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Stübbe®

NEW ETLB 80-200

Dry-run safe
Thermoplastic close coupled Vertical Sump Pumps Type ETLB

Sizes:	• **ETLB 15-60 to ETLB 80-200**
Capacity:	• **up to 104 m^3/h**
Head:	• **up to 36 m**
Immersion depths:	• **275 (295) mm / 475 (495) mm / 775 (795) mm**
Suction tube extension:	• **up to 1500 mm**
Materials:	• **PP or PVDF, components subject to increased wear are available in UHMW-PE on request**
Dry-run safe	• **no sliding bearings**
Corrosion-free	• **components getting in contact with the fluid are made of thermoplastic**

Application

ASV close coupled vertical sump pumps for vertical application in depressurized containers, open tanks or pits.
They serve to pump and circulate clean, slightly contaminated or abrasive media, aqueous solutions, suspensions or fluid mixtures, e.g.:

- organic or inorganic acids
- inorganic solutions (saline solutions, electrolytes, chemical nickel etc.)
- acid mixtures with water
- neutralization, flocculent or precipitants

For applications in:

- chemical or pharmaceutical industry
- environmental or processing technology
- galvanic industry
- water treatment or in sewerage technology
- system and equipment construction

Constructional features
The ETLB pump is designed as a single-stage, vertical chemical sump pump.

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.

Drive
ASV vertical sump pumps are driven by specially designed IEC 3-phase-current-motors with extended shaft.

Materials

Pump housing, impeller, immersion, pressure and shaft protection tub
- PP (Polypropylene)
- PVDF (Polyvinylidene fluoride)

When abrasive fluids are used the components subject to increased wear are made of:
- PE-HD (UHMW-PE, e.g. RCH 500 or RCH 1000)

O-rings
- CSM (Hypalon)
- EPDM (Ethylene propylene rubber)
- FPM (Viton)
- FEP (Polyfluorothylenepropylene)

V-ring
FPM (Viton)

Driver lantern
G-ALSi 10 Mg (3.2381.01)

Connection screws
- 18 10 CrNi-steel (1.4571) or
- PVDF (Polyvinylidene fluoride)

Other materials on request.

Technical Data

Capacity
up to 104 m^3/h

Flow head
up to 36 m

For performance data see the characteristic curves.

Immersion depth
- 275 (295) mm
- 475 (495)[1] mm
- 775 (795)[1] mm

Operating temperature
Depends on the operating conditions (system pressure, load etc.). Taking creep strength into account, the following approximate temperatures apply:
- PP up to +70 °C
- PVDF up to +90 °C

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

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 10/16, standard on 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

Suction tube extension
up to 1500 mm (water column)

Drive

Type:	IEC 3-phase-current-motor
Design:	IM B5 or IM B14
Voltage:	230/400 or 400/690 V
Speed:	1450/1750 rpm, 50/60 Hz
	2900/3500 rpm, 50/60 Hz
Protection:	IP 55

Protection cap: V 1 or V 18

Sizes - allocation[2]

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

Protective paint coat
Motor and metal parts are protected against corrosion by a 2 component protection paint coat.

Operating instructions
Observe the operating and maintenance instructions when installing the vertical sump pumps.

[1] ETLB 80-200 only with 495 mm and 785 mm immersion depth
[2] n = 2900 rpm, 50 Hz
[3] n = 1450 rpm, 50 Hz

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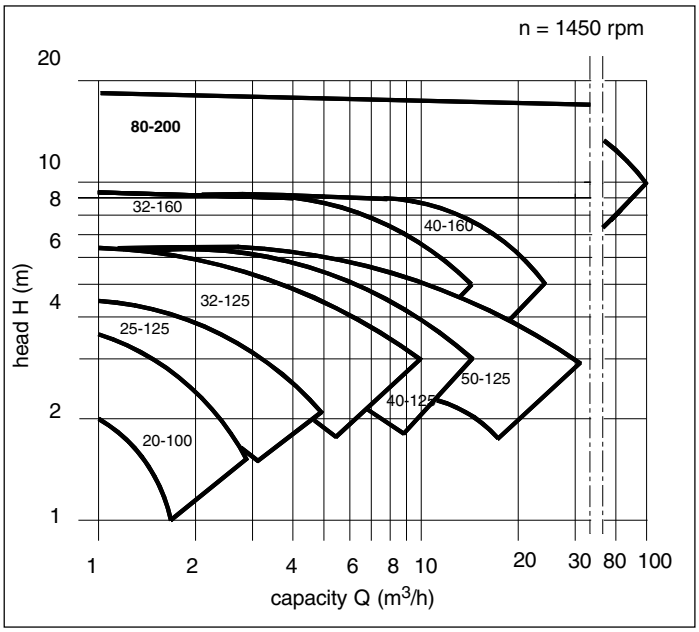
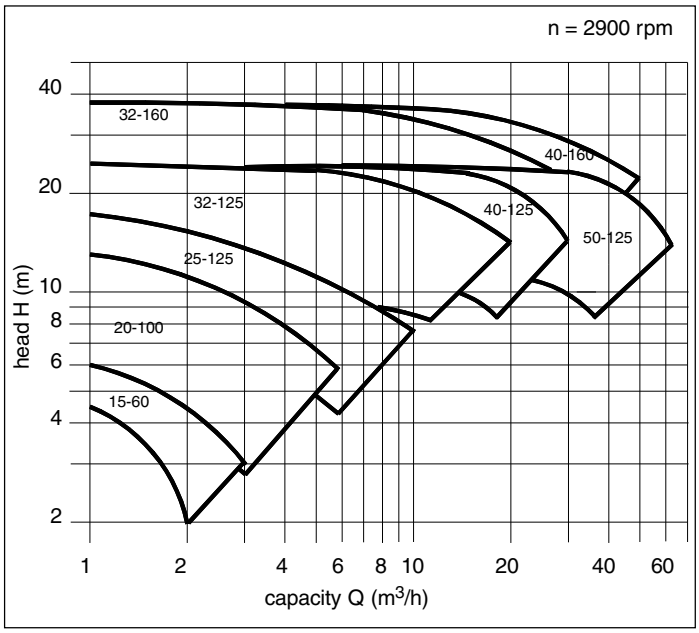
Characteristic curve fields for rotational speeds n = 1450 rpm and n = 2900 rpm





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.

Attention Dimensions O, Z, V und 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.

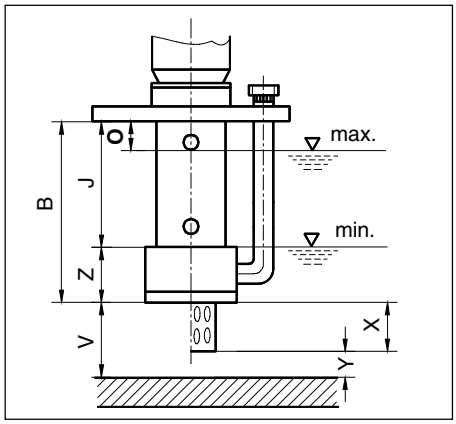
Terminology definition:

Fuid level »max.«

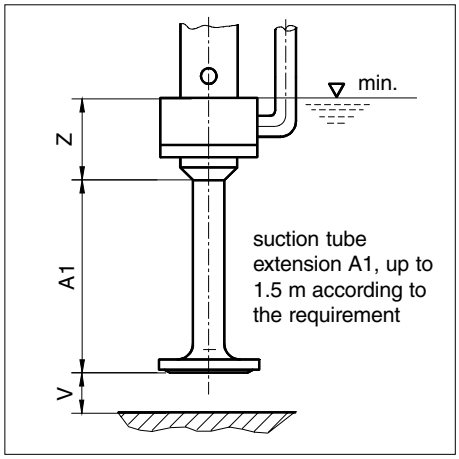
- maximum admissible fluid level
- top switching point for level control

Fluid level »min.«

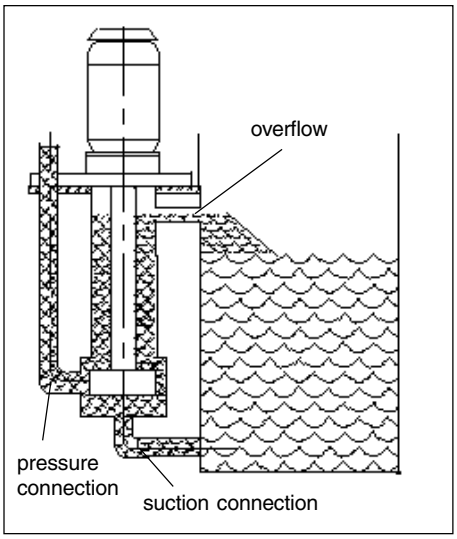
- lowest admissible fluid level each time the pump unit is started up
- bottom switching point for level control during commissioning/start-up of the pump unit



Vertical sump pump with suction tube extension and suction plate



ETLB pumps for dry-well installation



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

Application areas

- pumping over and circulating fluids
- in environmental technology
- in sewerage water treatment
- in lacquering plants
- recycling and disposal of fluid material

For the dimensions, please refer to data sheet 340 290.

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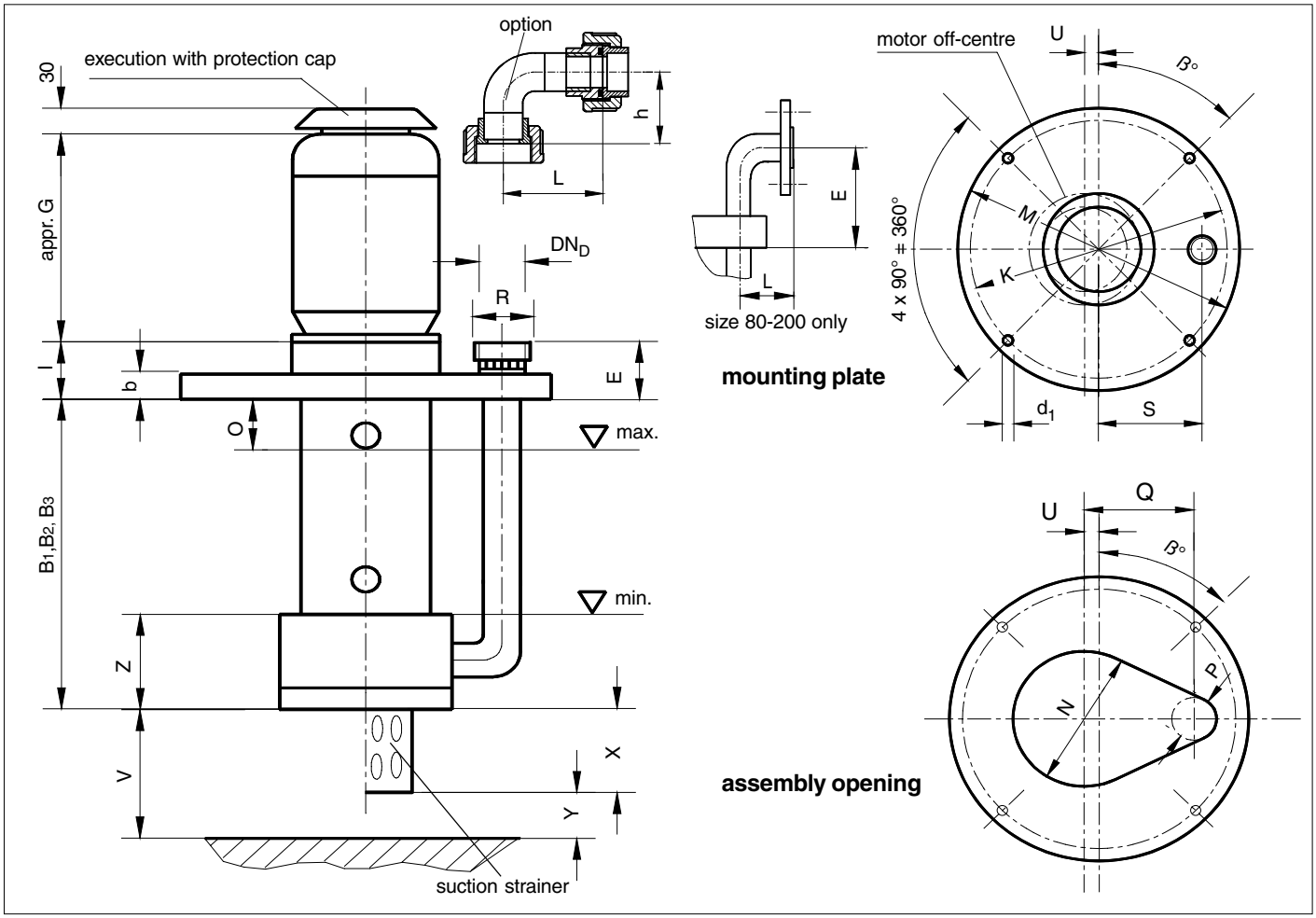
Dimensional drawing type ETLB



type size	NW DN_D	motor kW	dimensions (mm)													
			B_1	B_2	B_3	b	E	h	L	l	O	R	$V_{min.}$	Z	X	$Y_{min.}$
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

type size	mounting plate					assembly opening				weight (kg) [3]				
	ß°	d1	∅ K	∅ M	S	Q	∅ N	∅ P	U	PP 275	PP 475	PP 775	PVDF 275	PVDF 475
15- 60	45	14	225	250	80,0	0	200	0	0	[4]	[4]	-	[4]	[4]
20-100	40	14	230	270	116,0	97	200	70	0	2,5	4,0	9,0	3,5	6,0
25-125	41	14	270	320	132,5	112	240	80	0	5,0	7,0	13,0	7,5	10,0
32-125	45	18	408	440	145,0	205	290	110	60	8,5	11,0	20,0	12,5	16,0
32-160	45	18	408	440	145,0	205	290	110	60	[4]	[4]	-	[4]	[4]
40-125	45	18	408	440	145,0	205	290	110	60	[4]	[4]	[4]	[4]	[4]
40-160	45	18	408	440	145,0	205	290	110	60	[4]	[4]	-	[4]	[4]
50-125	45	18	408	440	145,0	205	290	110	60	33,0	38,0	-	43,0	48,0
80-200	45	18	556	595	218,0	290	400	110	73	-	[4]	55,0	-	[4]

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

[1] n = 2900 rpm, 50 Hz [2] n = 1450 rpm, 50 Hz [3] appr. value without motor

Technical alterations excepted

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