

Application

The pre fabricated plastic pump chamber is designed for ease of installation and totally alleviates any need for sump construction. The chamber can be sunk in any natural soil without the necessity of any concrete work. The sump is then used as a conventional effluent collecting pit in conjunction with the selected pump arrangement and connected to standard pressure drainage systems.

Note: The unit is designed for normal pedestrian and cyclist load (EN 124 Group 1, permissible traffic load 5 kN/m²). The PKS 800 is very versatile, integrated eyebolts make it easily transportable and convenient to move on site. The unit design allows total flexibility in pump selection, being able to incorporate single or duplicate MultiCut- (cutting system), MultiStream- (single channel impeller) or MultiFree- (vortex impeller) pumps.

Description

Tested by the German Institute for Construction Engineering and pre fabricated pump chamber in high grade polyethylene (PE-HD) supplied complete with reducing socket on inlet, vent socket and pressure outlet connection.

Pump Types

a) MultiCut-pumps with cutter blade system providing complete maceration of medium being pumped and giving high delivery head performance. The unit would incorporate patented coupling system (over water level) with integrated vertically closing ball check valve with mounting arrangement for flushing connection DN 40 (1½") delivery branch.

b) MultiStream- or MultiFree-pumps (Single channel impeller or vortex impeller) having 80 mm discharge outlet. The unit incorporates swing-type check valve and 65/80 mm diameter coupling discharge arrangement.

The system is designed to allow suspension of the pumps above the start up water level. Using a chain, pump and delivery pipe can be suspended to the coupling connection. The built in valve unit can be operated from above the pump chamber (PSV 370 only with accessories). The installation depth with concrete cover class A 15 is 1,70 m and with the sump extension PSV 370 it is 2,07 m. The total volume without support rings is 750 litres (with the sump extension 905 litres). The estimated storage below pump suction is 150 litres.

Scope of supply

PKS 800-50

Polyethylene Pump Chamber assembled with 40 mm dia. coupling valve incl. vertically closing ball check valve and mounting arrangement for flushing connection DN 40, service gate valve, 40 mm dia. stainless steel delivery piping outlet with 1½" male thread, connecting branch for collar DN 150 (for pipe between house and sump), two 70/100 mm dia pipe sockets optional for venting or cable pipe (for pipe between house and sump).

PKS 800-D 50

Polyethylene Pump Chamber assembled with two 40 mm dia. coupling valves incl. vertically closing ball check valves and mounting arrangement for flushing connection DN 40, two elbows, two service gate valves, T-piece, 40 mm dia. stainless steel delivery pipe outlet with 1½" male thread, connecting branch for collar DN 150 (for pipe between house and sump), two 70/100 mm dia. pipe sockets optional for venting or cable pipe (for pipe between house and sump).

PKS 800-80

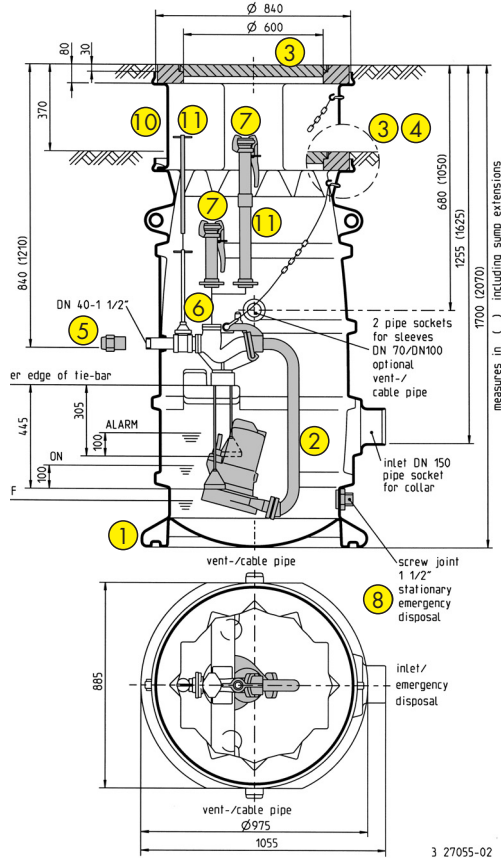
Polyethylene Pump Chamber assembled with 80 mm dia. coupling arrangement, 80 mm dia. swing-type check valve, 80 mm dia. delivery pipe outlet as a 90 mm o.d. flanged socket unit, connecting branch for collar DN 150 (for pipe between house and sump), two 70/100 mm dia. pipe sockets optional for venting or cable pipe, 100 mm dia (for pipe between house and sump).



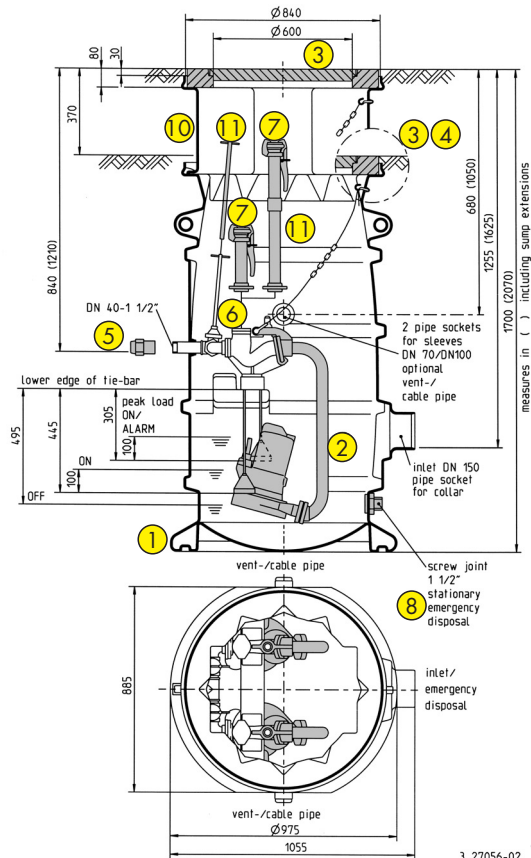
- ▶ **Mark of conformity Z-42.1-331**
- ▶ **To be operated from above**
- ▶ **Smooth benched collection area to prevent solids build up**
- ▶ **Buoyancy-proof and ground water proof**
- ▶ **Easy to install**
- ▶ **Patented coupling system**
- ▶ **Mounting arrangement for flushing connection**

PKS

Single unit PKS 800-50



Duplex unit PKS 800-D 50



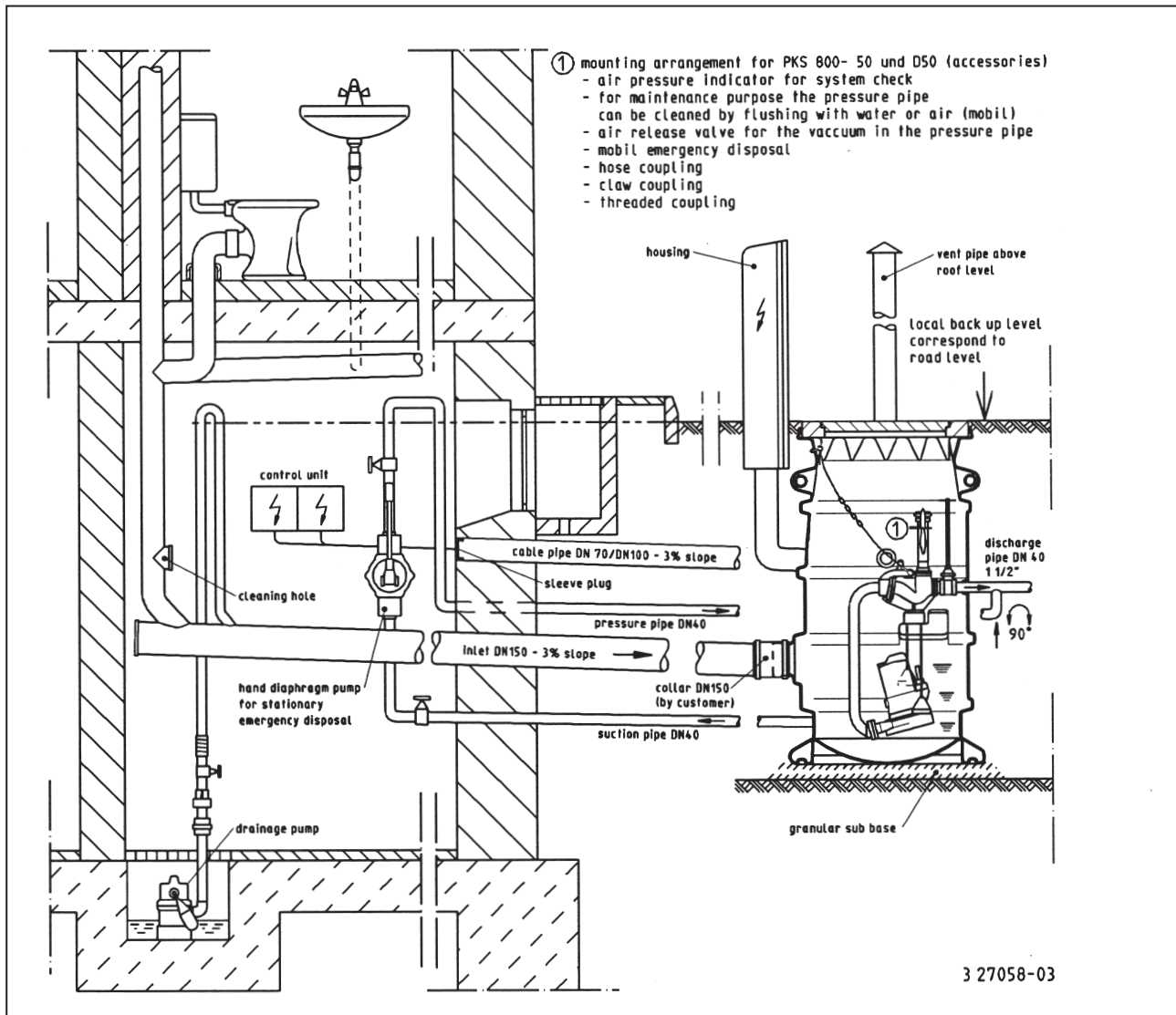
We reserve the right to change specifications without notice.

Attention: If dual units, you have to order two discharge branches and two pumps.

Description		Code No.	Weight (kg)	08/2 M/ME	25/2 M/ME	35/2 M	36/2 M
1 Poly-sump	PKS 800-50 PKS 800-D 50* PKS 800-80	9950 9951 9962	76 85 89	● ● ●	● ● ●	● ● ●	● ● ●
2 Discharge branch, cpl. with chain	DN 40 (stainless steel) DN 65 DN 80	24722 17679 17680	7,6 18,3 18,3	● ● ●	● ● ●	● ● ●	● ● ●
3 Cover ø 600 mm without ventilation, with frame ø 825 mm, cl. A 15 Lifting tool for concrete cover system "Göbel" Isolation insert Ventilating pipe DN 100 for sumps		20817 25279 24412 25437	90	● ● ● ●	● ● ● ●	● ● ● ●	● ● ● ●
4 Concrete ring	h = 100 mm	25488	55	●	●	●	●
5 Single ended quick release coupling with female thread and clamb for discharge branch 1 1/2" to ø 50 mm for discharge branch 1 1/2" to ø 63 mm		22366 22367		● ●	● ●	● ●	● ●
6 Perrot flushing connection DN 40, 1 1/2" (not for PSV 370)		23097		●	●	●	●
7 Accessories for Perrot flushing connection: Bend with hose nozzle ø 50 mm DRS-connection 1/2" Breathing valve Pressure gauge Claw coupling Flush connector 1" outside		19202 22421 22422 24666 22420 22466	0,5 1,5	● ● ● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ●	● ● ● ● ● ●
8 Connection for stationary Emergency Disposal 1 1/2" Hand diaphragm pump 1 1/2" Sluice valve 1 1/2"		19203 255 11837	16	● ● ●	● ● ●	● ● ●	● ● ●
9 Spigot flange DN 80, PN 10 Sluice valve DN 80, PN 10 (with screws and gaskets) Set of earth installation equipment DN 80, pipe connection depth 700 mm 1000-1400 mm		11586 18936 18938 18939	5 24,5 30 32				
10 Sump extension PSV 370		25318	13	●	●	●	●
11 Flushing connection DN 40, 1 1/2" for PSV 370 (Accessories see position 7) Sluice valve extension for PSV 370		25794 25720		● ●	● ●	● ●	● ●

* The application of the submersible ball contact switches is not possible.

Mounting arrangement



Installation characteristics

The PKS pump chamber conforms to EN 12056/752/476 in all respects and is delivered ready for installation and connection. Its low weight facilitates transport and installation. It will pass through a 94 cm wide door opening.

The PKS pump chamber saves considerable cost. It can be installed and connected quickly without use of expensive machinery. Level compensation can be achieved by simple means, using a commercial concrete seat ring (max. height 100 mm) or our PSV 370 sump extension.

Inspection and maintenance operations on the valves can be carried out easily from above - without entering the chamber.

The PKS pumping chamber is buoyancy-proof and ground water tight and therefore also suitable for restricted parts of a catchment area.

Optional connection facility for a manual diaphragm pump for stationary emergency disposal or flushing connection.

The 40 mm dia. delivery pipe connection with 1 1/2" male thread can be made with compression union for PVC for PE pipe.

The 80 mm dia. delivery pipe outlet in the form of a 90 mm dia. flanged socket unit can be connected with 80 mm dia. flanged spigot and soil placement gate valve or direct with 90 mm dia. delivery pipe.

The version as a duplex system with automatic alternating and peak load control increases reliability.

Important operational characteristics have also been taken into account in the design of the PKS pumping chamber:

a smooth collection space without putrefaction zone, direction of flow orientated socket connection for the 150 mm dia. feed, a delivery pipe connection secured by axial friction. Additional safety is offered by stand-alone operation of two separate level switches (AD/BD...ExM and AD/BD...MP).