

## The Premium Pump for Higher Pressure

### LKHI Centrifugal Pump for 16 bar Inlet Pressure

#### Application

The LKHI pump is a highly efficient and economical centrifugal pump, specially designed for inlet pressures up to 16 bar. LKHI meets the requirements of sanitary and gentle product treatment and chemical resistance, and is available in nine sizes, LKHI-10, -15, -20, -25, -35, -40, -45, -50, -60.

#### Standard Design

The LKHI pump consists of a special motor, stub shaft, compression coupling, adaptor, back plate, impeller, pump casing and shaft seal.

The LKHI pump is designed for CIP-cleaning with emphasis on large internal roundings and easily cleanable seals.

LKHI is a sanitary pump with a stainless steel shroud for protection of the motor. The complete unit is supported on four adjustable stainless steel legs.

#### Shaft seals

LKHI can be fitted with two types of mechanical seals:

- Single internal seal.
- Flushed seal.

Both seal types have stationary seal rings of silicon carbide and rotating seal rings of carbon or silicon carbide:

- 1) Silicon carbide/carbon for inlet pressure up to 10 bar.
- 2) Silicon carbide/silicon carbide for inlet pressure higher than 10 bar.

The secondary seal of the flushed seal is a long lasting lip seal.

#### Materials

Product wetted steel parts: Acid-resistant steel, 1.4404 (316L).  
 Other steel parts: Stainless steel, 1.4301 (304).  
 Product wetted seals: EPDM.  
 Other O-rings: EPDM.  
 Finish: Semi-bright.



LKHI.

#### Technical data

Max. inlet pressure:	1600 kPa (16 bar).
Temperature range:	-10°C to +140°C (EPDM).
Water pressure:	Normally atmospheric.
(Flushed seal)	(max. 1 bar).
Water consumption:	0.25 -0.5 l/min.
(Flushed seal)	
Noise level (at 1 m):	60 - 80 dB (A).

**Motor**

Foot-flanged motor according to the IEC metric standard, 2 poles = 3000/3600 rpm. at 50/60 Hz, IP 55 (with drain hole with labyrinth plug), insulation class F.

**Motor types:**

- Standard motor with a fixed ball bearing on drive side.
- Special motor with a fixed angular-contact ball bearing on drive side.

Motor sizes (kW)	Inlet pressure (bar)	
	0-10	>10
1.5 - 30 (50 Hz) 1.75 - 35 (60 Hz)	Standard motor	Special motor

**Note!** The special motor must be ordered for inlet pressure >10 bar.

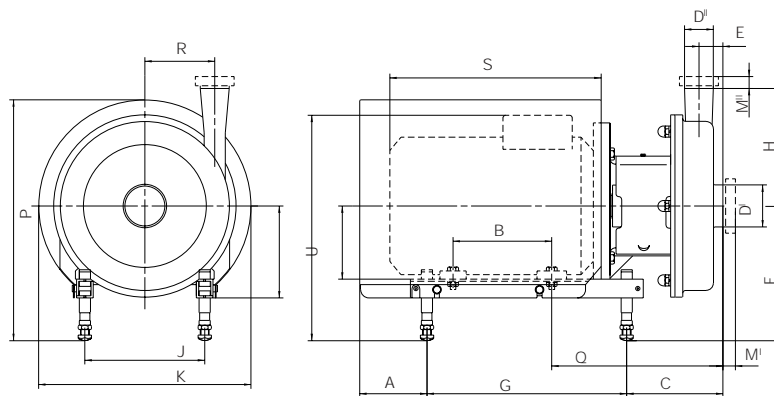
**Voltage and frequency**

3 -, 50 Hz, 220-240V D/380-420VY	≤ 4 kW
3 -, 60 Hz, 250-280V D/440-480VY	≤ 4.6 kW
3 -, 50 Hz, 380-420V D/660-690VY	≥ 5.5 kW
3 -, 60 Hz, 440-480V D	≥ 6.3 kW

**Motor sizes**

50 Hz: 1.5, 2.2, 3.0, 4.0, 5.5, 7.5, 11.0, 15.0, 18.5, 22.0, 30.0 kW.  
60 Hz: 1.75, 2.5, 4.6, 6.3, 8.6, 12.5, 17.0, 21.0, 25.0, 35.0 kW.

Dimensions (mm)



TD 200-001

LKHI-10

Size	Motor			
	1.5 kW	2.2 kW	3 kW	4 kW
A	109	109	78	81
B	100	125	140	140
C	132	132	140	147
E	23	23	23	23
F min.	189	189	185	184
F max.	275	275	295	297
G	242	242	320	320
H	142	142	142	142
J	140	140	160	190
K	289	289	323	359
P min.	348	348	353	378
P max.	433	433	463	492
Q	215	215	235	242
R	87	87	87	87
*S	245	270	298	301
U	125	125	145	147
Weight (kg)	43	46	54	64

LKHI-15

Size	Motor		
	3 kW	4 kW	5.5kW
A	78	81	76
B	140	140	140
C	176	183	181
E	43	43	43
F min.	185	184	184
F max.	295	297	317
G	320	320	400
H	166	166	166
J	160	190	216
K	323	359	383
P min.	353	378	376
P max.	463	492	509
Q	271	278	316
R	66	66	66
*S	298	301	367
U	145	147	167
Weight (kg)	60	70	88

LKHI-20

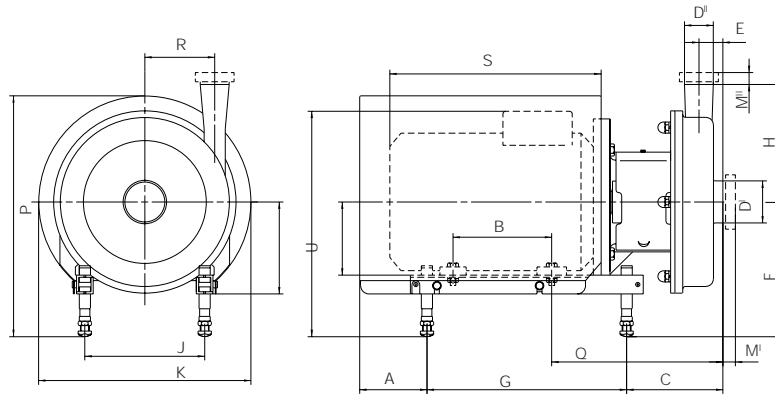
Size	Motor				
	2.2 kW	3 kW	4 kW	5.5 kW	7.5 kW
A	109	78	81	76	76
B	125	140	140	140	178
C	144	153	159	157	157
E	27	27	27	27	27
F min.	189	185	184	184	184
F max.	275	295	297	317	317
G	242	320	320	400	400
H	180	180	180	180	180
J	140	160	190	216	216
K	289	323	359	383	383
P min.	348	353	378	376	376
P max.	433	463	492	509	509
Q	226	248	292	292	292
R	88	88	88	88	88
*S	270	298	301	367	367
U	125	145	147	167	167
Weight (kg)	50	58	68	86	86

LKHI-25

Size	Motor			
	5.5 kw	7.5 kw	11 kw	15 kw
A	76	76	106	106
B	140	178	210	210
C	168	168	198	198
E	33	33	33	33
F min.	184	184	228	228
F max.	317	317	345	345
G	400	400	483	483
H	193	193	193	193
J	216	216	254	254
K	383	383	485	485
P min.	376	376	486	486
P max.	509	509	603	603
Q	303	303	350	350
R	106	106	106	106
*S	367	367	493	493
U	167	167	195	195
Weight (kg)	92	92	136	145

Note! \*S for pumps with ABB motors.

Dimensions (mm)



TD 200-001

LKHI-35

Size	Motor				
	4 kW	5.5 kW	7.5 kW	11 kW	15 kW
A	81	76	76	106	106
B	140	140	178	210	210
C	155	153	153	183	183
E	23	23	23	23	23
F min.	184	184	184	228	228
F max.	297	317	317	345	345
G	320	400	400	483	483
H	193	193	193	193	193
J	190	216	216	254	254
K	359	383	383	485	485
P min.	378	376	376	486	486
P max.	492	509	509	603	603
Q	250	288	288	335	335
R	119	119	119	119	119
*S	301	367	367	493	493
U	147	167	167	195	195
Weight (kg)	73	91	91	135	144

LKHI-40

Size	Motor				
	7.5 kW	11 kW	15 kW	18.5 kW	22 kW
A	76	106	106	106	156
B	178	210	210	254	241
C	164	193	193	193	206
E	28	28	28	28	28
F min.	184	228	228	228	260
F max.	317	345	345	345	365
G	400	483	483	483	508
H	212	212	212	212	212
J	216	254	254	254	279
K	383	485	485	485	533
P min.	376	486	486	486	537
P max.	509	603	603	603	646
Q	299	345	345	345	359
R	126	126	126	126	126
*S	367	493	493	493	570
U	167	195	195	195	215
Weight (kg)	97	141	150	160	187

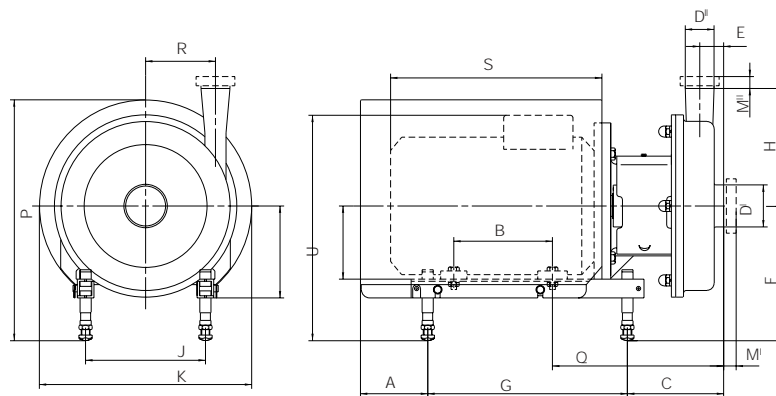
LKHI-45

Size	Motor				
	4 kW	5.5 kW	7.5 kW	11 kW	15 kW
A	81	76	76	106	106
B	140	140	178	210	210
C	184	182	182	212	212
E	41	41	41	41	41
F min.	184	184	184	228	228
F max.	297	317	317	345	345
G	320	400	400	483	483
H	193	193	193	193	193
J	190	216	216	254	254
K	359	383	383	485	485
P min.	378	376	376	486	486
P max.	492	509	509	603	603
Q	279	317	317	364	364
R	97	97	97	97	97
*S	301	367	367	493	493
U	146	166	166	194	194
Weight (kg)	77	95	95	139	148

LKHI-50

Size	Motor					
	5.5 kW	7.5 kW	11 kW	15 kW	18.5 kW	22 kW
A	76	76	106	106	106	156
B	140	178	210	210	254	241
C	177	177	206	206	206	219
E	36	36	36	36	36	36
F min.	184	184	228	228	228	260
F max.	317	317	345	345	345	365
G	400	400	483	483	483	508
H	205	205	205	205	205	205
J	216	216	254	254	254	279
K	383	383	485	485	485	533
P min.	376	376	486	486	486	537
P max.	509	509	603	603	603	646
Q	312	312	359	359	359	372
R	117	117	117	117	117	117
*S	367	367	493	493	493	570
U	166	166	194	194	194	214
Weight (kg)	101	101	145	154	164	189

Dimensions (mm)



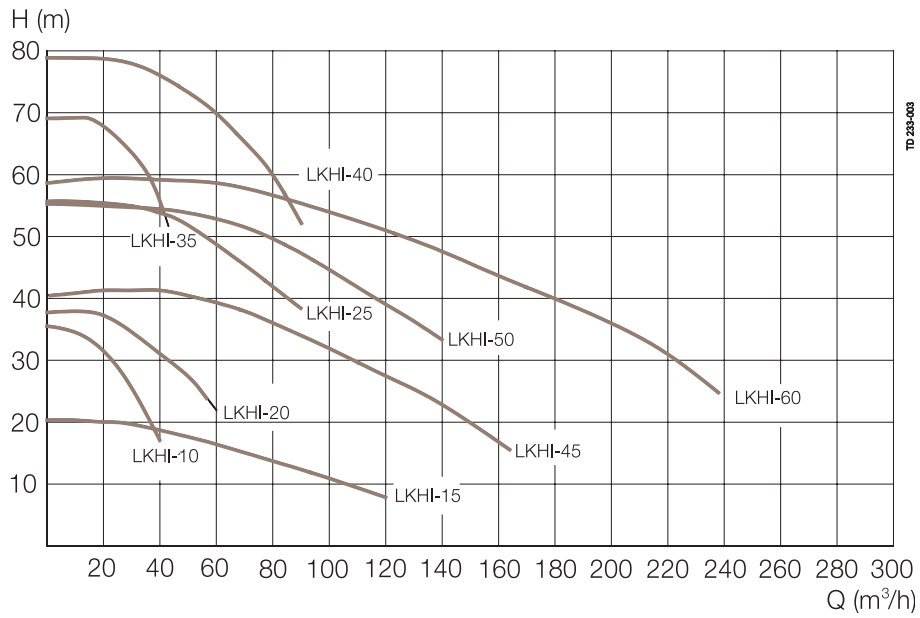
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LKHI-60

Size	Motor						
	5.5 kW	7.5 kW	11 kW	15 kW	18.5 kW	22 kW	30 kW
A	76	76	106	106	106	156	202
B	140	178	210	210	254	241	305
C DN150	256	256	285	285	285	298	310
C 4"	206	206	235	235	235	248	260
C clamp 6"	246	246	275	275	275	288	300
E DN150	112	112	112	112	112	112	112
E 4"	62	62	62	62	62	62	62
E clamp 6"	102	102	102	102	102	102	102
F min.	184	184	228	228	228	260	260
F max.	317	317	345	345	345	365	385
G	400	400	483	483	483	508	534
H	261	261	261	261	261	261	261
J	216	216	254	254	254	279	318
K	383	383	485	485	485	533	608
P min.	376	376	486	486	486	537	593
P max.	509	509	603	603	603	646	718
Q DN150	391	391	438	438	438	451	458
Q 4"	341	341	388	388	388	401	408
Q clamp 6"	381	381	428	428	428	441	448
R	102	102	102	102	102	102	102
*S	367	367	493	493	493	570	663
U	167	167	195	195	195	215	220
Weight(kg)	114	114	158	167	177	202	262

Note! \*S for pumps with ABB motors.

Volumetric flow



Connections (mm)

LKHI-10, -20, -35

D <sup>I</sup> 63.5	ISO	ISO	DIN	SMS	BS
D <sup>II</sup> 51	Clamp	Male	Male	Male	Male
M <sup>I</sup>	21	21	25	24	22
M <sup>II</sup>	21	21	22	20	22

LKHI-15, -45, -50

D <sup>I</sup> 101.6	ISO	ISO	DIN	SMS	BS
D <sup>II</sup> 76.1	Clamp	Male	Male	Male	Male
M <sup>I</sup>	21	21	30	35	27
M <sup>II</sup>	21	21	30	24	22

LKHI-25

D <sup>I</sup> 76.1	ISO	ISO	DIN	SMS	BS
D <sup>II</sup> 63.5	Clamp	Male	Male	Male	Male
M <sup>I</sup>	21	21	30	24	22
M <sup>II</sup>	21	21	25	24	22

LKHI-60

D <sup>I</sup> 101.6	ISO	ISO	DIN	SMS	BS
D <sup>II</sup> 101.6	Clamp	Male	Male	Male	Male
M <sup>I</sup>	21	21	30	35	27
M <sup>II</sup>	21	21	30	35	27

LKHI-40

D <sup>I</sup> 76.1	ISO	ISO	DIN	SMS	BS
D <sup>II</sup> 63.5	Clamp	Male	Male	Male	Male
M <sup>I</sup>	21	21	30	24	22
M <sup>II</sup>	12	21	27	24	17

D <sup>I</sup> DN150	DIN	D <sup>I</sup> 6"	ISO
D <sup>II</sup> DN100	Male	D <sup>II</sup> 4"	Clamp
M <sup>I</sup>	50	M <sup>I</sup>	38
M <sup>II</sup>	30	M <sup>II</sup>	16

**Optional Extras**

- A) Impeller with reduced diameter.
- B) Impeller screw.
- C) Motor for other voltage and/or frequency.
- D) 1500 rpm. motor.
- E) Motor with increased safety/flame proof motor.
- F) Flushed shaft seal.
- G) Seals in Nitrile (NBR) or Fluorinated rubber (FPM).
- J) Surface roughness, product wetted parts:  
 $R_a \leq 0.8 \mu\text{m}$ .
- K) Product wetted seals of Nitrile (NBR) or Fluorinated rubber (FPM).
- L) Seal faces in SIC/SIC (Silicon Carbide).

**Ordering**

Please state the following when ordering:

- Pump size.
- Pressure.
- Connections.
- Impeller diameter.
- Motor size.
- Single or flushed shaft seal.
- Optional extras.

**Note!**

- The curves for LKHI are the same as those for LKH.
- For further details, see also Instruction Manual, IM 70820.