction motor with main dimensions complying to IEC standards and mounting designation B3 (IM 1001).
- These pumps are available with gland packing as well as mechanical shaft seal.
- These pumps have the discharge range from 20 to 2700 m³/hr and head range from 4 to 160 metres. Motor ratings are from 3 to 315 kW.
- The pump impellers are dynamically balanced to grade 6.3 of ISO 1940.
- These pumps can be supplied as a complete unit with motor, coupling, coupling guard and fabricated steel base frame.
- These pumps are available with our standard range of EFF2 motors. They can also be supplied with EFF1 motors on request.
- The split case construction enables removal and dismantling of the internal pump parts e.g. bearings, wear rings, shaft seal and impeller without disturbing the motor & pipe work.

Performance range

Horizontal split case pumps

LHC 2-Pole

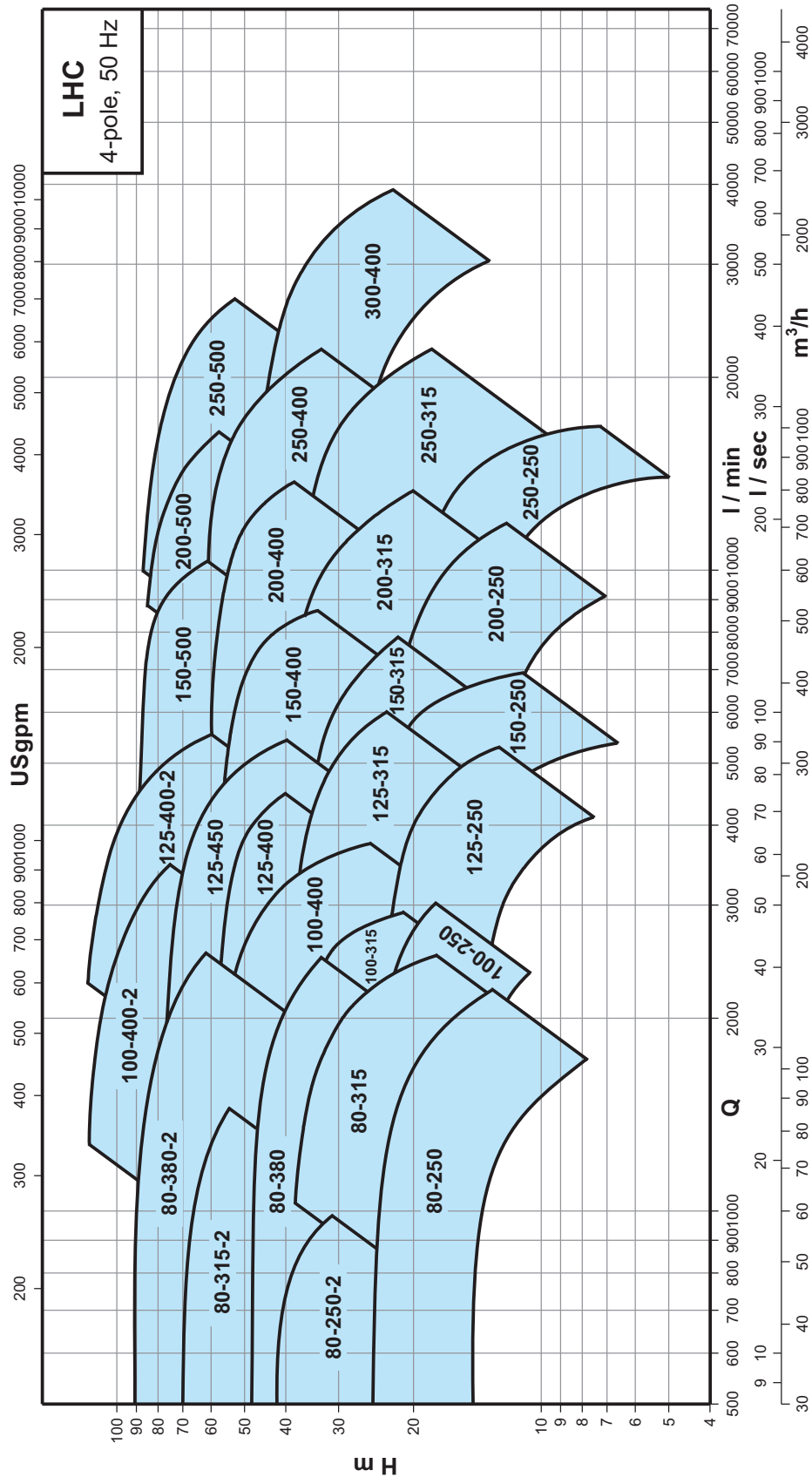


Note: 80-250-2 is two stage pump.

Performance range

Horizontal split case pumps

LHC 4-Pole

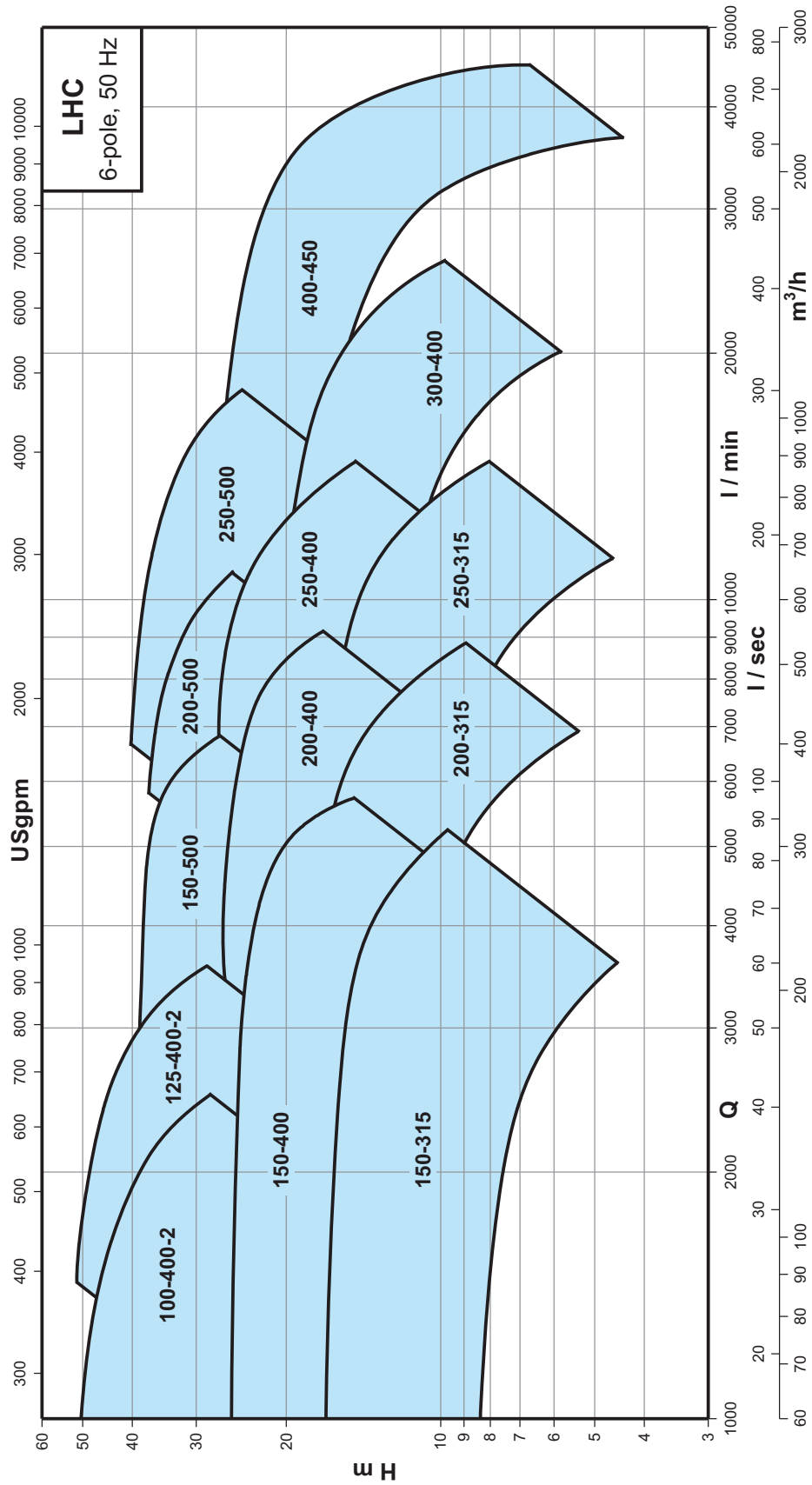


Note: 80-250-2, 80-315-2, 80-380-2, 100-400-2 and 125-400-2 are two stage pumps.

Performance range

Horizontal split case pumps

LHC 6-Pole



Note: 100-400-2 and 125-400-2 are two stage pumps.

Construction

Horizontal split case pumps

LHC

Sectional drawing

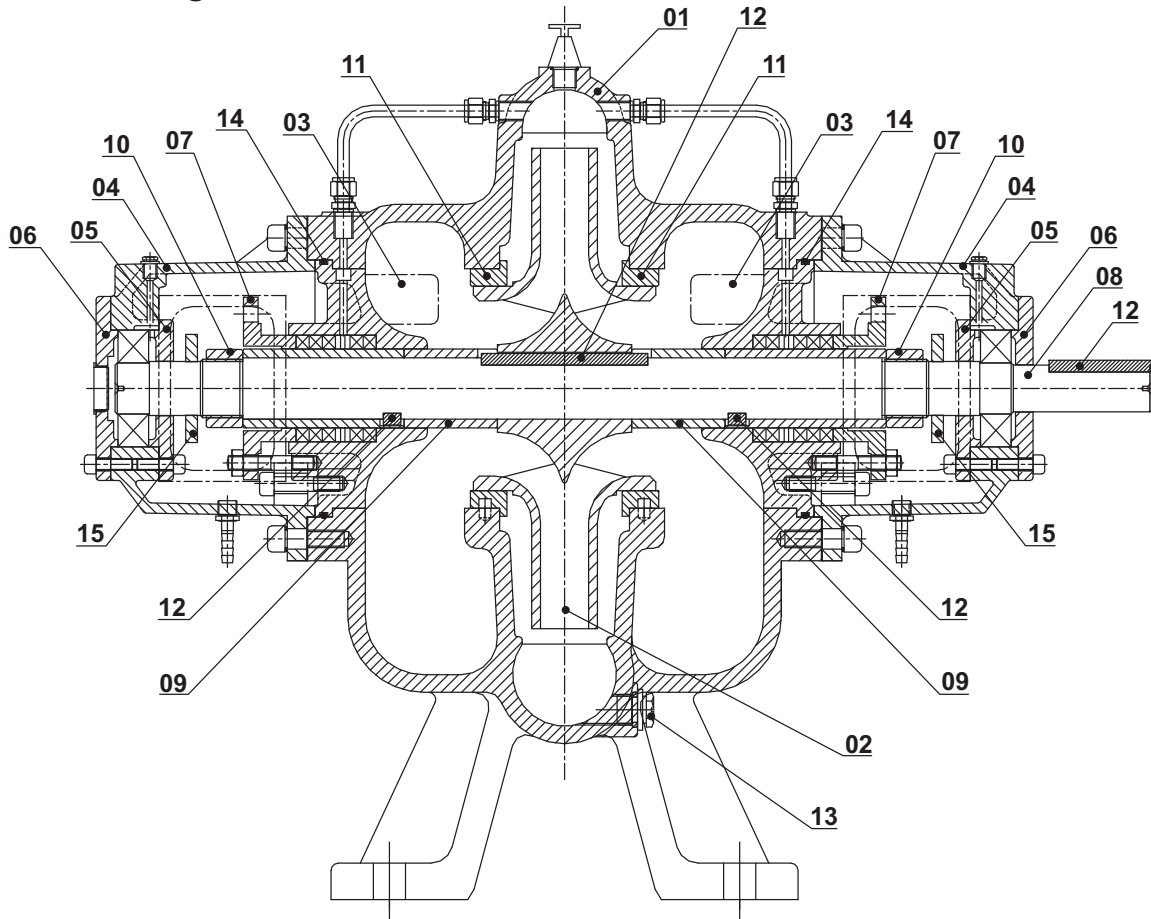


Fig. 1 Single stage LHC pump

Materials

Pos.	Component	A-version	B-version	C-version	D-version
1	Volute casing	Cast iron	Cast iron	Cast iron	Cast iron
2	Impeller	Cast iron	Bronze	CF-8	CF-8M
3	Back cover	Cast iron	Cast iron	Cast iron	Cast iron
4	Bearing housing	Cast iron	Cast iron	Cast iron	Cast iron
5	Internal bearing cover	Cast iron	Cast iron	Cast iron	Cast iron
6	External bearing cover	Cast iron	Cast iron	Cast iron	Cast iron
7	Gland follower	Cast iron	Cast iron	Cast iron	Cast iron
8	Shaft	Carbon Steel	AISI 410	AISI 304	AISI 316
9	Shaft sleeve	AISI 410	AISI 410	AISI 304	AISI 316
10	Lock nut	AISI 410	AISI 410	AISI 304	AISI 316
11	Wear ring	Bronze	Bronze	CF-8	CF-8M
12	Key	AISI 410	AISI 410	AISI 304	AISI 316
13	Plugs	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
14	O-ring	NBR	NBR	NBR	NBR
15	Water thrower	NBR	NBR	NBR	NBR

Construction

Horizontal split case pumps

LHC

Sectional drawing

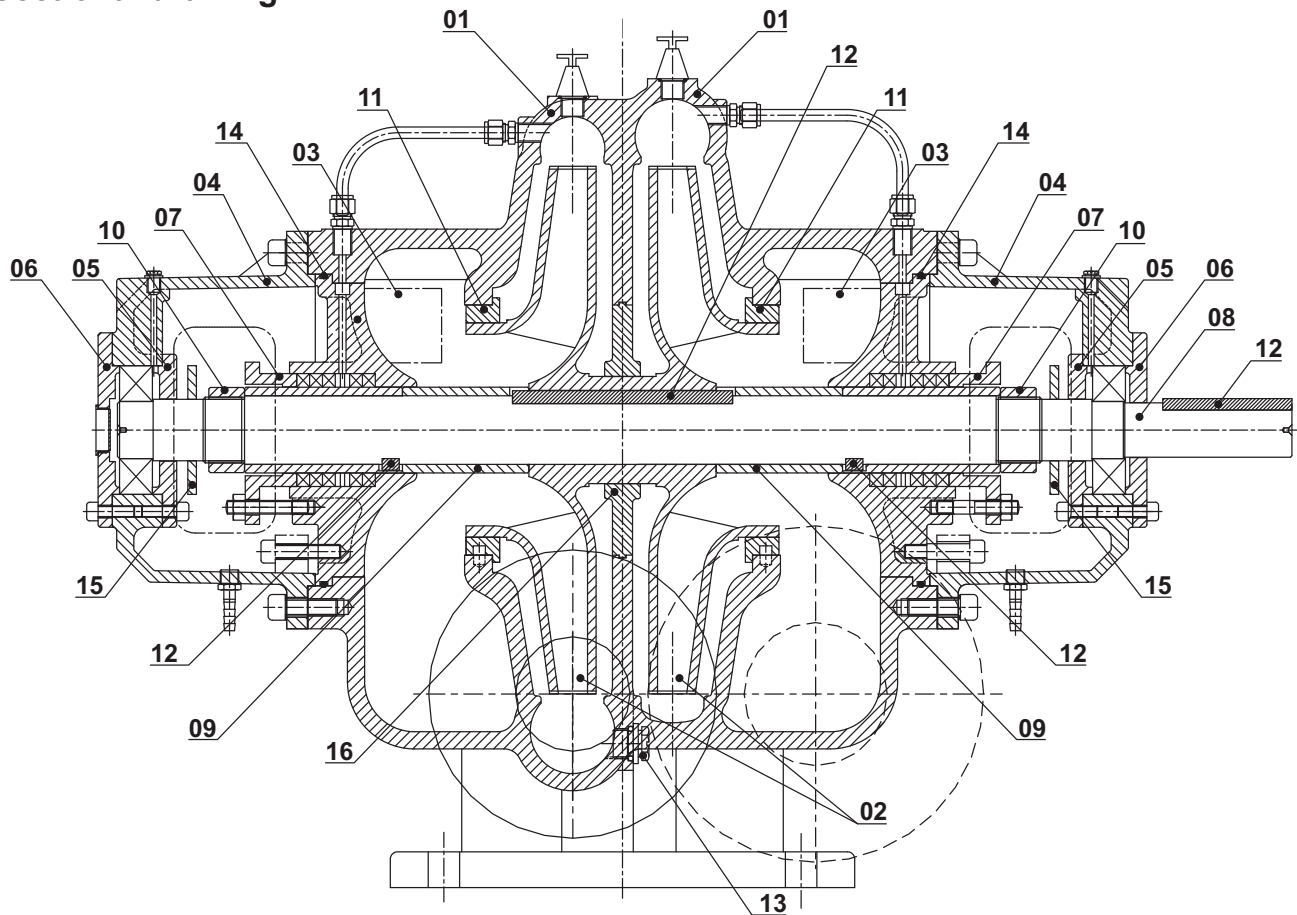


Fig. 2 Two stage LHC pump

Materials

Pos.	Component	A-version	B-version	C-version	D-version
1	Volute casing	Cast iron	Cast iron	Cast iron	Cast iron
2	Impeller	Cast iron	Bronze	CF-8	CF-8M
3	Back cover	Cast iron	Cast iron	Cast iron	Cast iron
4	Bearing housing	Cast iron	Cast iron	Cast iron	Cast iron
5	Internal bearing cover	Cast iron	Cast iron	Cast iron	Cast iron
6	External bearing cover	Cast iron	Cast iron	Cast iron	Cast iron
7	Gland follower	Cast iron	Cast iron	Cast iron	Cast iron
8	Shaft	Carbon Steel	AISI 410	AISI 304	AISI 316
9	Shaft sleeve	AISI 410	AISI 410	AISI 304	AISI 316
10	Lock nut	AISI 410	AISI 410	AISI 304	AISI 316
11	Wear ring	Bronze	Bronze	CF-8	CF-8M
12	Key	AISI 410	AISI 410	AISI 304	AISI 316
13	Plugs	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
14	O-ring	NBR	NBR	NBR	NBR
15	Water thrower	NBR	NBR	NBR	NBR
16	Centre ring	Cast iron	Cast iron	Cast iron	Cast iron

Construction features

Volute casing

The volute casing of the pumps are designed to be robust in construction to take the undue stresses offered by the pipe work. They have an radial suction port and radial discharge port. Standard flanges are PN 16 as per DIN standard EN 1092-2 and PN 25 as per DIN standard EN 1092-2. ANSI 125 and ANSI 250 as per ASME B16.1 are available on request.

The volute casing are provided with a priming & drain holes closed by plugs.

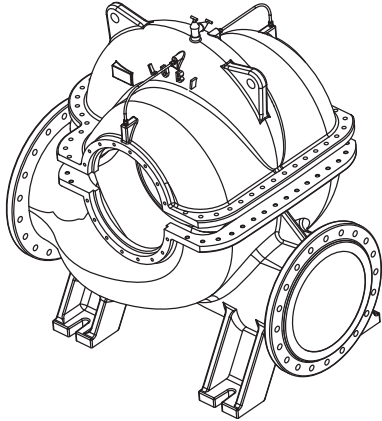


Fig. 3 Upper and lower volute casing

The single stage pumps are of the inline (symmetric) design, whereas the two stage pumps have asymmetric design

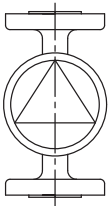


Fig. 4 SINGLE STAGE
(Inline symmetric design)

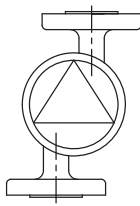


Fig. 5 TWO STAGE
(Asymmetric design)

Shaft

The shaft is available in carbon steel as well as stainless steel. A bronze or stainless steel shaft sleeve is provided in the stuffing box to protect the shaft from wear & corrosion. As shaft and bearings are strong and properly sized the pump can be driven by a belt drive or diesel engine without any problem.

A water thrower is provided on the shaft to prevent liquid from entering the bearing housing and damaging the bearing.

The shaft is supported by bearings at both drive end and non-drive end of the pump.

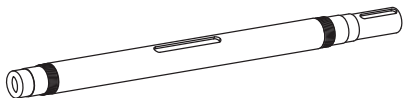


Fig. 6 Pump shaft

Bearings

The pumps are fitted with two standard single-row deep groove ball bearings, the bearings are of the open type permitting the bearings to be relubricated. The bearings are lubricated by Lubi prior to delivery.

Impeller

The impeller is a closed impeller with single or double curved blades and extra smooth surface finish and machined completely from outside to ensure high efficiency.

The impeller comes in two variants.

- Double-suction impeller with inflow of liquid from both sides. Double suction impellers are used in single-stage pumps only.
- Single-suction impeller with inflow of liquid from one side. Single suction impellers are used in two-stage pumps only.

Because of hydraulic balancing the axial thrust on bearings are compensated giving a longer bearing life.

Two stage pumps have two laterally reversed single-suction impellers mounted back-to-back.

The direction of rotation of impeller is clock-wise when viewed from the motor non-driving end.

They are dynamically balanced to grade 6.3 of ISO 1940.

All impeller can be trimmed to adopt them for the duty point requested by the customer.

Suggested trimmed impeller diameter as shown on the performance curves are theoretical. Performance may vary from what is shown on the performance curve.

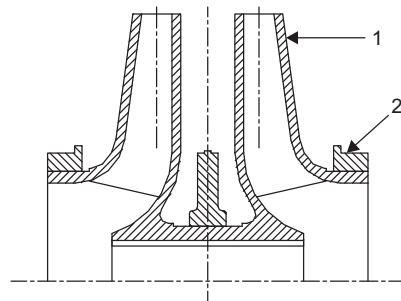


Fig. 7 Single-suction impeller

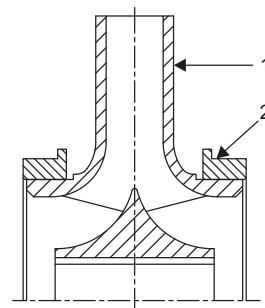


Fig. 8 Double-suction impeller

Construction

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Wear rings

The pump have wear rings (pos.2) between impeller (pos.1) and volute casing.

The wear rings protect the volute casing against wear. Besides, the wear rings have a sealing function between impeller and volute casing.

When the wear rings worn out, the efficiency of the pump will be reduced, and wear rings should be replaced. The wear rings are made of same material as the impeller.

Coupling

LHC pumps are fitted with a tyre type flexible cushion coupling.

These couplings are highly flexible, resilient and absorbs large misalignment.

Due to the coupling design, the rotating assembly of LHC pumps can be removed and serviced without dismantling the motor from the base frame.

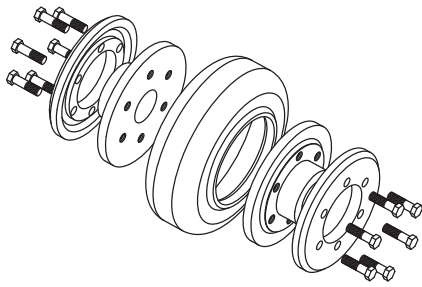


Fig. 9 Tyre type flexible cushion coupling

Base frame

Pump and motor are mounted on a common steel base frame in the form of welded, steel c-channel profile.

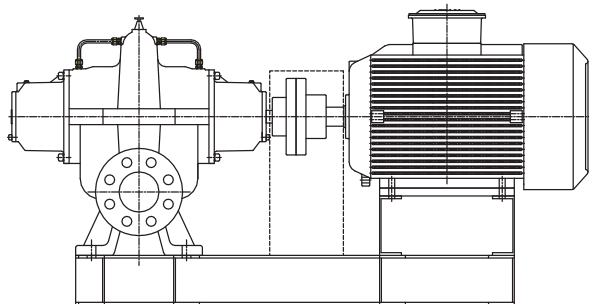


Fig. 10 LHC pump motor unit mounted on a base frame

Mechanical shaft seal

The shaft seal is an unbalanced, mechanical shaft seal.

Two types are available as standard,

- A rubber bellows type (M1) for single-stage and two-stage pumps.
- A cartridge type (M2) with O-ring for single-stage and two-stage pumps.

For other mechanical shaft seal variants, contact Lubi.

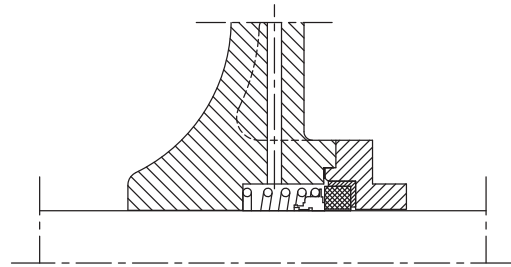


Fig. 11 Rubber bellows shaft seal type (M1)

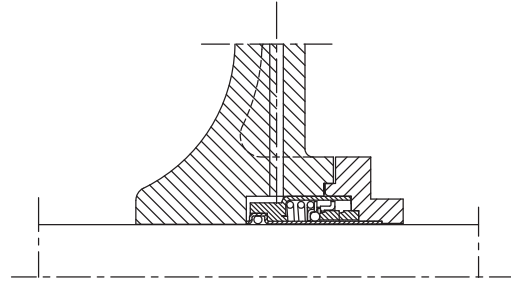


Fig. 12 Cartridge shaft seal type (M2)

Stuffing box

Stuffing boxes are available with lantern rings and graphite gland packing rings.

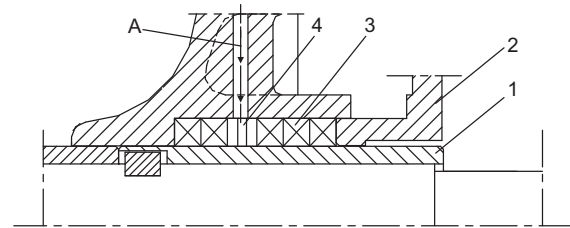


Fig. 13 Sectional view of an uncooled stuffing box

Pos.	Description	Pos.	Description
1	Shaft sleeve	A	Drilled hole for barrier fluid (pumped liquid)
2	Gland		
3	Graphite packing		
4	Lantern ring		

Test pressure

All pumps are hydrostatic tested for leakage as per the following test pressure using water containing corrosion inhibitor at room temperature.

Pressure rating	Operating pressure	Test pressure
PN 16	16 bar	24 bar
PN 25	25 bar	37.5 bar
ANSI 125	125 psi	188 psi
ANSI 250	250 psi	375 psi

Motors

The motors are squirrel cage induction motors, totally enclosed fan cooled with main dimension to IEC standards. The standard motors with the pumps are all as per EFF2 efficiency.

EFF1 efficiency motors can be available on request.

Operating conditions

Horizontal split case pumps

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Sound/Noise levels

As shown in the table below the motor noise levels will not exceed the maximum sound pressure level [db(A)] as per ISO 3743.

Motor kW	Maximum sound pressure level [db(A)]-ISO 3743		
	Three-phase motors		
	2-pole	4-pole	6-pole
3.00	59	52	-
4.00	63	54	-
5.50	63	62	63
7.50	68	62	66
11.0	70	66	66
15.0	70	66	66
18.5	70	63	66
22.0	70	63	66
30.0	71	65	59
37.0	71	66	60
45.0	71	66	58
55.0	71	67	58
75.0	73	70	61
90.0	73	70	61
110.0	76	70	61
132.0	76	70	61
160.0	-	70	-

Ambient temperature and altitude

The ambient temperature for proper motor operation must not exceed.

- + 45°C for EFF2 motors
- + 60°C for EFF1 motors.

In case of ambient temperature exceeding 45°C (or 60°C for EFF1) or if motor is to be installed more than 1000 metres above sea level then a higher output motor should be selected due to low cooling effect. Please refer the chart as shown in fig. 14 for selection of the motors at higher temperature or altitude.

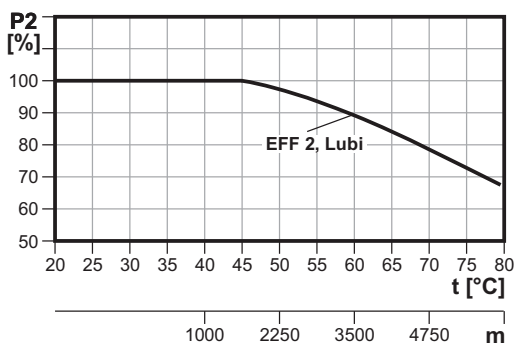


Fig. 14 Motor P2 depend on temperature/altitude

Example

A 15 kW EFF2 motor has to be increased in output to 18.5 kW if ambient temperature is 60°C.

A 15 kW EFF2 motor has to be increased in output to 18.5 kW if it has to operate at 3500 metres above mean sea level.

Pump location

The Pumps have been designed to operate in non aggressive and non explosive atmosphere.

The relative humidity should not exceed 95%.

Pumped liquids

LHC pumps are designed for non explosive liquids which are clean and thin without any solid particles.

For aggressive liquid please ensure that material of construction is suitable for liquid to be pumped.

A viscous liquid affects the pump performance in the following ways.

- The power consumption of the pump will increase with increase in viscosity. This will require a larger motor for the pump.
- Head, discharge & pump efficiency will reduce.

A liquid with high density will also affect the performance as follows.

- The power consumption will increase at a ratio corresponding to increase in density. For example a liquid with a specific gravity of 1.30 will require 30% larger motor to drive the pump.
- The head, discharge and pump efficiency will not change with change in density.

Liquid temperature

The LHC pump range covers the temperature range from 0°C to +140°C.

The permissible liquid temperature depends on the type of mechanical shaft seal furnished on the pump.

Please refer the table showing relationship between mechanical shaft seal & temperature.

The maximum liquid temperature is stamped on the nameplate of the pump.

Relationship between shaft seals and temperature

Seal type	Code	Temperature range
Carbon/Ceramic/NBR/ S.S.304	1	0°C to +90°C
Sic/Sic/Viton/S.S.316	2	0°C to +90°C
Carbon/Sic/Viton/S.S.316	3	0°C to +140°C

Inlet pressure

- The inlet pressure + shut off pressure (pressure of pump against closed valve) should not exceed the maximum operating pressure of the pump.
- The minimum inlet pressure must be according to the NPSH curve + 0.5 metres safety margin + correction of vapour pressure.

Motor electrical data

Horizontal split case pumps

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Eff 2/standard efficiency, 2-pole

P2 [kW]	P2 [H.P.]	Frame size	Voltage	I _{1/1} [A] at				η [%]	Cos Ø _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
				415 V	380 V	240 V	220 V				
5.50	7.50	112M	3x380-415Δ	9.70	10.61	-	-	88.5	0.890	2865	6.0
7.50	10.0	132M	3x380-415Δ	13.70	15.00	-	-	89.5	0.851	2880	6.5
9.30	12.5	132M	3x380-415Δ	16.00	17.60	-	-	90.0	0.890	2920	6.5
11.0	15.0	132M	3x380-415Δ	19.00	20.80	-	-	90.5	0.890	2920	6.5
15.0	20.0	160M	3x380-415Δ	26.00	28.50	-	-	91.0	0.880	2920	6.5
18.5	25.0	160L	3x380-415Δ	32.00	35.00	-	-	92.0	0.880	2920	6.5
22.0	30.0	160L	3x380-415Δ	40.00	44.00	-	-	92.0	0.830	2930	6.5
30.0	40.0	200L	3x380-415Δ	50.00	54.50	-	-	93.0	0.900	2950	6.5
37.0	50.0	200L	3x380-415Δ	61.00	67.00	-	-	93.0	0.904	2950	6.5
45.0	60.0	225M	3x380-415Δ	71.00	78.00	-	-	93.5	0.941	2955	6.5
55.0	75.0	250M	3x380-415Δ	87.00	94.50	-	-	94.0	0.940	2960	6.5
75.0	100.0	280S	3x380-415Δ	123.00	134.00	-	-	94.5	0.900	2965	6.5
90.0	120.0	280M	3x380-415Δ	146.00	160.00	-	-	95.0	0.903	2965	6.5
110.0	150.0	315S	3x380-415Δ	171.00	187.00	-	-	95.0	0.942	2965	6.5
132.0	180.0	315M	3x380-415Δ	205.00	224.00	-	-	95.0	0.940	2965	6.5

Eff 2/standard efficiency, 4-pole

P2 [kW]	P2 [H.P.]	Frame size	Voltage	I _{1/1} [A] at				η [%]	Cos Ø _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
				415 V	380 V	240 V	220 V				
3.00	4.00	112M	3x220-240Δ/380-415Y	5.80	6.40	10.20	11.00	86.0	0.825	1445	6.0
4.00	5.50	112M	3x380-415Δ	7.80	8.50	-	-	86.5	0.830	1445	6.0
5.50	7.50	132S	3x380-415Δ	10.60	11.60	-	-	89.0	0.810	1450	6.0
7.50	10.0	132M	3x380-415Δ	13.80	15.0	-	-	90.0	0.840	1455	6.5
9.30	12.5	160M	3x380-415Δ	17.00	18.60	-	-	90.5	0.840	1460	6.5
11.0	15.0	160M	3x380-415Δ	21.00	22.50	-	-	91.0	0.820	1460	6.5
15.0	20.0	160L	3x380-415Δ	27.00	29.50	-	-	91.5	0.850	1460	6.5
18.5	25.0	180M	3x380-415Δ	33.00	36.00	-	-	92.0	0.846	1475	6.5
22.0	30.0	180L	3x380-415Δ	39.00	43.00	-	-	92.5	0.848	1475	6.5
30.0	40.0	200L	3x380-415Δ	50.00	55.00	-	-	93.0	0.896	1475	6.5
37.0	50.0	225S	3x380-415Δ	62.00	68.00	-	-	93.5	0.890	1475	6.5
45.0	60.0	225M	3x380-415Δ	75.00	82.00	-	-	94.0	0.890	1480	7.0
55.0	75.0	250M	3x380-415Δ	91.00	100.00	-	-	94.0	0.893	1475	7.0
75.0	100.0	280S	3x380-415Δ	122.00	133.00	-	-	94.5	0.903	1480	7.0
90.0	120.0	280M	3x380-415Δ	146.00	160.00	-	-	95.0	0.903	1480	7.0
110.0	150.0	315S	3x380-415Δ	179.00	195.00	-	-	95.0	0.900	1480	6.4
132.0	180.0	315M	3x380-415Δ	215.00	235.00	-	-	95.0	0.900	1480	6.4
160.0	215.0	315L	3x380-415Δ	260.00	284.00	-	-	95.0	0.900	1480	6.5

Eff 2/standard efficiency, 6-pole

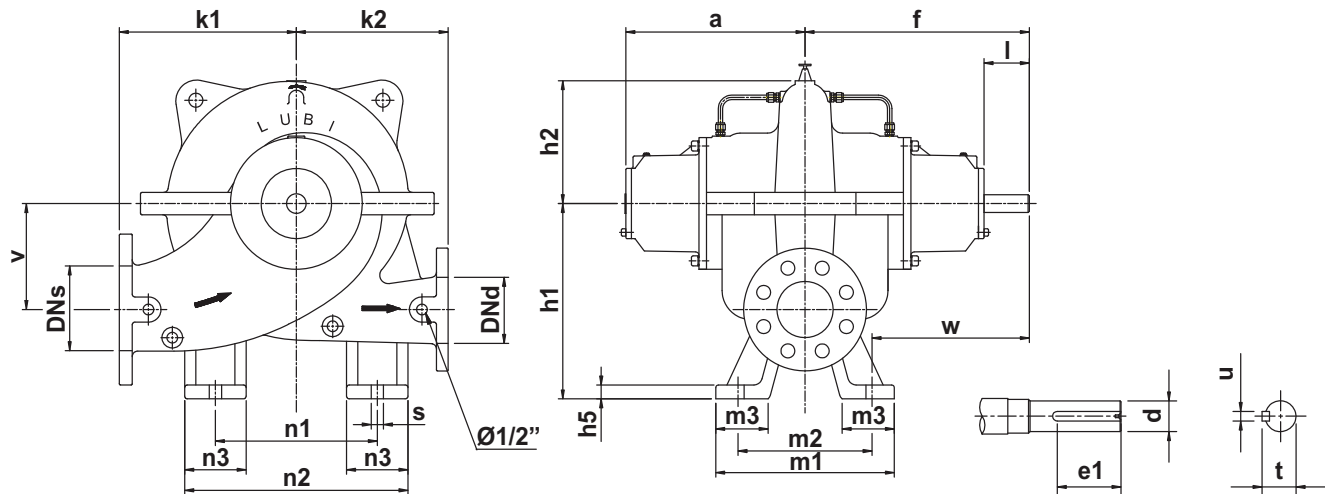
P2 [kW]	P2 [H.P.]	Frame size	Voltage	I _{1/1} [A] at				η [%]	Cos Ø _{1/1}	n [min ⁻¹]	I _{start} / I _{1/1}
				415 V	380 V	240 V	220 V				
5.50	7.50	132M	3x380-415Δ	10.75	11.74	-	-	86.8	0.820	925	7.0
7.50	10.0	160M	3x380-415Δ	14.36	15.68	-	-	88.1	0.825	935	7.0
9.30	12.5	160M	3x380-415Δ	17.46	19.06	-	-	89.3	0.830	940	7.0
11.0	15.0	160L	3x380-415Δ	20.31	22.18	-	-	89.7	0.840	940	7.0
15.0	20.0	180L	3x380-415Δ	27.45	29.98	-	-	90.5	0.840	945	7.0
18.5	25.0	200L	3x380-415Δ	33.32	36.39	-	-	91.3	0.846	945	7.0
22.0	30.0	200L	3x380-415Δ	38.77	42.34	-	-	91.8	0.860	950	7.0
30.0	40.0	225M	3x380-415Δ	51.22	55.94	-	-	92.6	0.880	950	7.0
37.0	50.0	250M	3x380-415Δ	63.00	68.80	-	-	93.0	0.880	950	7.0
45.0	60.0	280S	3x380-415Δ	77.00	84.00	-	-	93.0	0.880	960	7.0
55.0	75.0	280M	3x380-415Δ	94.00	103.00	-	-	93.2	0.873	960	7.0
75.0	100.0	315S	3x380-415Δ	127.00	139.00	-	-	93.3	0.880	970	7.0
90.0	120.0	315M	3x380-415Δ	153.00	166.00	-	-	93.3	0.880	970	7.0
110.0	150.0	315M	3x380-415Δ	187.00	204.00	-	-	93.5	0.880	970	7.0
132.0	180.0	315L	3x380-415Δ	225.00	245.00	-	-	93.6	0.880	970	7.0

Dimensions

Horizontal split case pumps

LHC

Bare shaft pumps



Single stage LHC pump

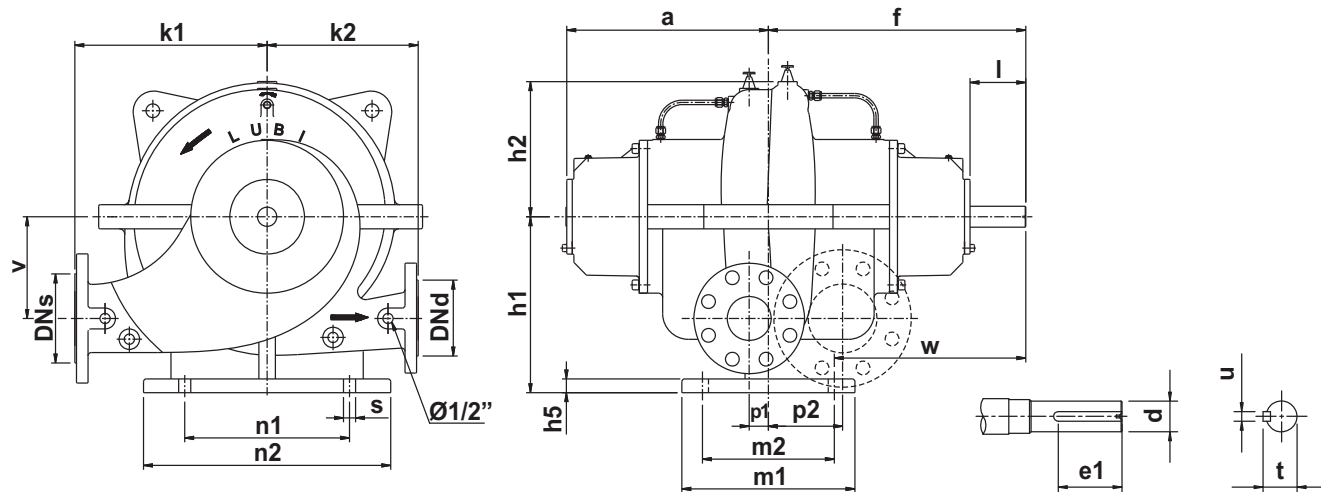
Type	DNs	DNd	k1	k2	v	n1	n2	n3	a	f	h1	h2	h5	s	w	m1	m2	m3	d	l	e1	u	t	Net weight [kg]	Gross weight [kg]	Volume m ³
LHC 50-200	65	50	220	175	115	160	235	75	266	335	215	130	15	18	241	244	189	78	24	70	60	8	27	70	117	0.386
LHC 65-250	80	65	250	220	130	240	315	75	295	376	250	163	22	22	266	275	220	81	32	81	65	10	35.3	120	182	0.568
LHC 80-250	100	80	285	240	145	250	350	100	309	389	280	185	25	22	279	300	220	95	32	81	65	10	35.3	145	211	0.493
LHC 80-315	100	80	325	315	195	340	465	125	317	397	330	234	25	22	261	350	270	95	32	81	65	10	35.3	196	275	0.658
LHC 80-380	100	80	325	315	195	340	465	125	317	397	330	234	25	22	261	350	270	95	32	81	65	10	35.3	196	275	0.658
LHC 100-250	125	100	310	250	170	250	350	100	323	402	320	199	25	22	282	320	240	95	32	81	65	10	35.3	180	251	0.570
LHC 100-315	125	100	320	275	190	290	400	110	323	402	350	220	25	22	282	320	240	95	32	81	65	10	35.3	200	276	0.634
LHC 100-400	125	100	375	325	210	370	490	120	334	434	365	260	25	22	314	320	240	87	38	102	85	10	41	240	330	0.800
LHC 125-250	150	125	335	275	180	260	400	140	332	411	360	214	25	22	286	350	250	99	32	81	65	10	35.3	200	279	0.662
LHC 125-315	150	125	350	300	195	300	440	140	333	434	375	244	25	22	309	350	250	99	38	102	85	10	41	230	317	0.749
LHC 125-400	150	125	400	350	210	390	530	140	333	434	390	272	25	22	299	370	270	95	38	102	85	10	41	300	395	0.878
LHC 125-450	150	125	400	375	230	400	540	140	347	456	410	284	28	22	321	370	270	97	48	110	95	14	51.5	323	425	0.966
LHC 150-250	200	150	385	325	190	350	490	140	351	451	390	233	25	24	298	370	305	80	38	102	85	10	41	260	352	0.836
LHC 150-315	200	150	400	310	180	350	475	125	352	452	375	258	25	24	292	385	320	80	38	102	85	10	41	310	404	0.847
LHC 150-400	200	150	425	350	210	380	520	140	374	482	410	292	28	22	337	390	290	97	48	110	95	14	51.5	310	414	1.025
LHC 150-500	200	150	475	425	255	490	630	140	386	493	460	330	28	24	342	402	302	97	55	111	102	16	59	450	575	1.329
LHC 200-250	250	200	450	325	280	360	495	135	399	499	525	281	28	24	299	500	400	96	38	102	85	10	41	404	517	1.175
LHC 200-315	250	200	450	375	235	430	570	140	405	513	465	287	28	24	333	460	360	105	48	110	95	14	51.5	404	519	1.198
LHC 200-400	250	200	485	420	230	460	604	144	406	515	465	313	28	24	365	400	300	97	55	111	94	16	59	450	575	1.329
LHC 200-500	250	200	525	510	270	460	620	160	470	613	505	350	28	22	418	475	375	130	75	136	135	20	79.5	650	791	1.988
LHC 250-250	300	250	500	400	315	460	604	144	437	546	600	303	28	24	346	500	400	97	48	110	95	14	51.5	502	639	1.555
LHC 250-315	300	250	525	450	265	510	660	150	442	551	540	326	28	24	341	520	420	105	55	111	94	16	59	535	677	1.626
LHC 250-400	300	250	550	475	275	560	730	170	439	548	550	343	28	24	338	520	420	120	55	111	94	16	59	570	718	1.727
LHC 250-500	300	250	600	575	275	650	835	185	495	634	550	379	30	28	424	520	420	120	85	140	130	22	89	695	875	2.380
LHC 300-400	350	300	625	460	305	560	730	170	529	665	615	370	28	24	445	540	440	130	75	140	130	20	80	1100	1240	2.500
LHC 400-450	450	400	750	600	400	750	950	200	625	763	775	474	40	28	438	800	650	154	75	140	130	20	79.5	1350	1595	3.800

Dimensions

Horizontal split case pumps

LHC

Bare shaft pumps



Two stage LHC pump

Type	DN _s	DN _d	k1	k2	v	n1	n2	p1	a	f	h1	h2	h5	s	w	m1	m2	p2	d	l	e1	u	t	Net weight [kg]	Gross weight [kg]	Volume m ³
LHC 80-250-2	100	80	325	260	140	250	375	33.5	338	419	280	191	25	22	295	300	240	121	32	81	70	12	35.3	205	265	0,564
LHC 80-315-2	100	80	315	250	160	250	400	32	381	396	295	222	25	22	303	325	240	128	32	81	65	10	35.3	243	317	0,605
LHC 80-380-2	100	80	350	275	185	300	450	35	404	434	320	246	25	22	344	325	250	135	38	102	85	10	41	255	340	0,735
LHC 100-400-2	125	100	405	325	225	370	490	41	389	495	375	282	25	22	370	325	250	145	48	110	102	14	52	357	457	1,192
LHC 125-400-2	150	125	480	335	215	400	520	43	418	523	380	297	25	22	386	350	275	186	48	106	102	14	52	410	510	1,192