

Side Channel- and Centrifugal Pumps

vertical tank pumps

CEB 3100 - 6100

CEB 1201 - 6104

ZEB 5001 - 6502



TECHNICAL DATA

output:	max. 100 m ³ /h
delivery head:	max. 171 m
speed:	max. 1800 rpm for CEB max. 3000 rpm for ZEB
temperature:	max. - 25 ° C to + 60 ° C
casing pressure:	PN 25
shaft sealing:	glandless due to magnetic coupling
flange connection:	DIN 2501 PN 25
sense of rotation:	when seen from the drive on the pump CEB anti-clockwise ZEB clockwise

APPLICATION

SIHI tank pumps with extension.

Series of vertical pumps for medium-heavy operation to handle boiling liquids.

One of the remarkable features of these pumps is the special suction stage connected in series with extremely favourable NPSH
CEB and ZEB pumps are of superior suitability to handle liquefied petroleum gas and liquefied gases.

DESIGN

Vertical tank pumps with extension that can be adapted to the dimensions of the existing tanks.

Installation length of the pump 0,5 - 6 m; differing dimensions upon request.

The pumps of the series CEB 1201 - 6104 are side channel combination pumps with pre-connected NPSH stage. The programme includes 6 construction sizes.

The pumps of the series CEB 3100 - 6100 are single-stage centrifugal pumps with NPSH stage only. These pumps are applied together with a pressure generating pump that is installed outside the tank. The programme includes 4 construction sizes.

The pumps of the series ZEB 5001 - 6502 are centrifugal pumps with NPSH inducer stage to reach favourable NPSH values. The programme includes 2 construction sizes.

CONSTRUCTION

Casing pressure:

Max. 25 bar from -40°C to +120°C.

Please note:

Technical regulations and safety rules.

Casing pressure = inlet pressure + delivery head at minimum output.

Position of branches:

Dome flange and suction branch vertical, discharge branches pointing horizontally.

Flanges:

The flanges correspond to DIN 2534 / PN25 or DIN 2512 with groove and spring. Further versions upon request.



Hydraulics:

First hydraulics, designation of this construction type: A•

Bearing:

Two surrounded SiC sleeve bearings with internal lubrication and additional intermediate bearings in the extension. Designation of this construction type: •F

Shaft sealing:

Glandless, with isolation shroud. Transmission of the power by magnetic coupling (from the modular system for side channel pumps).

Casing seal:

The casing seal is made by soft Teflon and the stage sealing of the ZEB by O-rings of Perbunan.
Designation of this construction type: 4

Drive:

By standard commercial electric motors. Construction IM V1.

Material design

Item	COMPONENTS	MATERIAL DESIGN				
		CEB 1201 - 6104			CEB 3100 - 6100	
		1A	1B	2C	1B	2A
01.01	top casing	0.7043		1.0570	0.7043	1.0570
10.70	discharge casing	0.7043		1.4408	0.7043	1.4408
10.80, 10.90, 11.40	intermediate piece	0.7043				
21.00 - 21.03	shaft	1.4021				
23.10	impeller	0.6025				
23.50	vane wheel impeller	2.0550	1.4027.05	2.0550	--	--
0241, 0243, 54.52	sleeve bearing	special carbon				
31.40 54.01	thrust bearing sleeve bearing	SiC				
34.60	stool	0.6025				
81.70	isolation shroud	2.4610				
84.71	inner magnet	1:4571/Sm Co				
84.72	outer magnet	1.0570/Sm Co				

item	COMPONENTS	MATERIAL DESIGN	
		ZEB 5001 - 6502	
		1B	2A
01.01	top casing	0.7043	1.0570
10.70	discharge casing	0.7043	1.4408
10.81 17.10	stage casing guide wheel	0.6025	0.7043
21.00 - 21.03	shaft	1.4021	
23.00	impeller	0.6025	
23.10	suction impeller	1.4408	
54.50 - 54.54	bearing bush	special carbon	
31.40, 31.41 54.01, 54.03	thrust bearing sleeve bearing	SiC	
34.60	stool	0.6025	
81.70	isolation shroud	2.4610	
84.71	inner magnet	1:4571 / Sm Co	
84.72	outer magnet	1.0570 /Sm Co	

General comments:

For higher delivery heads in heavy duty industrial applications we refer to the series **AEH** side channel pump, also available with magnetic coupling.

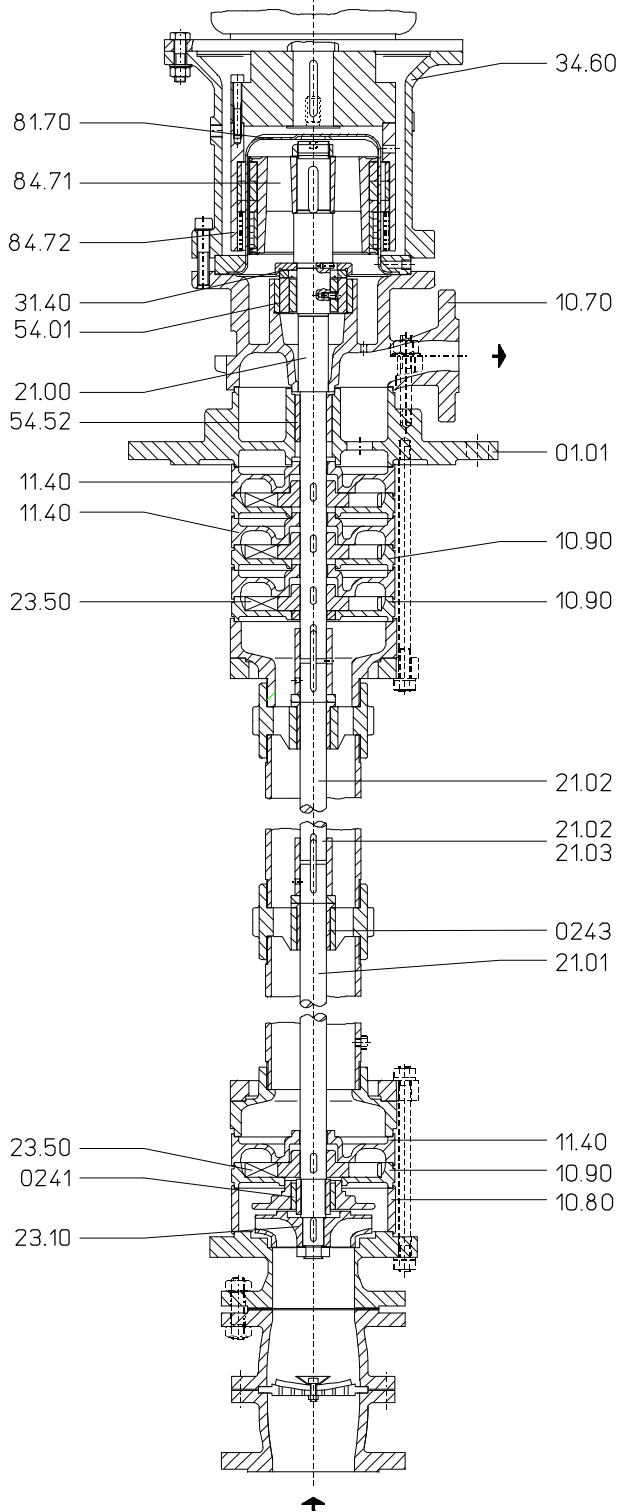
For obtaining lower NPSH in heavy duty industrial applications we refer to the series **CEH** side channel pump, also available with magnetic coupling.

For suction operation in LPG plants with tanks covered by earth we refer to PC plant systems, also available with magnetic coupling

For higher flow rates and higher delivery heads with favourable NPSH we refer to the series **ZEA / UEA**, also available with magnetic coupling

Technical documentation on these programmes will be supplied on request.

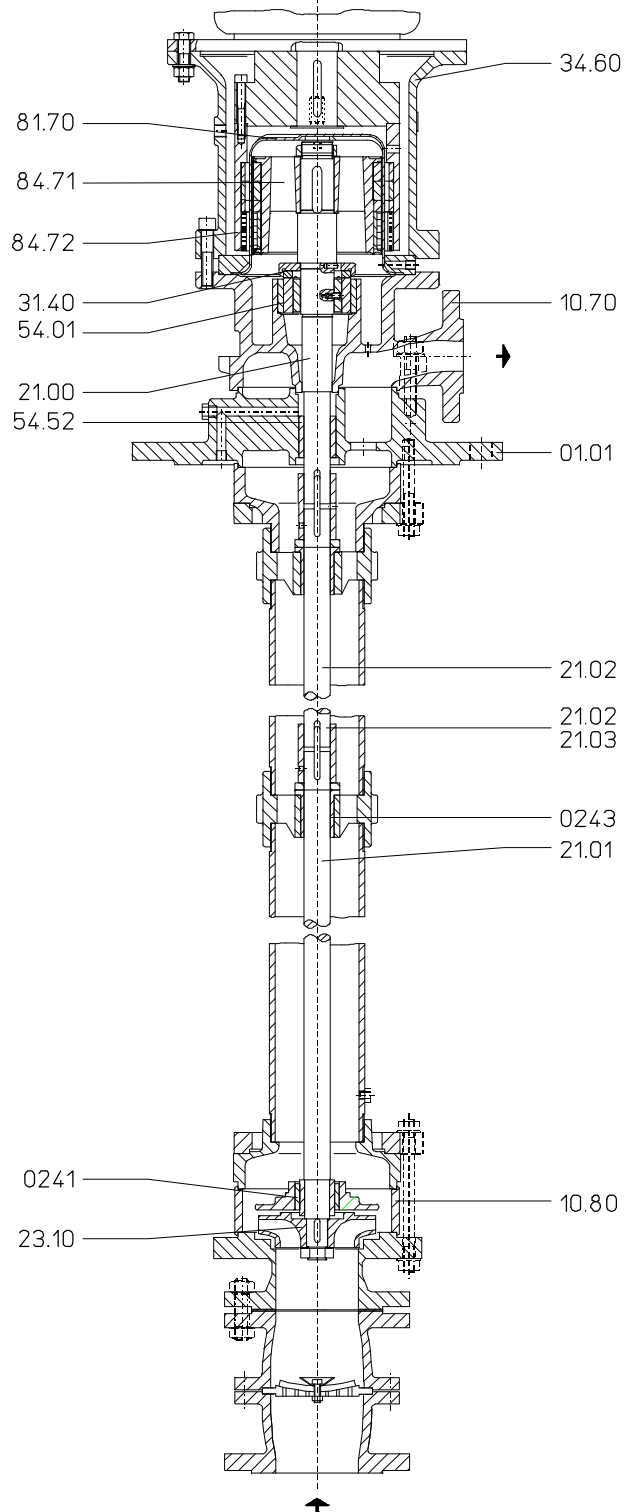
Sectional drawing CEB 1201 - 6104



- 01.01
- 0241, 0243
- 10.70
- 10.80, 10.90, 11.40
- 21.00 - 21.03
- 23.10
- 23.50
- 31.40
- 34.60
- 54.01, 54.52
- 81.70
- 84.71
- 84.72

- top casing
- sleeve bearing
- discharge casing
- intermediate piece
- shaft
- impeller
- vane wheel impeller
- thrust bearing
- stool
- sleeve bearing
- isolation shroud
- inner magnet
- outer magnet

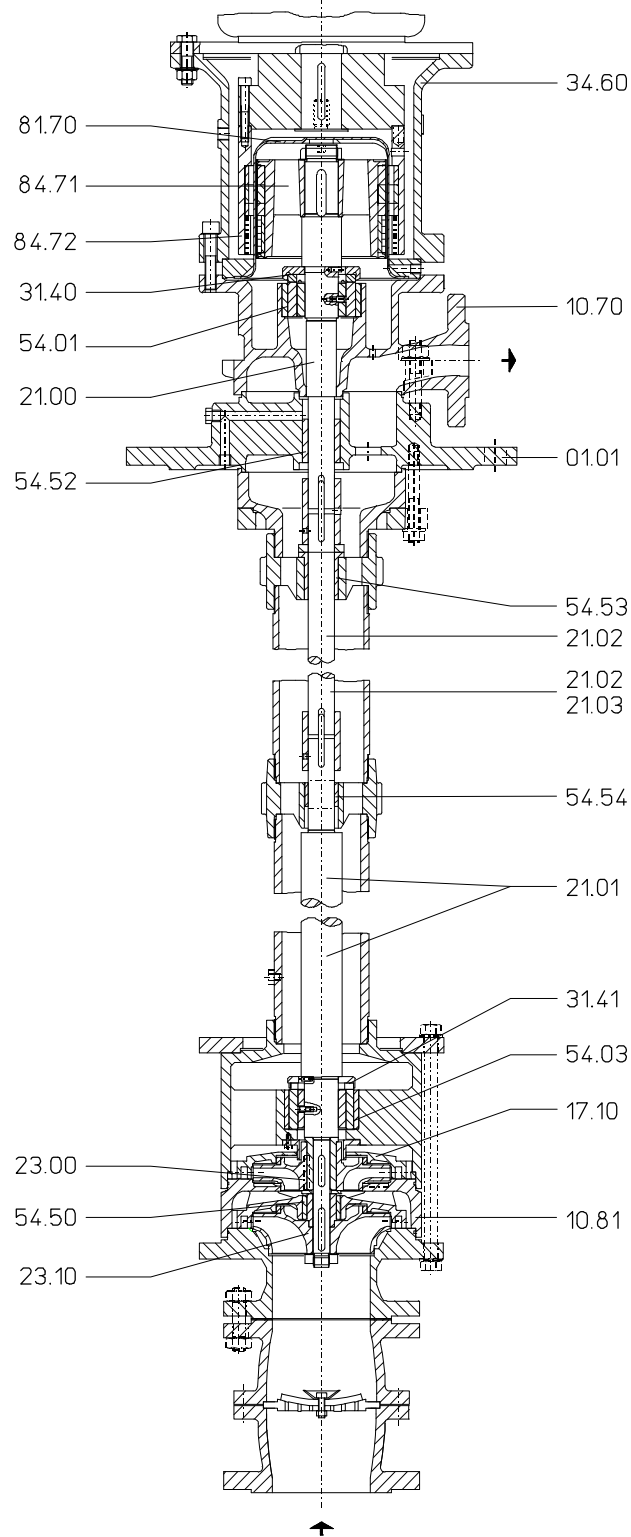
Sectional drawing CEB 3100 - 6100



- 01.01
- 0241, 0243
- 10.70
- 10.80
- 21.00 - 21.03
- 23.10
- 31.40
- 34.60
- 54.01, 54.52
- 81.70
- 84.71
- 84.72

- top casing
- sleeve bearing
- discharge casing
- intermediate piece
- shaft
- suction impeller
- thrust bearing
- stool
- sleeve bearing
- isolation shroud
- inner magnet
- outer magnet

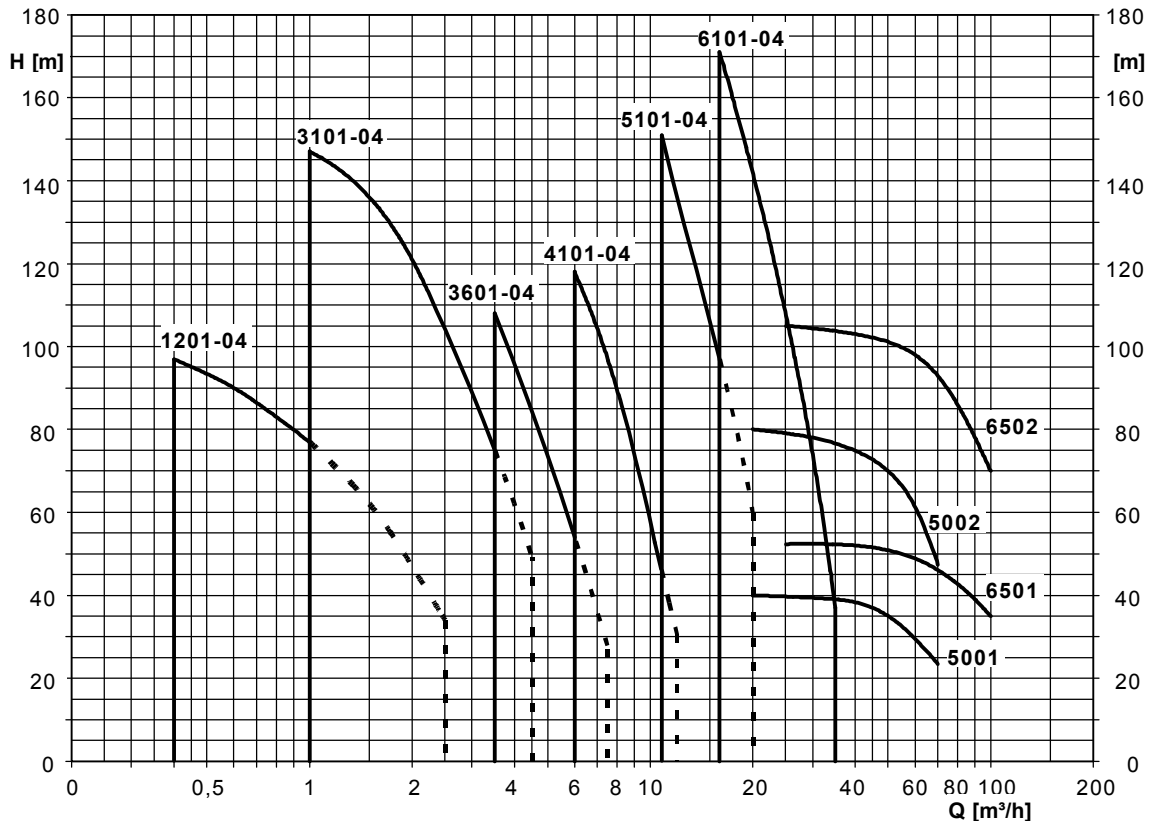
Sectional drawing ZEB 5001 - 6502



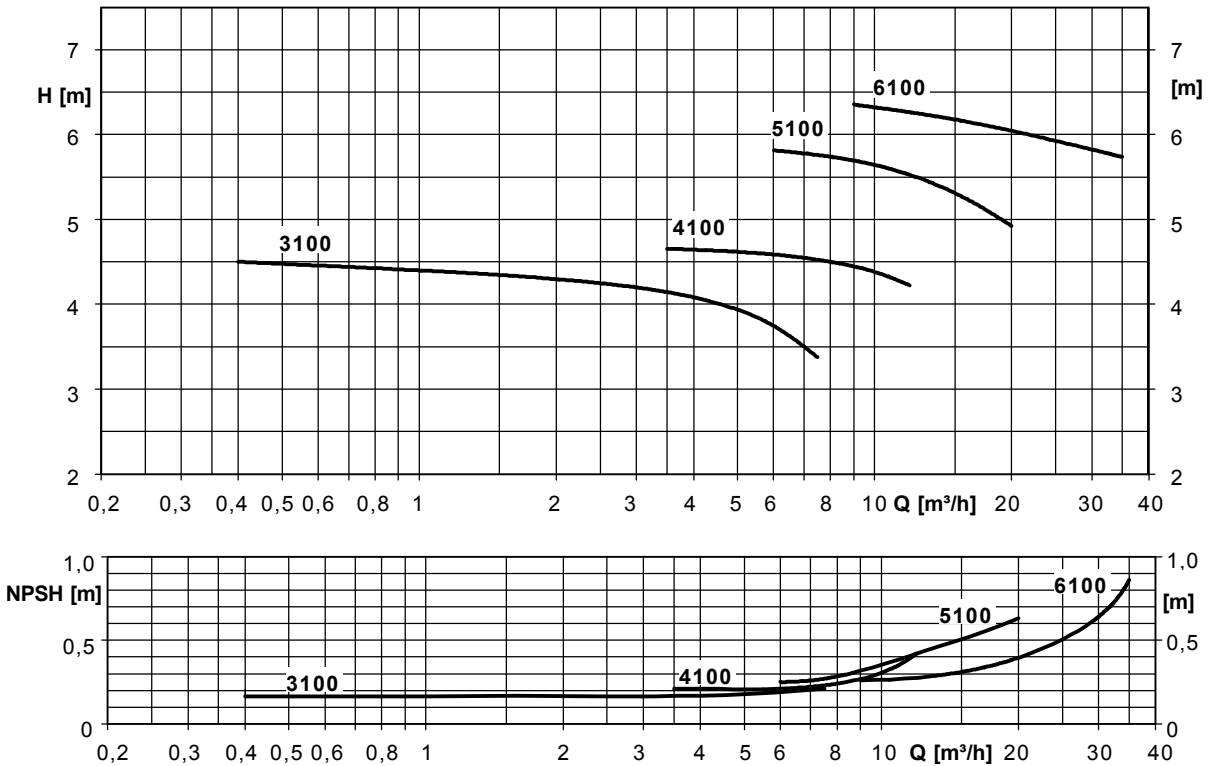
01.01	top casing
10.70	discharge casing
10.81	stage casing
17.10	guide wheel
21.00 - 21.03	shaft
23.00	impeller
23.10	suction impeller
31.40, 31.41	thrust bearing
34.60	stool
54.01 - 54.54	sleeve bearing
81.70	isolation shroud
84.71	inner magnet
84.72	outer magnet

Performance graph

CEB 1201 - 6104 n = 1450 rpm
 ZEB 5001 - 6502 n = 2900 rpm



CEB 3100 - 6100 (Booster pump) n = 1450 rpm



Any changes in the interest of the technical development are reserved.

Further technical data on request.

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