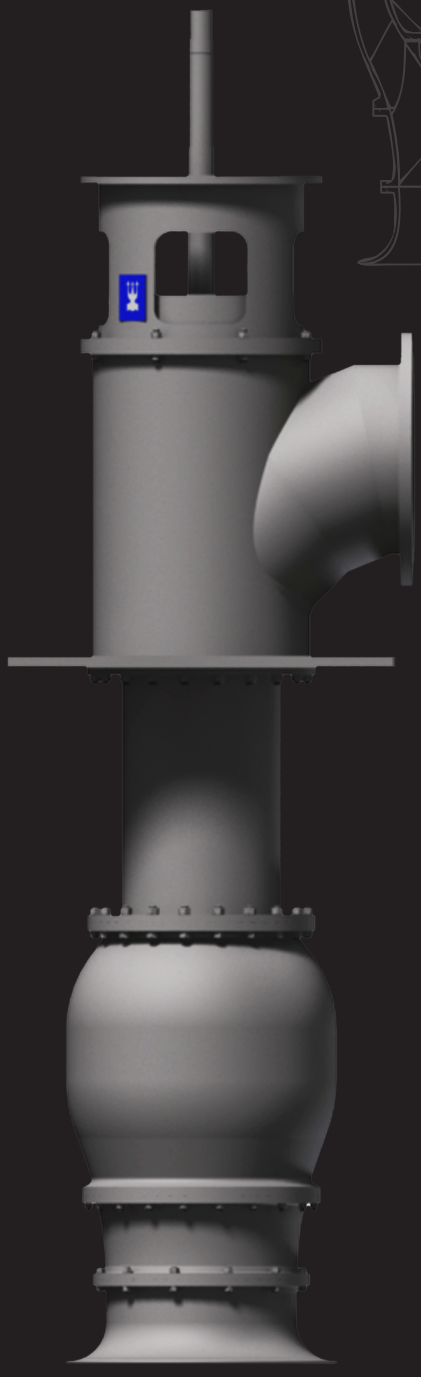
SIGMA



BQBV

Vertical diagonal pumps

VERTICAL DIAGONAL PUMPS
BQBV

APPLICATION

BQBV pumps are designed for pumping of clean and liguly polluted water with a total solids amount of 0,75%, The maximum amount of solid parts in pumped volume is 0,1% with largest grain size of 0,25 mm. The size of soft and fibrous dirts in pumped water is to be specified by pump manufacturer for each pump size individualy, with respect to general operational conditions.

Maximum temeprature of pumped media	50 °C
Allowed range of pumped media pH	6,5–9 pH

BQBV pumps are usable in water supplies, energetics, water managements and technological processes of various industrial fields.

DESIGN

Based on construction arrangements the pumps are manufactured in hereunder given versions:

Wet pit version – basic version for direct pumping from water source, with arrangement of discharge branch TEE under the ground or TEV abive the ground of machinery room.

Wet pit version with intermediate ceiling – for buildings where water level rise in the pit may flood the space under machinery room ground. In this case the pump is delivered with special stop gate of intermediate ceiling. The stop gate is stable, immovable and unites together sealing as well the anchoring of pump body within the intermediate ceiling. On the stop gate there is the discharge branch TEE located.

Dry pit version – all pumps are equipped with suction elbow at the entry to the pump.

The pump unit consists of the following main parts:

- hydraulic part – the pump itself
- guiding pipe
- discharge elbow
- bearing hanger
- electric motor (drive)

The hydraulic part is represented by cetrifugal, one – stage pump with an diagonal open impeller. The shaft is laid in journal bearing located in diffuser and lubricated by pumped media.

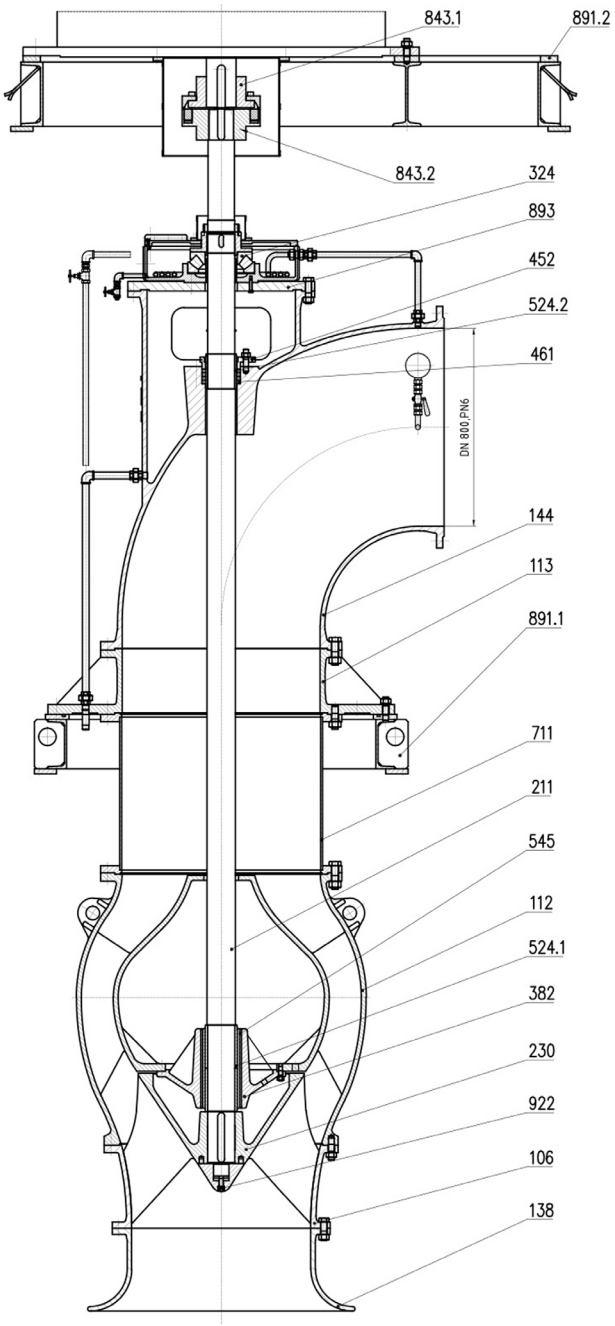
Guiding pipe connecting hydraulic part with discharge elbow and bearing hanger is made of steel flange pipes with ther pump shaft located inside. The shaft is laid in quide bearings. The quide bearings inside the wet part of the pump are rolling ones equipped with fat lubrication. The soft cord seal is located in discharge elbow.

Bearing hanger holds the weight of the whole unit including electric motor. More, it catches axial forces of the shaft through oil lubricated conical bearing.

MATERIAL VERSIONS

Main pump parts are made of hereunder given materials:

Diffuser	gray cast iron
Discharge branch	gray cast iron, steel
Shaft casings	stainless steel
Shaft	carbon steel
Slide quiding bearings	bearing ruber
Guiding pipe	steel
Suction junction	chrom-nickle steel
Impeller	chrome steel

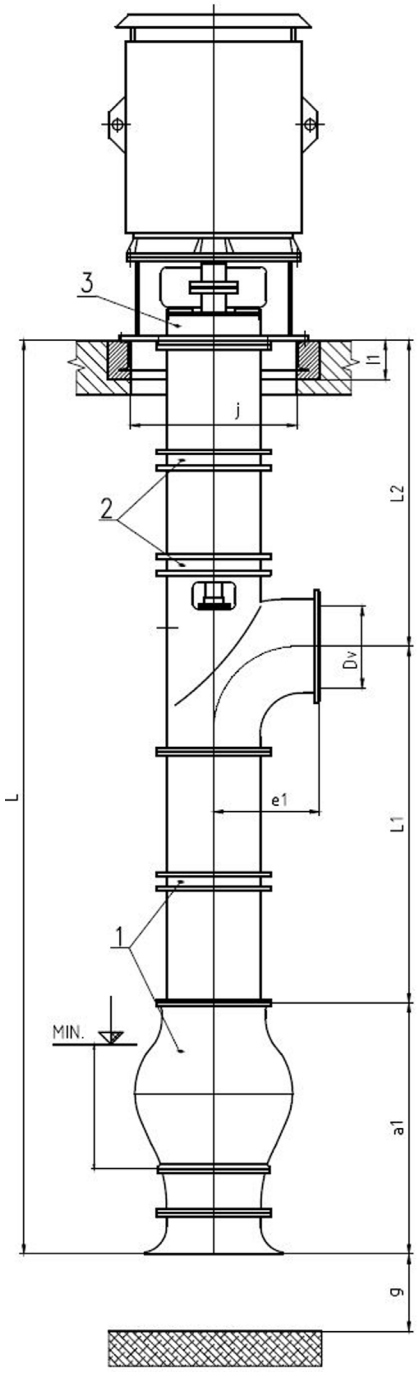


INFORMATIVE CROSS-SECTIONAL DRAWING OF 800 - BQBV PUMP

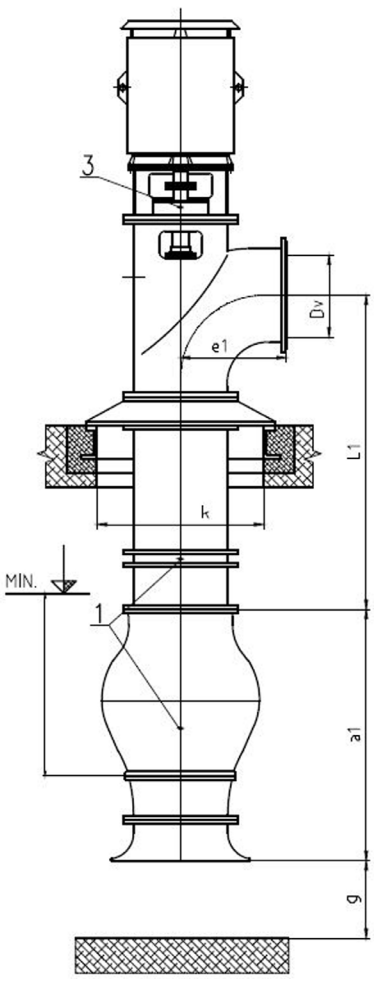
106	suction junction
112	diffuser
113	intermediate ceiling housing
138	suction extender
144	discharge elbow
211	pump shaft
230	impeller
324	hanger journal bearing
382	bearing housing
452	seal cover
461	seal packing
524.1	shaft casing
524.2	seal casing
545	diffuser bearing
711	guiding pipe
843.1	pump coupling
843.2	electric motor coupling
891.1	intermediate ceiling plate
891.2	motor frame
893	hanger plate
922	impeller nut

VERTICAL DIAGONAL PUMPS
BQBV

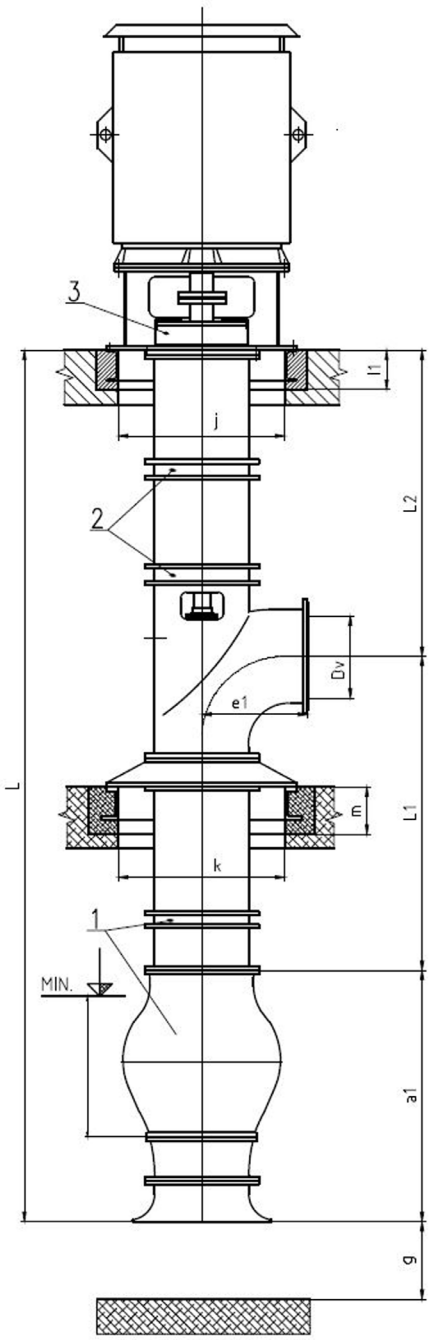
Wet pit basic version



Version with electric motor on the discharge elbow



Wet pit version with intermediate ceiling



PUMP DIMENSIONS
BQBV

Pump type	400-BQBV	600-BQBV	800-BQBV	1000-BQBV
a[1]	920	1360	1850	2150
D_vDN/PN	400/6,10	600/6,10	800/6,10	1000/6,10
e[1]	500	700	900	1100
g	300	450	550	750
i[1]	160	180	240	300
h	May vary upon operational conditions			
j	770x770	1080x1080	1700x1700	2100x2100
k	ø 800	ø 1000	ø 1400	ø 1520
L min L max	2100 8000	3470 10000	4400 12000	5300 15000
L_1 min L_2 max	400 800	700 1410	1150 1400	1100 2100
m	180	220	240	260

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