

Close Coupled Sump Pumps

Type ETLB

»dry running safe«



Technical data

Flow rate Q	up to 104 m ³ /h
Head H	up to 36 m
Submersion depth	up to 775 (795) mm
Suction extension	up to 1500 mm
Materials limits of use	PP up to 70°C
	PVDF up to 90°C
Pressure socket nominal width	DN 15 ... DN 80
Drive capacity	up to 7,5 kW

Design

- Vertical single-stage sump pump, dry running safe

Sizes

- ETLB 15-60 to ETLB 80-200

Technical design

- Immersion depth: 275 mm, 475 mm and 775 mm
- Materials: PP, PVDF
- Screwless thermoplastic spiral casing
- Closed impeller, fastened on the motor shaft independent of the rotational direction
- Stainless steel shaft separated from the fluid by a thick-walled thermoplastic protection tube
- Shaft lead-through at the mounting plate with lip seals to protect against fluid vapours
- Radial and axial forces are absorbed by reinforced motor bearings

Drive

- Three-phase motor, 0.18 kW to 7.5 kW, IP 55
- Corrosion protection by a 2C protection paint coat

Options/Accessories:

- Titanium drive shaft and labyrinth seal
- Suction extension
- Suction strainer

Application

- Electroplating plants
- Chemical plants
- Water treatment
- Process engineering

Utilisation

- ASV vertical sump pumps are designed for operation in open and closed, depressurized containers or pits, for simple draining and circulation of the fluid.

Flow Media

- Neutral and aggressive fluids, provided that the pump components coming into contact with the fluid are resistant at the operating temperature in accordance with the ASV resistance guide.
- Heavily crystallising fluids require special equipment with titanium shafts and titanium labyrinth seals.

Viscosity

- Media to appr. 160 mPas (160 cP).

Examinations

- DIN EN ISO 9906

Pressure connection

- Threaded necks acc. DIN 8063
- on request with pressure connection band, union sockets or spigot ends acc. ISO/DIN
- optional with flange connection acc. DIN 2501, standard on ETLB 80-200

Suction connection

- Suction connection (standard)
- upon request with strainer on the pump housing (mesh width or holes according to design data)
- upon request with suction tube extension for container draining

Constructional features

Pump housing and impeller

- The pump housing is designed in two sections. For the ETLB 20-100 to 80-200, the housing lid and pump housing are designed as a screw connection (exception is ETLB 15-60), and thus completed without additional screws.
- The closed impellers with vanes of a shape to enhance the fluid flow are made by state of the art plastic injection moulding technology.
- The impeller is fastened independent of the rotational direction. The impeller shaft is protected against contact with the fluid by means of an impeller hub cap and O-ring.
- A suction strainer (option) protects the pump and prevents the impeller from blocking when solid or fibrous material is processed.

Immersion and shaft protection tube

- The thick-walled immersion tube as well as the pump shaft guarantee vibration free operation and prevent the pump elements from getting into contact with the pump housing.
- Drainholes in the immersion tube prevent admission of the pumping medium into the shaft exit.
- The drive shaft is separated from the medium by means of a thermoplastic protection tube.

Shaft exit

- Special V-rings at the shaft exit prevent vapour from escaping into the atmosphere.

Materials

- In standard ASV sump pumps are made of the high-molecular thermoplastic materials Polypropylene (PP) and Polyvinylidene fluoride (PVDF), using the pumps in extreme abrasive fluids the components subject to increased wear are made of UHMW-PE. Because of the ASV Stübbe modular design system the proven components of the ASV standard chemical pumps can be used for the sump pumps as well. The robust construction adapted to thermoplastics demands a minimum of maintenance.

O-rings

- CSM; EPDM; FPM or FEP

V-ring

- FPM

Driver lantern

- G-ALSi 10 Mg (3.2381.01)

Connection screws (only for ETLB 15-60)

- 18 10 CrNi-steel (1.4571) or
- PVDF

Immersion depth

- 275 (295) mm
- 475 (495)¹⁾ mm
- 775 (795)¹⁾ mm

¹⁾ ETLB 80-200 only with 495 mm and 785 mm

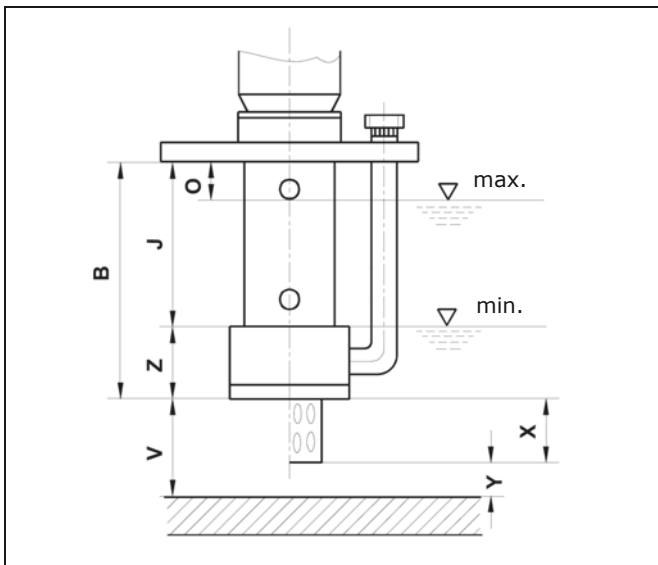
Drive

- ASV vertical sump pumps are driven by specially designed IEC 3-phase-current- motors with extended shaft.
- Design: IM B5 or IM B14
- Voltage: 230/400 or 400/690 V
- Speed: 1450/1750 rpm, 50/60 Hz or
- Speed: 2900/3500 rpm, 50/60 Hz
- Protection: IP 55
- Protection cap: V 1 or V 18

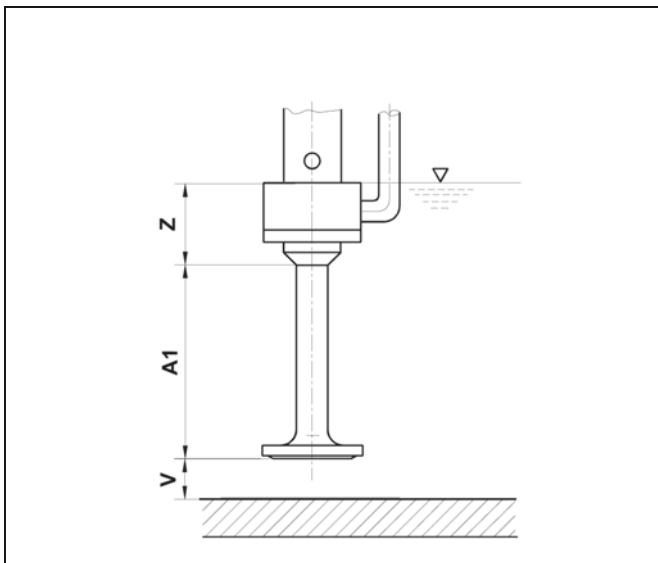
Information

Suction behaviour

- In order to insure malfunction free operation of the ASV vertical sump pumps observe the installation dimensions O, Z, V and Y in the dimensional table during the planning and assembly.
- Dimensions O, Z, V and Y are minimum dimensions. Dropping below these dimensions will result in reduced output, vibrations and/or pump damage.
- Each time a container is emptied, fill the container to above the minimum fluid level prior to restarting the pump unit. Always ensure the minimum covering dimension »Z« of the pump housing when starting the unit.
- For higher operating temperatures observe the steam pressure of the medium and if necessary increase »Z« appropriately.



ETLB pump with suction extension



Terminology definition

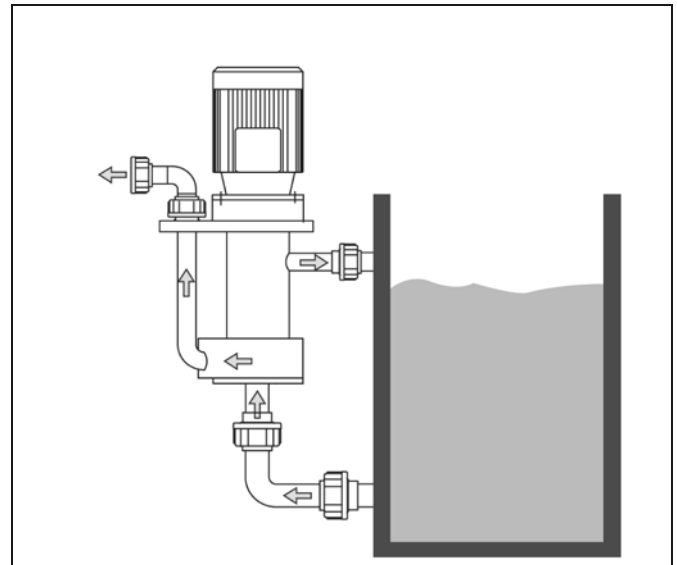
Fluid level »max.«

- maximum admissible fluid level
- top switching point for level control

Fluid level »min.«

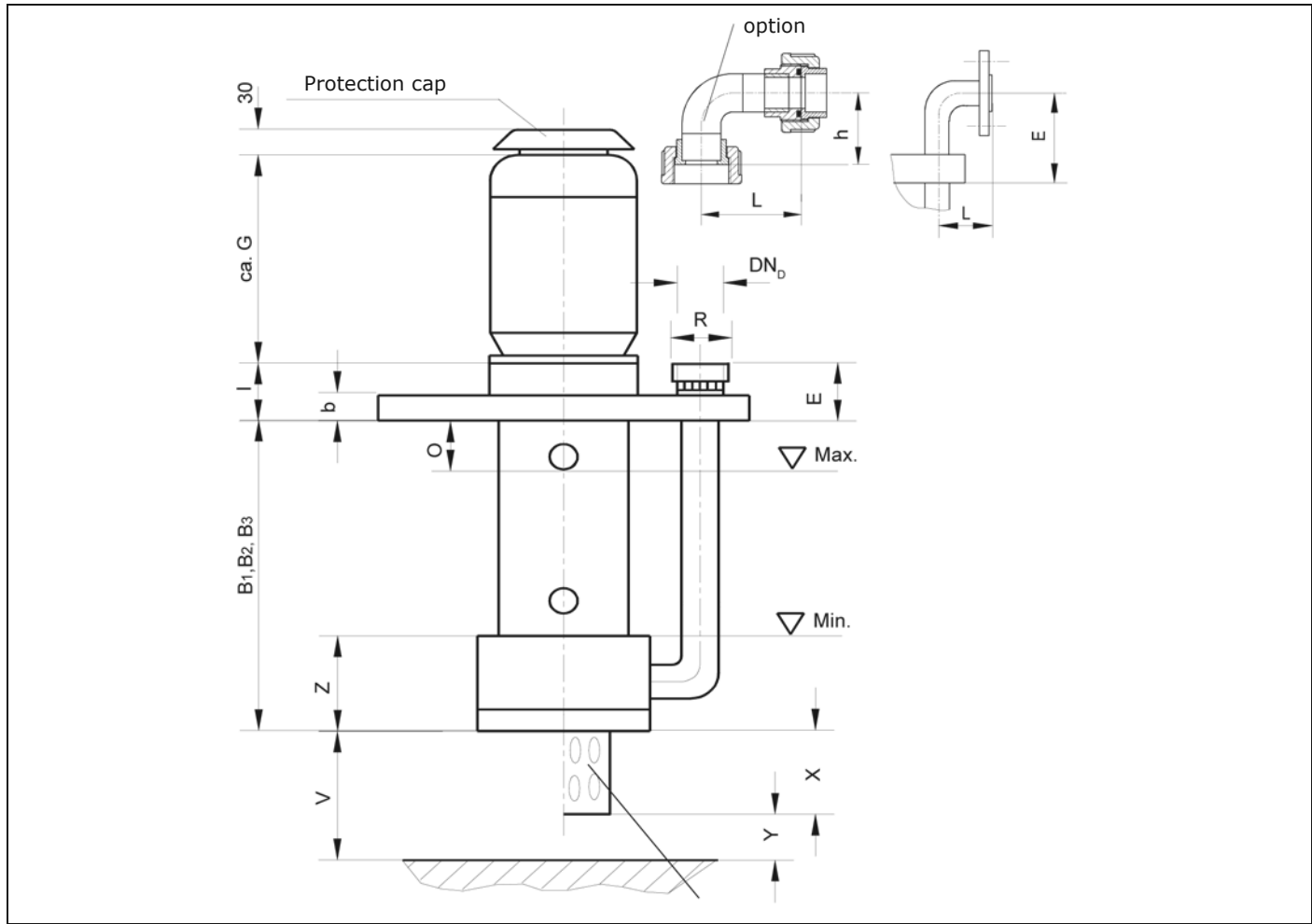
- lowest admissible fluid level each time the pump unit is started up
- bottom switching point for level control during commissioning/start-up of the pump unit

ETLB pumps for dry-well installation



For the dry-well installation, the pump is arranged outside of the container

Dimensions



Dimensions of the pump

type	NW	motor	dimensions (mm)													
size	DND	kW	B1	B2	B3	b	E	h	L	I	O	R	Vmin.	Z	X	Ymin.
15- 60	15	0,18-0,37 ¹⁾	295	495	-	20	46	39	61	46	30	1	60	78	80	10
20-100	20	0,25-0,75 ¹⁾	275	475	775	20	49	62	75	60	30	1 1/4	60	82	100	10
25-125	25	0,37-1,50 ¹⁾	275	475	775	20	50	60	82	60	30	1 1/2	60	82	100	10
32-125	32	1,50-4,00 ¹⁾	275	475	775	30	64	101	87	111	30	2	60	103	125	10
32-160	32	3,00-7,50 ¹⁾	275	475	-	30	64	101	87	111	60	2	60	125	125	10
40-125	40	2,20-5,50 ¹⁾	275	475	775	30	69	96	101	111	60	2 1/4	60	103	150	10
40-160	40	3,00-7,50 ¹⁾	275	475	-	30	69	96	101	111	60	2 1/4	60	125	150	10
50-125	50	3,00-7,50 ¹⁾	295	495	-	30	78	87	120	111	60	2 3/4	60	140	125	10
80-200	80	3,00-7,50 ²⁾	-	495	795	40	165	-	173	111	60	-	60	168	150	10

Sizes - allocation²⁾

type	size	capacity kW
15- 60	BG 71	0.18-0.37
20-100	BG 80	0.25-0.75
25-125	BG 80-90	0.37-1.50
32-125	BG 90-100	1.50-4.00
32-160	BG 132	3.00-7.50
40-125	BG 90-112	2.20-5.50
40-160	BG 132	3.00-7.50
50-125	BG 132	3.00-7.50
80-200 ³⁾	BG 132	3.00-7.50

Motor

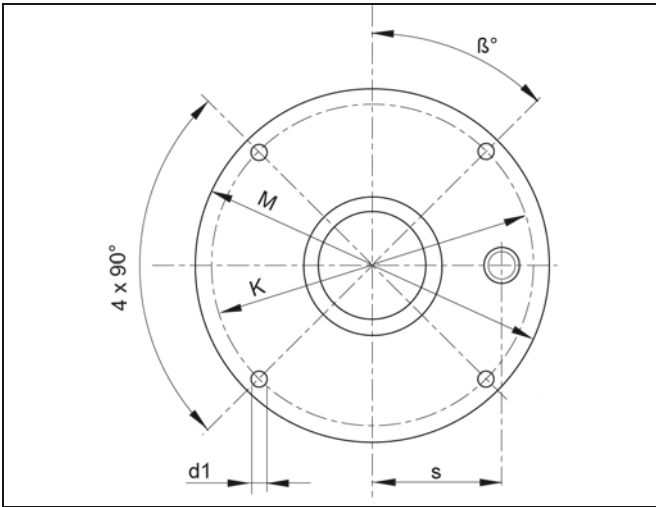
size	G (mm)	weight (kg)
BG 71	201	6,7 - 7,6 kg
BG 80	232	10
BG 90	244	16 - 19
BG 100	303	25
BG 112	320	32
BG 132	405	52 - 57

²⁾ n = 2900 rpm, 50 Hz

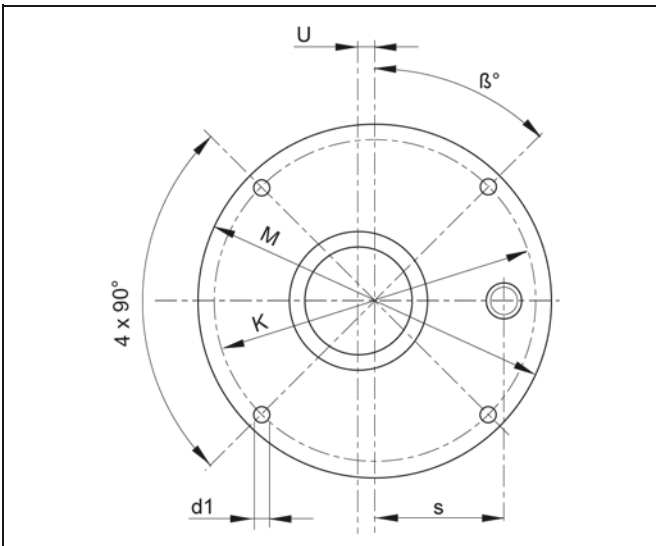
³⁾ n = 1450 rpm, 50 Hz

Dimensions

mounting plate ETLB 15-60 up to 25-125

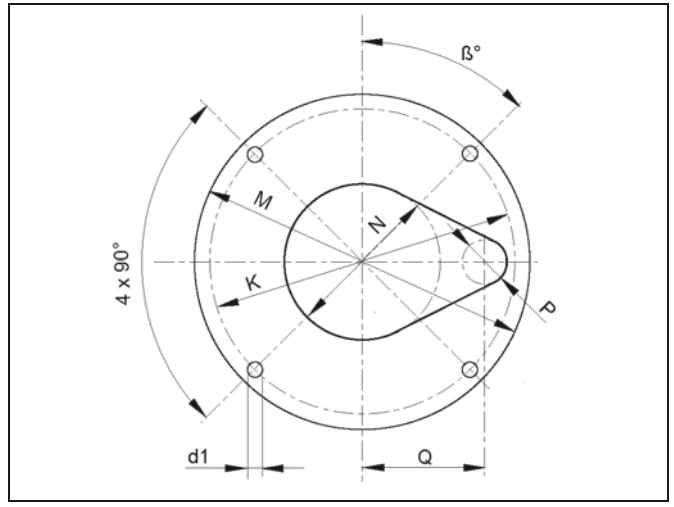


mounting plate ETLB 32-125 up to 80-200

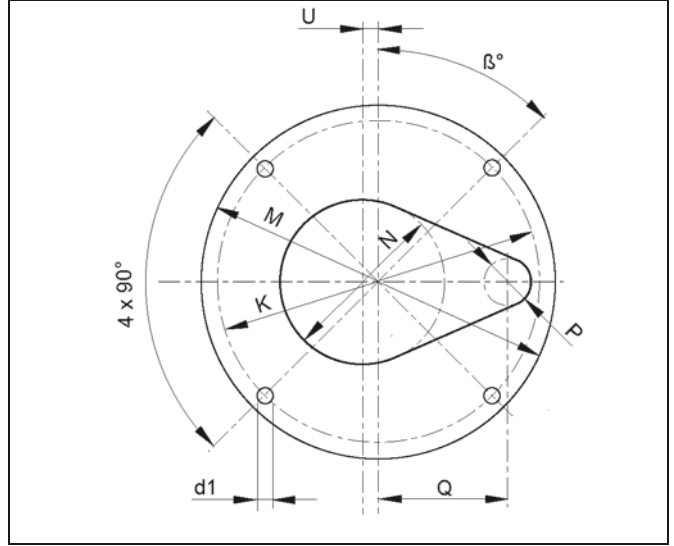


Dimensions

assembly opening ETLB 15-60 up to 25-125



assembly opening ETLB 32-125 up to 80-200



type	mounting plate					assembly opening				weight (kg) without motor					
	size	β°	d1	\varnothing K	\varnothing M	s	Q	\varnothing N	\varnothing P	U	PP	PP	PP	PVDF	PVDF
											275	475	775	275	475
15- 60	45	14	225	250	80,0	0	200	0	0	0	4)	4)	-	4)	4)
20-100	40	14	230	270	116,0	97	200	70	0	0	2,5	4,0	9,0	3,5	6,0
25-125	41	14	270	320	132,5	112	240	80	0	0	5,0	7,0	13,0	7,5	10,0
32-125	45	18	408	440	145,0	205	290	110	60	60	8,5	11,0	20,0	12,5	16,0
32-160	45	18	408	440	145,0	205	290	110	60	60	4)	4)	-	4)	4)
40-125	45	18	408	440	145,0	205	290	110	60	60	4)	4)	4)	4)	4)
40-160	45	18	408	440	145,0	205	290	110	60	60	4)	4)	-	4)	4)
50-125	45	18	408	440	145,0	205	290	110	60	60	33,0	38,0	-	43,0	48,0
80-200	45	18	556	595	218,0	290	400	110	73	73	-	4)	55,0	-	4)

4) on request

Caracteristic curves ETLB

