

Submersible Motor Pump

Amarex KRT

India N & DKN motortypes

General Arrangement Drawings



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General Arrangement Drawings Amarex KRT

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Waste Water

Submersible Motor Pump

Amarex KRT_DKN



Designation

Example: Amarex KRT K 150-503/155 4 UN G-D IE3

Designation key

Code	Description	
Amarex KRT	Type series	
K	Impeller type	
	S/S-max	Impeller with cutter
	F/F-max	Free-flow impeller
	E/E-max	Closed single-channel impeller
	D	Open diagonal single-vane impeller
	K/K-max	Closed multi-channel impeller
150	Nominal discharge nozzle diameter [mm]	
503	Maximum nominal impeller diameter [mm]	
155	Motor size	
4	Number of motor poles	
UN	Motor version	
	UN/UE	Without explosion protection, for fluid temperatures of up to 40 °C ¹⁾
	UF	Without explosion protection, for fluid temperatures of up to 40 °C, ambient temperature up to 55 °C
	WN/WE	Without explosion protection, for fluid temperatures of up to 60 °C ¹⁾
	XN/XE	Explosion protection Ex II 2G Ex db h IIB T3 Gb, for fluid temperatures of up to 40 °C ¹⁾
	XF	Explosion protection Ex II 2G Ex db h IIB T3 Gb, for fluid temperatures of up to 40 °C, ambient temperature up to 55 °C
	YN/YE	Explosion protection Ex II 2G Ex db h IIB T4 Gb, for fluid temperatures of up to 40 °C ¹⁾
	ZN/ZE	Explosion protection Ex II 2G Ex db h IIB T3 Gb, for fluid temperatures of up to 60 °C ¹⁾
G	Material variant	
	G	Standard variant, grey cast iron
	G1	Like G, impeller made of duplex stainless steel
	G2	Like G, impeller made of white cast iron
	GH	Like G, impeller and discharge cover made of white cast iron
	H	Wetted parts made of white cast iron
	C1	Wetted parts made of duplex stainless steel, mechanical seal with elastomer bellows, bolts/screws made of A4
D	Installation type	
	D	Stationary dry installation, vertical (S1 duty)
	H	Stationary dry installation, horizontal (S1 duty)

¹ Maximum fluid temperature and ambient temperature

Code	Description	
D	K	Stationary wet installation (S1 duty with motor outside the fluid possible) with guide wire arrangement or guide rail arrangement
	S	Stationary wet installation (S1 duty with submerged motor) with guide wire arrangement or guide rail arrangement
	P	Transportable wet-installed model (S1 duty with submerged motor)
IE3	Motor efficiency classification ²⁾	
	³⁾	No efficiency classification
	IE3	Premium Efficiency

Installation types



Fig. 1: Installation types

1	Installation type K: stationary wet installation (S1 duty with motor outside of the fluid possible) with guide rail arrangement Installation type S: stationary wet installation (S1 duty with submerged motor) with guide rail arrangement
2	Installation type K: stationary wet installation (S1 duty with motor outside of the fluid possible) with guide wire arrangement Installation type S: stationary wet installation (S1 duty with submerged motor) with guide wire arrangement
2	Installation type P: wet installation of transportable model (S1 duty with submerged motor)

Pump sets of installation types K

are suitable for continuous duty with the motor outside the fluid. Cooling is effected by means of air convection. Versions with a cooling jacket have an additional internal cooling circuit.

Pump sets of installation types P and S

are designed for continuously submerged operation. The motor is cooled by the fluid handled on the motor surface. Operation with the motor outside the fluid handled is possible for short periods.

²⁾ IEC 60034-30 standard not binding for submersible motor pumps. Efficiencies calculated/determined according to the measurement method specified in IEC 60034-2. The marking is used for submersible motors that achieve efficiency levels similar to those of standardised motors acc. to the IEC 60034-30 standard.

³⁾ Blank

General arrangement drawings

General arrangement drawing S1, stationary on duckfoot bend, guide rail arrangement, foundation with step, with foundation rail, large upper holder, motor version N

S1)

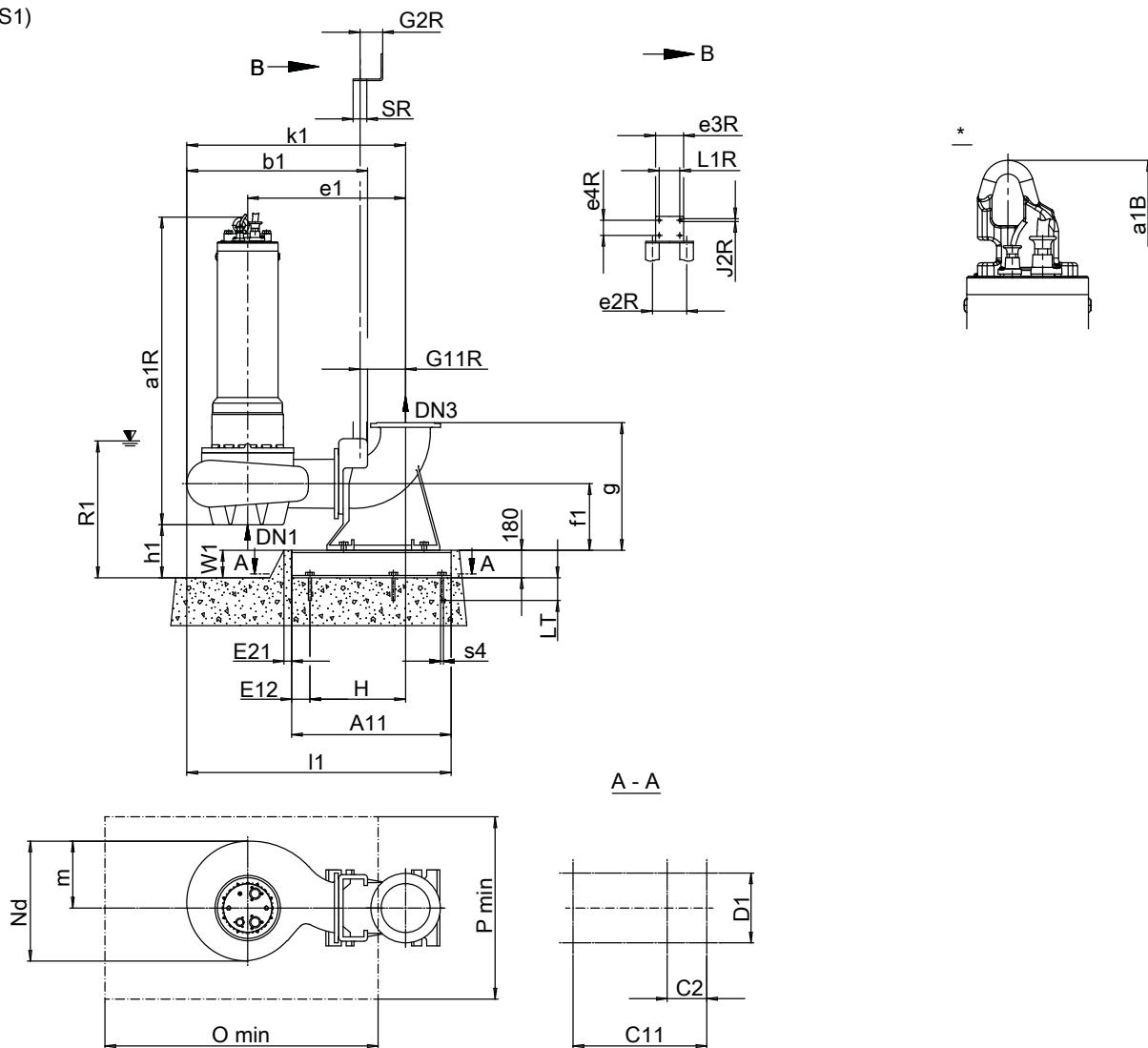


Fig. 2: General arrangement drawing S1, stationary on duckfoot bend, guide rail arrangement, foundation with step, with foundation rail, large upper holder, motor version N

*: Optional

General arrangement drawing S2, stationary on duckfoot bend, guide rail arrangement, foundation with step, with foundation rail, small upper holder, motor version N

S2)

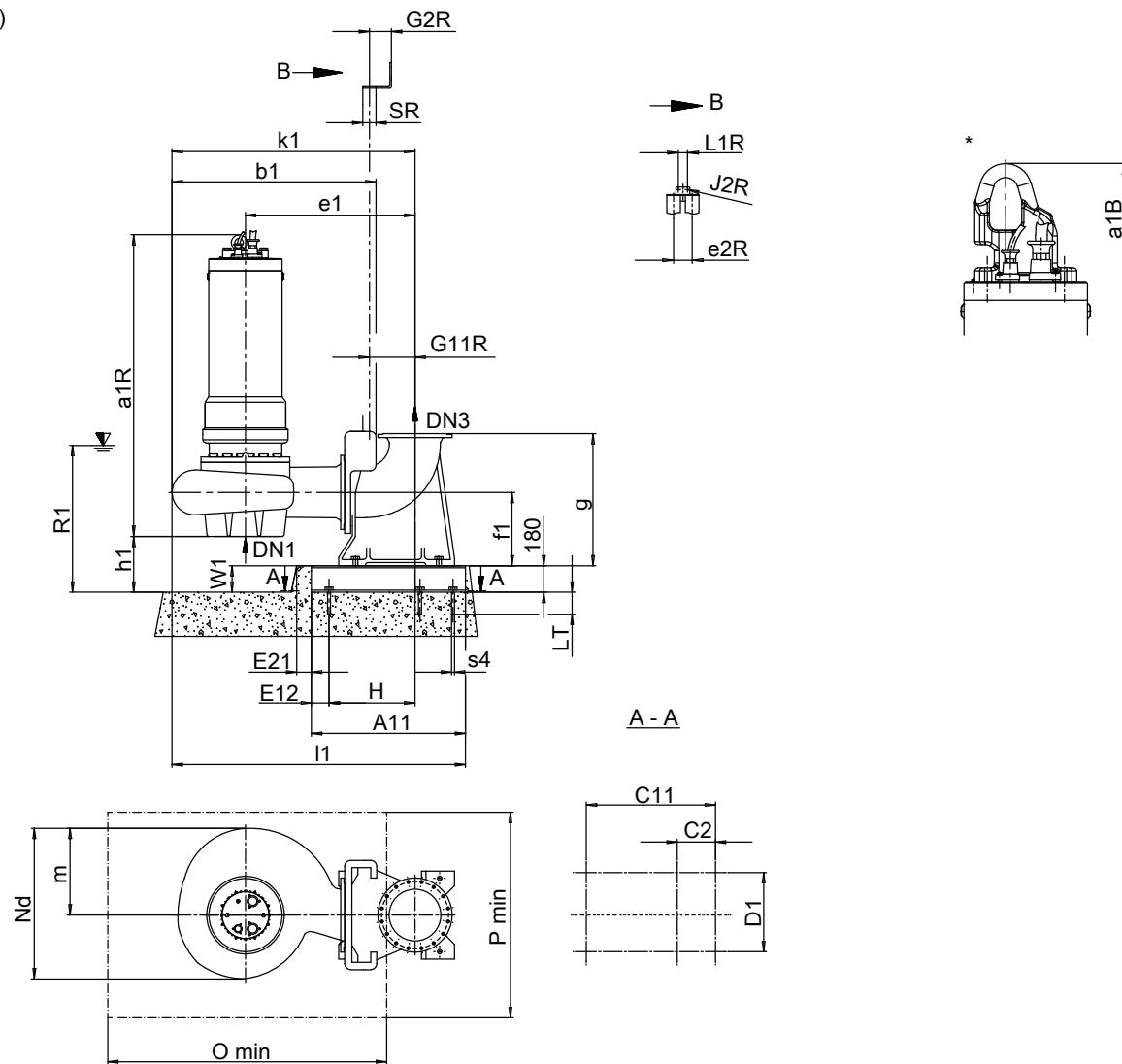


Fig. 3: General arrangement drawing S2, stationary on duckfoot bend, guide rail arrangement, foundation with step, with foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing S3, stationary on duckfoot bend, guide rail arrangement, foundation with step, without foundation rail, small upper holder, motor version N

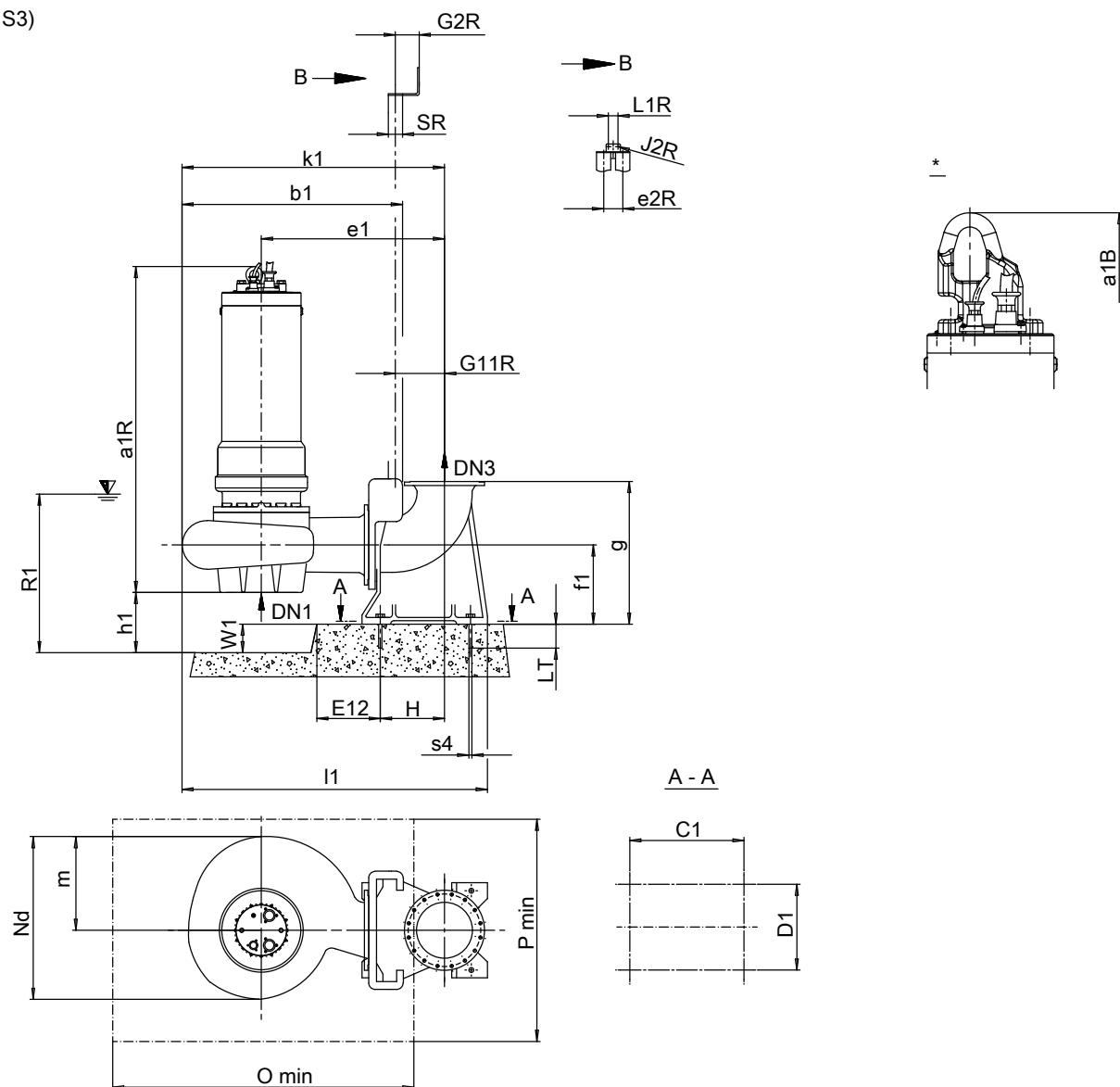


Fig. 4: General arrangement drawing S3, stationary on duckfoot bend, guide rail arrangement, foundation with step, without foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing S4, stationary on duckfoot bend, guide rail arrangement, foundation with step, without foundation rail, large upper holder, motor version N

S4)

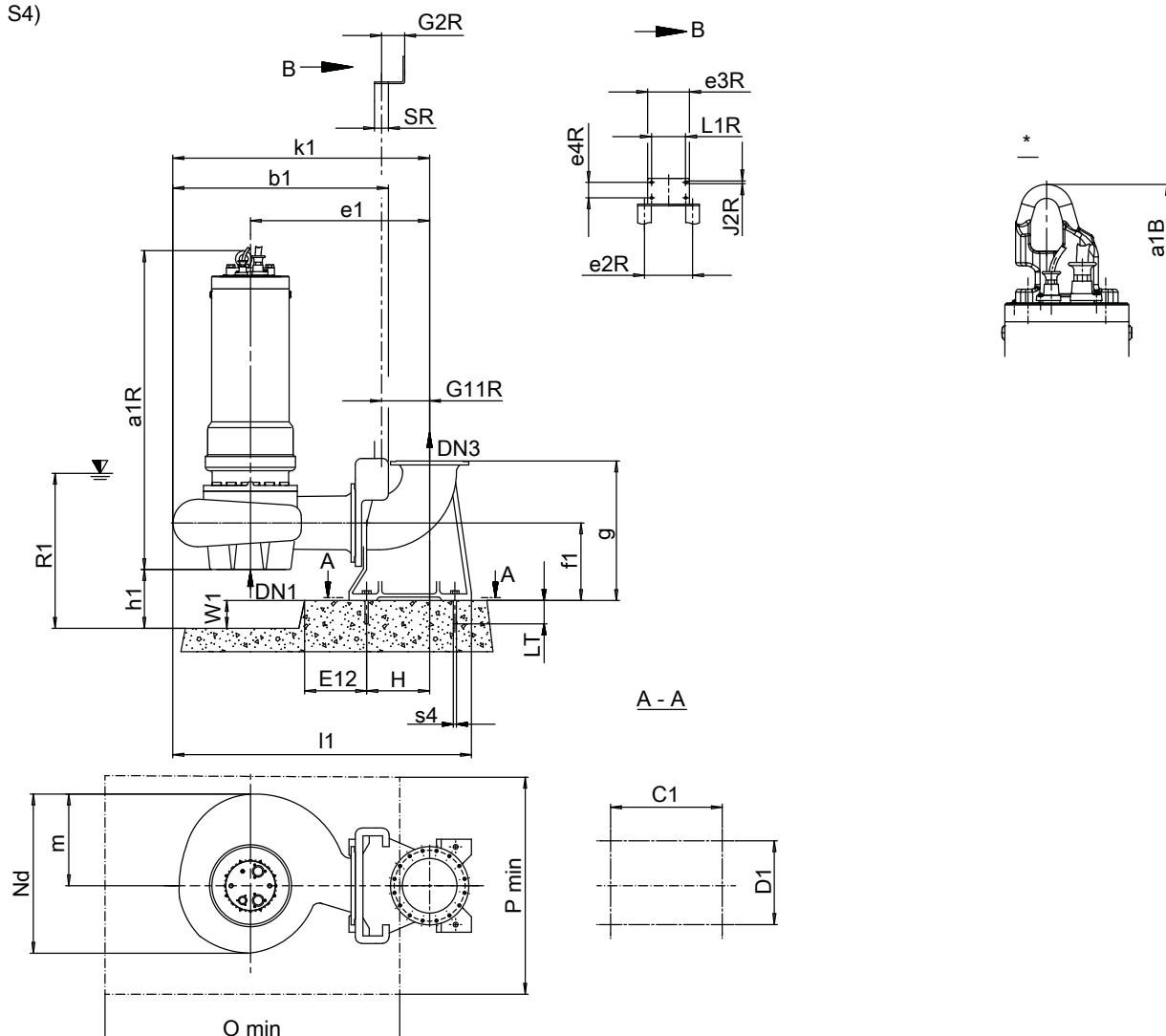


Fig. 5: General arrangement drawing S4, stationary on duckfoot bend, guide rail arrangement, foundation with step, without foundation rail, large upper holder, motor version N

*: Optional

General arrangement drawing S5, stationary on duckfoot bend, guide rail arrangement, single-level foundation, without foundation rail, small upper holder, motor version N

S5)

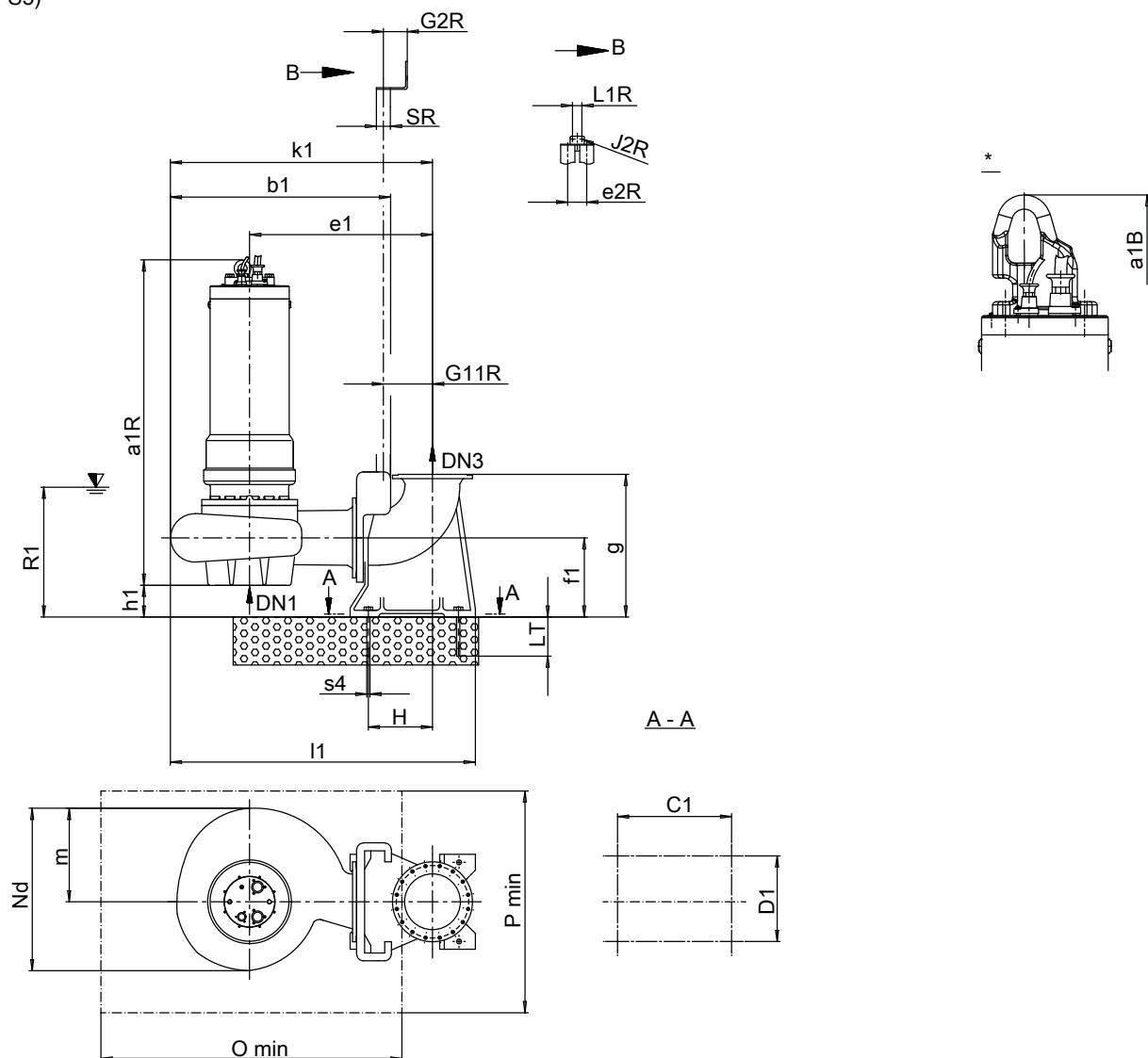


Fig. 6: General arrangement drawing S5, stationary on duckfoot bend, guide rail arrangement, single-level foundation, without foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing W1, stationary on duckfoot bend, guide wire arrangement, foundation with step, with foundation rail, small upper holder, motor version N

W1)

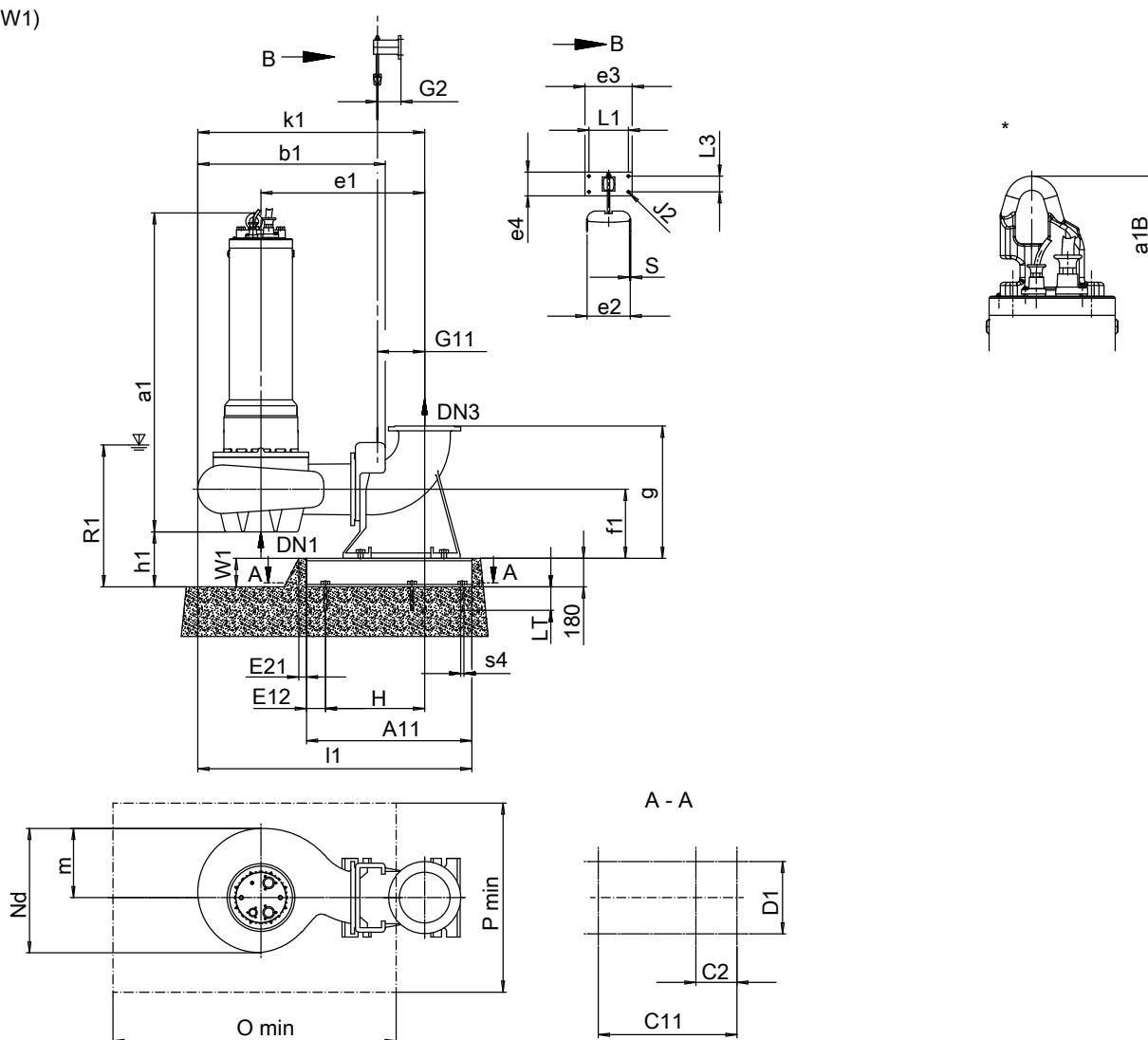


Fig. 7: General arrangement drawing W1, stationary on duckfoot bend, guide wire arrangement, foundation with step, with foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing W2, stationary on duckfoot bend, guide wire arrangement, foundation with step, with foundation rail, large upper holder, motor version N

W2)

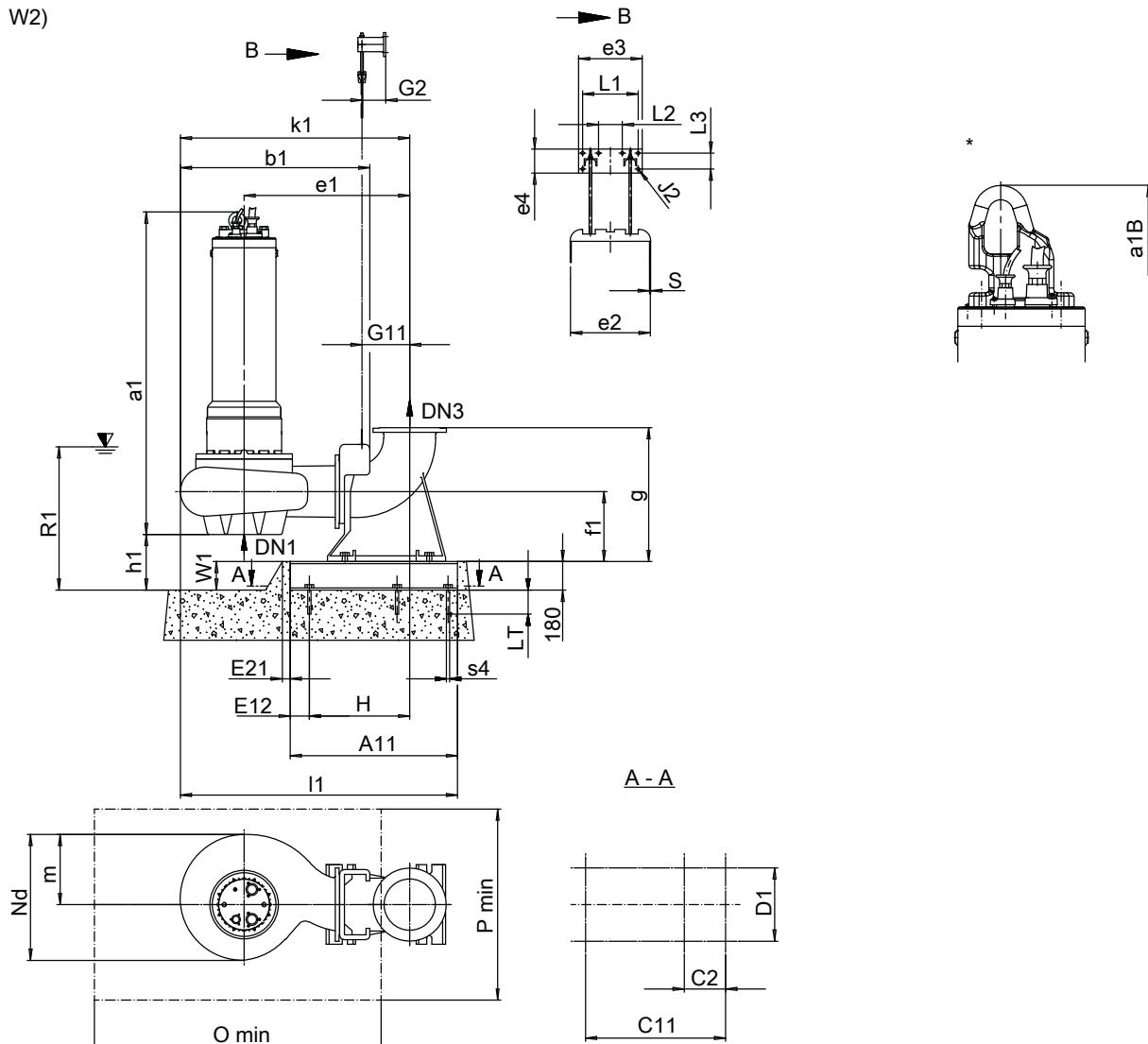


Fig. 8: General arrangement drawing W2, stationary on duckfoot bend, guide wire arrangement, foundation with step, with foundation rail, large upper holder, motor version N

*: Optional

General arrangement drawing W3, stationary on duckfoot bend, guide wire arrangement, foundation with step, without foundation rail, small upper holder, motor version N

W3)

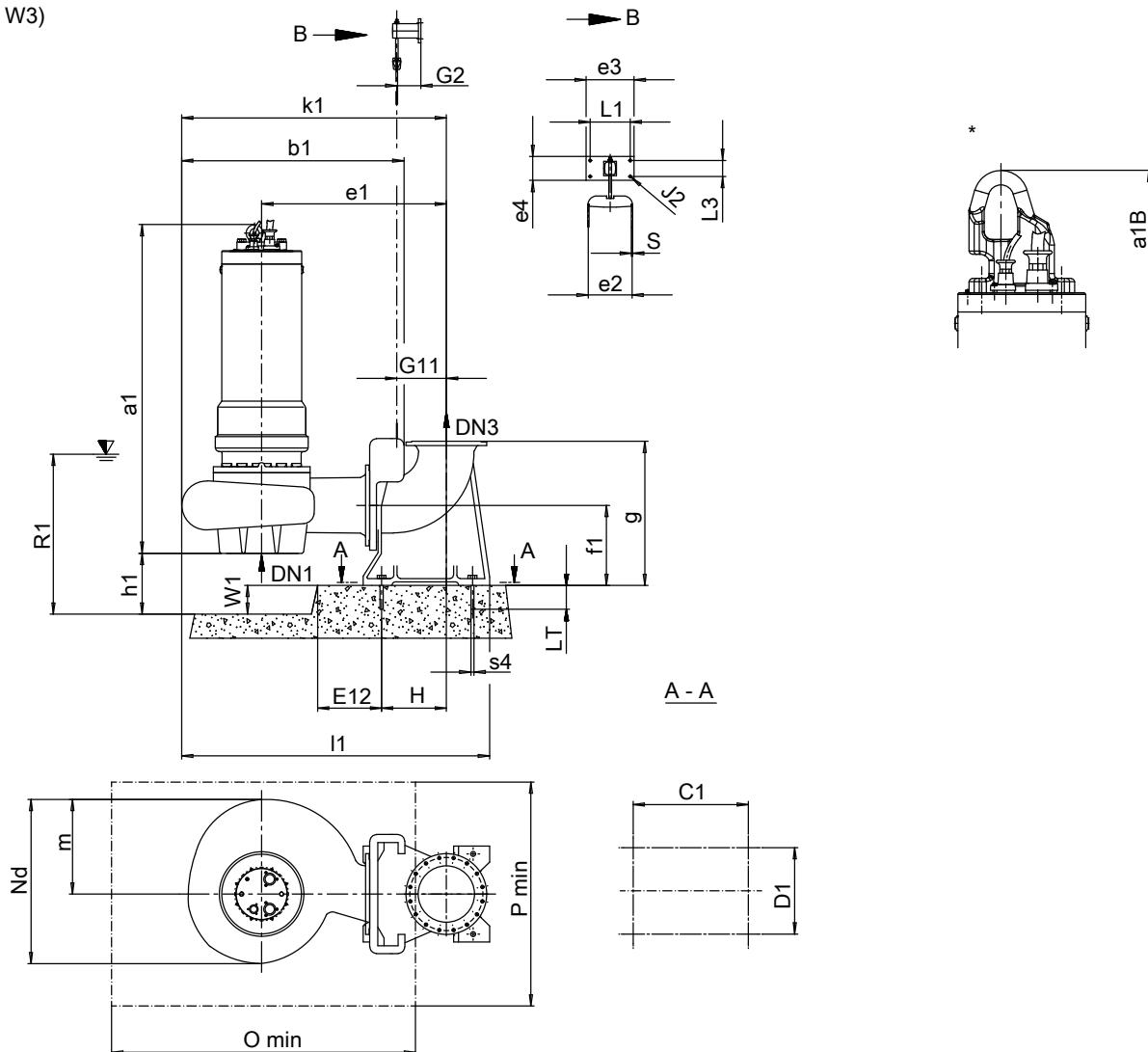


Fig. 9: General arrangement drawing W3, stationary on duckfoot bend, guide wire arrangement, foundation with step, without foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing W4, stationary on duckfoot bend, guide wire arrangement, foundation with step, without foundation rail, large upper holder, motor version N

W4)

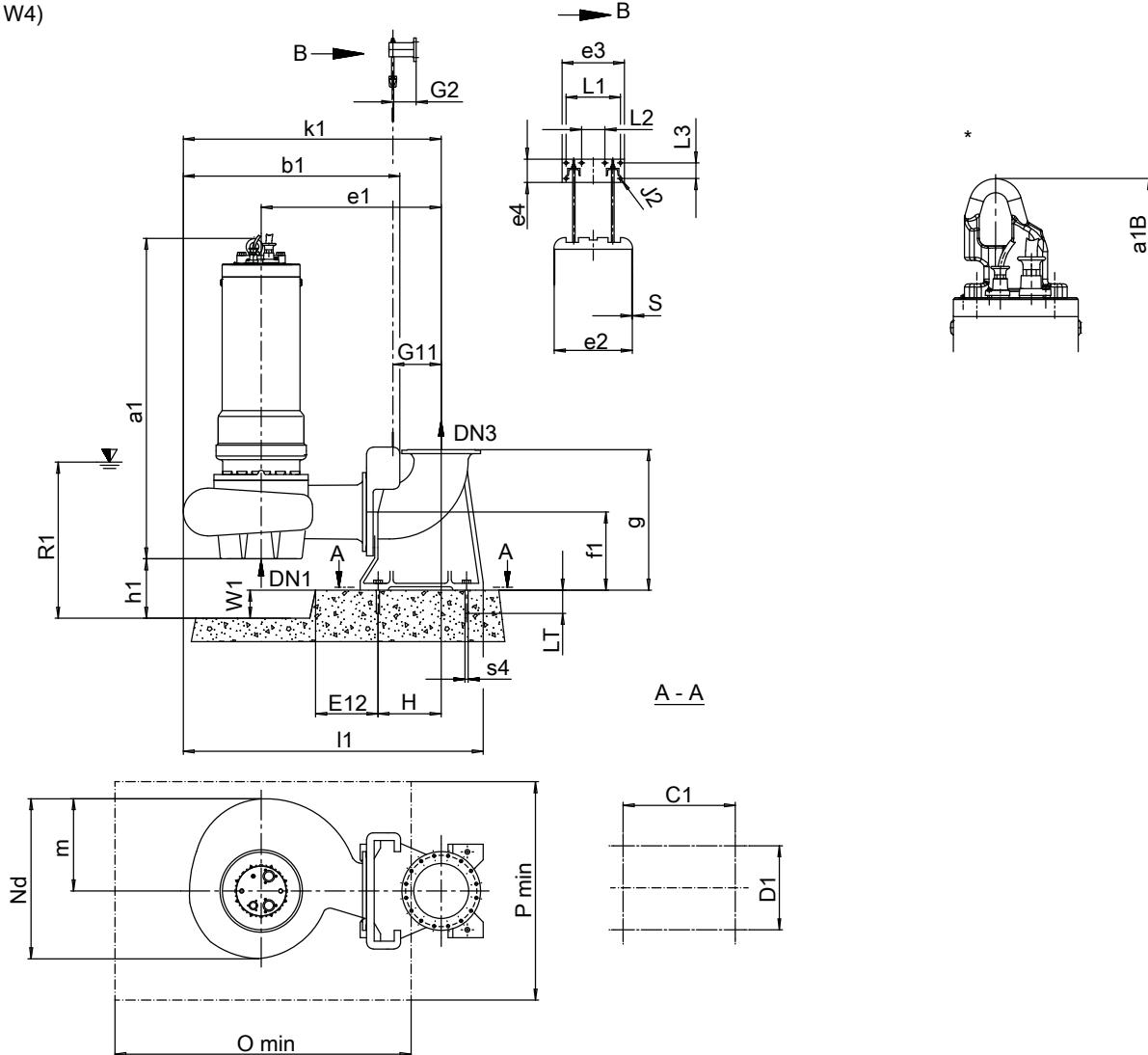


Fig. 10: General arrangement drawing W4, stationary on duckfoot bend, guide wire arrangement, foundation with step, without foundation rail, large upper holder, motor version N

*: Optional

General arrangement drawing W5, stationary on duckfoot bend, guide wire arrangement, single-level foundation, without foundation rail, small upper holder, motor version N

W5)

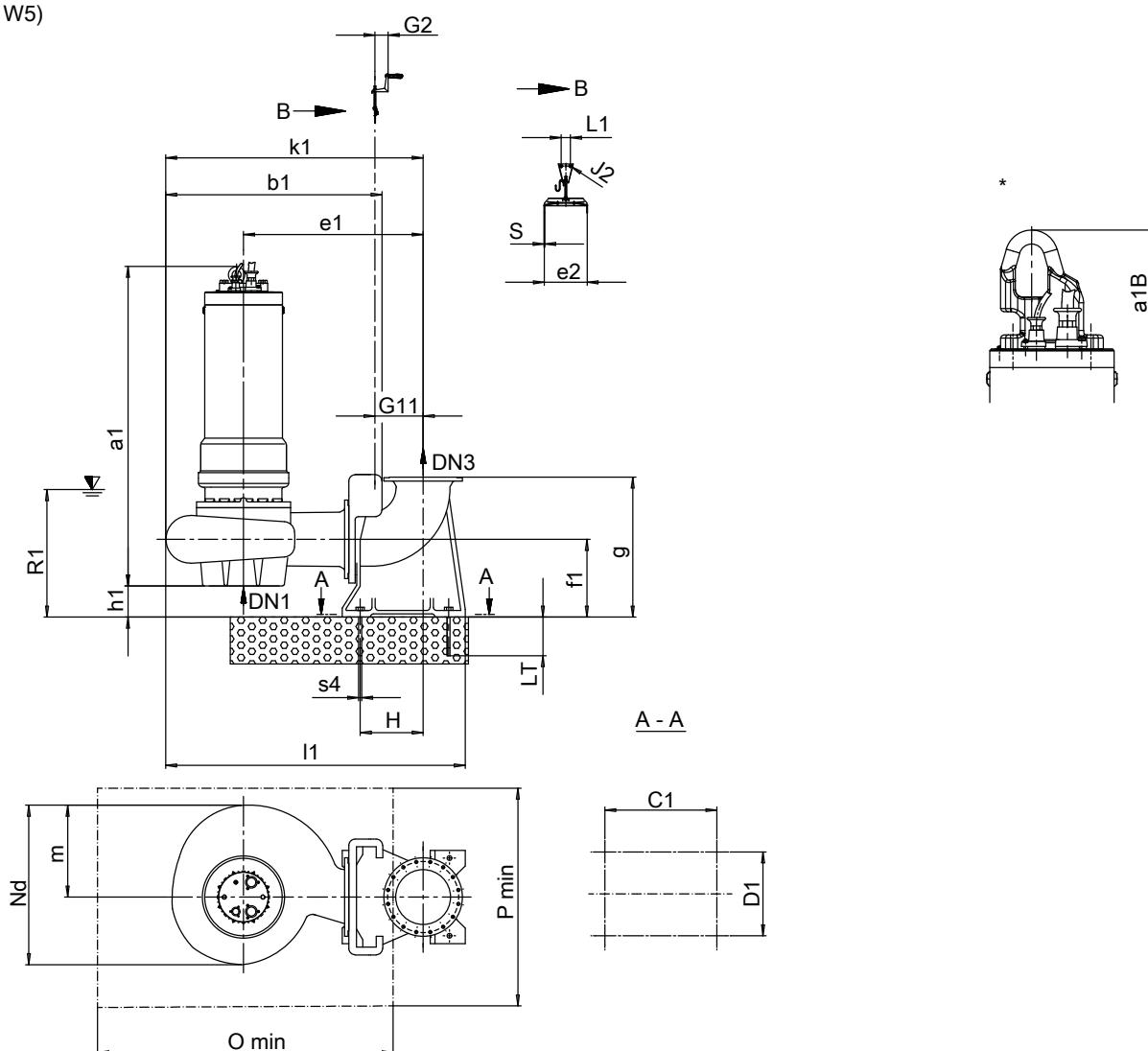


Fig. 11: General arrangement drawing W5, stationary on duckfoot bend, guide wire arrangement, single-level foundation, without foundation rail, small upper holder, motor version N

*: Optional

General arrangement drawing India S01, stationary on duckfoot bend, guide rail arrangement, motor version DKN

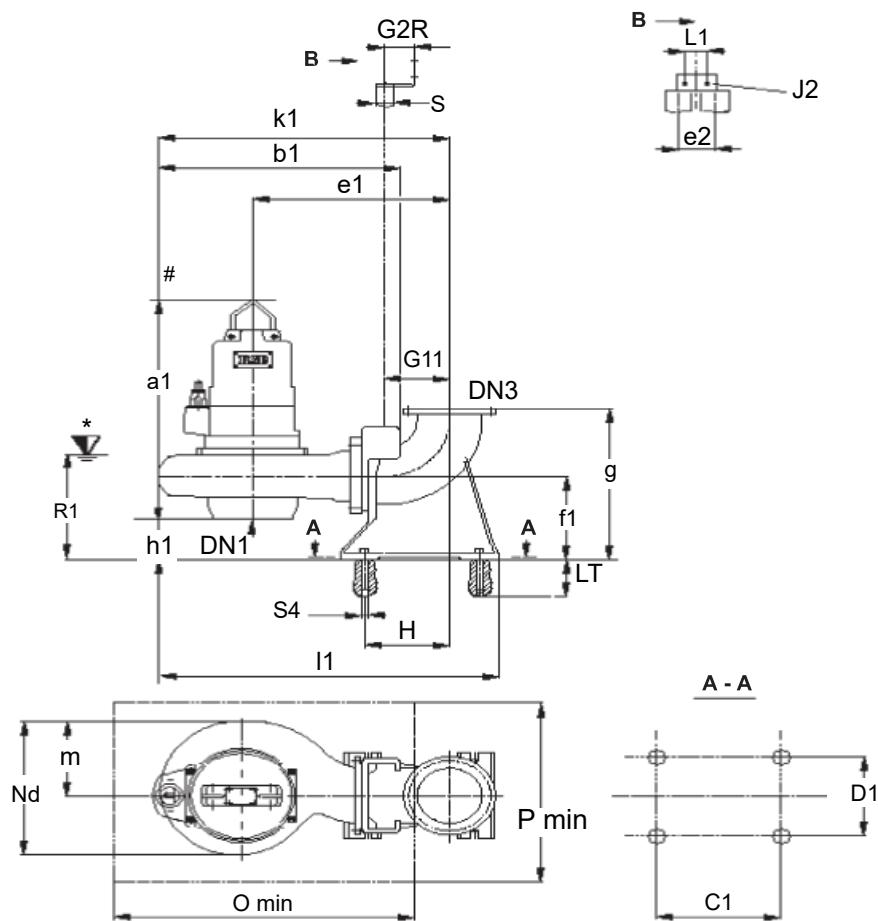


Fig. 12: Guide pipe installation type S 1

General arrangement drawing India S02, stationary on duckfoot bend, guide rail arrangement, motor version DKN

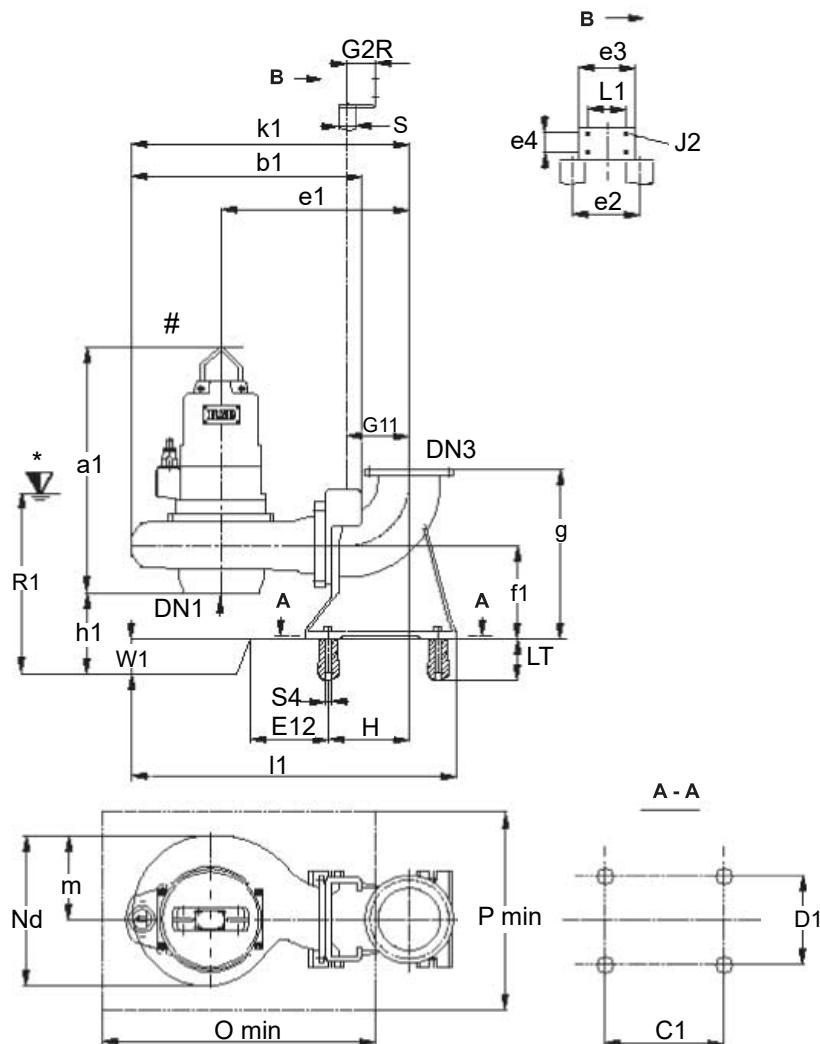


Fig. 13: Guide pipe installation type S 2

General arrangement drawing India S03, stationary on duckfoot bend, guide rail arrangement, motor version DKN

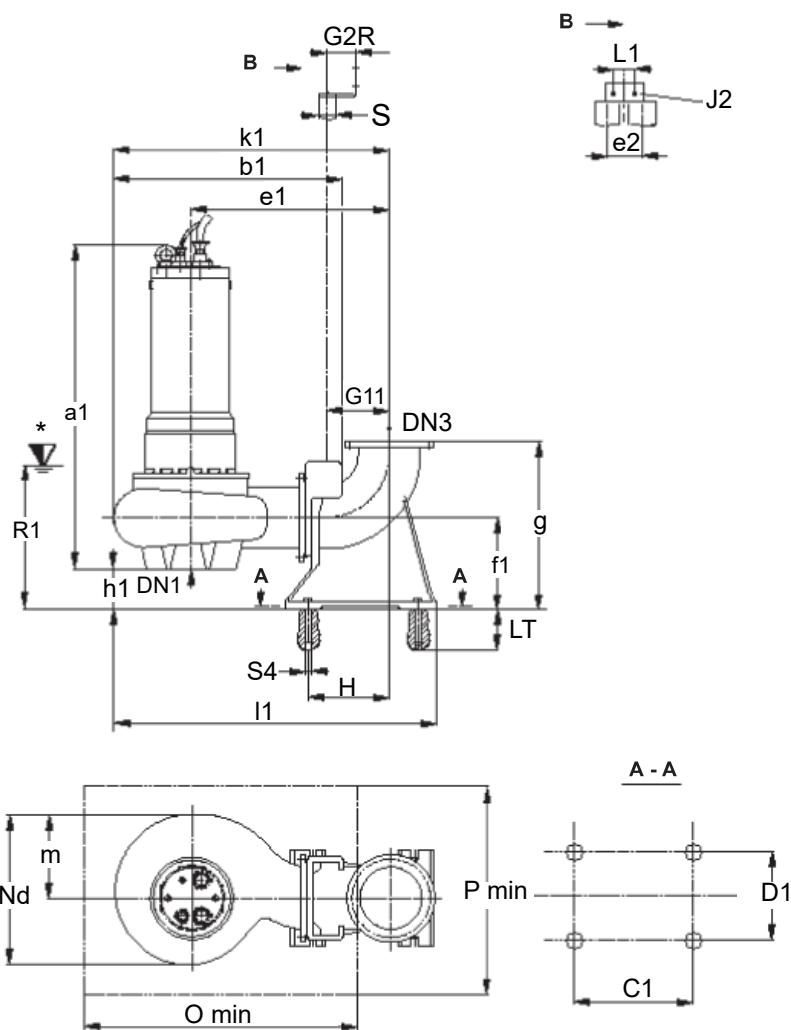


Fig. 14: Guide pipe installation type S/K 1

General arrangement drawing India S04, stationary on duckfoot bend, guide rail arrangement, motor version DKN

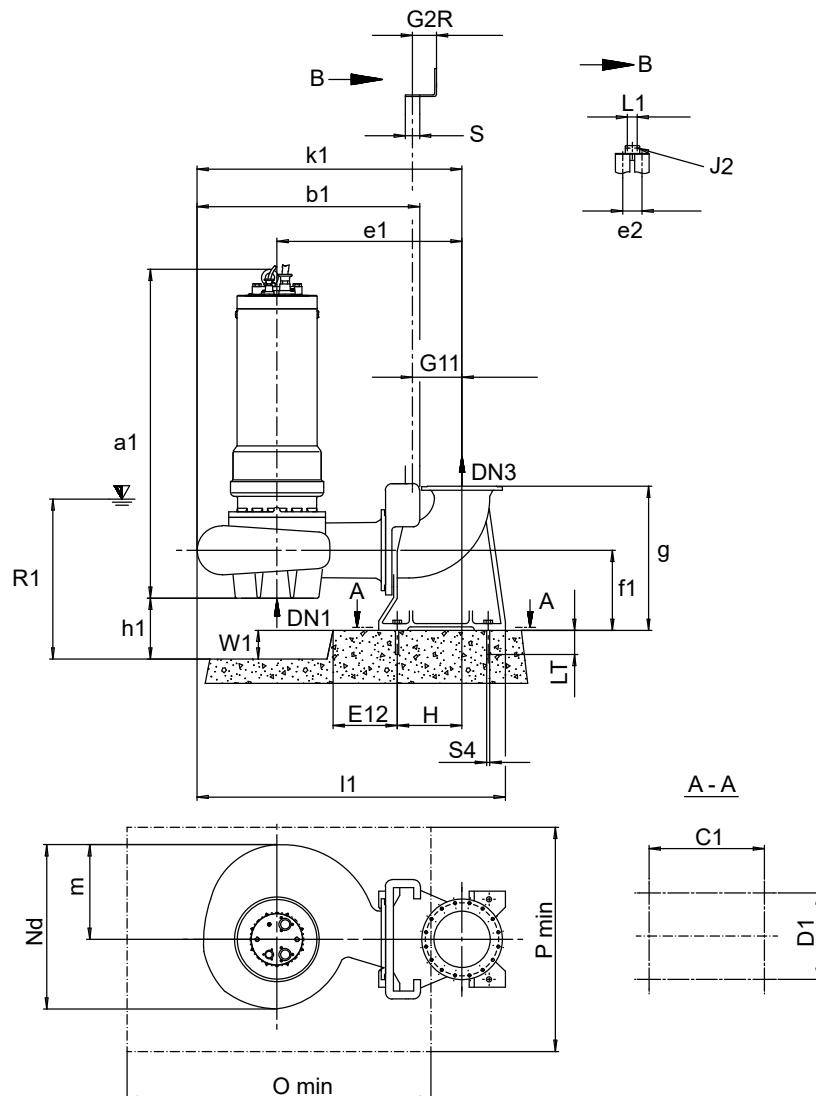


Fig. 15: Guide pipe installation type S/K 2

General arrangement drawing India S05, stationary on duckfoot bend, guide rail arrangement, motor version DKN

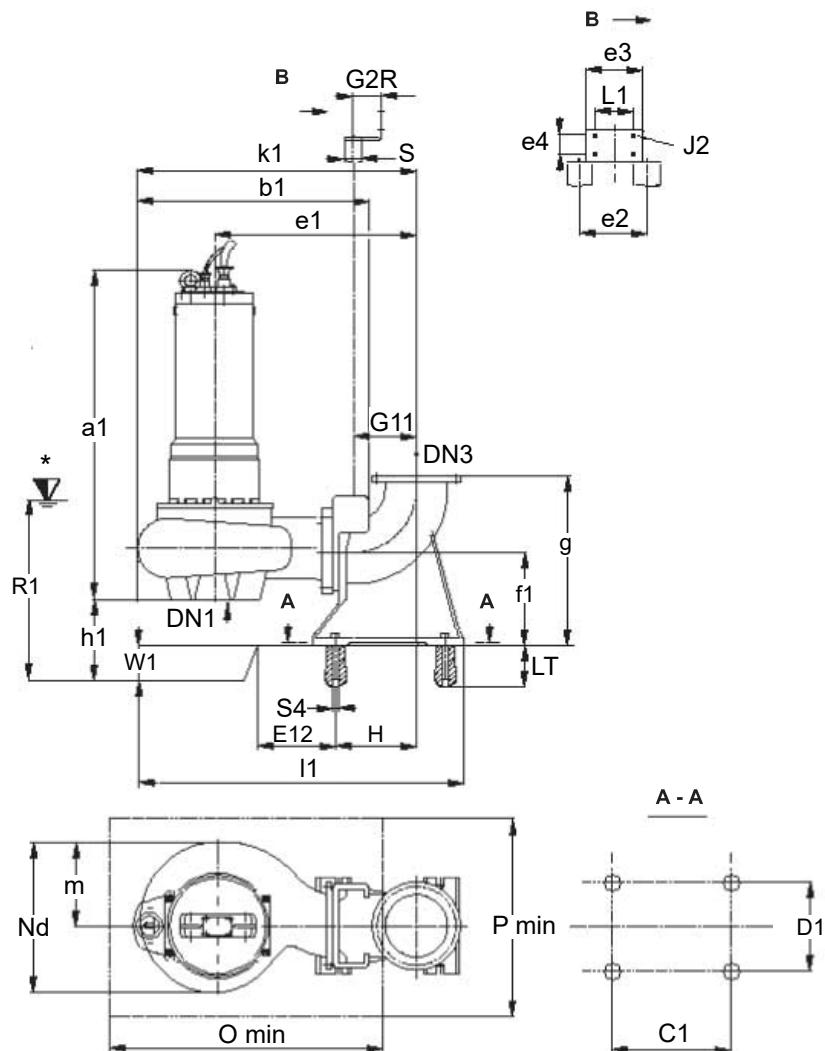


Fig. 16: Guide pipe installation type S/K 3

General arrangement drawing India W01, stationary on duckfoot bend, guide wire arrangement, motor version DKN

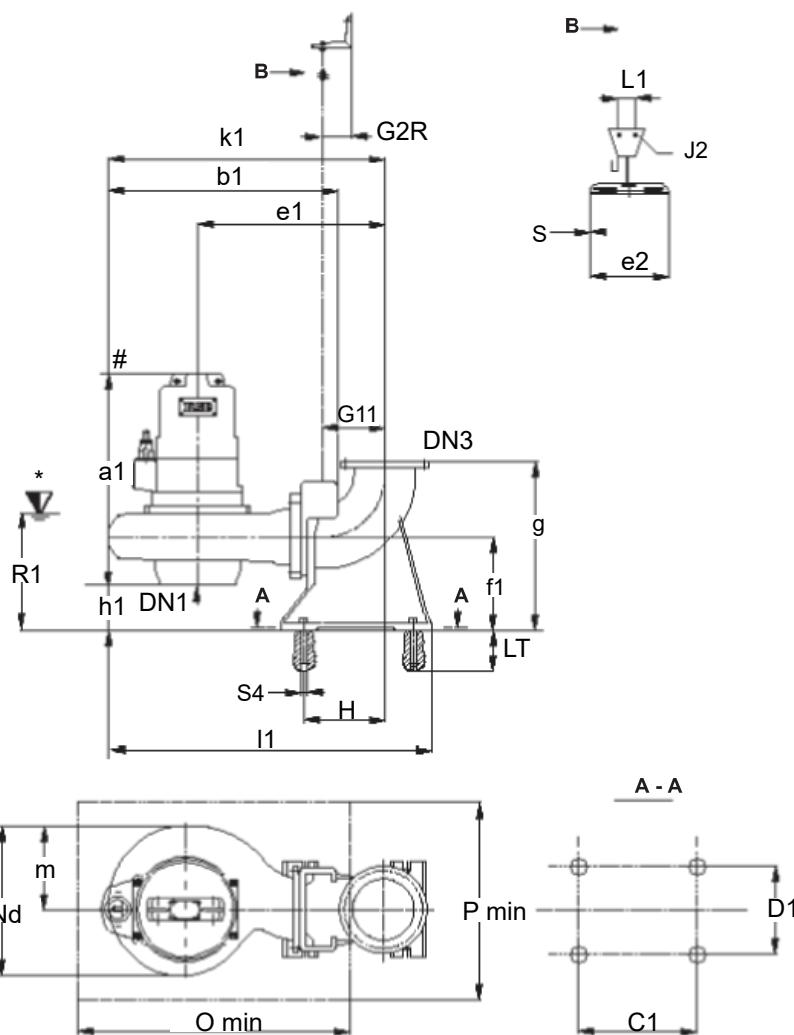


Fig. 17: Guide wire installation type S 1

General arrangement drawing India W02, stationary on duckfoot bend, guide wire arrangement, motor version DKN

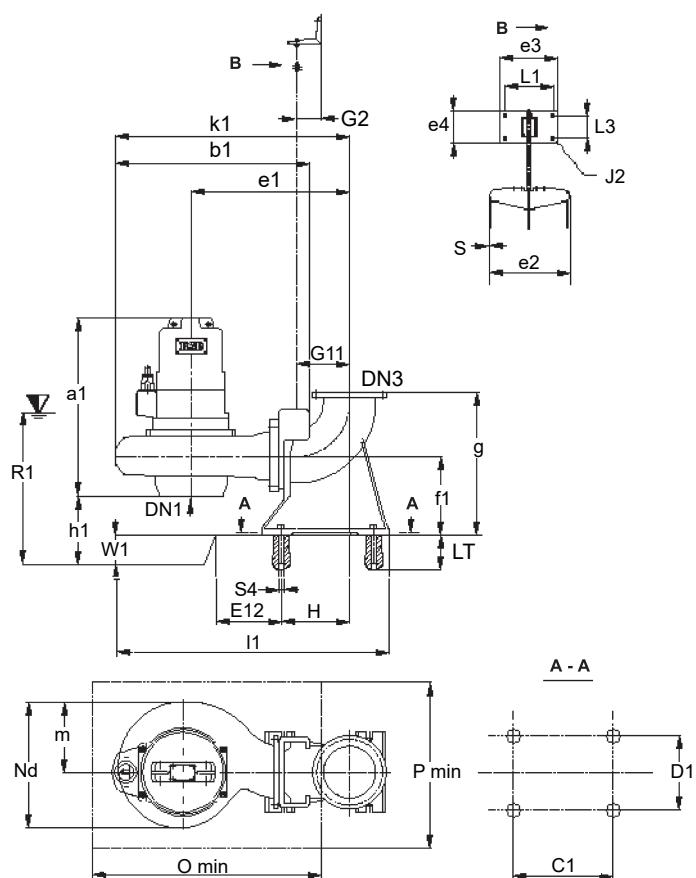


Fig. 18: Guide wire installation type S 2

General arrangement drawing India W03, stationary on duckfoot bend, guide wire arrangement, motor version DKN

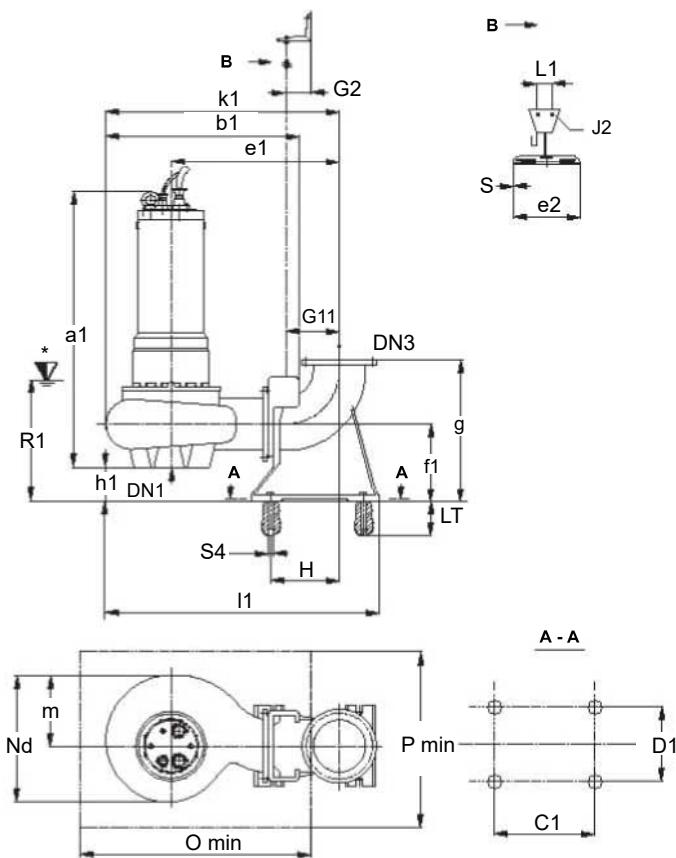


Fig. 19: Guide wire installation type S/K 1

General arrangement drawing India W04, stationary on duckfoot bend, guide wire arrangement, motor version DKN

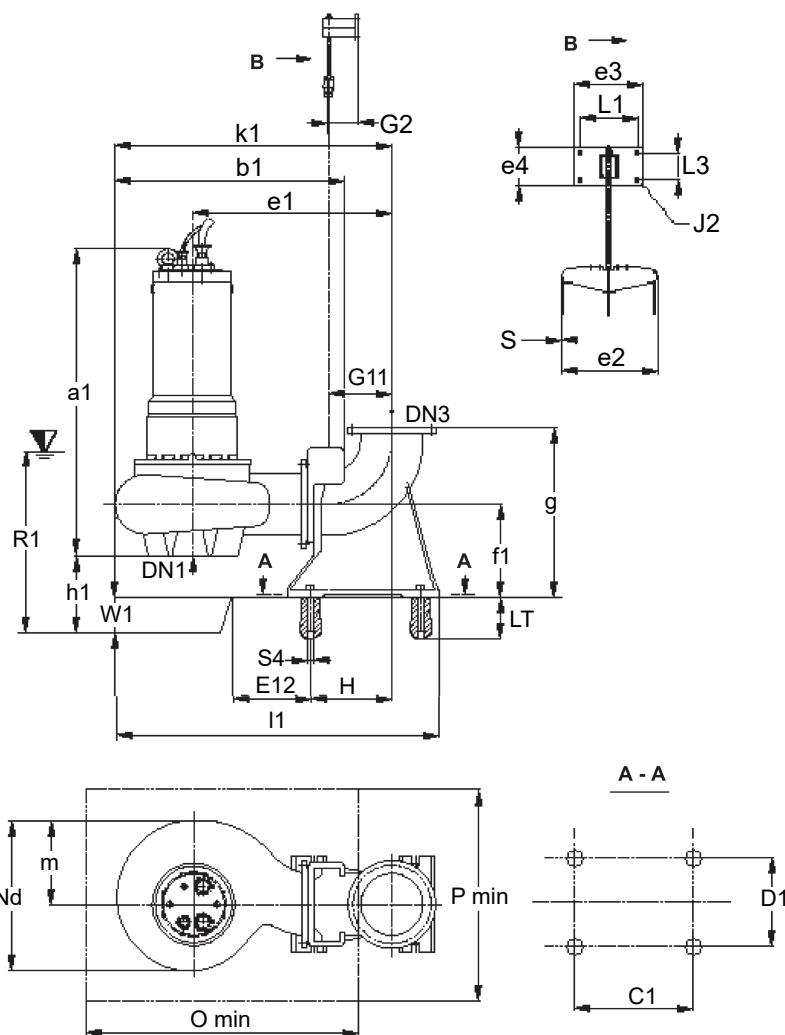


Fig. 20: Guide wire installation type S/K 2

General arrangement drawing India P01, motor version DKN

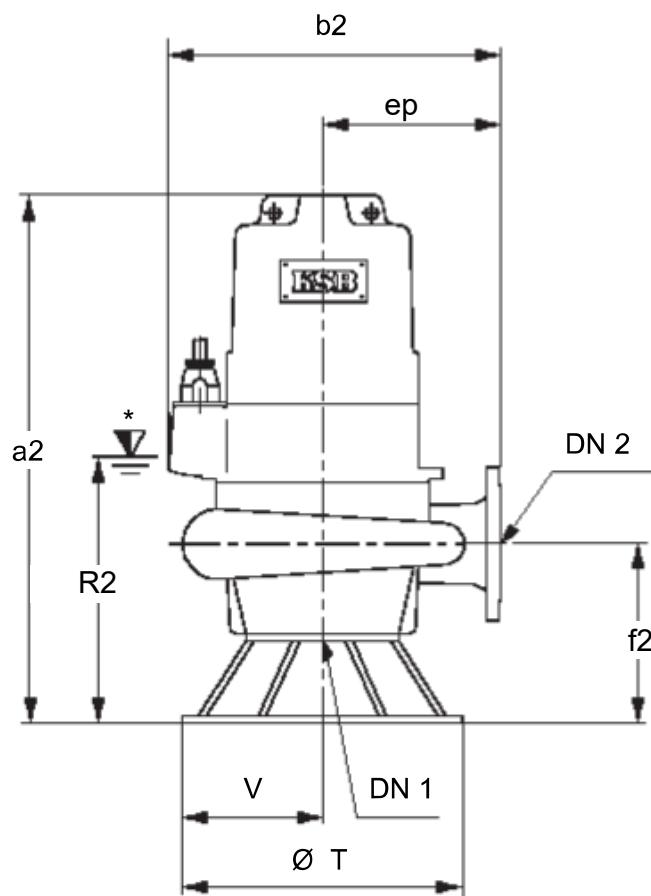


Fig. 21: Portable installation without cooling jacket

General arrangement drawing India P02, motor version N

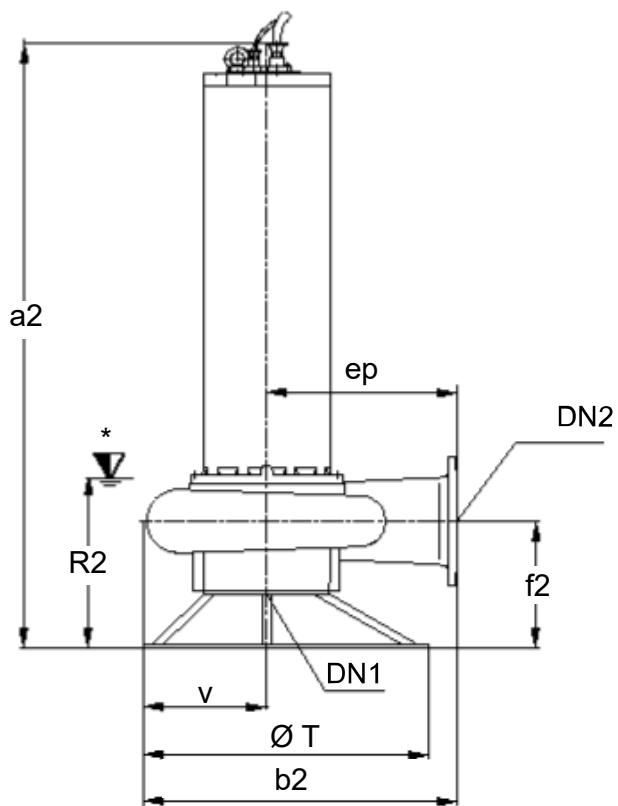


Fig. 22: Portable installation with cooling jacket

General arrangement drawing P2, transportable, motor version N

P2)

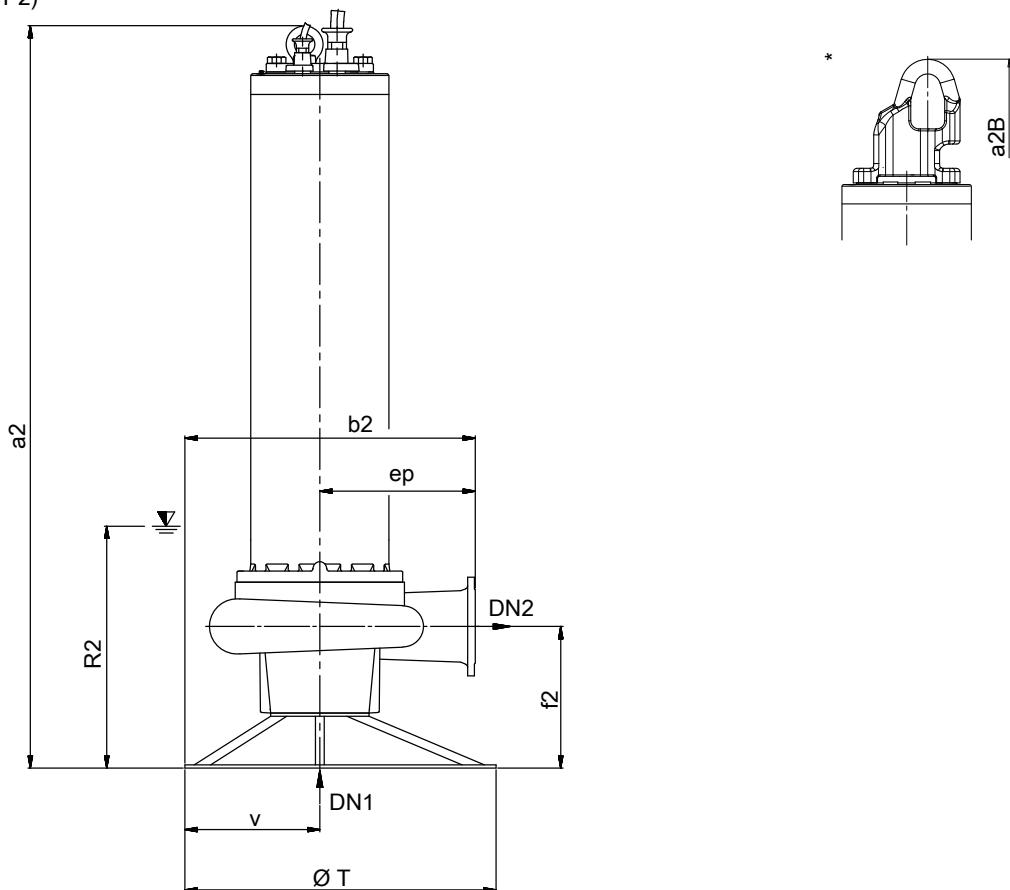


Fig. 23: General arrangement drawing P2, transportable, motor version N

*: Optional

Dimensions and weights

Flanges

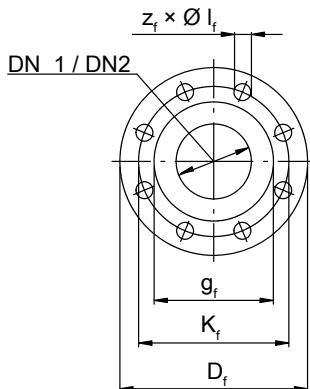


Fig. 24: Flanges

Combination of material and standard for pump casing 101, flanged bend 72-1, suction elbow 139, flanged spacer 722

Material	EN 1092-1	EN 1092-2	ASME B 16.1-Class 125 ASME B 16.47A-Class 150	ASME B 16.5-Class 150 ASME B 16.47A-Class 150
EN-GJL-250	-	X	X	-
EN-GJN-HB555	-	X	X	-
1.4517	X	-	-	X

Flange dimensions to EN 1092-1 / 1092-2

DN	PN 10 ⁴⁾					PN 16 ⁵⁾				
	g _f [mm]	I _f [mm]	z _f [mm]	D _f [mm]	K _f [mm]	g _f [mm]	I _f [mm]	z _f [mm]	D _f [mm]	K _f [mm]
40	84	19	4	150	110	84	19	4	150	110
50	99	19	4	165	125	99	19	4	165	125
65	118	19	4	185	145	118	19	4	185	145
80	132	19	8	200	160	132	19	8	200	160
100	156	19	8	220	180	156	19	8	220	180
150	211	23	8	285	240	211	23	8	285	240
200	266	23	8	340	295	266	23	12	340	295
250	319	23	12	395	350	319	28	12	405	355
300	370	23	12	445	400	370	28	12	460	410
350	429	23	16	505	460	429	28	16	520	470
400	480	28	16	565	515	480	31	16	580	525
500	582	28	20	670	620	609	34	20	715	620
600	682	31	20	780	725	720	37	20	840	770
700	794	31	24	895	840	794	37	24	910	840

Flange dimensions to ASME

DN	ASME B 16.1-1998 Class 125, ASME B 16.47A-2011 Class 150 (DN 30" / DN 750)				ASME B 16.5-2013 Class 150, ASME B 16.47A-2011 Class 150 (DN 30" / DN 750)			
	I _f ["]	z _f [mm]	D _f [mm]	K _f [mm]	I _f ["]	z _f [mm]	D _f [mm]	K _f [mm]
1 1/2	19,1	4	127	98,6	15,9	4	125	98,6
2	19,1	4	152,4	120,7	19,1	4	150	120,7
2 1/2	19,1	4	177,8	139,7	19,1	4	180	139,7
3	19,1	4	190,5	152,4	19,1	4	190	152,4
4	19,1	8	228,6	190,5	19,1	8	230	190,5
6	25,4	8	279,4	241,3	22,2	8	280	241,3
8	25,4	8	342,9	298,5	22,2	8	345	298,5

⁴ All mating dimensions to EN 1092-1 / 1092-2, PN 10

⁵ Mating dimensions for hydraulic system size K250-900 to EN 1092-1 / 1092-2, PN 16. Mating dimensions for hydraulic system sizes K350-713 and K400-900 optionally to EN 1092-1 / 1092-2, PN 16.

DN	ASME B 16.1-1998 Class 125, ASME B 16.47A-2011 Class 150 (DN 30" / DN 750)					ASME B 16.5-2013 Class 150, ASME B 16.47A-2011 Class 150 (DN 30" / DN 750)				
	l_f	z_f	D_f	K_f	l_f	z_f	D_f	K_f		
["]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
10	25,4	12	406,4	362	25,4	12	405	362		
12	25,4	12	482,6	431,8	25,4	12	485	431,8		
14	28,4	12	533,4	476,3	28,6	12	535	476,3		
16	28,4	16	596,9	539,8	28,6	16	595	539,8		
20	31,8	20	698,5	635	31,8	20	700	635		
24	35,1	20	812,8	749,3	34,9	20	815	749,3		
30	35,1	28	984,3	914,4	35,1	28	985	914,4		

Installation types K/S, dimensions and weights depending on the material variant; DKN																																			
Size	Impeller type	Motor	Motor generation	DN1	DN3	a1	b1	l1	k1	m	n	p	min.	O min.	C1	D1	h1	R1	s4	E12	H	mm]	e1	G11	G2	s	e2	e3	L1	L2	L3	e4	kg	Weight G1/G2	
250-401	K	504	DKN	250	250	1070	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	200	100	858	858	
		654	DKN	250	250	1070	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	904	904
		206	DKN	250	250	931	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	684	684
		266	DKN	250	250	910	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	716	716
		326	DKN	250	250	1070	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	846	846
		406	DKN	250	250	1070	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	867	867
		506	DKN	250	250	1070	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	990	150	10	420	300	250	18	150	100	882	882

General arrangement drawing see page ⇐ 22

Size		Installation types S, dimensions and weights depending on the material variant; DKN		Weight [kg]																																																																																																																													
Size	Impeller type	G1	G2R		5	62	63	L1	L2	L4																																																																																																																							
		a1	b1	c1	d1	e1	f1	g1	h1	i1	j1	k1	l1	m1	n1	o1	p1	q1	r1	s1	t1	u1	v1	w1	x1	y1	z1	aa1	bb1	cc1	dd1	ee1	ff1	gg1	hh1	ii1	jj1	kk1	ll1	mm1	nn1	oo1	pp1	qq1	rr1	ss1	tt1	uu1	vv1	ww1	xx1	yy1	zz1	aa2	bb2	cc2	dd2	ee2	ff2	gg2	hh2	ii2	jj2	kk2	ll2	mm2	nn2	oo2	pp2	qq2	rr2	ss2	tt2	uu2	vv2	ww2	xx2	yy2	zz2	aa3	bb3	cc3	dd3	ee3	ff3	gg3	hh3	ii3	jj3	kk3	ll3	mm3	nn3	oo3	pp3	qq3	rr3	ss3	tt3	uu3	vv3	ww3	xx3	yy3	zz3	aa4	bb4	cc4	dd4	ee4	ff4	gg4	hh4	ii4	jj4	kk4	ll4	mm4	nn4	oo4	pp4	qq4	rr4	ss4	tt4	uu4	vv4	ww4	xx4
250-401	K	504	DKN	250	250	1363	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	858																																																																																															
		654	DKN	250	250	1363	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	904																																																																																															
		206	DKN	250	250	1092	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	684																																																																																															
		266	DKN	250	250	1071	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	716																																																																																															
		326	DKN	250	250	1363	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	846																																																																																															
		406	DKN	250	250	1363	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	867																																																																																															
		506	DKN	250	250	1363	1165	1375	1575	735	425	1300	900	530	420	100	280	700	25	400	390	400	170	690	250	990	150	89	225	185	135	18	100	882																																																																																															

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Size	Impeller type	Motor	Motor generation	Installation types K/S, dimensions and weights depending on the material variant; DKN								Weight G1/G2 kg																			
				DN1	DN3	a1	b1	k1	l1	m	n	Pmin.	Qmin.	D1	H1	R1	s1	t1	g1	h1	I1	g11	e1	h2R	z1	z2	S	K			
150-401	E,K	804	DKN	150	150	1645	910	1055	1230	605	325	1100	700	430	215	130	700	18	325	380	125	630	206	735	86	60	140	50	12	981	1041
		K	954	DKN	150	150	1845	910	1055	1230	605	325	1100	700	430	215	130	700	18	325	380	125	630	206	735	86	60	140	50	12	1081
150-500	K	804	DKN	150	150	1595	1010	1160	1325	645	340	1300	900	430	215	220	700	18	325	380	125	630	206	785	86	60	140	50	10	1114	1174
		954	DKN	150	150	1795	1010	1160	1325	645	340	1300	900	430	215	220	700	18	325	380	125	630	206	785	86	60	140	50	10	1204	1274
		1104	DKN	150	150	1795	1010	1160	1325	645	340	1300	900	430	215	220	700	18	325	380	125	630	206	785	86	60	140	50	10	1244	1314
		1304	DKN	150	150	1905	1010	1160	1325	645	340	1300	900	430	215	220	700	18	325	380	125	630	206	785	86	60	140	50	10	1574	1654
		1554	DKN	150	150	1905	1010	1160	1325	645	340	1300	900	430	215	220	700	18	325	380	125	630	206	785	86	60	140	50	10	1624	1704
200-401	K	804*	DKN	200	200	1650	950	1105	1275	640	340	1200	800	450	300	170	750	18	340	400	125	660	235	785	200	89	120	60	10	1140	1200
		954*	DKN	200	200	1830	950	1105	1275	640	340	1200	800	450	300	170	750	18	340	400	125	660	235	785	200	89	120	60	10	1240	1300
		1104	DKN	200	200	1830	950	1105	1275	640	340	1200	800	450	300	170	750	18	340	400	125	660	235	785	200	89	120	60	10	1330	1390
		1304	DKN	200	200	1910	950	1105	1275	640	340	1200	800	450	300	170	750	18	340	400	125	660	235	785	200	89	120	60	10	1490	1550
		1554	DKN	200	200	1910	950	1105	1275	640	340	1200	800	450	300	170	750	18	340	400	125	660	235	785	200	89	120	60	10	1540	1600

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