

Packaged submersible pump stations with synthetic collection sump

SKB 6, SKB 9

Application

SKB 6 and SKB 9 sumps are pre-assembled submersible pump stations, each with an anti-flotation collection sump for the drainage of buildings from below the sewer level. With the minimum of civil work and installation time it is installed, in open ground, outside the building.

Installing the SKB 6 or SKB 9 is an effective and economical solution for various waste-water and sewage disposal situations. Both pump stations can be supplied with either HOMA submersible series Barracuda GRP sewage pumps with cutting system, or series TP and series TCV/TCM waste-water pumps. For installation according to DIN EN 124 with load classes:

- A 15
- B 125
- D 400

DIN EN 12050-1: Conformity and design approved and controlled by LGA, certificate No. 0220119.

Main features of SKB 6 and SKB 9:

- Complete pump station including pipe work and valves for a quick, simple installation.
- The low weight and compact design makes it easily transportable.
- Various inlets DN 100/150/200 to accommodate specific conditions.
- No-deposit at the sump bottom, achieved by the hanging pump-coupling and spherical base of the sump, designed to prevent build-up.
- Easy pump removal: the pump can be lifted on its own without the discharge pipe.

Design/Equipment supplied

The collection sumps comprises:

Tank: compact polyethylene tank with anti-flotation design. SKB 6 with 3, SKB 9 with 5 tank connections DN 100/ DN 150 inlets including combined cable duct/ air vent and 1 for DN 200 inlet. Discharge pipe outlet. Frame for height support ring or access cover.

Pump Discharge Equipment: Auto-coupling system for 1 or 2 pumps with double guide rails (for pump-coupling flange see „Accessories“). Galvanized discharge with screw connections. One or two soft-sealing ball check valves, gate valve. Discharge flush-cleaning connection with Storz-quick coupling. Threaded tank discharge connection BSP 1½" M.



Pump Types

| Pump range | Spherical clearance (mm) | Impeller design | Motor-output P ₂ (kW) | H max. (m) | Q max. (m ³ /h) | Pump discharge size |
|------------|--------------------------|-----------------|----------------------------------|------------|----------------------------|---------------------|
| TP 30 M | 30 | Single channel | 0,7 – 1,2 | 14 – 19 | 33 – 43 | BSP 2" M |
| TP 30 V | 30 | Vortex | 0,9 – 1,2 | 9 – 13 | 32 – 38 | BSP 2" M |
| TP 50 M | 50 | Single channel | 0,8 – 4,4 | 7,5 – 32 | 42 – 82 | BSP 2½" M |
| TP 50 V | 50 – 65 | Vortex | 1,0 – 4,4 | 8 – 22 | 41 – 53 | BSP 2½" M |
| TCV | 40 – 65 | Vortex | 0,6 – 1,1 | 7 – 10 | 18 – 33 | BSP 2" F |
| TCM | 65 | Single channel | 1,0 – 1,5 | 12 – 15 | 38 – 48 | BSP 2½" F |
| GRP | - | Cutting system | 1,1 – 4,4 | 20 – 52 | 15 – 28 | BSP 2" M |

For further information see specific pump literature .

Materials:

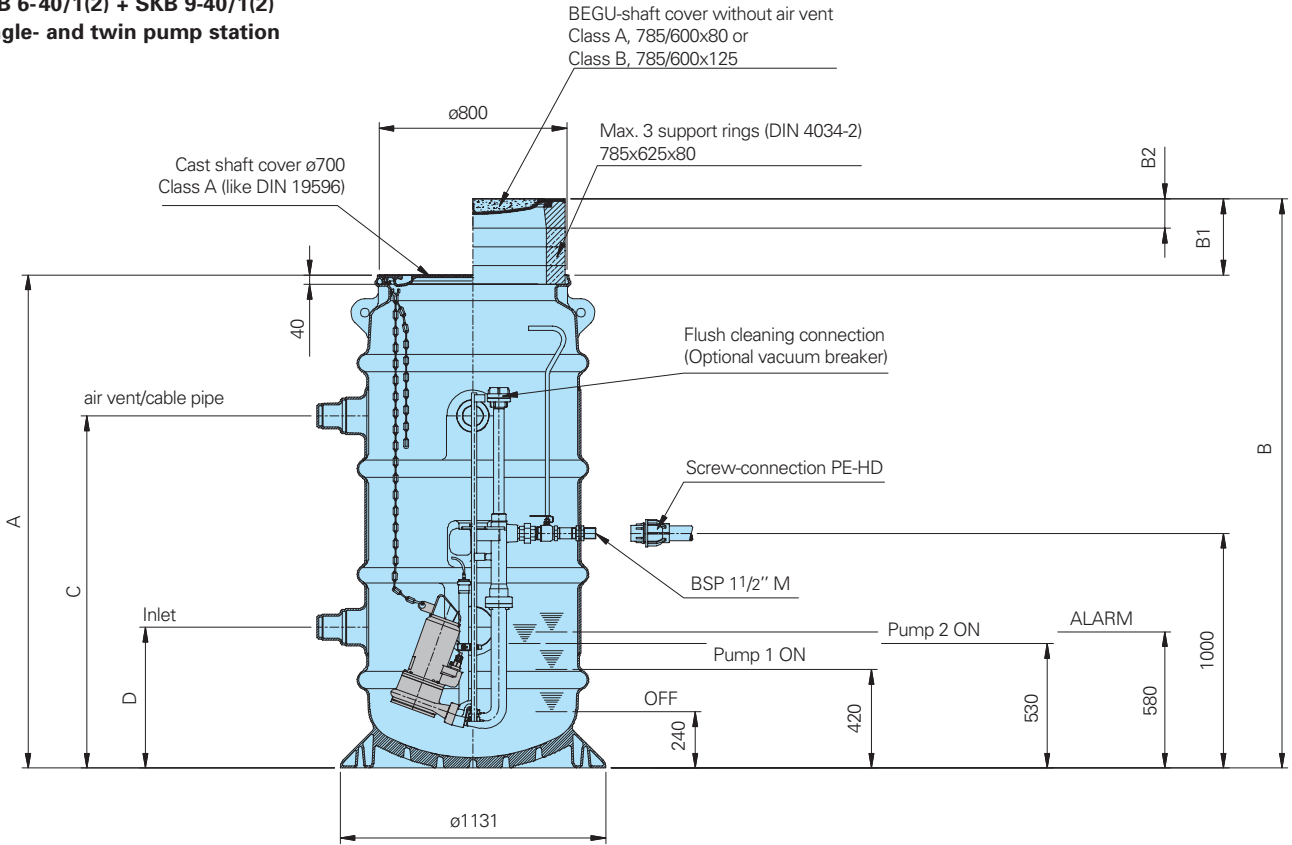
| | |
|-----------------------------------|------------------------|
| Tank | Polyethylene |
| Pump | Cast iron |
| coupling system | GG25/EN-GJL-250 coated |
| Guide rails | Stainless steel |
| Discharge pipe, screw connections | Galvanized steel |

Sump Types

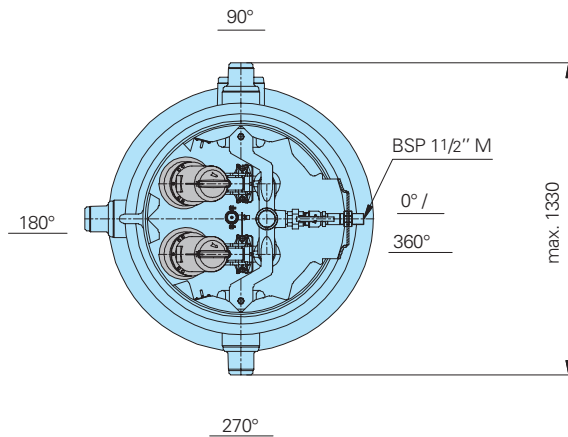
| Type | No. of pumps | Ref. No. |
|-----------|--------------|------------|
| SKB6-40/1 | 1 | 9820120.01 |
| SKB6-40/2 | 2 | 9820122.01 |
| SKB9-40/1 | 1 | 9820100.01 |
| SKB9-40/2 | 2 | 9820102.01 |

Dimensions

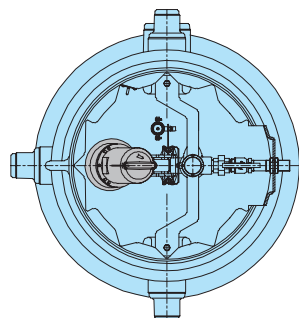
SKB 6-40/1(2) + SKB 9-40/1(2)
Single- and twin pump station



SKB 6-40/2 + SKB 9-40/2
Twin pump station

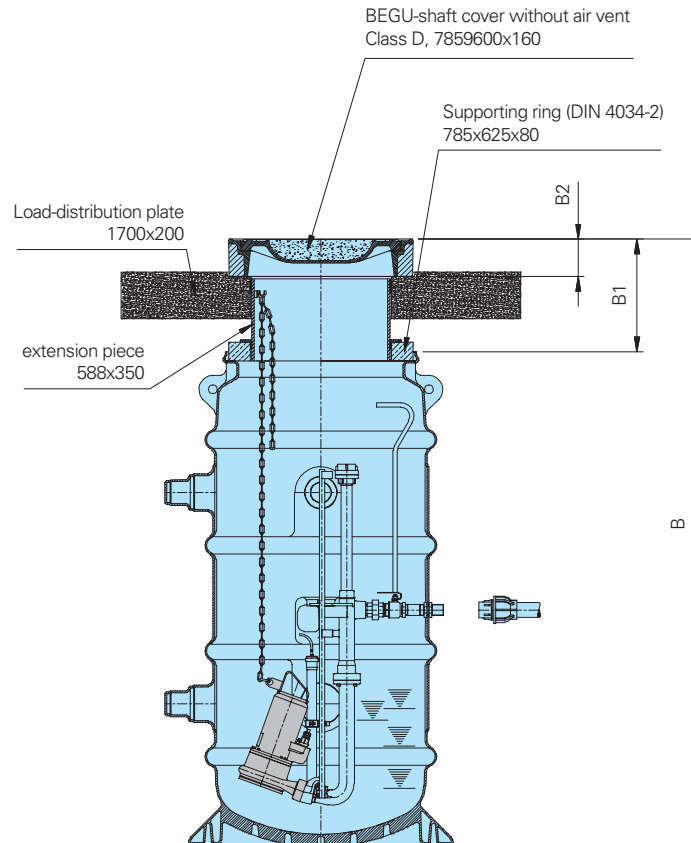


SKB 6-40/1 + SKB 9-40/1
Single pump station
 (Dimensions same as twin pump station)



Dimensions

SKB 6-40/1(2) + SKB 9-40/1(2) Single- and twin pump station



| Tank | Cast cover Class A | BEGU-shaft cover ¹⁾ Class A | | | BEGU-shaft cover ¹⁾ Class B | | | BEGU-shaft cover ²⁾ Class D | | |
|-------------|-----------------------|---|---------|----|---|---------|-----|---|---------|-----|
| | A | B | B1 | B2 | B | B1 | B2 | B | B1 | B2 |
| SKB6-40/1+2 | 1650 | 1770-1930 | 120-280 | 80 | 1815-1975 | 165-325 | 125 | 2130-2230 | 480-580 | 160 |
| SKB9-40/1+2 | 2100 | 2220-2380 | 120-280 | 80 | 2265-2425 | 165-325 | 125 | 2580-2680 | 480-580 | 160 |

Tank wall thickness min. 8mm

¹⁾ Total height (min. 1, max. 3 supporting rings 80 mm high)

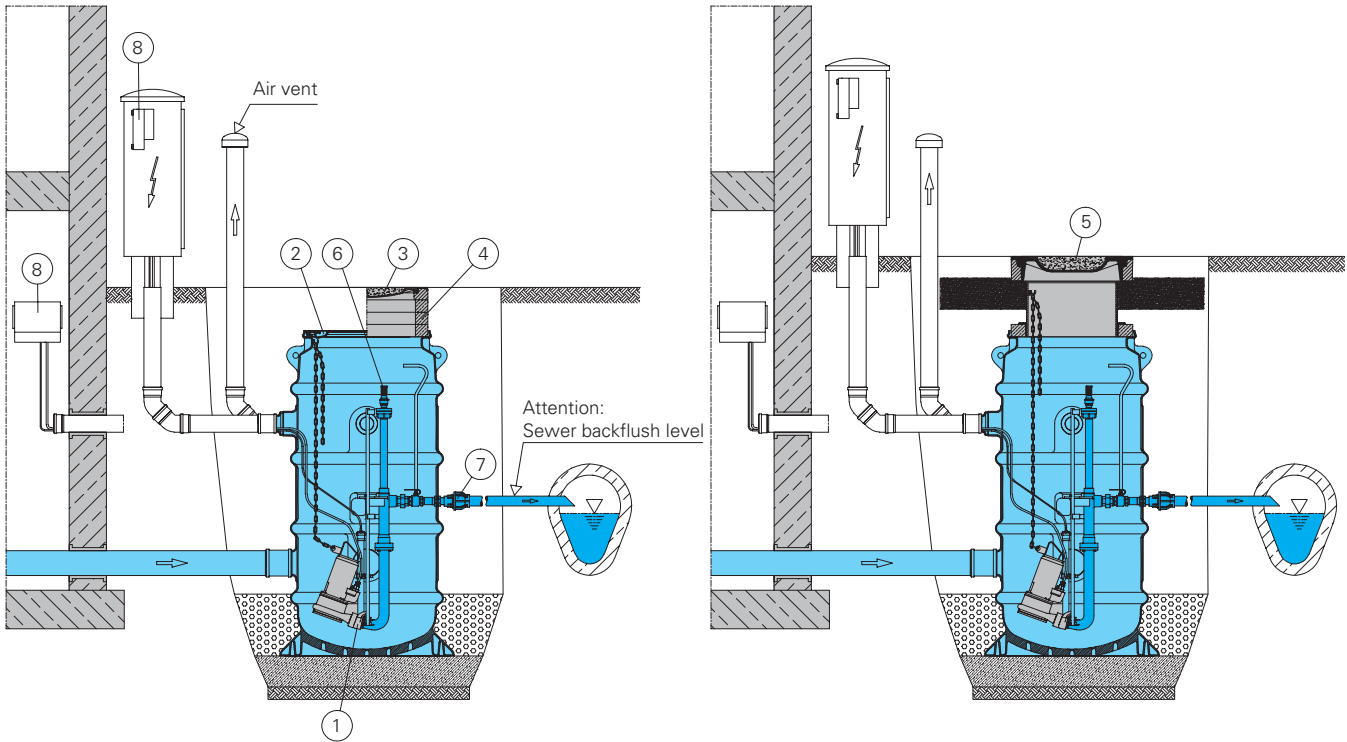
²⁾ Total height (Installation with load-distribution plate)

| Tank | Connections | C | D | 90° | 180° | 270° |
|-------------|-------------------------|------|-----|-----------|-----------|-----------|
| SKB6-40/1+2 | air vent/ cable pipe | 1050 | – | – | DN100/150 | DN100/150 |
| | Inlet | – | 600 | DN200 | DN100/150 | DN100/150 |
| SKB9-40/1+2 | air vent/ cable pipe | 1500 | – | DN100/150 | DN100/150 | DN100/150 |
| | Inlet | – | 600 | DN200 | DN100/150 | DN100/150 |

Connection –A-Ø: DN100-Ø109, DN150- Ø159, DN200- Ø198

Installation

SKB 9-40/1



Accessories

① Pump coupling flange:
For connection the selected pump type to the coupling system.

| Pump collecting flange | Pump type | Ref.-No. |
|------------------------|------------------|----------|
| BSP 2" M | TCV | 7323204 |
| BSP 2" F | TP 30, GRP 16-36 | 7323203 |
| BSP 2" F | GRP 44-50 | 7323331 |
| BSP 2 1/2" F | TP 50 | 7323213 |
| BSP 2 1/2" M | TCM, TCV | 7323214 |

| Shaft cover | Part.-No. |
|--|-----------|
| ② Cast iron, Class A ø800 mm | 2804920 |
| ③ BEGU-cover (only for supporting ring) | |
| Class A ø785x600x80 mm | 2805005 |
| Class B ø785x600x125 mm | 2805014 |
| ④ Supporting ring, concrete ø785x625x80 mm | 285000 |
| ⑤ BEGU cover kit, class D with, load-distribution plate and supporting ring ø1700x600 mm | 8608050 |
| ⑥ Vacuum braker compl., stainless steel | |
| BSP1 1/2" / BSP 1" | 7336624 |
| ⑦ Screw-connection for PE-HD discharge pipe | |
| ø 50x436 mm | 2109160 |
| ø 63x 580 mm | 2109165 |

Control panel:
Electronic control panel with plastic housing IP 54. Manual-O-automatic switch. Pilot lights for operation, direction of rotation (3-phase models only), alarm and faults. Overload protection with contractor. Mains-operated alarm with buzzer. Mains-independent alarm connector with battery charger for storage battery. Volt-free contact for remote signal. Pump motor over-temperature protection on pumps with integrated thermal sensors. Operation capacitor or start capacitor (for single-phase models only). Pneumatic level control with pressure tube, pressure switch and compressor. Twin pump station control panel additionally with auto-change-over after each pump cycle, operation of second pump at high flow, automatic change to stand-by pump in case of pump failure.

⑧ Complete control panels
PS / HCON / HSKB see accessories

Control panels for
230 V / 1 Ph on request

Storage Battery 9.6 V for
mains independent alarm 1952214

Electronic seal control of
pump oil chamber with
alarm at the control panel see accessories



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