

- Water
- Sewage
- Sanitary installations
- Industry

Product catalogue



Move water.

Intelligent pump technology for domestic and industrial use



1 Submersible pressure pumps

2 Submersible grinder pumps

3 Submersible sewage pumps

3 Pumping stations

3 Sewage lifting units

3 Sewage lifting units with cutting system

3 Sewage lifting stations

4 Submersible waste water pumps

5 Condensate pumps

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Benefits:

- light and robust version
- 10 mm to 30 mm (ZPK 40) solids handling for larger solids available
- double sealing by mechanical seal and additional shaft seal
- integrated thermal winding protection to prevent overheating damage
- short-term up to 90°C medium temperature

Features:

- submersible waste water pump, made of corrosion- and shock-resistant polypropylene and high-grade stainless steel
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- horizontal pressure outlet 1 ¼" MPT
- version 'A' with mounted float switch
- version 'KS' with mounted compact float switch (fits into pipes with an inner diameter larger than 250 mm)
- protection grade IP 68 – fully submersible

Applications:

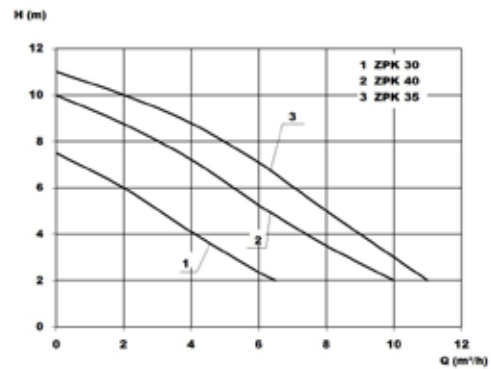
- pumping of clear water and waste water from pits, drainage man-holes, cellars etc.
- portable pump for emergency drainage
- drainage of domestic waste water without faeces from showers, washing machines, washbasins etc.

Scope of delivery:

- pump with 10 m power cable and plug
- 90° hose connecting bend (ZPK 30: DN 25; ZPK 35 and ZPK 40: DN 32)



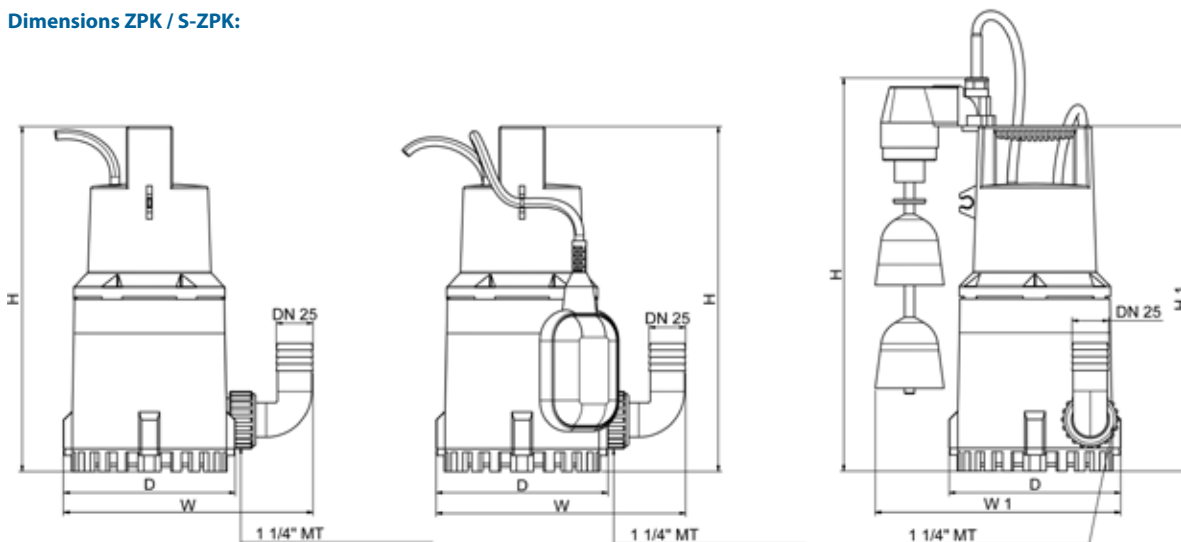
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
ZPK 30	13011	300	130	230	1,3	2800	7,0	7,5	10	4,24	A
ZPK 30 A	13013	300	130	230	1,3	2800	7,0	7,5	10	4,45	A
ZPK 30 KS	13015	300	130	230	1,3	2800	7,0	7,5	10	4,59	A
ZPK 35	13022	850	430	230	3,7	2800	11,0	11,0	10	6,22	A
ZPK 35 A	13023	850	430	230	3,7	2800	11,0	11,0	10	6,45	A
ZPK 35 KS	13025	850	430	230	3,7	2800	11,0	11,0	10	6,66	A
ZPK 40	13036	850	430	230	3,7	2800	10,0	10,0	30	6,23	A
ZPK 40 A	13037	850	430	230	3,7	2800	10,0	10,0	30	6,43	A
ZPK 40 KS	13038	850	430	230	3,7	2800	10,0	10,0	30	6,65	A

Dimensions ZPK / S-ZPK:



Benefits:

- pumping of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- light and robust version
- 10 mm to 30 mm (S-ZPK 40) solids handling for larger solids available
- double sealing by mechanical seal and additional shaft seal
- integrated thermal winding protection to prevent overheating damage

Features:

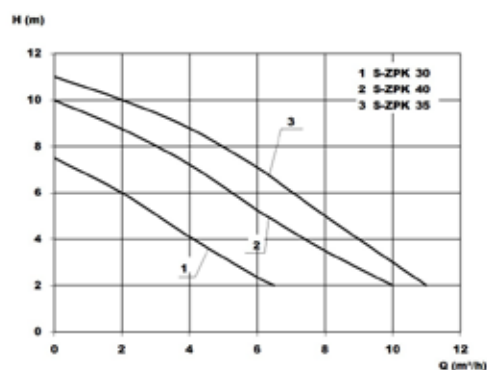
- for use behind water softening systems and for calorific value condensate
- high-quality, silicon carbide mechanical seal, stainless steel motor housing (1.4404), stainless steel motor shaft
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- horizontal pressure outlet 1 ¼" MPT
- version 'A' with mounted float switch
- version 'KS' with mounted compact float switch (fits into pipes with an inner diameter larger than 250 mm)
- protection grade IP 68 – fully submersible

Applications:

- drainage of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- lifting of domestic faecal-free waste water (operation temperature 40°C / short-term up to 90°C)

Scope of delivery:

- pump with 10 m power cable and plug
- 90° hose connecting bend (ZPK 30: DN 25; ZPK 35 and ZPK 40: DN 32)


Characteristics:

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
S-ZPK 30	13031	300	130	230	1,3	2800	7,0	7,5	10	4,24	A
S-ZPK 30 A	13030	300	130	230	1,3	2800	7,0	7,5	10	4,48	A
S-ZPK 30 KS	17577	300	130	230	1,3	2800	7,0	7,5	10	4,59	A
S-ZPK 35	13032	850	430	230	3,7	2800	11,0	11,0	10	6,24	A
S-ZPK 35 A	13034	850	430	230	3,7	2800	11,0	11,0	10	6,45	A
S-ZPK 35 KS	17947	850	430	230	3,7	2800	11,0	11,0	10	6,45	A
S-ZPK 40	17828	850	430	230	3,7	2800	10,0	10,0	30	6,23	A
S-ZPK 40 A	17829	850	430	230	3,7	2800	10,0	10,0	30	6,43	A
S-ZPK 40 KS	17241	850	430	230	3,7	2800	10,0	10,0	30	6,65	A

Dimensions ZPK / S-ZPK:

Type	H [mm]	H ₁ [mm]	B [mm]	B ₁ [mm]	D [mm]	Min. cut-in water level [mm]	Min. cut-of water level [mm]
ZPK 30 / S-ZPK 30	272		187		150	120	25
ZPK 30 A / S-ZPK 30 A	272		187		150	120	25
ZPK 30 KS / S-ZPK 30 KS	314	272		215	150	120	25
ZPK 35 / S-ZPK 35	302		187		150	160	25
ZPK 35 A / S-ZPK 35 A	302		187		150	160	25
ZPK 35 KS / S-ZPK 35 KS	344	302		215	150	160	25
ZPK 40 / S-ZPK 40	342		187		150	200	45
ZPK 40 A / S-ZPK 40 A	342		187		150	200	45
ZPK 40 KS / S-ZPK 40 KS	383	341		215	150	200	45

Benefits:

- intake from 15 mm and suction down to 1 mm
- automatic mode incl. Alarm available in connection with ENS 1.1
- integrated non-return valve to prevent backflow

Features:

- puddle sucker - submersible waste water pump, made of corrosion- and shock-resistant polypropylene and high-grade stainless steel
- intake from 15 mm and suction down to 1 mm
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- in automatic mode with ENS 1.1 (art.no.11414), switch-on point approx. 25 cm, switch-off point approx. 3 mm
- vertical pressure outlet 1" MPT with hose connection DN 25
- integrated non-return valve
- FSP 330 with ENS 1.1 fits into pipes with an inner diameter larger than 200 mm
- protection grade IP 68 – fully submersible

Applications:

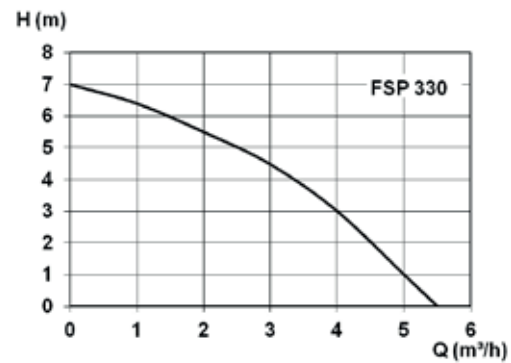
- portable pump for emergency drainage
- for cellars, washhouses, pools, manholes and where water must be pumped out 'completely'

Scope of delivery:

- pump with 10 m power cable and plug



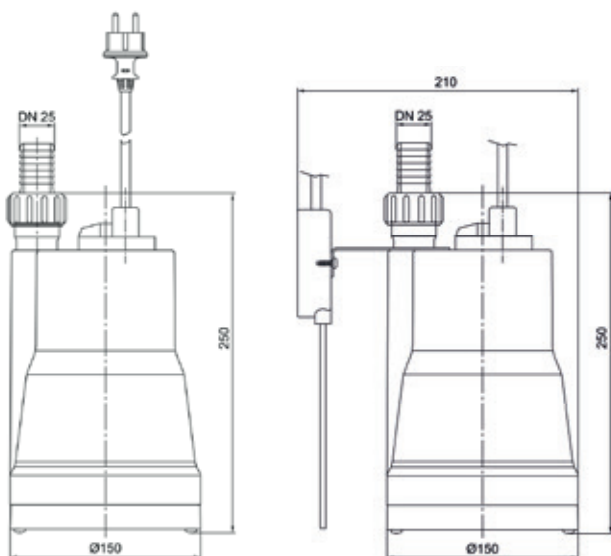
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
FSP 330	13187	300	160	230	1,3	2800	5,5	7,0	1	3,77	A
ENS 1.1 for FSP 330	11414	electronic level control for FSP 330 for automatic operation									
ENS 1.1 universal	11416	electronic level control with 300 mm electrode length for universal application (function "Emptying" or "Filling" adjustable), I _{max} = 6 A									

Dimensions:



Accessories / Switch controls:

ENS 1.1 for FSP 330



ENS 1.1 universal



Benefits:

- space-saving installation due to overhead pressure outlet
- double sealing by mechanical seal and additional shaft seal

Features:

- submersible waste water pump, made of corrosion- and shock-resistant polypropylene and high-grade stainless steel
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- stainless steel motor shaft and motor housing
- jacket cooling
- vertical pressure outlet 1"
- version 'A' with mounted float switch
- version 'KS' with mounted compact float switch (fits into pipes with an inner diameter larger than 250 mm)
- protection grade IP 68 – fully submersible

Applications:

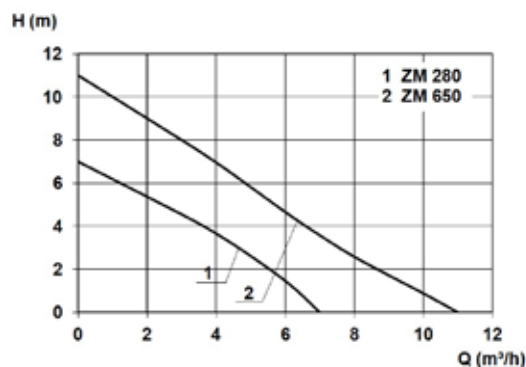
- pumping of clear water and waste water
- portable pump for emergency drainage

Scope of delivery:

- pump with 10 m power cable and plug



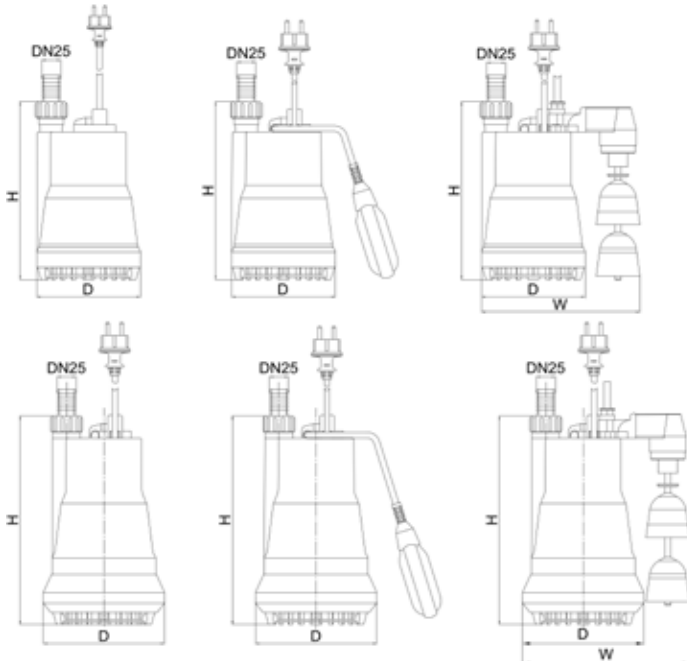
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
ZM 280	13179	300	160	230	1,3	2800	7,0	6,0	10	3,4	A
ZM 280 A	13181	300	160	230	1,3	2800	7,0	6,0	10	3,6	A
ZM 280 KS	13182	300	160	230	1,3	2800	7,0	6,0	10	4,17	A
ZM 650	15219	600	350	230	2,9	2800	9,0	11,0	10	6,24	A
ZM 650 A	15221	600	350	230	2,9	2800	9,0	11,0	10	6,41	A
ZM 650 KS	15223	600	350	230	2,9	2800	9,0	11,0	10	6,56	A

Dimensions:



Type	D [mm]	H [mm]	B [mm]	Min. cut-in water level [mm]	Min. cut-of water level [mm]
ZM 280	150	250		40	20
ZM 280 A	150	250		40	20
ZM 280 KS	150	250	217	40	20
ZM 650	166	292		40	20
ZM 650 A	166	292		40	20
ZM 650 KS	166	303	229	40	20

Benefits:

- particularly suitable for irrigation from a rainwater barrel or cistern
- double sealing by mechanical seal and additional shaft seal
- high pump pressure for irrigation via garden hose

Features:

- multi-stage submersible pressure pump with large head, made of corrosion- and shock-resistant polypropylene and high-grade stainless steel
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- jacket cooling
- vertical pressure outlet 1"
- version 'A' with mounted float switch
- protection grade IP 68 – fully submersible

Applications:

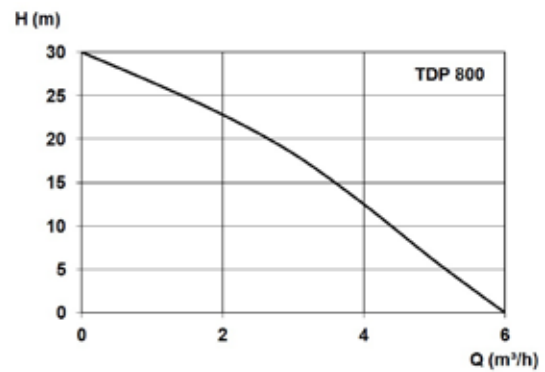
- pumping of slightly dirty waste water
- garden irrigation

Scope of delivery:

- pump with 10 m power cable and plug



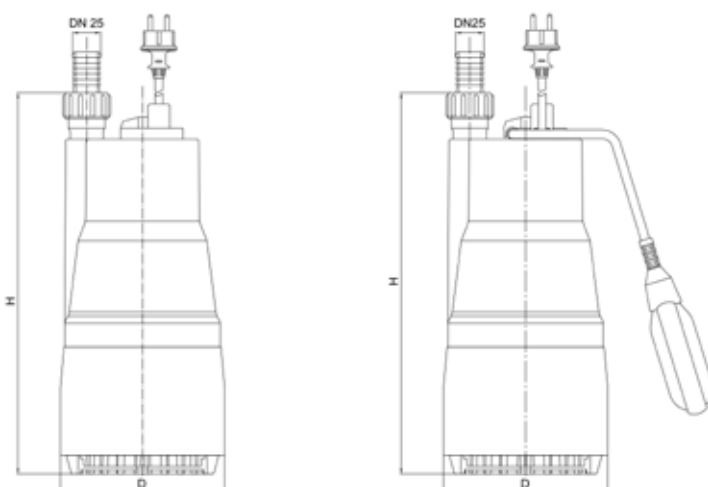
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
TDP 800	13646	760	410	230	3,4	2800	6,0	30,0	3	6,82	A
TDP 800 A	13643	760	410	230	3,4	2800	6,0	30,0	3	6,94	A

Dimensions:



Type	D [mm]	H [mm]	Min. cut-in water level [mm]	Min. cut-of water level [mm]
TDP 800	150	350	300	20
TDP 800 A	150	350	300	20

Benefits:

- complete set for emergency drainage
- ready-to-use
- stainless steel pump with high pump pressure
- kink-protection and durable hose for high operation safety
- pump removable from box without disassembly

Features:

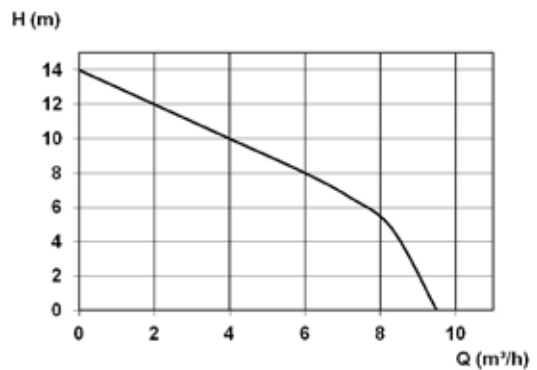
- submersible waste water pump made of stainless steel
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- pump housing, motor housing, shaft and suction strainer are made of stainless steel, impeller made of polyamide
- jacket cooled mono-phase motor
- float switch for level control
- protection grade IP 68 – fully submersible

Applications:

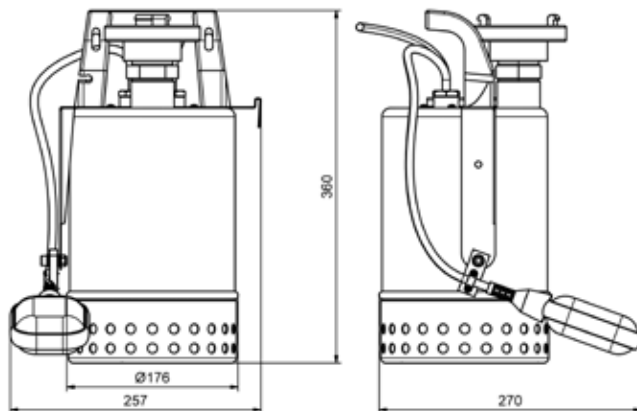
- portable box for emergency drainage
- pumping of (invasive) ground water and high water
- pump can be easily removed and used outside the box

Scope of delivery:

- stainless steel pump E-ZW 65 A with integrated non-return valve, float switch with float hinge and mounting bracket to fix the pump in the box, 10 m power cable and Storz coupling C
- 15 m hose with Storz coupling C with polyethylene kink protection
- protective box with 8 x 8 mm holes


Characteristics:

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
Flood emergency kit	16916	850	430	230	3,7	2800	9,5	14,0	10	17	A

Dimensions:


Type	Diameter [mm]	Total height [mm]	Min. cut-in water level [mm]	Min. cut-of water level [mm]
E-ZW 65 A	176	360	200	45

Benefits:

- high-grade stainless steel version
- 10 mm to 30 mm (E-ZW 80) solids handling for larger solids available
- double sealing by mechanical seal and additional shaft seal
- space-saving installation due to overhead pressure outlet
- short-term up to 90°C medium temperature

Features:

- submersible waste water pump made of stainless steel
- motor winding with thermal winding protection
- mechanical seal and additional shaft seal
- pump housing, motor housing, shaft and suction strainer made of stainless steel, impeller made of polyamide
- jacket cooled mono-phase motor
- horizontal pressure outlet 1 ¼" FPT
- version 'A' with mounted float switch
- version 'KS' with mounted compact float switch (fits into pipes with an inner diameter larger than 300 mm)
- protection grade IP 68 – fully submersible

Applications:

- pumping of clear water and waste water from pits, drainage man-holes, cellars etc.
- portable pump for emergency drainage
- drainage of domestic waste water without faeces from showers, washing machines, washbasins etc.

Scope of delivery:

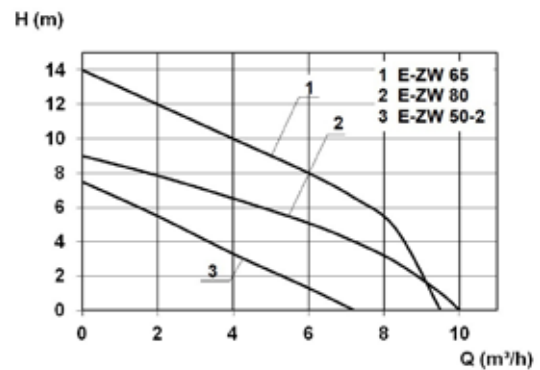
- pump with 10 m power cable and plug

Technical data:

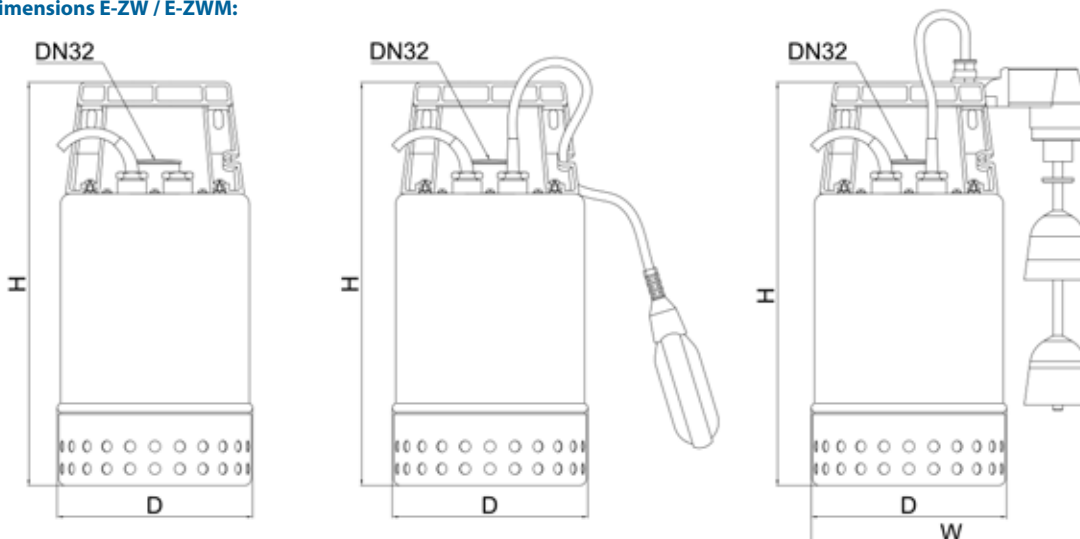
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
E-ZW 50-2	12829	380	210	230	1,8	2800	7,5	7,5	10	6,27	A
E-ZW 50 A-2	12818	380	210	230	1,8	2800	7,5	7,5	10	6,5	A
E-ZW 50-2 KS	12811	380	210	230	1,8	2800	7,5	7,5	10	6,88	A
E-ZW 65	15230	850	430	230	3,7	2800	9,5	14,0	10	8,12	A
E-ZW 65 A	15225	850	430	230	3,7	2800	9,5	14,0	10	8,3	A
E-ZW 65 KS	16920	850	430	230	3,7	2800	9,5	14,0	10	8,3	A
E-ZW 80	15245	850	430	230	3,7	2800	10,0	8,5	30	8,16	A
E-ZW 80 A	15239	850	430	230	3,7	2800	10,0	9,0	30	8,38	A
E-ZW 80 KS	15242	850	430	230	3,7	2800	10,0	8,5	30	8,53	A



Characteristics:



Dimensions E-ZW / E-ZWM:



Benefits:

- wear-free sealing system by magnet drive
- endurance run function
- high-grade stainless steel version
- short-term up to 90°C medium temperature

Features:

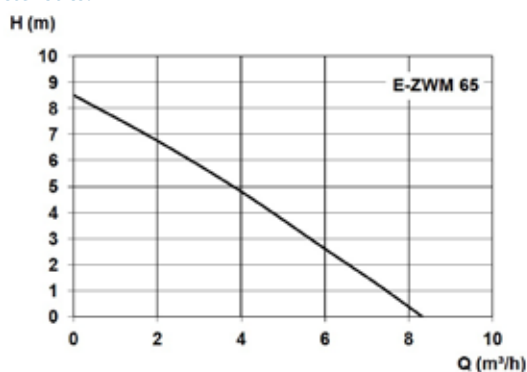
- submersible waste water pump made of stainless steel
- motor winding with thermal winding protection
- sealless version with magnet coupling between motor and impeller pump housing, motor housing, shaft and suction strainer made of stainless steel, impeller made of polyamide
- jacket cooled mono-phase motor
- horizontal pressure outlet 1 ¼" FPT
- version 'A' with mounted float switch
- version 'KS' with mounted compact float switch (fits into pipes with an inner diameter larger than 300 mm)
- protection grade IP 68 – fully submersible

Applications:

- pumping of clear water and waste water from pits, drainage man-holes, cellars under heavy strain (endurance function)
- drainage of domestic waste water without faeces from showers, washing machines, washbasins under heavy strain (endurance function)
- circulation pump, fountain pump under heavy strain (endurance function)

Scope of delivery:

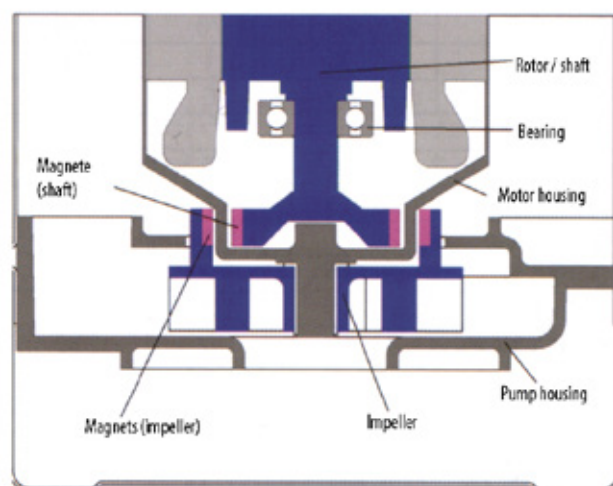
- pump with 10 m power cable and plug


Characteristics:

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
E-ZWM 65	15237	600	350	230	2,9	2800	8,5	8,5	10	8,28	A
E-ZWM 65 A	15236	600	350	230	2,9	2800	8,5	8,5	10	8,52	A
E-ZWM 65 KS	16921	600	350	230	2,9	2800	8,5	8,5	10	8,77	A

Dimensions E-ZW / E-ZWM:

Type	D [mm]	H [mm]	B [mm]	Min. cut-in water level [mm]	Min. cut-of water level [mm]
E-ZW 50-2	176	336		200	45
E-ZW 50 A-2	176	336		200	45
E-ZW 50-2 KS	176	356	250	200	45
E-ZW 65 / E-ZWM 65	176	360		200	45
E-ZW 65 A / E-ZWM 65 A	176	360		200	45
E-ZW 65 KS / E-ZWM 65 KS	176	360	250	200	45
E-ZW 80	176	370		200	45
E-ZW 80 A	176	370		200	45
E-ZW 80 KS	176	370	250	200	45

Scheme E-ZWM:


Benefits:

- blockage-free operation by up to 44 mm solids handling
- double sealing by mechanical seal and additional shaft seal
- available as complete system incl. FPS pumping station or as guide rail system with coupling for existing manholes

Features:

- submersible waste water pump made of cast iron for portable and stationary (coupling system) purposes
- pump housing, motor housing and impeller made of cast iron, shaft made of stainless steel
- motor winding with thermal winding protection (M-Version only)
- mechanical seal and additional shaft seal
- three-phase or mono-phase motor
- pressure outlet DN 50
- ZPG 50.X M (version A) with mounted float switch
- ZPG 50.X T retrofittable float switch available as an accessory

Applications:

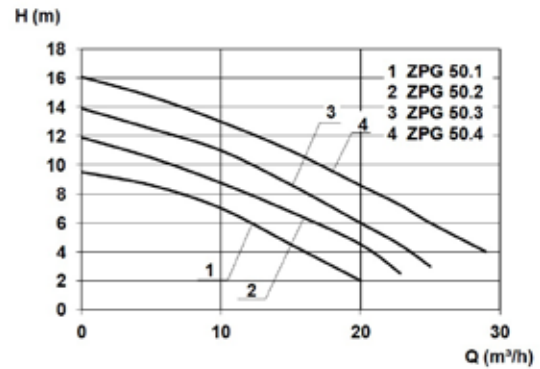
- pumping of waste water with solid ingredients
- pumping of rainwater and surface water
- portable pump for emergency drainage and drainage of manholes

Scope of delivery:

- version M (mono-phase 230 V): pump with 10 m power cable and plug, version WA with mounted float switch
- version T (three-phase 400 V): pump with 10 m power cable
- all pumps without stand feet and outlet bend
- optional coupling system (see accessories)



Characteristics:



Technical data:

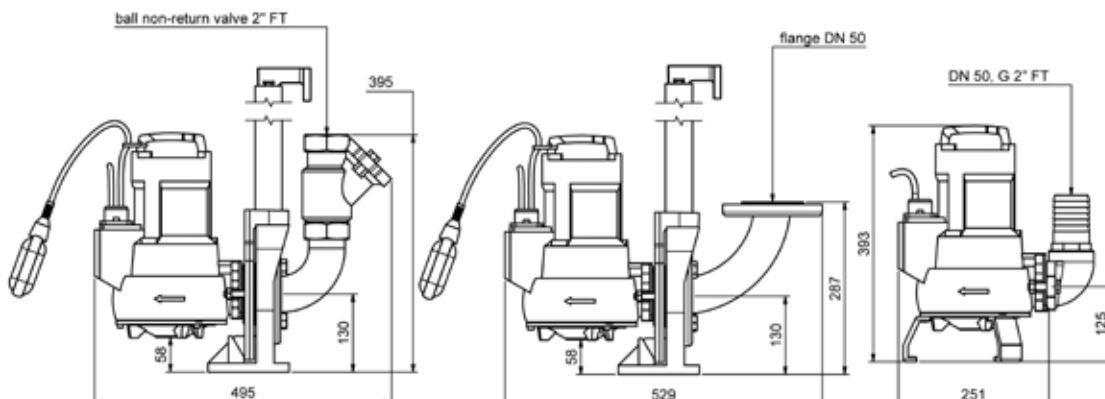
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
ZPG 50.1 M	13049	1.000	550	230	5,0	2800	20,0	9,6	23	B
ZPG 50.1 MA	13056	1.000	550	230	5,0	2800	20,0	9,6	23	B
ZPG 50.2 M	13060	1.250	750	230	6,0	2800	23,0	11,9	23	B
ZPG 50.2 MA	13065	1.250	750	230	6,0	2800	23,0	11,9	23	B
ZPG 50.3 M	13069	1.800	1.100	230	8,2	2800	25,0	13,9	23	B
ZPG 50.3 MA	13074	1.800	1.100	230	8,2	2800	25,0	13,9	23	B
ZPG 50.4 M	13078	1.800	1.100	230	8,2	2800	29,0	16,1	23	B
ZPG 50.4 MA	13083	1.800	1.100	230	8,2	2800	29,0	16,1	23	B
ZPG 50.1 T	16936	900	550	400	2,3	2800	20,0	9,6	23	B
ZPG 50.2 T	13066	1.100	750	400	2,8	2800	23,0	11,9	23	B
ZPG 50.3 T	13075	1.500	1.100	400	3,0	2800	25,0	13,9	23	B
ZPG 50.4 T	13084	2.050	1.500	400	3,5	2800	29,0	16,1	23	B

operating mode S1 (continuous operation) - motor submerged completely; operating mode S3 - 40% - motor emerged

Dimensions:

fixed application

portable application



Accessories from page 17 onwards

Benefits:

- blockage-free operation by 40 mm solids handling
- high pumping capacity
- double mechanical seal
- innovative pump foot for flexible usage

Features:

- submersible waste water pump made of cast iron for portable and stationary (coupling system) purposes
- pump housing, motor housing and impeller made of cast iron, shaft made of stainless steel
- double bidirectional mechanical seals with intermediate oil chamber
- pressure outlet DN 50
- lateral cable gland with strain relief and kink protection
- protection grade IP 68 – fully submersible

Applications:

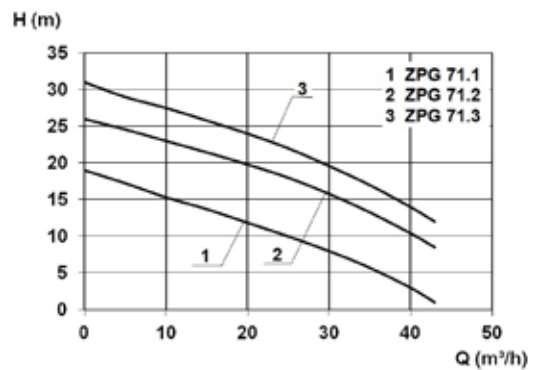
- pumping of waste water with solid ingredients
- pumping of rainwater and surface water
- portable pump for emergency drainage and drainage of manholes

Scope of delivery:

- version T (three-phase 400 V) with 10 m power cable
- version M (mono-phase 230 V) with 10 m power cable, control unit with motor protection, capacitor and plug
- all pumps without stand feet and outlet bend
- optional coupling system (see accessories)



Characteristics:



Technical data:

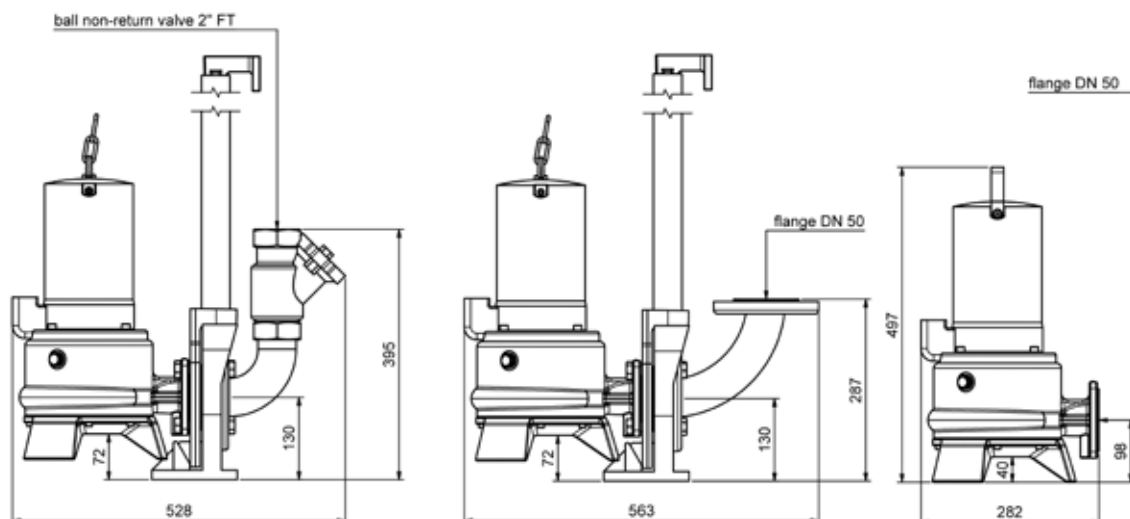
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
ZPG 71.1 M	17836	2.200	1.600	230	10,5	2800	43,0	19,0	38	B
ZPG 71.1 T	17835	2.100	1.700	400	3,7	2800	43,0	19,0	40	B
ZPG 71.2 T	17837	3.900	3.200	400	6,5	2800	53,0	26,0	44	B
ZPG 71.3 T	17838	3.900	3.200	400	6,5	2800	46,0	31,0	46	B

operating mode S1 (continuous operation) - motor submerged completely; operating mode S3 - 40% - motor emerged

Dimensions:

fixed application

portable application



Accessories from page 17 onwards

Benefits:

- high performance cutting system (adjustable cutting gap; pre-adjusted to ≤ 0.05 mm)
- easily cuts textiles
- explosion-proof version
- double mechanical seal protects motor from incoming water
- available as complete system incl. FPS pumping station or as guide rail system with coupling for existing manholes



Features:

- energy-efficient, explosion-proof sewage pump made of cast iron for portable and stationary (coupling system) purposes
- robust, adjustable cutting system made of corrosion-resistant special alloy
- motor housing, pump housing, seal carrier and impeller made of cast iron
- double bidirectional mechanical seals with intermediate oil chamber
- horizontal pressure outlet with flange DN 50
- lateral cable gland with strain relief and kink protection
- protection grade IP 68 – fully submersible

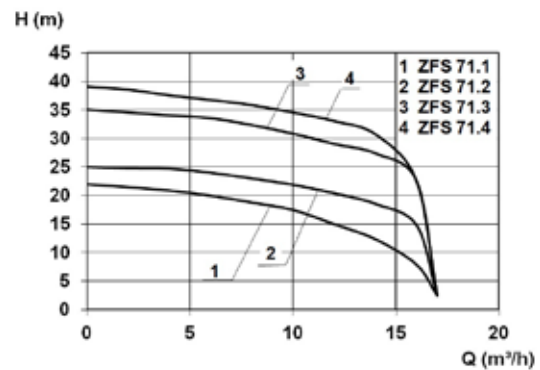
Applications:

- pumping of sewage from collection sumps
- pressure drainage
- installation in polyethylene or concrete manholes
- as grinder pump on sewage lifting units

Scope of delivery:

- pump with 10 m power cable
- all pumps without stand feet and outlet bend
- optional coupling system (see accessories)

Characteristics:



Technical data:

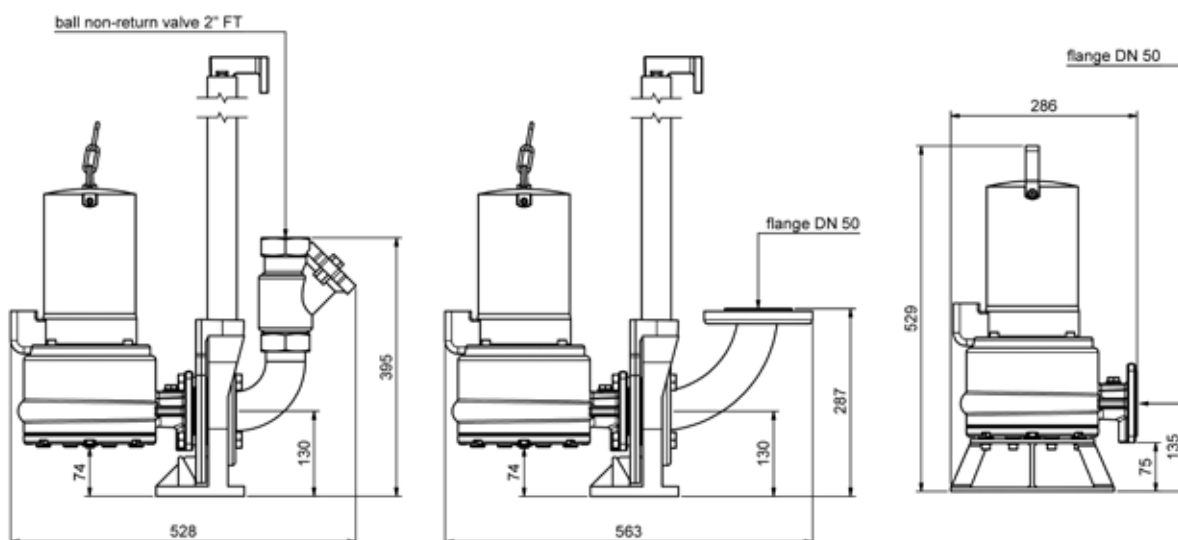
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
ZFS 71.1 W Ex	17381	2.200	1.600	230	10,5	2800	17,0	22,0	38	B
ZFS 71.1 D Ex	17382	2.100	1.700	400	3,7	2800	17,0	22,0	38	B
ZFS 71.2 D Ex	17383	2.100	1.700	400	3,7	2800	17,0	25,0	38	B
ZFS 71.3 D Ex	17384	3.900	3.200	400	6,5	2800	17,0	35,0	42	B
ZFS 71.4 D Ex	17385	3.900	3.200	400	6,5	2800	17,0	39,0	42	B

operating mode S1 (continuous operation) - motor submerged completely; operating mode S3 - 40% - motor emerged

Dimensions:

fixed application

portable application



Benefits:

- blockage-free operation by fibre-cutting plate and 80 mm solids handling
- high pumping capacity
- explosion-proof version
- double mechanical seal protects motor from incoming water
- guide rail system with coupling foot for existing manholes available

Features:

- submersible sewage pump made of cast iron
- motor housing, pump housing and seal carrier made of cast iron
- single-channel impeller made of cast iron with fibre cutting insert
- double bidirectional mechanical seals with intermediate oil chamber
- pressure outlet DN 100
- explosion-proof motor (Ex.)
- lateral cable entry with strain relief and break protection
- protection grade IP 68 – fully submersible

Applications:

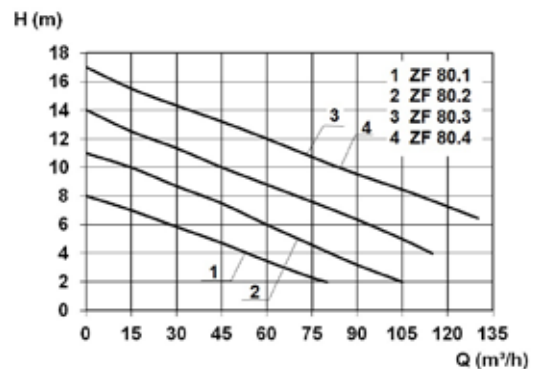
- pumping of sewage with coarse and long-fibred ingredients
- installation in domestic and public concrete pumping stations
- applicable for vertical and horizontal dry well installations (intermittent duty S3)

Scope of delivery:

- pump with 10 m power cable
- all pumps without stand feet and outlet bend
- optional coupling system (see accessories)



Characteristics:



Technical data:

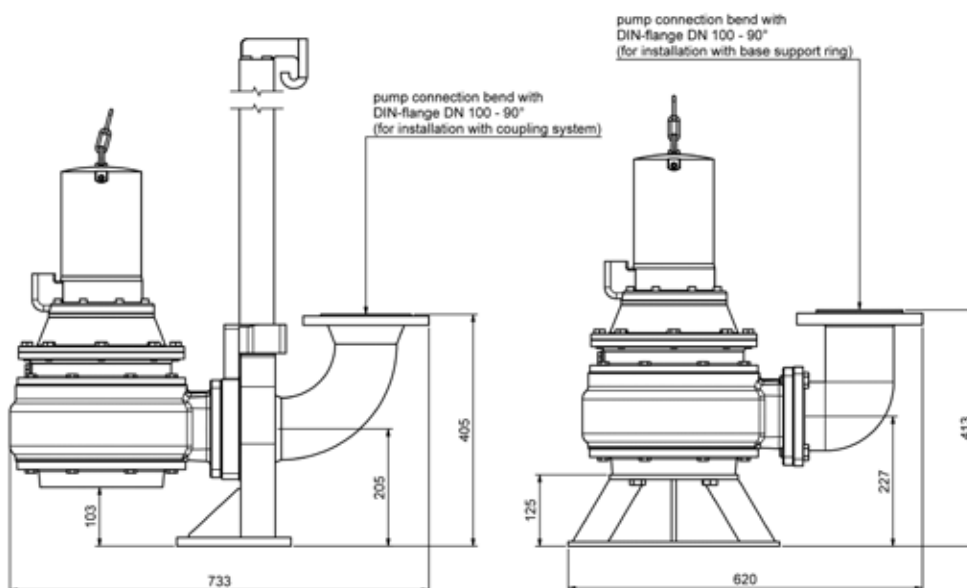
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
ZF 80.1 Ex	11231	3.200	2.500	400	5,7	1450	80,0	8,0	84	B
ZF 80.2 Ex	11226	3.200	2.500	400	5,7	1450	105,0	11,0	86	B
ZF 80.3 Ex	11232	4.400	3.300	400	9,5	1450	115,0	14,0	88	B
ZF 80.4 Ex	11230	4.400	3.300	400	9,5	1450	130,0	17,0	90	B

operating mode S1 (continuous operation) - motor submerged completely; operating mode S3 - 40% - motor emerged

Dimensions:

fixed application

portable application



Benefits:

- blockage-free operation by fibre-cutting plate and 10 mm solids handling
- high pumping capacity
- explosion-proof version
- double mechanical seal protects motor from incoming water
- guide rail system with coupling foot for existing manholes available



Features:

- submersible sewage pump made of cast iron
- motor housing, pump housing and seal carrier made of cast iron
- single-channel impeller made of cast iron with fibre cutting insert
- double bidirectional mechanical seals with intermediate oil chamber
- pressure outlet DN 100
- explosion-proof motor (Ex.)
- lateral cable entry with strain relief and break protection
- protection grade IP 68 – fully submersible

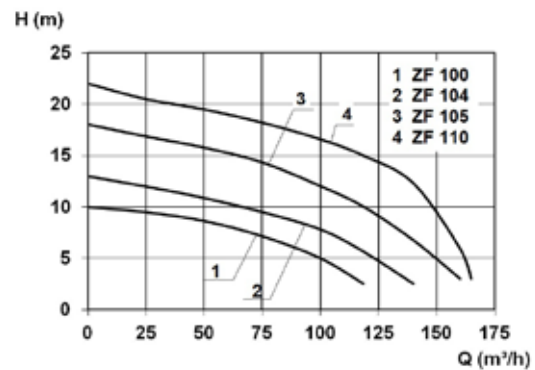
Applications:

- pumping of sewage with coarse and long-fibred ingredients
- installation in domestic and public concrete pumping stations
- applicable for vertical and horizontal dry well installations (intermittent duty S3)

Scope of delivery:

- pump with 10 m power cable
- all pumps without stand feet and outlet bend
- optional coupling system (see accessories)

Characteristics:



Technical data:

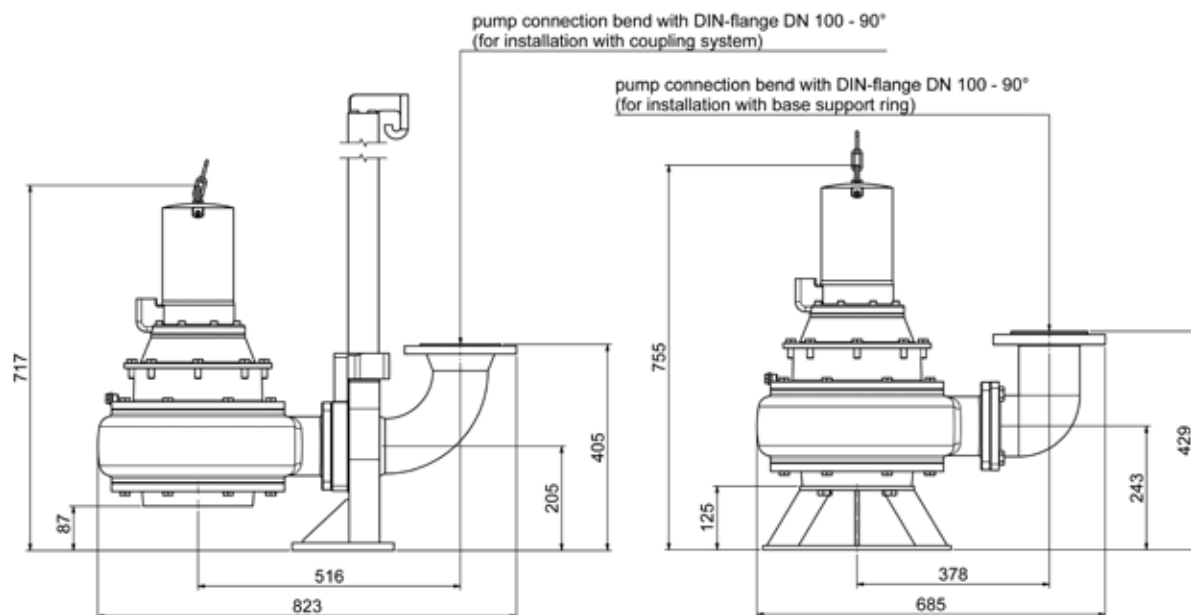
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
ZF 100 Ex	11234	4.400	3.300	400	9,5	1450	120,0	10,0	112	B
ZF 104 Ex	11236	4.400	3.300	400	9,5	1450	140,0	13,0	142	B
ZF 105 Ex	11249	6.300	5.500	400	12,1	1450	160,0	18,0	146	B
ZF 110 Ex	11267	8.700	7.500	400	16,6	1450	165,0	22,0	155	B

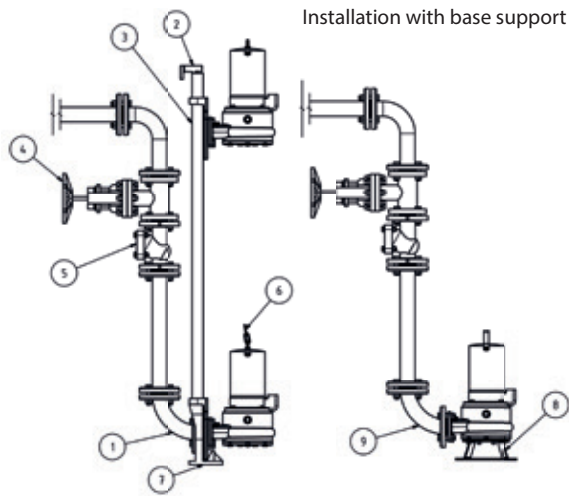
operating mode S1 (continuous operation) - motor submerged completely; operating mode S3 - 40% - motor emerged

Dimensions:

fixed application





portable application





Installation with guide rail









Accessories ZPK, ZPG 50, ZPG 71 & ZFS 71

Type	Art.-no.	Discount group	Position within the drawing	Figure
Base support ring ZFS	12019	B	8	
Pump feet set ZPG 50	12018	B	8	
Coupling system ZPG 50	12040	B	2 + 7	
Coupling system ZFS/ZPG 71	12029	B	2 + 7	
Flanged pipe bend 90° DN 50 PE	11927	B	1 + 9	
Flanged pipe bend 90° DN 65 PE	11928	B	1 + 9	
Flanged pipe bend 90° DN 80 PE	11929	B	1 + 9	
Flanged pipe bend 90° DN 50 VA	12347	B	1 + 9	
Guide rail 1 1/4" GV	10389	B	3	
Guide rail 1 1/4" VA	12931	B	3	
Ball non-return valve DN 50 cast-iron	14394	B	5	
Ball non-return valve DN 65 cast-iron	14395	B	5	
Gate valve DN 50 cast-iron	10646	B	4	
Gate valve DN 65 cast-iron	10647	B	4	
Lowering chain 5mm GV (per metre)	10419	B		
Lowering chain stainless steel 5 mm DIN 763	10420	B		
Shackle NS 0,25 M8 GV	11186	B		
Shackle NG 5 VA	16552	B		

Accessories ZPK, ZPG 50, ZPG 71 & ZFS 71

Type	Art.-no.	Discount group	Position within the drawing	Figure
Pressure pipe DN 50 1 m PE 1 x flange	12048	B		
Pressure pipe DN 50 1 m PE 2 x flange	12055	B		
Pressure pipe DN 65 1 m PE 2 x flange	12056	B		
Pressure pipe extension DN 50 PE (per metre)	12058	B		
Pressure pipe extension DN 65 PE (per metre)	12059	B		
Y-pipe DN 50/50/50 PE for duplex unit	11992	B		
Y-pipe DN 50/65/50 PE for duplex unit	11993	B		
Y-pipe DN 65/65/65 PE for duplex unit	11994	B		
Y-pipe DN 65/80/65 PE for duplex unit	11995	B		
Y-pipe DN 50/80/50 PE for duplex unit	11996	B		
Y-pipe DN 50/100/ 50 PE for duplex unit	12001	B		
Y-pipe DN 80/80/80 PE for duplex unit	12002	B		
Reducer DN 50/65 PE flanged	10449	B		
Reducer DN 65/80 PE flanged	10450	B		
Reducer DN 50/80 PE flanged	10455	B		
Reducer DN 50/100 PE flanged	10456	B		
Reducer DN 80/100 PE flanged	10454	B		
Flange piece DN 50 PE	11931	B		
Flange piece DN 65 PE	10654	B		
Compression fitting 2" DN 50 d63 PE flange-sleeve-piece	11102	B		
Pressure pipe 2 x G 2" MPT GV	11362	B		
Threaded flange DN 50 FPT 2" GV PN10/16	12101	B		
Pipe bend 90° long 2" FPT/MPT GV	12106	B		
Pipe bend 90° long 2" MPT GV	12142	B		
Pump connecting bend 90° 2" VA MPT	12391	B		
Pipe bend 90° 2" MPT GV	12122	B		
Ball non-return valve 2" FPT cast-iron PN10	12104	B		
Air valve B for pumping station 'basic'	14485	B		
Air valve C for pumping station 'comfort'	14486	B		












Accessories ZPK, ZPG 50, ZPG 71 & ZFS 71

Type	Art.-no.	Discount group	Position within the drawing	Figure
Non-return valve 1 1/4" FPT PE DN 32	14393	B		
Non-return valve 1 1/2" FPT PE DN 40	14392	B		
Non-return valve 2" FPT PE DN 50	14391	B		
Retrofit kit non-return valve	17016	B		
Gate valve 1 1/4" FPT brass	10638	B		
Gate valve 1 1/2" FPT brass	10640	B		
Gate valve 2" FPT brass	10641	B		
Double nipple 2" 100 mm GV	11335	B		
Compression fitting 2" FPT d63 PE	11100	B		
Angle compression fitting 2" FPT d63 PE	11101	B		
C-hose 2" - 10 m with C-couplings	11358	B		
C-hose 2" - 20 m with C-couplings	11359	B		
B-hose 3" - 10 m with B-couplings	11360	B		
B-hose 3" - 20 m with B-couplings	11361	B		
Storz adapter B/C	11338	B		
Storz coupling C/2" FPT	11316	B		
Storz coupling B/2 1/2" FPT	11317	B		
Storz coupling B/3" FPT	11319	B		
Storz coupling C/2" MPT	11320	B		
Connection cable for ZPG/ZFS/ ZF 80 - ZF 104 (per metre)	12493	B		

Mounting Accessories

Type	Art.-no.	Discount group
Mounting accessories DN 50 VA	15438	B
Mounting accessories DN 50 GV	15444	B
Mounting accessories DN 65 VA	15439	B
Mounting accessories DN 65 GV	15445	B
Mounting accessories DN 80 VA	15440	B
Mounting accessories DN 80 GV	15446	B
Mounting accessories DN 100 VA	15441	B
Mounting accessories DN 100 GV	15447	B
Mounting accessories DN 125 VA	15442	B
Mounting accessories DN 125 GV	15448	B
Mounting accessories DN 150 VA	15443	B
Mounting accessories DN 150 GV	15449	B

Accessories ZF 80 & ZF 100

Type	Art.-no.	Discount group	Position within the drawing	Figure
Couplingsystem DN 100	12043	B	2 + 7	
Flanged pipe bend 90° DN 100 cast-iron with 1 x DIN-flange for installation with base support ring	12009	B	9	
Flanged pipe bend 90° DN 100 cast-iron with 2 x DIN-flange for coupling system	12012	B	1	
Guide rail 2" GV	10390	B	3	
Guide rail 2" VA	12941	B	3	
Ball non-return valve DN 100 cast-iron	14398	B	5	
Non-return valve DN 100 PE	14401	B	5	
Gate valve DN 100 cast-iron	10649	B	4	
Lowering chain 5mm GV	10419	B		
Lowering chain 6 mm VA	16962	B		
Shackle NS 0,4 M10 GV	11187	B		
Shackle NG 8 VA	16589	B		
Base support ring ZF 80	12023	B	8	
Base support ring ZF 100 - ZF 110	12027	B	8	
Pressure pipe DN 100 1 m PE	12049	B		
Pressure pipe DN 100 2 m PE	12050	B		
Pressure pipe DN 100 3 m PE	12051	B		
Y-pipe DN 100/100/100 PE for Miniboy/Boy Duplex	11997	B		
Y-pipe DN 100/100/100 PE	12006	B		
Y-pipe DN 100/125/100 PE	12005	B		
Connection cable for ZPG/ZFS/ ZF 80 - ZF 104 (per metre)	12493	B		
Connection cable ZF 105 - ZF 110 (per metre)	11781	D		
B-hose 3" - 10 m	11360	B		
B-hose 3" - 20 m	11361	B		
Storz adapter B/C	11338	B		
Storz coupling B/21/2" FPT	11317	B		
Storz coupling B/3" FPT	11319	B		

Features:

- for the manual operation of a single pump, max. 4,0 kW
- automatic operation possible with float switch
- incl. motor protection, control of rotation direction, manual-0-automatic switch and 16 A CEE-power plug
- operation and malfunction indication

Type	Art.-no.	Discount group
DSSG 400 V 1,6 - 2,4 A	10632	B
DSSG 400 V 2,4 - 4,0 A	10637	B
DSSG 400 V 4,0 - 6,0 A	10636	B
DSSG 400 V 6,0 - 10,0 A	10634	B
DSSG 400 V 9,0 - 12,0 A	10635	B



Control unit ZPS for pumping station

Benefits:

- very comfortable control unit with simple control logic
- choice between pneumatic, floats and external sensor possible
- fault memory
- integrated audible and visual alarm
- potential-free contact for signal forwarding

Features:

- polycarbonate switch box for wall mounting
- displaying of operation modes via clear text display and signal lights
- automatic operation of one three-phase or mono-phase pump
- programmable starting delay and follow-up time
- visual and audible fault signal with potential-free outputs
- level control by means of dynamic pressure method, float switches or 4 - 20 mA interface for external sensor
- displaying of operating hours, power consumption and maintenance interval
- fault memory for last 64 faults

Applications:

- automatic pump control



Pneumatic control units

Type	Art.-no.	Discount group
ZPS1.1-M 230 V pneumatic	12417	B
ZPS2-M 230 V pneumatic	12485	B
ZPS1.1 400 V pneumatic	12994	B
ZPS2.1 400 V pneumatic	12998	B
ZPS1-LCD-SD 400 V pneumatic	12792	B
ZPS2-LCD-SD 400 V pneumatic	12793	B
Small compressor set	14894	B
Pneumatic tube blue 8/6 mm	14817	B

Float control units

Type	Art.-no.	Discount group
ZPS1-LCD-M 230 V floats	12510	B
ZPS2-M 230 V floats	12511	B
ZPS1.2 400 V floats	12993	B
ZPS2-LCD 400 V floats	12997	B
PS 1 star/delta floats	12798	B
PS 2 star/delta floats	12799	B
Version with Ex-proof float for simplex units	11126	B
Version with Ex-proof float for duplex units	11462	B

Type	Art.-no.	Discount group	Figure
Mechanical seal control device	12069	B	
Housing extension	12079	B	
External cabinet type 1 complete	12082	B	
External cabinet type 3 complete	12085	B	
External cabinet type 4 complete	12086	B	
Box heating with thermostat	12080	B	
Flashing light 230 VAC - red	12077	B	
Flashing light 12 VDC - red	12078	B	
Small horn KH 1 - 12 VDC	12076	B	
Mains-independent alarm switchgear	13001	B	
Signal light red, 230 VAC	12075	B	
Small horn 230 V	12068	B	
Float switch 10 m OPT11	14499	A	
Float switch 10m for interm. coupling	11393	A	
Washing machine stop	13004	B	
ENS 1.1 universal	11416	A	

Benefits:

- mobile usage in places where permanent installation is impossible

Features:

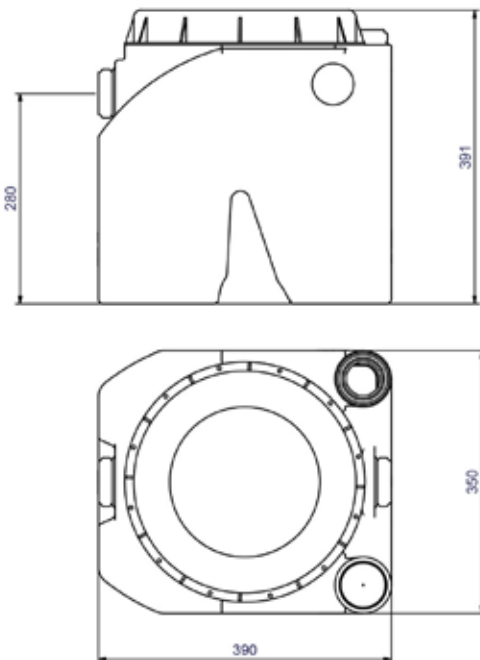
- polyethylene grease separator for installation in frost-free rooms for mobile flushing systems

Applications:

- mobile food stalls
- mobile dishwashers
- occasional food preparation
- Attention! daily cleaning required


Technical data:

NS	Art.-no.	DN	Weight [kg]	Sludge trap [l]	Total [l]
Mobile grease separator NS 0,5	18131	50	4	8 l	24 l

Dimensions:


Benefits:

- Special versions (space saving design, with pump technology available)

Features:

- free standing, polyethylene grease separator in frost-free rooms
- compact oval design
- acc. to DIN EN 1825 without partition between silt trap and separating chamber
- connections for inlet and outlet suitable for PEHD-pipe
- odour-proof inspection cover 1 x up to NS 2, 2 x for NS 4-10
- circular sight glass, sampling device, filling devices and discharge device optionally available

Applications:

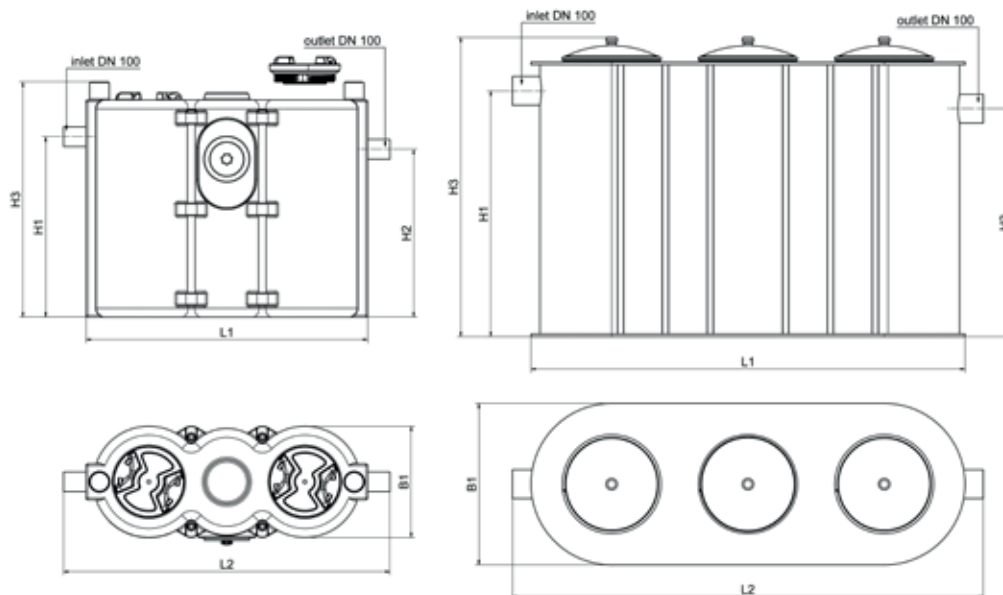
- sewage treatment in gastronomic businesses and meat-processing industry

Scope of delivery:

- optional accessories

Technical data:

Type	Art.-no.	DN	Weight [kg]	L1 [mm]	L2 [mm]	H1 [mm]	H2 [mm]	H3 [mm]	B1 [mm]	Sludge trap [l]	Grease reservoirs [l]	Discount group
Grease separator NS 1 oval	14317	100	60	1170	1420	950	880	1310	620	107	181	C
Grease separator NS 2 oval	14319	100	60	1170	1420	950	880	1310	620	214	181	C
Grease separator NS 4 oval	14321	100	70	1570	1820	955	880	1310	620	360	181	C
Grease separator NS 7	14326	150	260	2420	2625	1290	1190	1670	900	714	409	C
Grease separator NS 10 oval	14328	150	295	2420	2625	1290	1190	1670	900	1001	409	C


Dimensions:

Accessories:

Type	Art.-no.
Circular sight glass CSG	16898
Sampling device DN 100	16899
Sampling device DN 150	14334
Discharge device DN 65	16900
Filling device G1	16901
Filling device 1 1/2"	14314

Grease separators with flush and disposal pumps and grease separators for underground installation available on request!



Benefits:

- grease-resistant container and pump made of polypropylene (no corrosion)
- double sealing by mechanical seal and additional shaft seal
- maintenance-friendly due to external non-return valve
- short-term up to 90°C medium temperature

Features:

- polyethylene container with 135 litres capacity and up to 75 litres switching volume
- simplex units with submersible waste water pump ZPK with float switch
- duplex units with 2 pumps ZPK and control unit with pneumatic level control ZPS2
- motor housing and shaft made of stainless steel, suction strainer, impeller and pump housing made of polypropylene
- piping made of PVC with external non-return valves and pressure outlet 1 ¼" FPT
- operation temperature 40°C (short-term 90°C)
- protection grade IP 57 - temporary submersible

Applications:

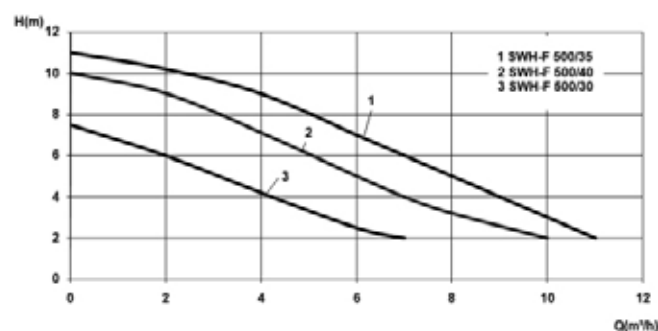
- as lifting unit for grease separators
- pumping of domestic waste water from washing machines, showers, washbasins etc.
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled ready for connection with 3 m power cable and plug
- pressure outlet incl. non-return valve(s) and gate valve
- simplex unit incl. float switch
- duplex unit incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation



Characteristics:

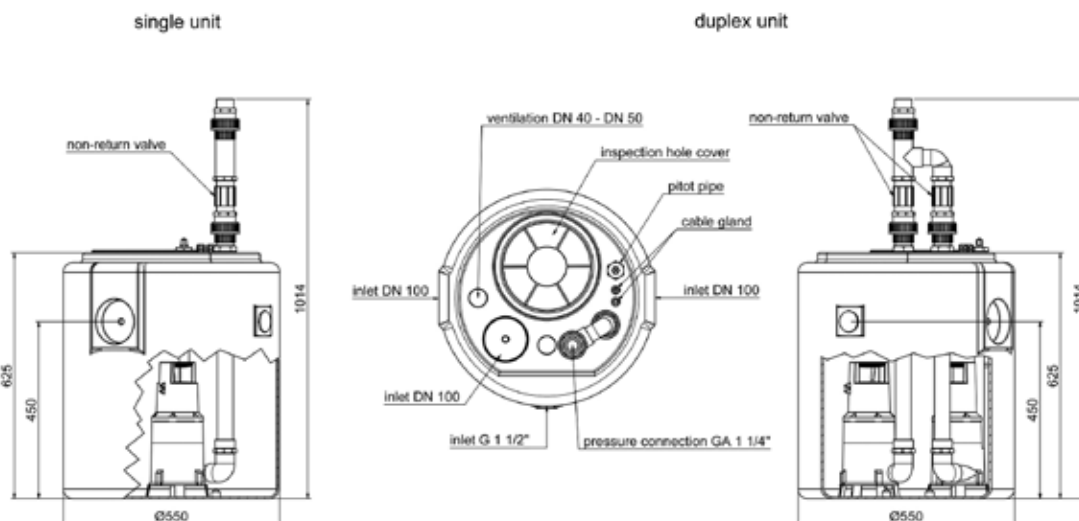


We recommend to use our small compressor kit (Art.-No. 14894) as bubbler system with lifting units behind the grease separator

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
SWH-F 500/30	17454	300	130	230	1,3	2800	7,0	7,5	10	19,5	B
SWH-F 500/35	17456	850	430	230	3,7	2800	11,0	11,0	10	21	B
SWH-F 500/40	17458	850	430	230	3,7	2800	10,0	10,0	30	22	B
SWH-F 500/30 Duplex	17455	300	130	230	1,3	2800	7,0	7,5	10	24	B
SWH-F 500/35 Duplex	17457	850	430	230	3,7	2800	11,0	11,0	10	27	B
SWH-F 500/40 Duplex	17459	850	430	230	3,7	2800	10,0	10,0	30	29	B

Dimensions:



Benefits:

- ready for connection - pump and control unit already integrated
- integrated audible alarm
- double safety due to 2nd float (alarm float)
- all connections prepared; all connection pieces included in delivery
- pump fixed on lid for ease of maintenance

Features:

- pre-assembled ready for connection - easy installation
- polypropylene container with 20 litres capacity and up to 10 litres switching volume
- switching device integrated in lid with audible high water alarm signal
- potential-free contact for external alarm or washing machine stop pump fixed on lid for easy cleaning and maintenance
- prepared shower inlet DN 50 usable on both sides (container bottom edge til middle of shower inlet only 80 mm)
- operation temperature 40°C (short-term 90°C)
- pressure outlet 1 1/4" FPT with integrated non-return valve
- active carbon filter for container ventilation
- protection grade IP 57 - temporary submersible

Applications:

- pumping of domestic waste water from washing machines, showers, washbasins etc.
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

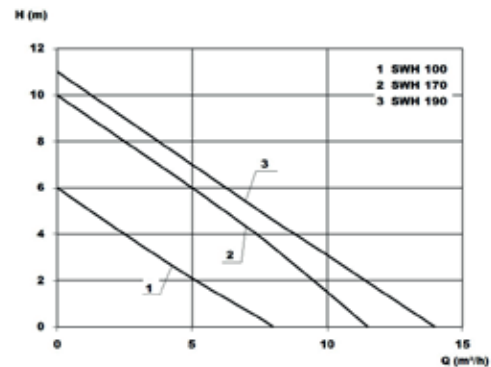
- pre-assembled ready for connection with 1,5 m power cable and plug

Technical data:

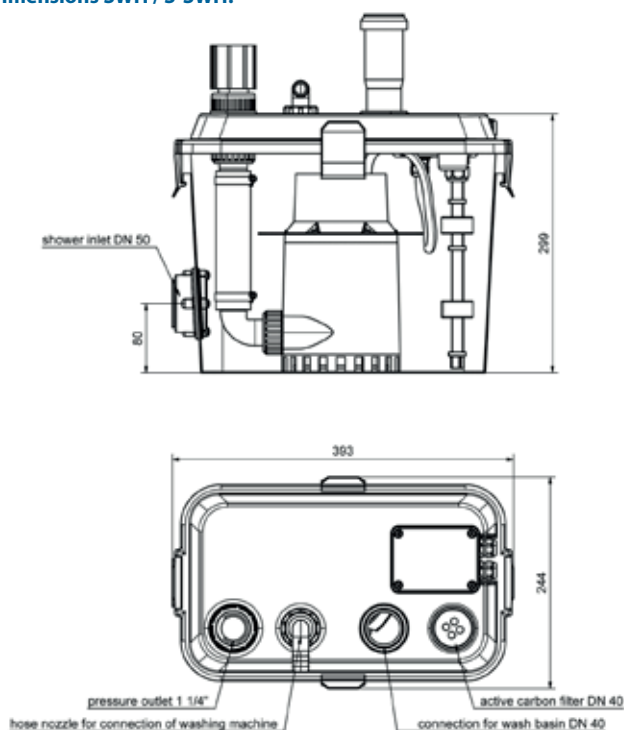
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
SWH 100	11463	300	130	230	1,3	2800	8,0	6,0	10	5	A
SWH 170	11468	850	430	230	3,7	2800	11,5	10,0	10	6	A
SWH 190	11471	850	430	230	3,7	2800	14,0	11,0	10	6	A



Characteristics:



Dimensions SWH / S-SWH:



Cutaway model SWH / S-SWH:



Benefits:

- pumping of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- particularly suitable for usage in coastal areas
- ready for connection - pump and control unit already integrated
- integrated audible alarm
- double safety due to 2nd float (alarm float)
- all connections prepared; all connection pieces included in delivery

Features:

- for use behind water softening systems and for calorific value condensate
- high-quality, silicon carbide mechanical seal, stainless steel motor housing (1.4404), stainless steel motor shaft
- additional connection of shower, washbasin and washing machine possible
- integrated audible alarm
- pump fixed on lid -> easy cleaning and maintenance
- potential-free alarm transmission
- 20 litres container volume
- pressure outlet 1 ¼" FPT with integrated non-return valve

Applications:

- drainage of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- lifting of domestic faecal-free waste water (operation temperature 40°C / short-term up to 90°C)

Scope of delivery:

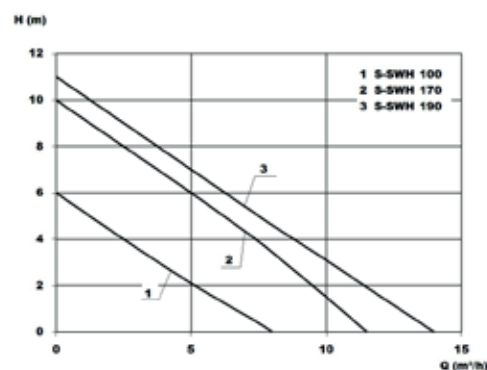
- pre-assembled ready for connection with 1,5 m power cable and plug

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
S-SWH 100	11466	300	130	230	1,3	2800	8,0	6,0	10	5	A
S-SWH 170	11470	850	430	230	3,7	2800	11,5	10,0	10	6	A
S-SWH 190	11472	850	430	230	3,7	2800	14,0	11,0	10	6	A



Characteristics:



Accessories for waste water lifting units

Type	Art.-no.	Discount group
Washing machine stop for SWH 100 - 190	13003	B
Small horn 230 V	12068	B
Signal light red, 230 VAC	12075	B



Features washing machine stop:

The washing machine stop can be applied everywhere, where units do not dispose of suds directly, but through an in-line pumping system. The switch device is connected to the pumping system. The washing machine plug is plugged into the socket of the switch device. The system is now ready for operation. If the pumping system fails, the power supply to the washing machine is interrupted.

Benefits:

- ready for connection - pump and control unit already integrated
- integrated siphon for prevention of odour nuisance
- pre-drilled additional inlets possible

Features:

- polyethylene container with 35 litres capacity and up to 20 litres switching volume
- built-in waste water pump ZPK with float switch
- connection for air vent and cable gland DN 50 (HT)
- inlet connection piece DN 50 is included - installable by drilling a hole in the container
- pressure outlet 1 1/4" with integrated non-return valve
- operation temperature 40°C (short-term 90°C)
- protection grade IP 68 - fully submersible

Applications:

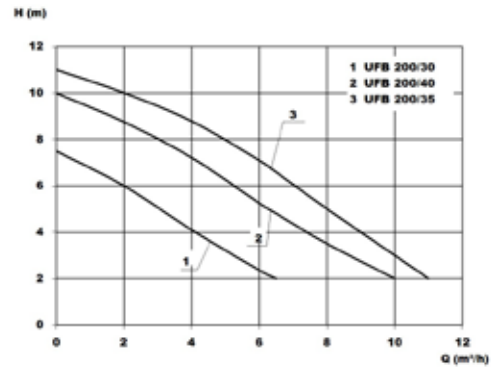
- pumping of domestic waste water from washing machines, showers, washbasins etc.
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled ready for connection with 10 m power cable and plug
- accessible plastic grade, siphon, sand-trap
- inlet connection piece DN 50
- extended top section and closed cover plate available as accessories



Characteristics:



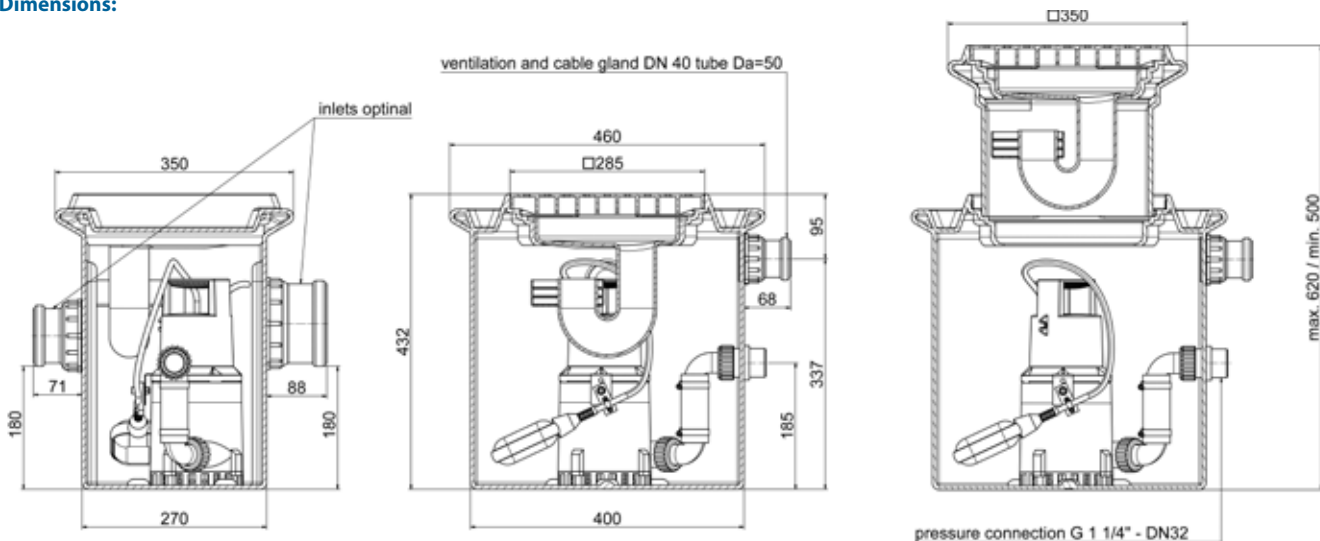
Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
UFB 200/30	11491	300	130	230	1,3	2800	7,0	7,5	10	6,1	A
UFB 200/35	11513	850	430	230	3,7	2800	11,0	11,0	10	7	A
UFB 200/40	11515	850	430	230	3,7	2800	10,0	10,0	30	8	A
Cover plate for UFB 300x300 mm	11492										B
Extension UFB incl. O-ring	11493										B

additional connections:

Inlet connection DN 50	11494										B
Inlet connection DN 70	11495										B
Inlet connection DN 100	11496										B

Dimensions:



Additional lateral inlets possible. Please consider minimum installation height! Drawing required for additional inlets.

Benefits:

- pumping of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- particularly suitable for usage in coastal areas
- ready for connection - pump and float already integrated; all connections prepared
- integrated siphon for prevention of odour nuisance
- pre-drilled additional inlets possible

Features:

- for use behind water softening systems and for calorific value condensate
- high-quality, silicon carbide mechanical seal, stainless steel motor housing (1.4404), stainless steel motor shaft
- with siphon and sand trap
- accessible, grated plastic cover (PVC) - closed cover available as accessory
- built-in submersible waste water pump with float switch
- pressure outlet 1 ¼" MPT with integrated non-return valve
- top section available as an accessory
- connection for air vent and cable gland DN 50
- inlet DN 50 (supplied) - installation by drilling the container

Applications:

- drainage of slightly acidic condensate, aggressive or salty media (max. 15% salt content)
- lifting of domestic faecal-free waste water (operation temperature 40°C / short-term up to 90°C)

Scope of delivery:

- pre-assembled ready for connection with 10 m power cable and plug
- accessible plastic grade, siphon, sand-trap
- inlet connection piece DN 50
- extended top section and closed cover plate available as accessories

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
S-UFB 200/30	11498	300	130	230	1,3	2800	7,0	7,5	10	6,1	A
S-UFB 200/35	11514	850	430	230	3,7	2800	11,0	11,0	10	7	A
S-UFB 200/40	17948	850	430	230	3,7	2800	10,0	10,0	10	8	A
Cover plate for UFB 300x300 mm	11492										B
Extension UFB incl. O-ring	11493										B

additional connections:

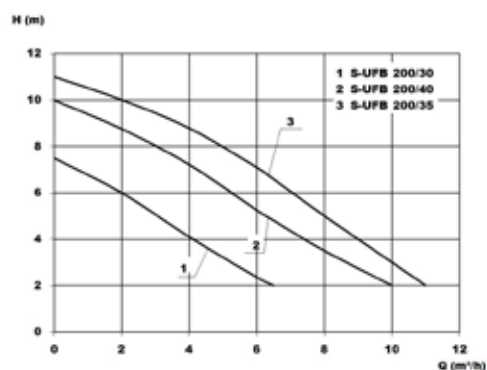
Inlet connection DN 50	11494										B
Inlet connection DN 70	11495										B
Inlet connection DN 100	11496										B

Dimensions:

see series UFB 200 (p. 28)



Characteristics:



UFB 200 / S-UFB 200 with optional extension and additional connection inlet

Benefits:

- double sealing by mechanical seal and additional shaft seal
- maintenance-friendly due to external non-return valve
- short-term up to 90°C medium temperature



Features:

- polyethylene container with 135 litres capacity and up to 75 litres switching volume
- simplex units with submersible waste water pump E-ZW with float switch
- duplex units with 2 pumps E-ZW and control unit with pneumatic level control ZPS2
- pump housing, motor housing, shaft and suction strainer made of stainless steel, impeller made of polyamide
- pressure outlet 1 ¼" FPT
- operation temperature 40°C (short-term 90°C)
- protection grade IP 57 - temporary submersible

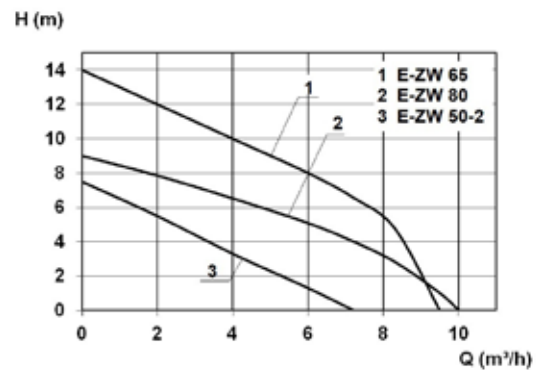
Applications:

- pumping of domestic waste water from washing machines, showers, washbasins etc.
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled ready for connection with 3 m power cable and plug
- pressure outlet incl. non-return valve(s) and gate valve
- simplex unit incl. float switch
- duplex unit incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation

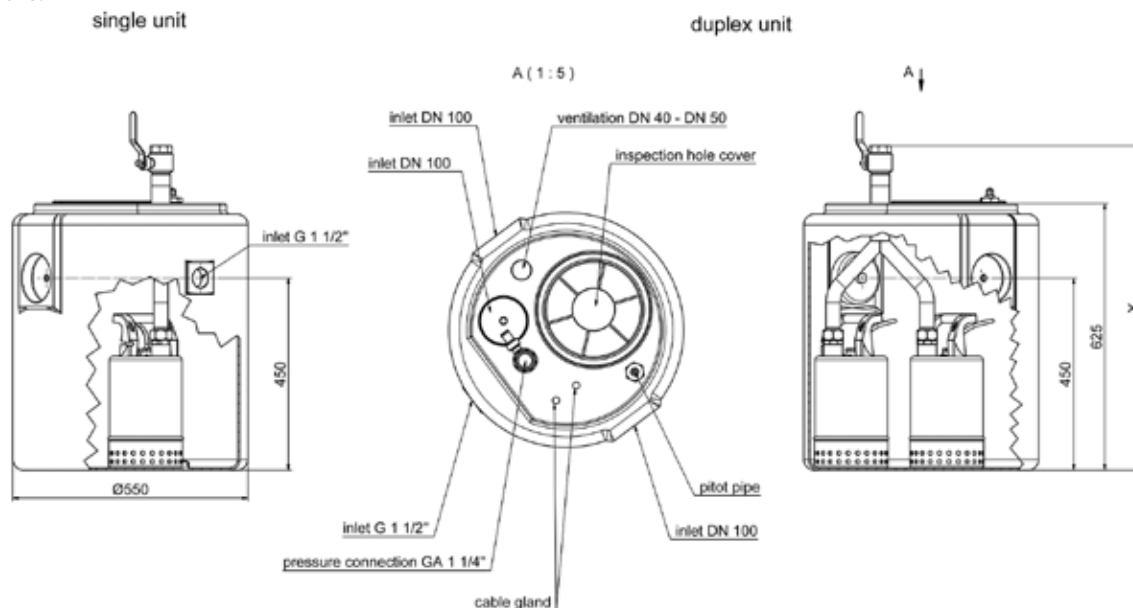
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
SWH 500/50	11544	380	210	230	1,8	2800	7,5	7,5	10	21,5	B
SWH 500/65	11546	850	430	230	3,7	2800	9,5	14,0	10	23	B
SWH 500/80	11548	850	430	230	3,7	2800	10,0	8,5	30	24	B
SWH 500/50 Duplex	11545	380	210	230	1,8	2800	7,5	7,5	10	28	B
SWH 500/65 Duplex	11547	850	430	230	3,7	2800	9,5	14,0	10	31	B
SWH 500/80 Duplex	11549	850	430	230	3,7	2800	10,0	8,5	30	33	B

Dimensions:



Benefits:

- including alarm switch
- flexible connection options

Features:

- the on-off control is effected automatically by a robust float switch
- if the pump fails (unacceptable high water level in the tank), an alarm switch can switch off the climate control unit or calorific value boiler (maximum switching capacity 4 A)
- connection for the pressure tube with 6 mm or 9 mm inner diameter
- container volume 1,5 l
- operation temperature max. 50°C

Applications:

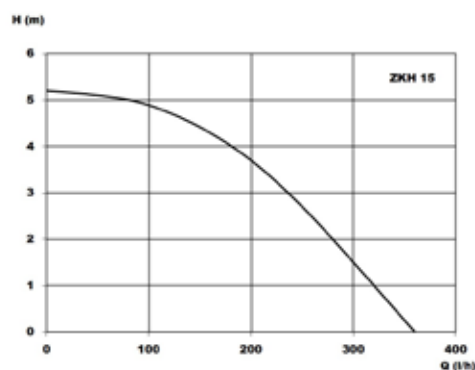
- Drainage of condensation water and condensate from the climate control unit and the gas calorific value boilers with a pH-value up to 3.2

Scope of delivery:

- 5 m tube 9 mm
- integrated non-return valve to prevent the return of condensate
- 2 m power cable with enclosed loose plug



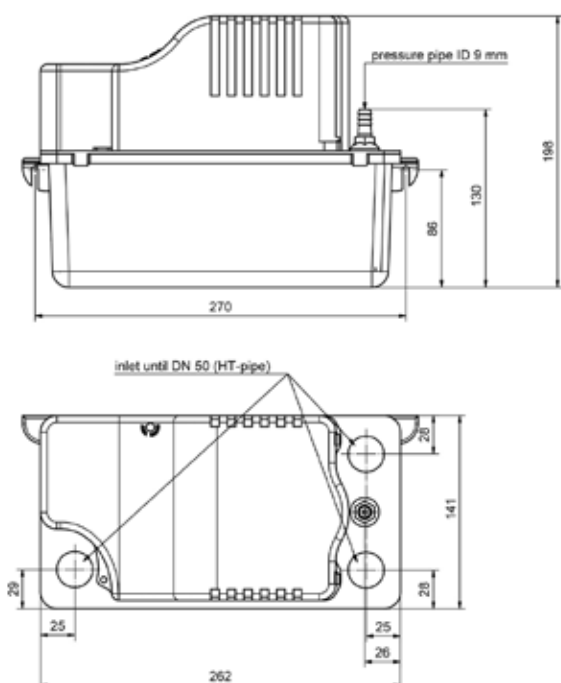
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
ZKH 15	17337	140	080	230	0,6	0,4	5,2	2,89	A

Dimensions:



Benefits:

- dry-installed pump with stainless steel cutting system
- 4 additional lateral inlets
- integrated audible alarm
- end-to-end motor shaft for emergency drainage



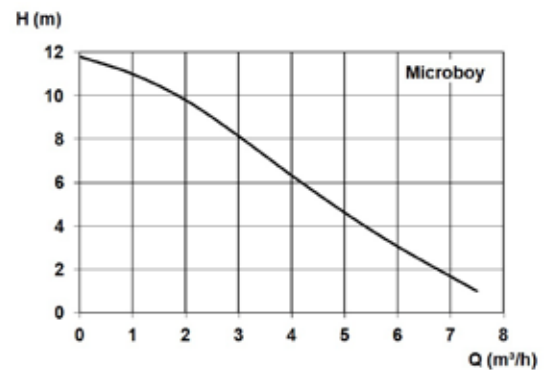
Features:

- terpolymer container for direct connection to EURO-Toilets with minimum inlet height
- 4 additional lateral inlets DN 40 for connection of washbasin, shower or bidet
- container ventilation via active carbon filter
- robust, dry installed vortex pump with stainless steel cutting system
- alarm signal in case of fault
- emergency discharge possible via motor shaft with slot
- pressure outlet 1 1/4" IG with integrated non-return valve, optionally left or right
- operation temperature max. 40°C
- protection grade IP 54 - protected against splashing water

Applications:

- single-toilet lifting unit for restricted domestic use according to EN 1825-3 below the backflow level e.g. in cellars or for the refurbishment of old buildings
- The drainage sources must be located in the same room. There must be a second toilet above the backflow level for the same user group. It is possible to connect one wash basin, one shower and one bidet. Other drainage sources must not be connected.
- Attention, the inlet of the shower must be at least 180 mm above the setting up level of the lifting unit to avoid back pressure in the shower.

Characteristics:



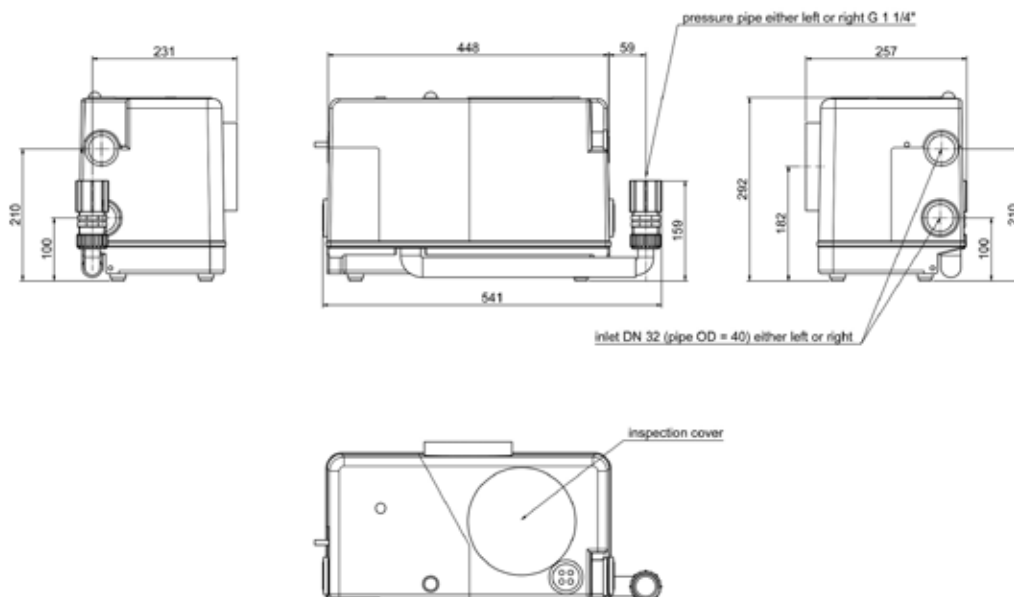
Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable and plug
- audible alarm included

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Microboy	10525	600	350	230	2,5	2800	7,5	11,8	11	A

Dimensions Microboy / Microboy Pro:



Benefits:

- high performance cutting system (cuts wet tissues and toiletries)
- dry-installed pump with stainless steel cutting system
- 4 additional lateral inlets
- integrated audible alarm
- end-to-end motor shaft for emergency drainage

Features:

- reduced noise during cutting
- adjustable cutting gap for permanently optimal cutting results
- optimized cutting system made of corrosion-resistant special steel 1.4112 with special hardness, wear resistance and cutting performance
- terpolymer container for direct connection to EURO-Toilets with minimum inlet height
- 4 additional lateral inlets DN 40 for connection of washbasin, shower or bidet
- container ventilation via active carbon filter
- robust, dry installed vortex pump with stainless steel cutting system
- alarm signal in case of fault
- emergency discharge possible via motor shaft with slot
- pressure outlet 1 ¼" IG with integrated non-return valve, optionally left or right
- operation temperature max. 40°C
- protection grade IP 54 - protected against splashing water

Applications:

- cuts wipes and female hygiene products
- particularly suitable for publicly accessible sanitary facilities
- single-toilet lifting unit for restricted domestic use according to EN 1825-3 below the backflow level e.g. in cellars or for the refurbishment of old buildings

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable and plug
- audible alarm included

Technical data:

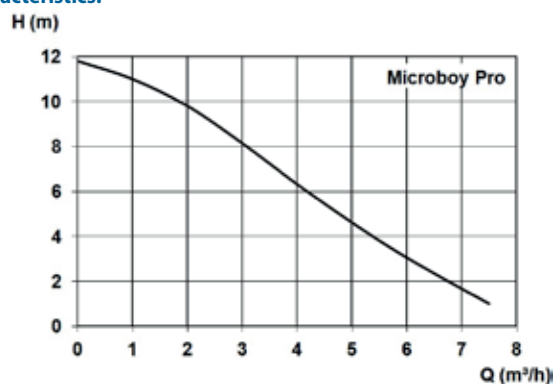
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Microboy Pro	18190	600	350	230	2,5	2800	7,5	11,8	11	A

Dimensions:

see series Microboy (p.32)



Characteristics:



Benefits:

- compact dimensions; space-saving contribution even through manhole opening (60 cm)
- pre-assembled - connection pieces, non-return valve integrated (except 3kW)
- comfort control unit included in delivery
- high delivery heads
- integrated pressure measurement for mm-precise switch points
- all-side connections for easy installation in cramped rooms

Features:

- polyethylene container with 55 litres capacity and up to 45 litres switching volume
- vortex pumps with high efficiency and low operation noise
- mechanical seal and shaft seal with intermediate oil chamber
- inlets: 3 x DN 100, 3 x DN 50, 1 x DN 50/100
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 70 (Ø 75mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

- pumping of domestic sewage from basement apartments, single-family houses or apartment buildings
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

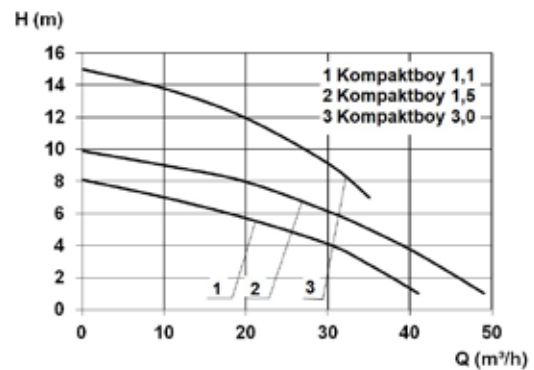
- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control with integrated non-return valve DN 100 (Kompaktboy 3,0-2P with external cast iron non-return valves)
- connection flange piece DN 100 for pressure pipe (DN 80 optional)
- flexible connection with tension clamps for pressure pipe and ventilation pipe
- incl. ZPS1: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Solids handling	Weight [kg]	Discount group
Kompaktboy 1,1 W 230 V	10428	1.700	1.100	230	7,6	1400	41,0	8,1	50	42	A
Kompaktboy 1,1 D 400 V	10440	1.400	1.100	400	2,9	1400	41,0	8,1	50	43	A
Kompaktboy 1,5 D 400 V	10461	1.800	1.500	400	3,3	1400	49,0	9,9	50	45	A
Kompaktboy 3,0 D 2P 400 V	10466	3.800	3.000	400	6,2	2800	35,0	15,0	50	53	A

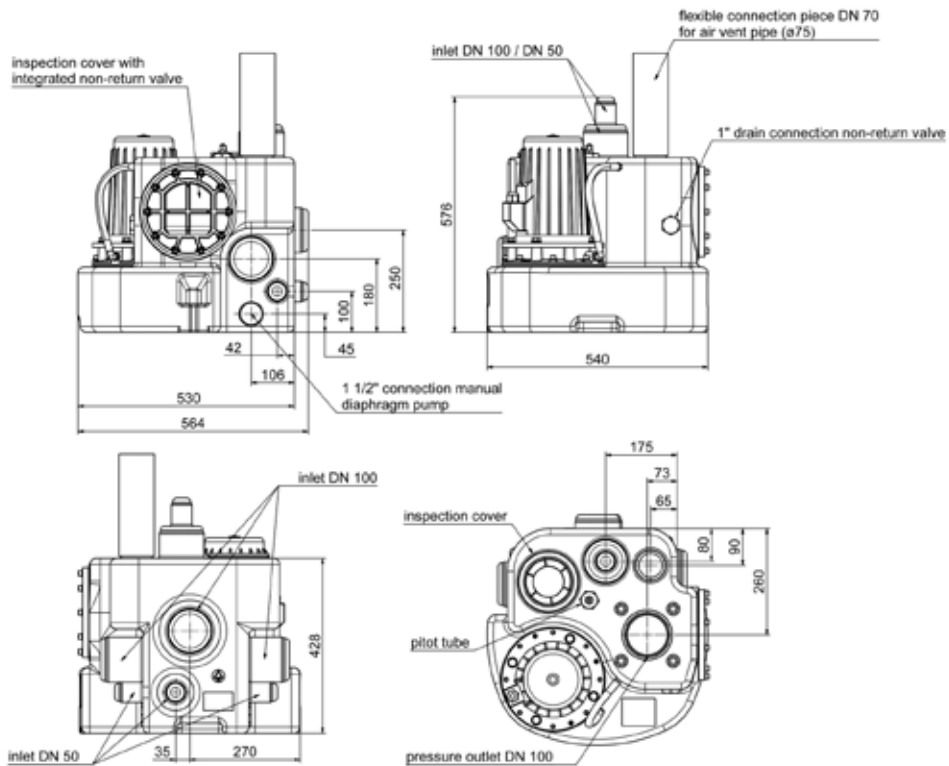


Characteristics:

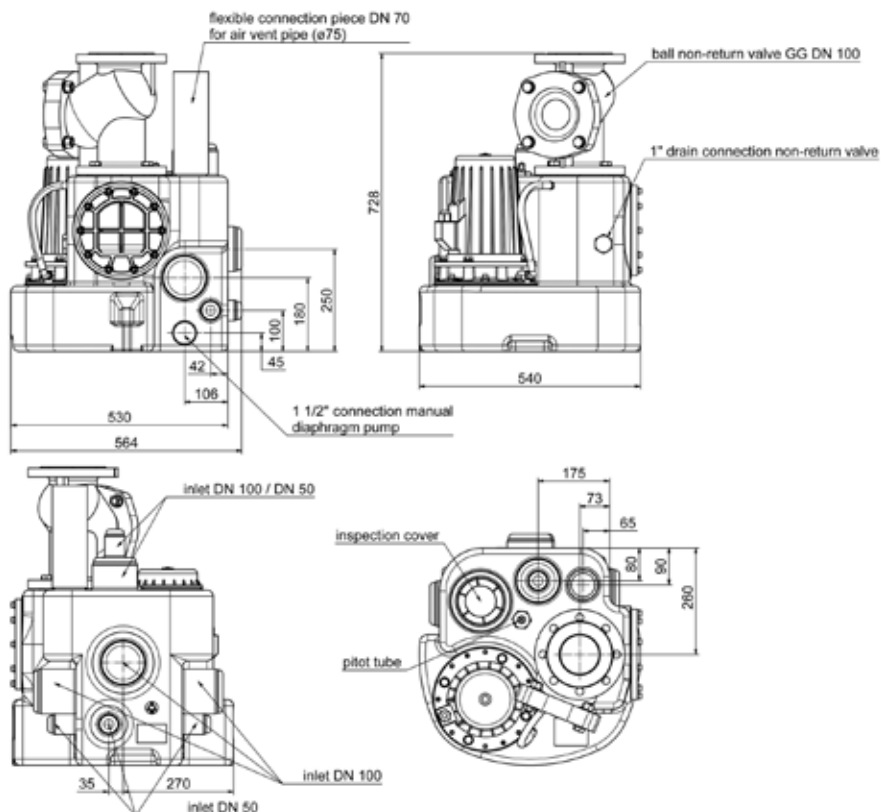


Dimensions:

Types: Kompaktboy 1,1 W 230 V; Kompaktboy 1,1 D 400 V; Kompaktboy 1,5 D 400 V



Type: Kompaktboy 3,0 D 2P 400 V



Benefits:

- compact dimensions
- pre-assembled - connection pieces, non-return valve integrated (except 3kW)
- comfort control unit included in delivery
- high delivery heads
- integrated pressure measurement for mm-precise switch points
- all-side connections for easy installation in cramped rooms

Features:

- polyethylene container with 150 litres capacity and up to 80 litres switching volume
- vortex pumps with high efficiency and low operation noise
- mechanical seal and shaft seal with intermediate oil chamber
- inlets: 2 x lateral DN 100, 1 x lateral DN 50, 1 x back DN 100 and 1 x top DN 50/100
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 70 (Ø 75mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

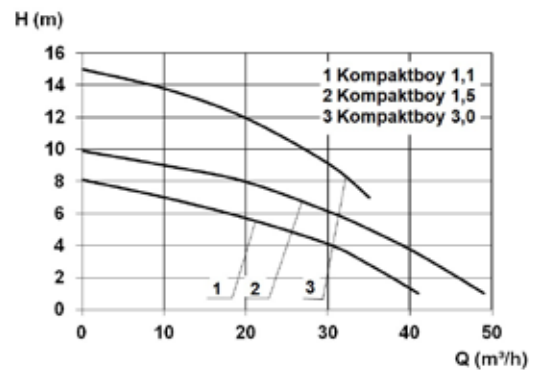
- removal of domestic sewage out of single- or multi family houses
- in public institutions, where the disposal of sewage must not be interrupted
- above-ground installation in rooms protected from frost below the backwash level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control with integrated non-return valves DN 100 (Kompaktboy Duplex 3,0-2P with external cast iron non-return valves)
- Y-pipe DN 100/100/100
- connection flange piece DN 100 for pressure pipe (DN 80 optional)
- flexible connection with tension clamps for pressure pipe and ventilation pipe
- incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation



Characteristics:

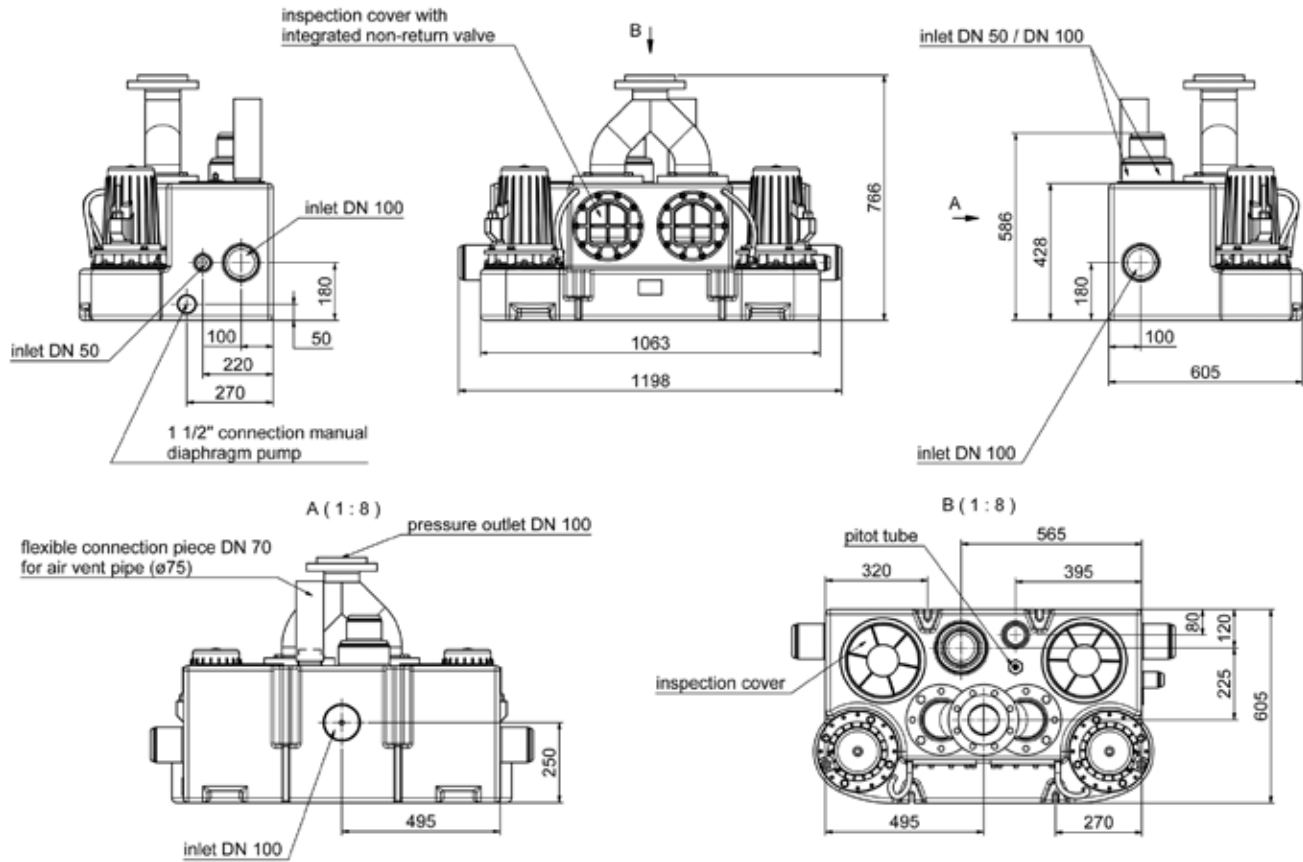


Technical data:

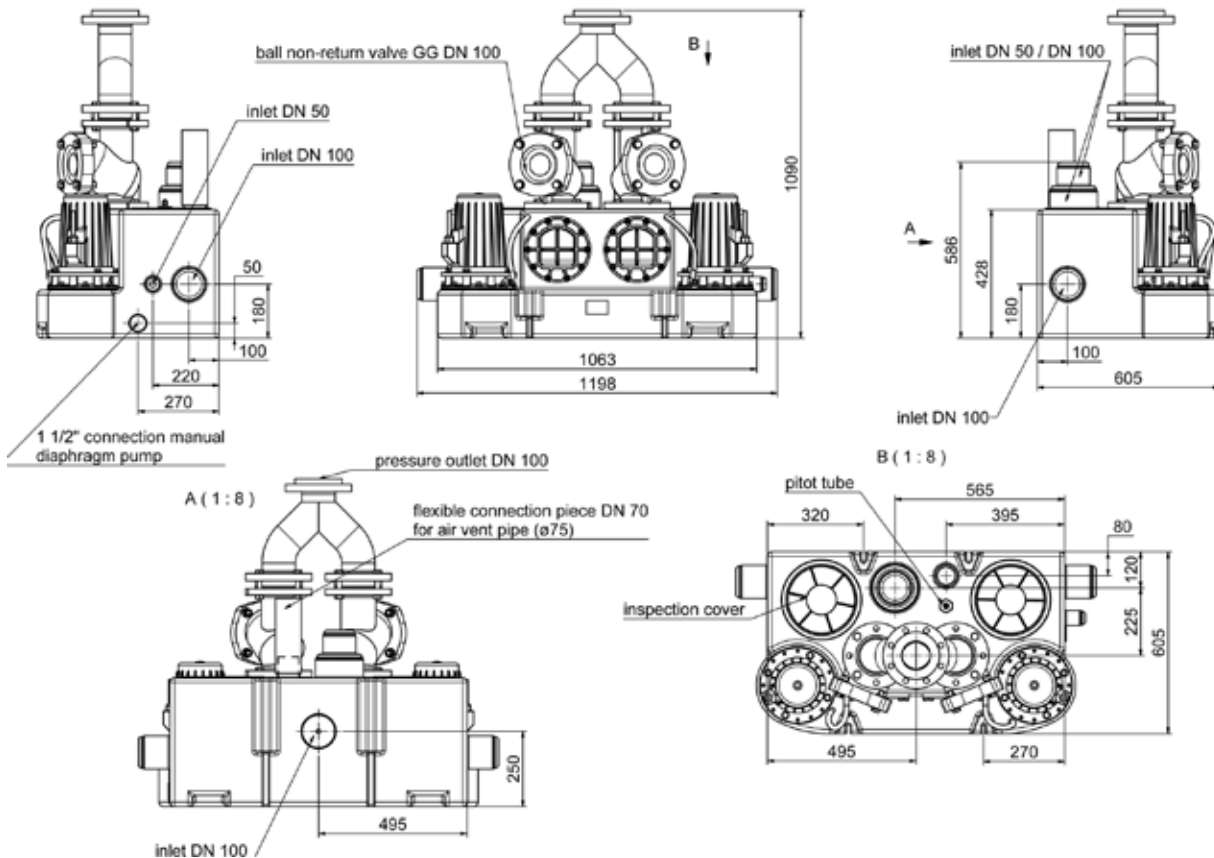
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
Kompaktboy Duplex 1,1 W 230V	17557	1.700	1.100	230	7,6	1400	41,0	8,1	50	76	A
Kompaktboy Duplex 1,1 D 400V	17558	1.400	1.100	400	2,9	1400	41,0	8,1	50	76	A
Kompaktboy Duplex 1,5 D 400V	17559	1.800	1.500	400	3,3	1400	49,0	9,9	50	98	A
Kompaktboy Duplex 3,0 D 2-P	17560	3.800	3.000	400	6,2	2800	35,0	15,0	50	126	A

Dimensions:

Types: Kompaktboy 1,5 D 400 V; Kompaktboy 1,5 D 400 V; Kompaktboy Duplex 1,5 D 400V



Type: Kompaktboy Duplex 3,0 D 2-P



Benefits:

- compact dimensions
- pre-assembled - connection pieces & non-return valve included
- comfort control unit included in delivery
- for long pressure pipes (DN 50)
- suitable for pressure drainage
- high delivery heads

Features:

- polyethylene container with 55 litres capacity and up to 45 litres switching volume
- built-up grinder pump with robust, adjustable cutting system made of corrosion-resistant special alloy
- two mechanical seals with intermediate oil chamber
- pressure outlet flange DN 50 with flanged connecting bend and non-return ball valve 1 1/4" FPT
- inlets: 3 x lateral DN 100 and 1 x top DN 50/100
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 70 (Ø 75mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

- pumping of domestic sewage from basement apartments or single-family houses for greater heads or long pressure pipes
- above-ground installation in frost-free rooms below the backflow level
- fits into manholes with a cover > Ø 590 mm

Scope of delivery:

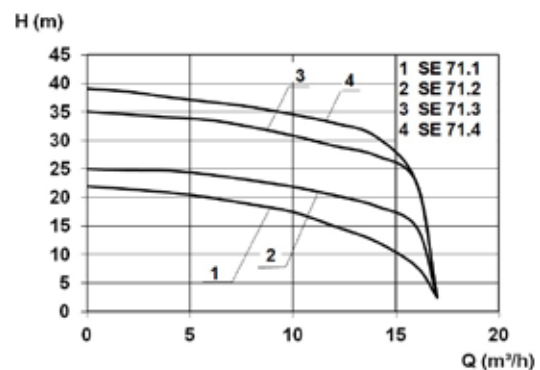
- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- 90° pump connecting bend DN 50
- non-return ball valve 1 1/4" FPT
- flexible connection with tension clamps for ventilation pipe
- incl. ZPS1: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation

Technical data:

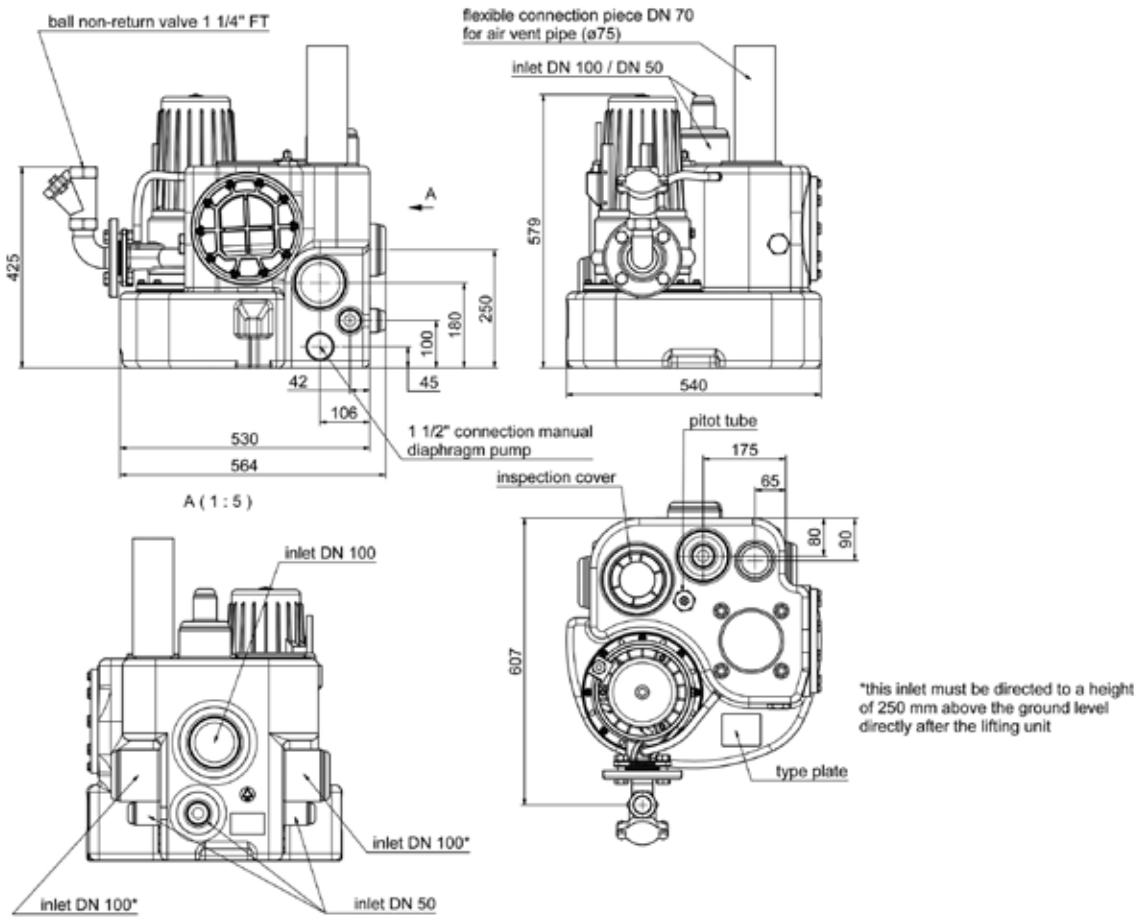
Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Kompaktboy SE 71.1 W 230V	17750	2.200	1.700	230	10,5	2800	17,0	22,0	68	A
Kompaktboy SE 71.1 D 400 V	17472	2.100	1.700	400	3,7	2800	17,0	22,0	64	A
Kompaktboy SE 71.2 D 400 V	17473	2.100	1.700	400	3,7	2800	17,0	25,0	64	A
Kompaktboy SE 71.3 D 400 V	17474	3.900	3.200	400	6,5	2800	17,0	35,0	68	A
Kompaktboy SE 71.4 D 400 V	17475	3.900	3.200	400	6,5	2800	17,0	39,0	68	A



Characteristics:



Dimensions:



Benefits:

- compact dimensions
- pre-assembled - connection pieces & non-return valve included
- comfort control unit included in delivery
- for long pressure pipes (DN 50)
- suitable for pressure drainage
- high delivery heads

Features:

- polyethylene container with 150 litres capacity and up to 80 litres switching volume
- two built-up grinder pumps with robust, adjustable cutting system made of corrosion-resistant special alloy
- two mechanical seals with intermediate oil chamber
- pressure outlet flange DN 50 with flanged connecting bend and non-return ball valve 1 1/4" FPT
- inlets: 3 x lateral DN 100 and 1 x top DN 100/150
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 70 (Ø 75mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

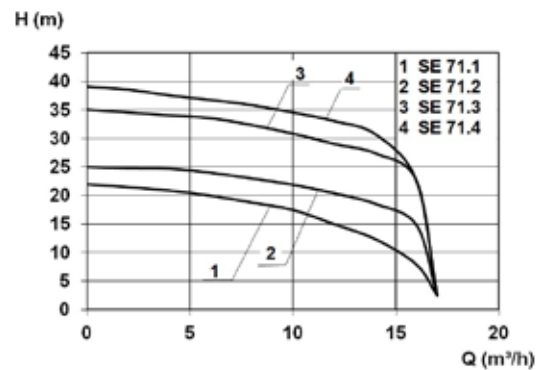
- pumping of domestic sewage from single-family houses and apartment buildings for greater heads or long pressure pipes
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- 2 x 90° pump connecting bend DN 50
- 2 x non-return ball valve 1 1/4" FPT
- stainless steel Y-pipe DN 50/50/50 with pressure outlet flange DN 50
- flexible connection with tension clamps for ventilation pipe
- incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installationplay

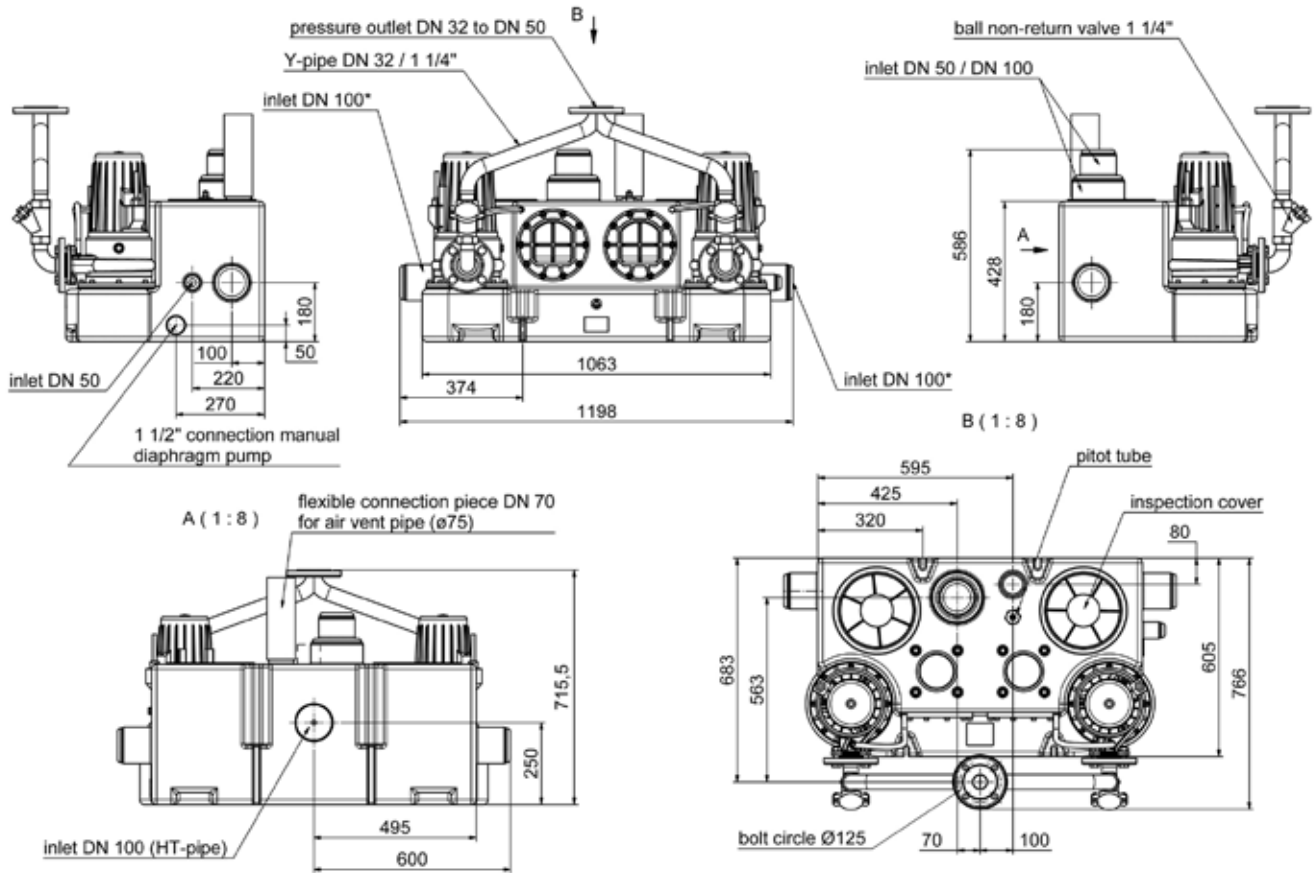


Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Kompaktboy Duplex SE 71.1 D	17462	2.100	1.700	400	3,7	2800	17,0	22,0	137	A
Kompaktboy Duplex SE 71.2 D	17751	2.100	1.700	400	3,7	2800	17,0	25,0	137	A
Kompaktboy Duplex SE 71.3 D	17752	3.900	3.200	400	6,5	2800	17,0	35,0	144	A
Kompaktboy Duplex SE 71.4 D	17753	3.900	3.200	400	6,5	2800	17,0	39,0	144	A

Dimensions:


*this inlet must be directed to a height of 250 mm above the ground level directly after the lifting unit

Benefits:

- high container and switching volume
- blockage-free operation by 50 mm solids handling
- pre-assembled - connections, non-return valve included
- comfort control unit included in delivery

Features:

- polyethylene container with 140 litres capacity and up to 70 litres switching volume
- vortex pump with high efficiency
- mechanical seal and shaft seal with intermediate oil chamber
- inlets: 2 x DN 100
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 70 (Ø 75mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

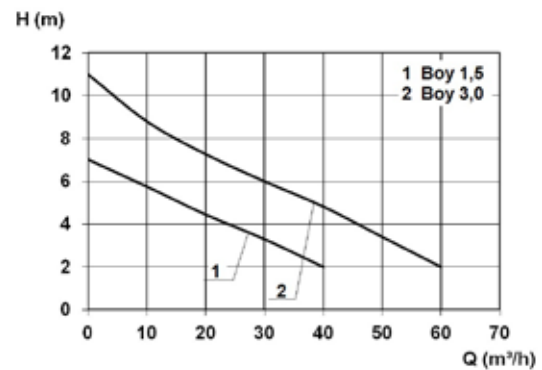
- pumping of domestic sewage from basement apartments, single-family houses or apartment buildings
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control with integrated non-return valves DN 100 (DN 80 optional)
- connection flange piece DN 100 for pressure pipe (DN 80 optional)
- flexible connection with tension clamps for pressure pipe and ventilation pipe
- incl. ZPS1: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation



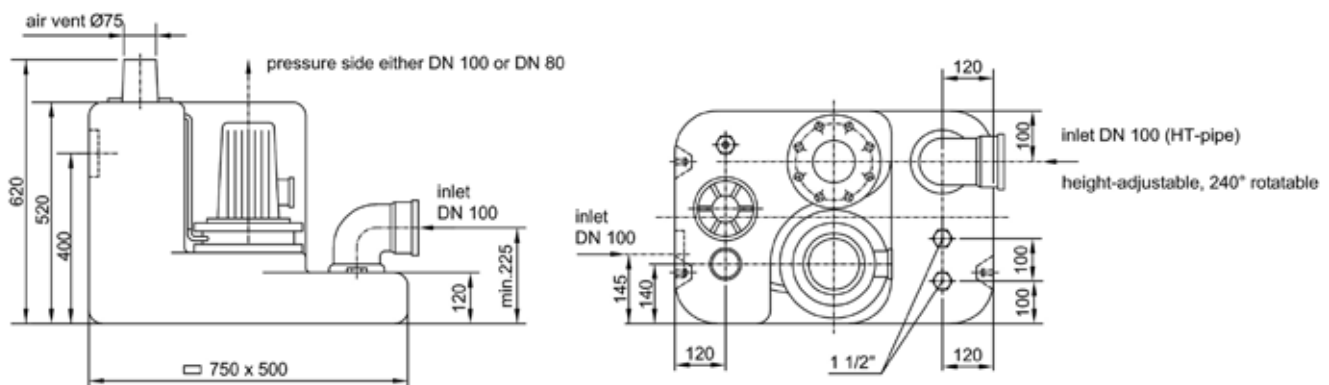
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
Boy 1,5 D 400 V	10527	1.900	1.500	400	3,3	1400	40,0	7,0	65	A
Boy 3,0 D 400 V	10531	4.000	3.000	400	6,9	1400	60,0	11,0	75	A

Dimensions:



Benefits:

- compact dimensions
- pre-assembled - connection pieces & non-return valve included
- comfort control unit included in delivery
- high delivery heads
- integrated pressure measurement for mm-precise switch points

Features:

- polyethylene container with 200 litres capacity and up to 100 litres switching volume
- vortex pumps with high efficiency
- mechanical seal and shaft seal with intermediate oil chamber
- inlets: 2 x lateral DN 100, 1 x top DN 100/DN 150
- additional connections 1 1/2" for manual diaphragm pump
- air vent DN 100 (Ø 110mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 68 - fully submersible

Applications:

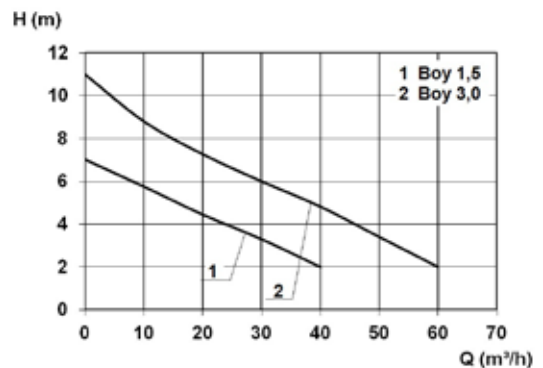
- pumping of domestic sewage from basement apartments, single-family houses or apartment buildings
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- incl. 2 integrated non-return valves DN 100
- Y-pipe DN 100/100/100
- connection flange piece DN 100 for pressure pipe
- flexible connection with tension clamps for pressure pipe and ventilation pipe
- incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation



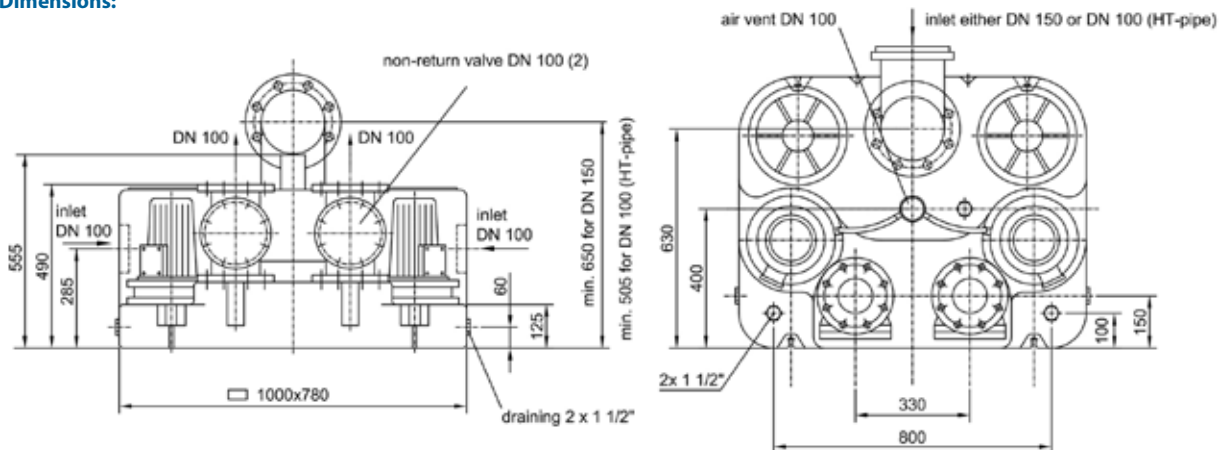
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
Boy Duplex 1,5 D 400 V	10534	1.900	1.500	400	3,3	1400	40,0	7,0	90	A
Boy Duplex 3,0 D 400 V	10535	4.000	3.000	400	6,9	1400	60,0	11,0	110	A

Dimensions:



Benefits:

- custom dimensions, custom inlets and on-site-assembly possible
- large container volume and switching volume (container volume up to 20.000 litres available)
- blockage-free operation by 80 mm solids handling
- comfort control unit included in delivery



Features:

- polyethylene container with 350 litres capacity and up to 175 litres switching volume
- vortex pump with large solids handling
- mechanical seal and shaft seal with intermediate oil chamber
- pump housing with cast-on outlet bend DN 100
- lateral inlet with loose-type flange DN 100
- additional connection 1 1/2" for manual diaphragm pump
- air vent with loose-type flange DN 100 (Ø 110 mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 57 - temporarily submersible

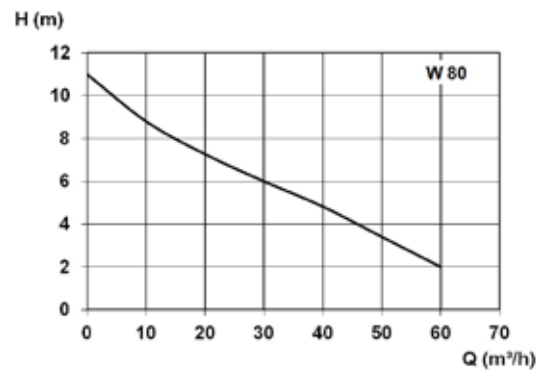
Applications:

- drainage of sewage from apartment buildings or industrial enterprises etc.
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- incl. ZPS1: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation
- Attention! Non-return valve, gate valve and further junction fittings optional (see accessories)

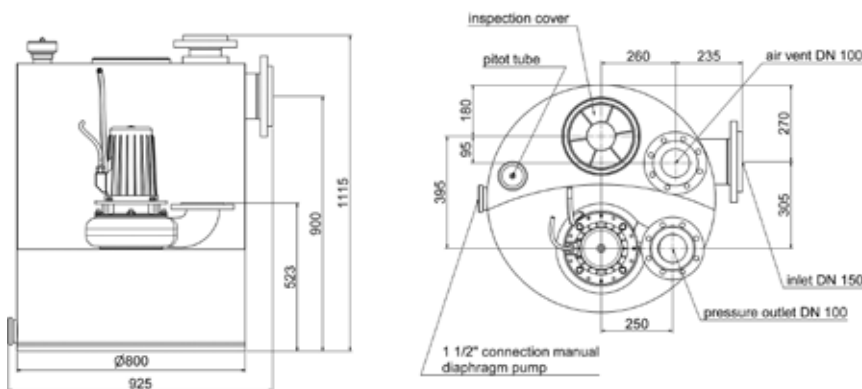
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
W 80	10537	4.000	3.000	400	6,9	1400	60,0	11,0	115	B

Dimensions:



Benefits:

- custom dimensions, custom inlets and on-site-assembly possible
- large container volume and switching volume (container volume up to 20.000 litres available)
- blockage-free operation by 80 mm solids handling
- comfort control unit included in delivery

Features:

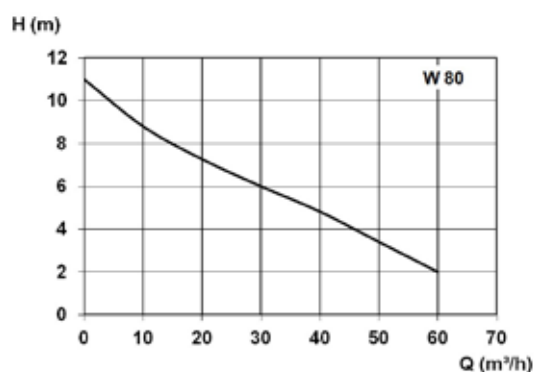
- polyethylene container with 480 litres capacity and up to 270 litres switching volume
- vortex pump with large solids handling
- mechanical seal and shaft seal with intermediate oil chamber
- pump housing with cast-on outlet bend DN 100
- lateral inlet with loose-type flange DN 100
- additional connection 1 1/2" for manual diaphragm pump
- air vent with loose-type flange DN 100 (Ø 110 mm)
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 57 - temporarily submersible

Applications:

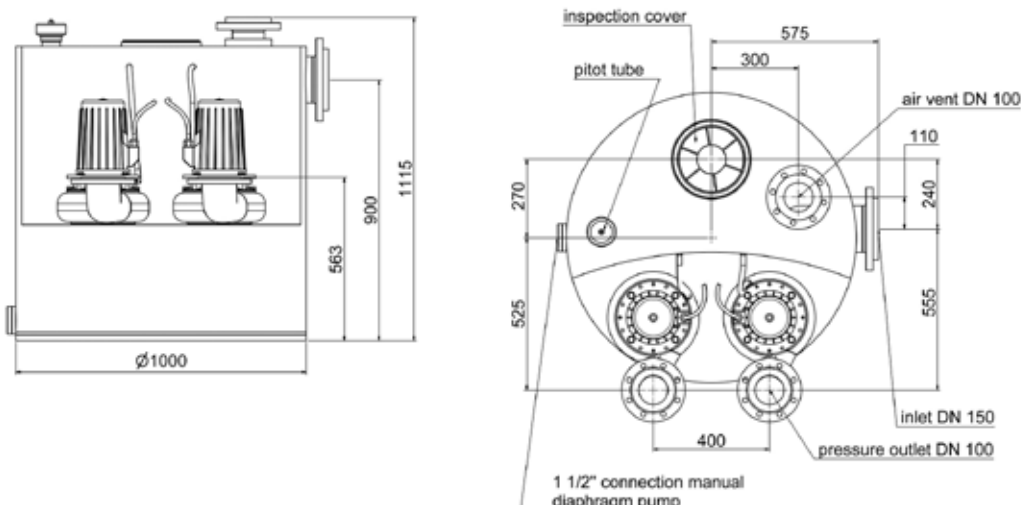
- drainage of domestic sewage from apartment buildings, schools, public or industrial institutions
- institutions which need a continuous sewage drainage
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation
- Attention! Non-return valve, gate valve and further junction fittings optional (see accessories)


Characteristics:

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
W 80 Duplex	10539	4.000	3.000	400	6,9	1400	60,0	11,0	205	B

Dimensions:


Benefits:

- custom dimensions, custom inlets and on-site-assembly possible
- large container volume and switching volume (container volume up to 20.000 litres available)
- blockage-free operation by 80 mm solids handling
- comfort control unit included in delivery

Features:

- polyethylene container with 480 litres capacity and up to 270 litres switching volume
- single-channel impeller pump with fibre cutting insert and large solids handling
- mechanical seal (up to 4kW) or chilled casting seal (> 5 kW) and shaft seal with intermediate oil chamber
- pump housing with flanged outlet bend DN 100
- lateral inlet with loose-type flange DN 150
- additional connection 1 1/2" for manual diaphragm pump
- air vent with loose-type flange DN 100 (Ø 110 mm)
- star-delta-start for 7,5 kW unit
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 57 - temporarily submersible

Applications:

- drainage of sewage from apartment buildings or industrial enterprises etc.
- above-ground installation in frost-free rooms below the backflow level

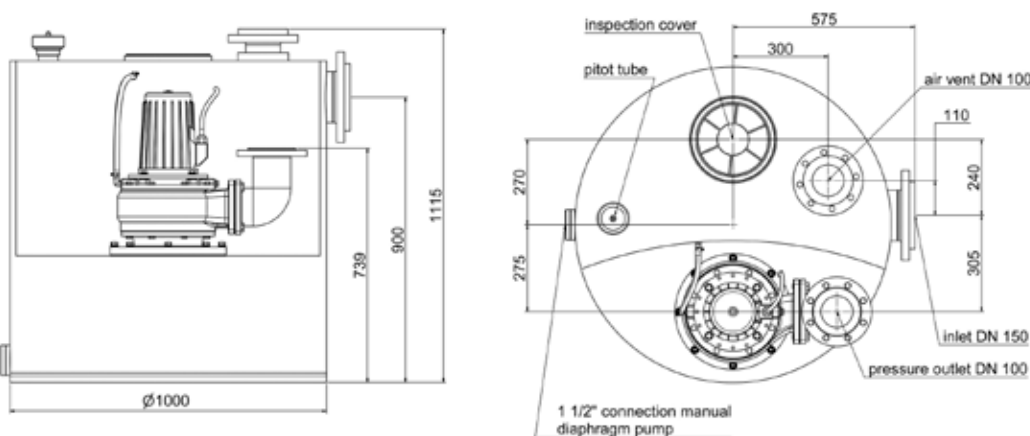
Scope of delivery:

- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- incl. ZPS1: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation (7,5 kW ZPS1 control with star-delta-start)
- Attention! Non-return valve, gate valve and further junction fittings optional (see accessories) arately.

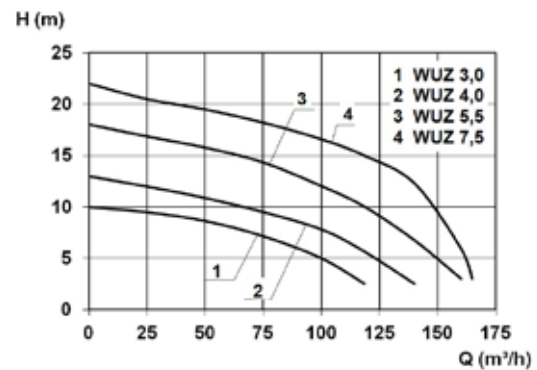
Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
WUZ 100 3,0 400 V	10545	4.000	3.000	400	6,9	1400	120,0	10,0	210	B
WUZ 100 4,0 400 V	10546	5.500	4.000	400	11,2	1400	140,0	13,0	220	B
WUZ 100 5,5 400 V	10548	6.300	5.500	400	12,1	1400	160,0	18,0	225	B
WUZ 100 7,5 400 V	10549	8.700	7.500	400	16,9	1400	165,0	22,0	240	B

Dimensions:



Characteristics:



Benefits:

- custom dimensions, custom inlets and on-site-assembly possible
- large container volume and switching volume (container volume up to 20.000 litres available)
- blockage-free operation by 80 mm (3,0 & 4,0 kW version) or 100 mm (5,5 & 7,5 kW version) solids handling
- comfort control unit included in delivery

Features:

- polyethylene container with 1000 litres capacity and up to 500 litres switching volume
- two single-channel impeller pumps with fibre cutting insert and large solids handling
- mechanical seal (up to 4kW) or chilled casting seal (> 5 kW) and shaft seal with intermediate oil chamber
- pump housing with flanged outlet bend DN 30
- lateral inlet with loose-type flange DN 150
- additional connection 1 1/2" for manual diaphragm pump
- air vent with loose-type flange DN 100 (Ø 110 mm)
- star-delta-start for 7,5 kW unit
- operation temperature max. 55°C
- operating mode S3 - 25%
- protection grade IP 57 - temporarily submersible

Applications:

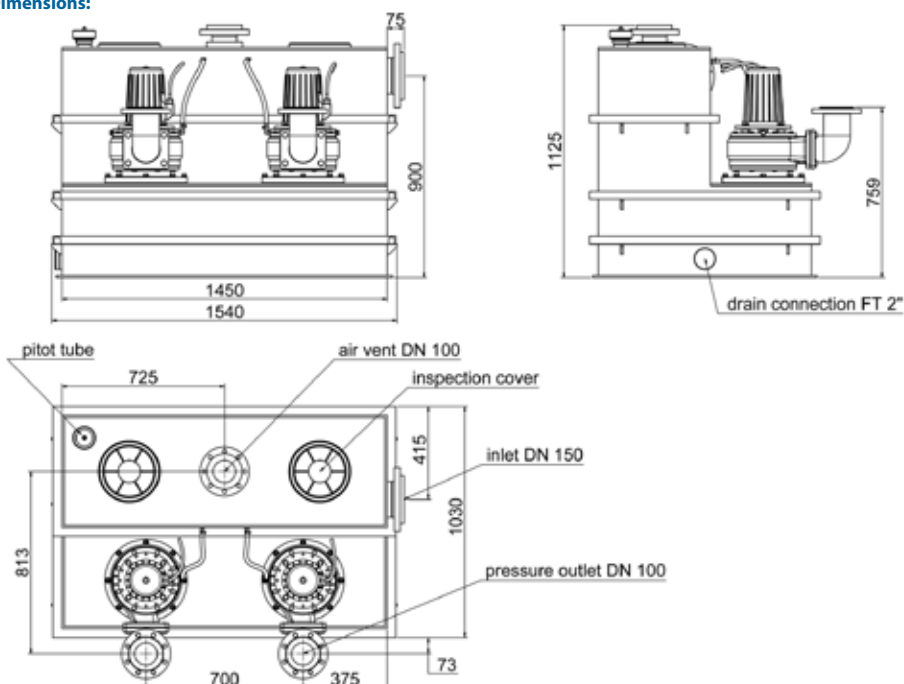
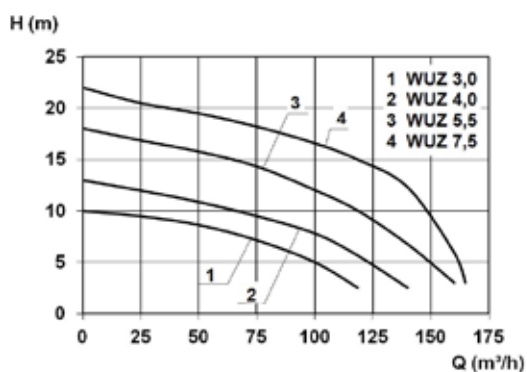
- drainage of domestic sewage from apartment buildings, residential areas, hospitals, schools etc.
- institutions which need a continuous sewage drainage
- above-ground installation in frost-free rooms below the backflow level

Scope of delivery:






- pre-assembled lifting unit with 3,5 m connection cable to the motor and 3,5 m pneumatic tube to the control
- incl. ZPS2: comfortable, pneumatic level control with microcontroller, LCD plain text display for filling level, maintenance, operating hours, fault message and alarm signal in switchbox for indoor installation (7,5 kW ZPS2 control with star-delta-start)
- Attention! Non-return valve, gate valve, Y-pipe and further junction fittings optional (see accessories)

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
WUZ 100 Duplex 3,0 400 V	10551	4.000	3.000	400	6,9	1400	120,0	10,0	370	B
WUZ 100 Duplex 4,0 400 V	10553	5.500	4.000	400	11,2	1400	140,0	13,0	385	B
WUZ 100 Duplex 5,5 400 V	10555	6.300	5.500	400	12,1	1400	160,0	18,0	400	B
WUZ 100 Duplex 7,5 400 V	10556	8.700	7.500	400	16,9	1400	165,0	22,0	425	B

Dimensions:

Characteristics:


Type	Art.-no.	Discount group	Figure
Gate valve DN 80 cast-iron	10648	B	
Gate valve DN 100 cast-iron	10649	B	
Gate valve DN 125 cast-iron	10650	B	
Gate valve DN 150 cast-iron	10651	B	
Plastic gate valve DN 80 compl.	10643	B	
Plastic gate valve DN 100 compl.	10642	B	
Non-return valve DN 80 PE	14400	B	
Non-return valve DN 100 PE	14401	B	
Ball non-return valve DN 100 cast-iron	14398	B	
Flange piece DN 50 PE	11931	B	
Flange piece DN 65 PE	10654	B	
Flange piece DN 80 PE	11933	B	
Flange piece DN 100 PE	11935	B	
Flange piece DN 125 PE	11949	B	
Flange piece DN 150 PE	11956	B	
Pipe bend 90° DN 100 PE	10441	B	
Pipe bend 90° DN 125 PE	10442	B	
Pipe bend 90° DN 150 PE	10443	B	
Reducer DN 125/100 PE flanged	10452	B	
Reducer DN 150/100 PE flanged	10453	B	
Y-piece DN100/100/100 PE for Kompaktboy Duplex	17569	X01	
Y-pipe DN 100/100/100 PE for Miniboy/Boy Duplex	11997	B	
Y-pipe DN 100/100/100 PE for W80 Duplex	11998	D	
Y-pipe DN 100/100/100 PE for WUZ 100 Duplex	11999	D	
Y-pipe DN 100/125/100 PE for duplex unit	12006	B	
Y-pipe DN 100/150/100 PE for duplex unit	12005	B	
Y-piece 1 1/4" VA for Kompaktboy Duplex SE 71	17755	X01	
Manual diaphragm pump 1 1/2"	10430	B	
Three-way changeover valve 1 1/2" RB	10433	B	
Mains-independent alarm switchgear für PS Steuerungen	13001	B	
Float switch 10 m OPT11 emptying function, yellow RAL 1018	14499	A	
Small horn KH 1 - 12 VDC grau, 95dB, IP43	12076	B	
Small horn 230 V	12068	B	

Type	Art.-no.	Discount group	Figure
Ball non-return valve DN 50 cast-iron	14394	B	
Gate valve DN 50 cast-iron	10646	B	
Y-pipe DN 50/50/50 PE for duplex unit	11992	B	
Y-pipe DN 50/65/50 PE for duplex unit	11993	B	
Y-pipe 2" VA für Miniboy Doppel SEN	12385	B	
Reducer DN 50/65 PE flanged	10449	B	
Flange piece DN 80 / DN 100 PE	11934	D	
Compression fitting 2" DN 50 d63 PE flange-sleeve-piece	11102	B	
Compression fitting 2" FPT d63 PE	11100	B	

Mounting accessories

Type	Art.-no.	Discount group
Mounting accessories DN 50 VA	15438	B
Mounting accessories DN 50 GV	15444	B
Mounting accessories DN 65 VA	15439	B
Mounting accessories DN 65 GV	15445	B
Mounting accessories DN 80 VA	15440	B
Mounting accessories DN 80 GV	15446	B
Mounting accessories DN 100 VA	15441	B
Mounting accessories DN 100 GV	15447	B
Mounting accessories DN 125 VA	15442	B
Mounting accessories DN 125 GV	15448	B
Mounting accessories DN 150 VA	15443	B
Mounting accessories DN 150 GV	15449	B

Benefits:

- complete pumping station for domestic connections (1 pump)
- complete set - ready for connection available
- load capacity up to 40 tons (class D)
- divers pump options (e.g. ZFS 71, ZPG 50, ZPG 71)
- made of corrosion-resistant PE-LLD for lifelong operating time
- pre-assembled connections available
- quick-coupling system for easy pump insertion and optimal sealing



Features:

- packaged pumping station made of corrosion-resistant PE-LLD
- buoyancy-proof up to ground water level of max. 0,5 m from manhole's lower edge
- installation of one pump of the series ZFS 71, ZPG 50, ZPG 71
- stainless steel piping DN 32, pre-assembled with coupling system
- non-return valve, gate valve and flushing connection 1"
- pressure outlet PE-HD 63 x 5.8 – outside the manhole
- 1 x inlet DN 150, further inlets optional
- 2x connection DN 100 for cable gland and air vent

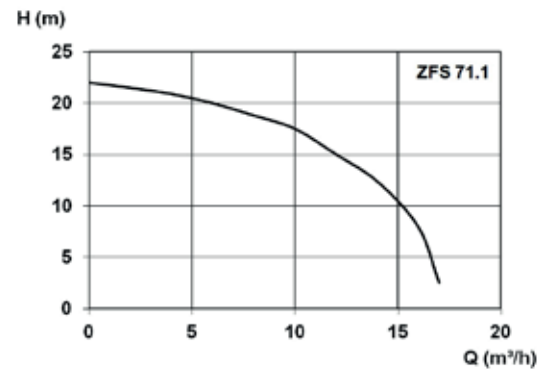
Applications:

- pumping of sewage from single-family houses
- as drainage pumping station
- for pressure drainage
- for installation outside buildings
- also drivable with manhole covers class B and D

Scope of delivery:

- pumping station with pressure pipes and valves
- BEGU manhole cover class A-D optional (see accessories)

Characteristics:

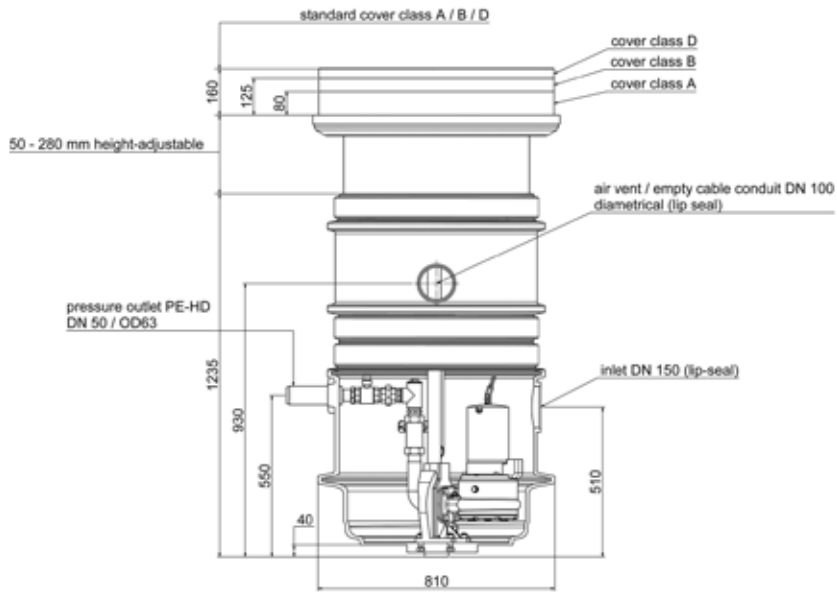


Pumping station FPS basic with pump 71.1 D EX, shaft cover and pneumatic control unit ZPS 1

Type	Art.-no.	Discount group
FPS basic 1200 A with ZFS single-pump pumping station	15849	B
FPS basic 1200 B with ZFS single-pump pumping station	16928	B
FPS basic 1200 D with ZFS single-pump pumping station	16929	B



Type	Art.-no.	Discount group
FPS basic 1200 mm d=600	14483	B

Dimensions:


BEGU Cover	Total height [mm]	Max. inlet depth OK terrain to the bottom of the pipe [mm]
A	1365 - 1595	1190
B	1410 - 1640	1235
D	1445 - 1675	1270

Accessories:

Type	Art.-no.	Discount group	Description
BEGU shaft cover cl. A	16035	B	accessible
BEGU shaft cover cl. B	16038	B	accessible for cars
BEGU shaft cover cl. D	16044	B	accessible for trucks
Extension tall 500 mm	14426	B	
Operating key for FPS-K basic	12397	B	

Benefits:

- pumping station available with one or two pumps
- high inlet depths possible (max. 2,94 m)
- complete set - ready for connection available
- load capacity up to 40 tons (class D)
- divers pump options (e.g. ZFS 71, ZPG 50, ZPG 71)

Features:

- packaged pumping station made of corrosion-resistant PE-LLD
- buoyancy-proof up to ground water level of max. 1,2 m from manhole's lower edge
- installation of one pump of the series ZFS 71, ZPG 50, ZPG 71
- stainless steel piping DN 32, pre-assembled with coupling system
- non-return valve, gate valve and flushing connection 1"
- pressure outlet PE-HD 63 x 5.8 – outside the manhole
- 1 x inlet DN 150, further inlets optional
- 2x connection DN 100 for cable gland and air vent

Applications:

- pumping of sewage from single-family houses or apartment buildings
- as drainage pumping station
- for pressure drainage
- for installation outside buildings
- also drivable with manhole covers class B and D

Scope of delivery:

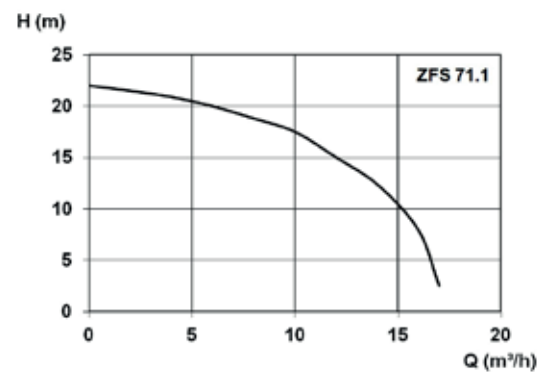
- pumping station with pressure pipes and valves
- BEGU manhole cover class A-D optional (see accessories)



fig.: simplex unit

fig.: duplex unit

Characteristics:



Pumping station FPS-K with pump 71.1 D EX, shaft cover and pneumatic control unit ZPS

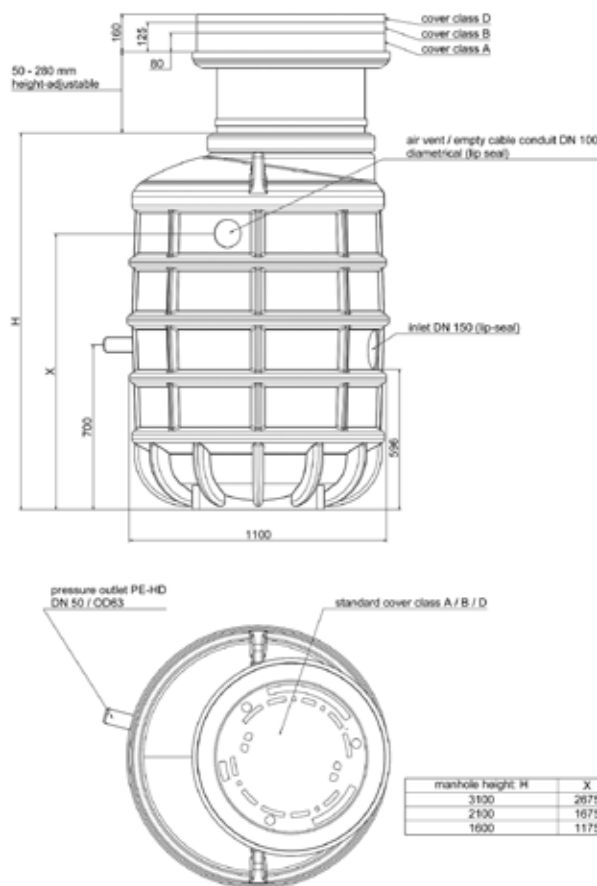
Type	Art.-no.	Discount group
Pumping station 1600 A with ZFS single-pump pumping station	15851	B
Pumping station 1600 A 2 x ZFS dual-pump pumping station	15839	B
Pumping station 1600 B with ZFS single-pump pumping station	15853	B
Pumping station 1600 B 2 x ZFS dual-pump pumping station	15841	B
Pumping station 1600 D with ZFS single-pump pumping station	15854	B
Pumping station 1600 D 2 x ZFS dual-pump pumping station	15842	B
Pumping station 2100 A with ZFS single-pump pumping station	16833	B
Pumping station 2100 A 2 x ZFS dual-pump pumping station	15843	B
Pumping station 2100 B with ZFS single-pump pumping station	15856	B
Pumping station 2100 B 2 x ZFS dual-pump pumping station	15844	B
Pumping station 2100 D with ZFS single-pump pumping station	15857	B
Pumping station 2100 D 2 x ZFS dual-pump pumping station	15845	B
Pumping station 3100 A with ZFS single-pump pumping station	15858	B
Pumping station 3100 A 2 x ZFS dual-pump pumping station	15846	B
Pumping station 3100 B with ZFS single-pump pumping station	15859	B
Pumping station 3100 B 2 x ZFS dual-pump pumping station	15847	B
Pumping station 3100 D with ZFS single-pump pumping station	15860	B
Pumping station 3100 D 2 x ZFS dual-pump pumping station	15848	B

Type	Art.-no.	Discount group
FPS-CS simplex pumping station with extension piece, piping and valves (excl. pump and control unit)		
FPS-CS(A) H=1600 mm	14479	B
FPS-CS(A) H=2100 mm	14474	B
FPS-CS(A) H=3100 mm	14475	B
FPS-CD duplex pumping station with extension piece, piping and valves (excl. pump and control unit)		
FPS-CD(A) H=1600 mm	14490	B
FPS-CD(A) H=2100 mm	14477	B
FPS-CD(A) H=3100 mm	14478	B



Height station H	Height incl. extension and manhole-cover class A	Max. inlet	Height incl. extension and manhole-cover class B	Max. inlet	Height incl. extension and manhole-cover class D	Max. inlet
1600	1730 - 1960	1360	1775 - 2005	1405	1810 - 2040	1440
2100	2230 - 2460	1860	2275 - 2505	1905	2310 - 2540	1940
3100	3230 - 3460	2860	3275 - 3505	2905	3310 - 3540	2940

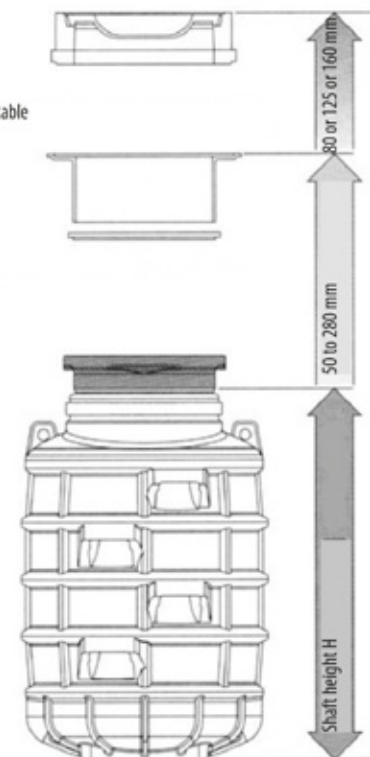
Dimensions:



manhole cover

extension, height-adjustable

station



Accessories:

Type	Art.-no.	Discount group	Description
BEGU shaft cover cl. A	16035	B	accessible
BEGU shaft cover cl. B	16038	B	accessible for cars
BEGU shaft cover cl. D	16044	B	accessible for trucks
Extension tall 500 mm	14426	B	

Benefits:

- durable and reliable
- integrated thermal winding protection to prevent overheating damage

Features:

- self-priming injection pump with stainless steel pump housing
- suction head up to 8,5 m
- thermal overload protection
- injector, diffusor and impeller made of wear-resistant polyamide with stainless steel motor shaft
- EP stainless steel motor housing
- WX polypropylene motor housing
- sealed with mechanical seal
- suction and pressure connection 1" FPT

Applications:

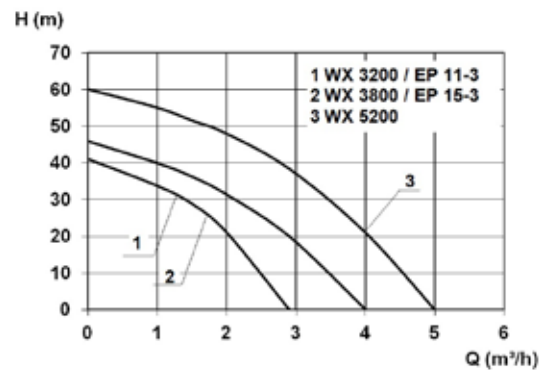
- irrigation of home and garden
- water supply
- draining of swimming pools

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- on / off switch



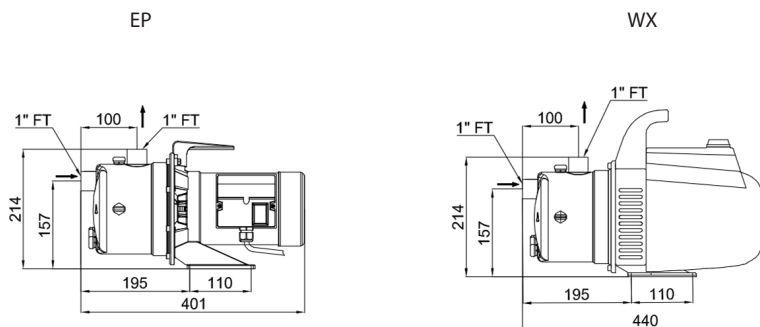
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
WX 3200	15503	600	350	230	2,9	2800	2,9	41,0	8,9	A
WX 3800	15509	1.000	700	230	4,4	2800	4,0	46,0	10	A
WX 5200	15510	1.600	1.300	230	7,0	2800	5,0	60,0	13,1	A
EP 11-3	15516	600	350	230	2,9	2800	2,9	41,0	8,8	A
EP 15-3	15523	1.000	700	230	4,4	2800	4,0	46,0	10	A

Dimensions:



Benefits:

- durable and reliable
- integrated thermal winding protection to prevent overheating damage

Features:

- self-priming, multi-stage centrifugal pump with low-noise operation
- suction head up to 8,5 m
- thermal overload protection
- stainless steel pump housing and screws
- aluminium motor housing (MP350 stainless steel)
- impellers and guide wheels made of wear-resistant plastic; motor shaft made of stainless steel
- sealed with mechanical seal
- suction and pressure connection 1" FPT

Applications:

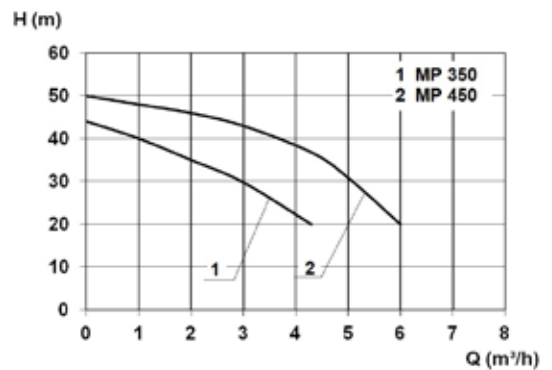
- irrigation of home and garden
- water supply
- draining of swimming pools

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- on / off switch (MP350 only)



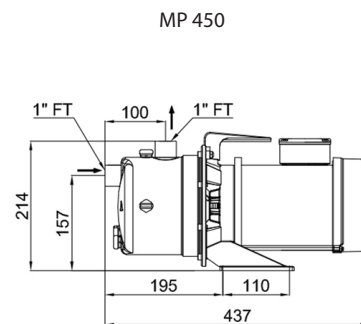
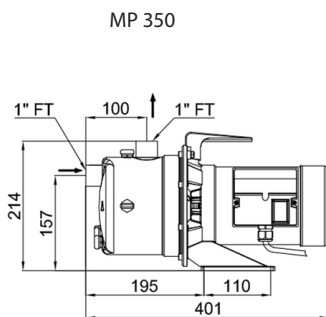
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
MP 350	17009	1.000	700	230	4,4	2800	4,3	44,0	10,5	A
MP 450	15534	1.700	1.300	230	7,4	2800	6,0	50,0	15,5	A

Dimensions:



Benefits:

- durable and reliable
- automatic operation and dry-run protection

Features:

- self-priming injection pump with stainless steel pump housing
- suction head up to 8,5 m
- electronic pressure switch for automatic switch-on / -off
- dry-run protection
- thermal overload protection
- injector, diffusor and impeller made of wear-resistant polyamide with stainless steel motor shaft
- EPD stainless steel motor housing / HAE polypropylene motor housing
- sealed with mechanical seal
- suction and pressure connection 1" FPT; HAE 5200 pressure connection 1 1/4" MPT

Applications:

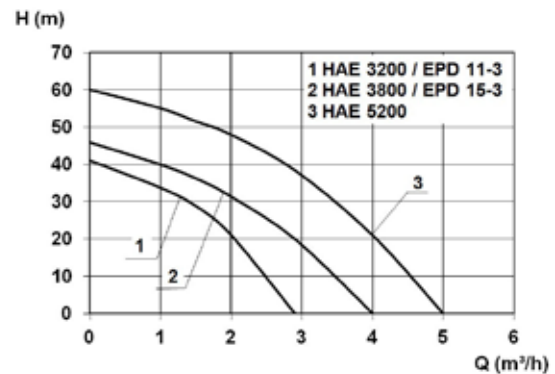
- irrigation of home and garden
- water supply

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- electronic pressure switch with dry-run protection ZD series



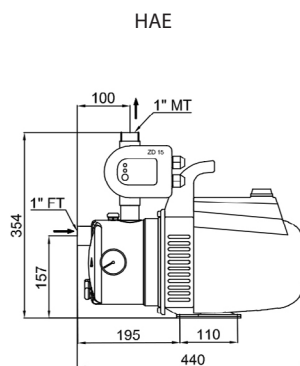
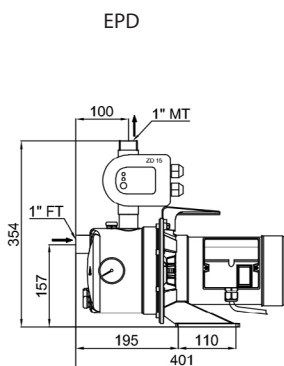
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
HAE 3200	15631	600	350	230	2,9	2800	2,9	41,0	12	A
HAE 3800	15632	1.000	700	230	4,4	2800	4,0	46,0	13,1	A
HAE 5200	15635	1.600	1.300	230	7,0	2800	5,0	60,0	16,8	A
EPD 11-3	15517	600	350	230	2,9	2800	2,9	41,0	11,7	A
EPD 15-3	15524	1.000	700	230	4,4	2800	4,0	46,0	12,9	A

Dimensions:



Benefits:

- durable and reliable
- automatic operation and dry-run protection
- integrated thermal winding protection to prevent overheating damage

Features:

- self-priming, multi-stage centrifugal pump with low-noise operation
- suction head up to 8,5 m
- electronic pressure switch for automatic switch-on / -off
- dry-run protection
- thermal overload protection
- stainless steel pump housing and screws
- aluminium motor housing (MP350 stainless steel)
- impellers and guide wheels made of wear-resistant plastic; motor shaft made of stainless steel
- sealed with mechanical seal
- suction connection 1" FPT; pressure connection 1 1/4" MPT

Applications:

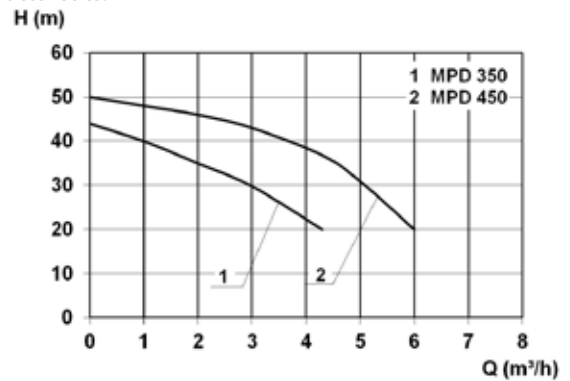
- irrigation of home and garden
- water supply

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- electronic pressure switch with dry-run protection ZD series



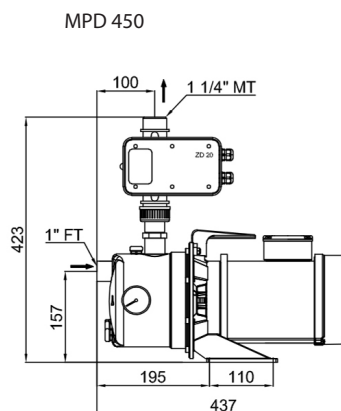
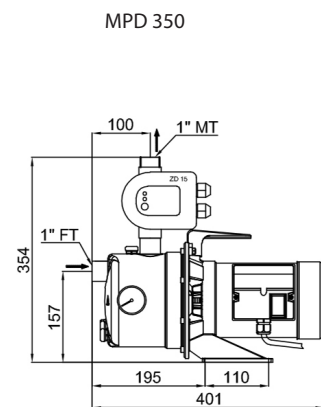
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
MPD 350	17067	1.000	700	230	4,4	2800	4,3	44,0	11,7	A
MPD 450	15636	1.700	1.300	230	7,4	2800	6,0	50,0	20,2	A

Dimensions:



Benefits:

- durable and reliable
- reduction of switching frequency by expansion tank
- automatic operation

Features:

- self-priming injection pump with stainless steel pump housing
- suction head up to 8,5 m
- thermal overload protection
- injector, diffusor and impeller made of wear-resistant polyamide with stainless steel motor shaft
- EPA stainless steel motor housing / HWX polypropylene motor housing
- sealed with mechanical seal
- pressure switch for 0-5 bar
- suction and pressure connection 1" FPT
- expansion tank 20 litres in various versions

Applications:

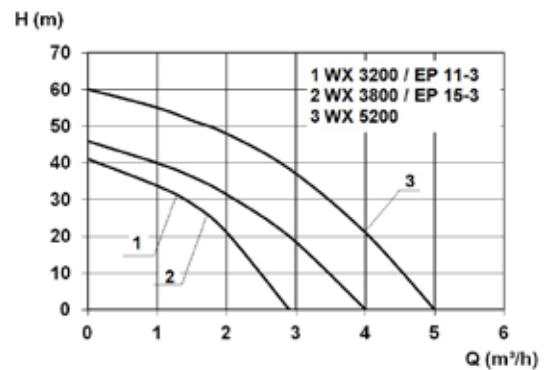
- irrigation of home and garden
- water supply

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- expansion tank steel varnished
- expansion tank P with wear-resistant butyl-membrane (4 years guarantee)
- expansion tank E in high-grade stainless steel design



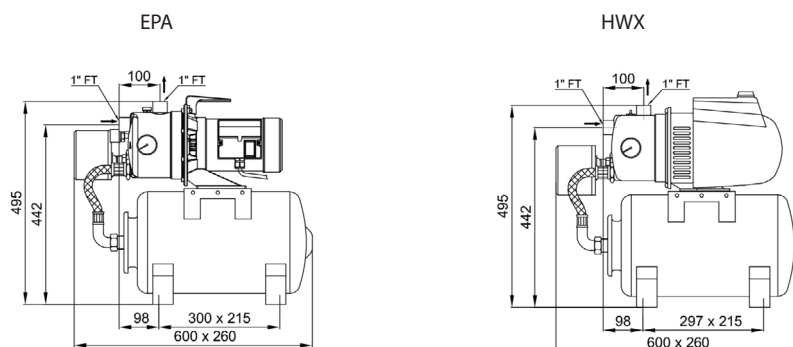
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
HWX 3200	15577	600	350	230	2,9	2800	2,9	41,0	16,8	A
HWX-P 3200	15578	600	350	230	2,9	2800	2,9	41,0	15,4	A
HWX-E 3200	15589	600	350	230	2,9	2800	2,9	41,0	16,6	A
HWX 3800	15582	1.000	700	230	4,4	2800	4,0	46,0	17,9	A
HWX-P 3800	15583	1.000	700	230	4,4	2800	4,0	46,0	15,5	A
HWX-E 3800	15590	1.000	700	230	4,4	2800	4,0	46,0	17,7	A
HWX 5200	15585	1.600	1.300	230	7,0	2800	5,0	60,0	20,1	A
HWX-P 5200	15586	1.600	1.300	230	7,0	2800	5,0	60,0	19	A
HWX-E 5200	15591	1.600	1.300	230	7,0	2800	5,0	60,0	20,8	A
EPA 11-3	15595	600	350	230	2,9	2800	2,9	41,0	16,6	A
EPA-P 11-3	15596	600	350	230	2,9	2800	2,9	41,0	16	A
EPA 11-3E	15598	600	350	230	2,9	2800	2,9	41,0	16	A
EPA 15-3	15602	1.000	700	230	4,4	2800	4,0	46,0	17,8	A
EPA-P 15-3	15603	1.000	700	230	4,4	2800	4,0	46,0	16,5	A
EPA 15-3E	15605	1.000	700	230	4,4	2800	4,0	46,0	16,5	A

Dimensions:



Benefits:

- durable and reliable
- reduction of switching frequency by expansion tank
- automatic operation

Features:

- self-priming, multi-stage centrifugal pump with low-noise operation
- suction head up to 8,5 m
- thermal overload protection
- stainless steel pump housing and screws, aluminium motor housing, wear-resistant plastic impellers, stainless steel motor shaft sealed with mechanical seal
- pressure switch for 0-5 bar
- suction and pressure connection 1" FPT
- expansion tank in various versions

Applications:

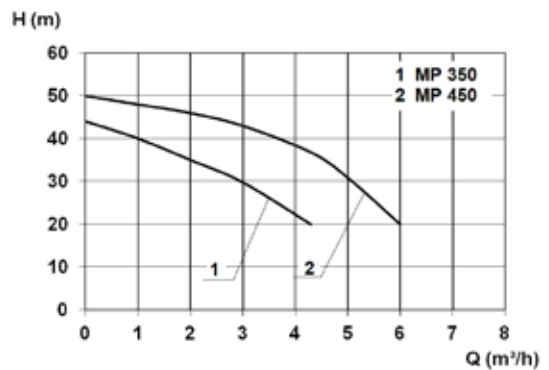
- irrigation of home and garden
- water supply

Scope of delivery:

- pre-assembled ready for connection with 1,5 m power cable
- expansion tank steel varnished
- expansion tank P with wear-resistant butyl-membrane (4 years warranty)
- expansion tank E in high-grade stainless steel design



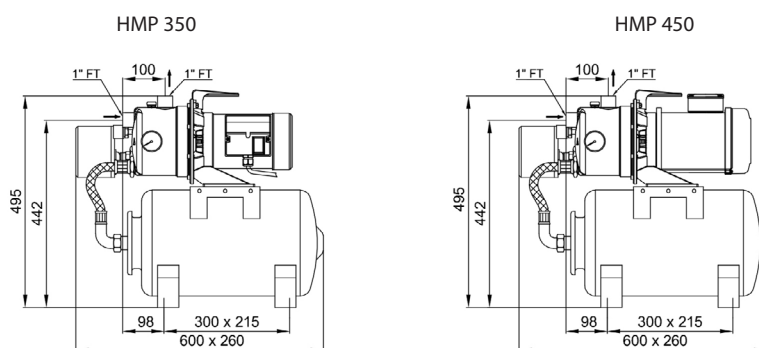
Characteristics:








Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
HMP 350	17070	1.000	700	230	4,4	2800	4,3	44,0	17	A
HMP-P 350	17072	1.000	700	230	4,4	2800	4,3	44,0	17	A
HMP 350 E	17071	1.000	700	230	4,4	2800	4,3	44,0	17	A
HMP 450	15609	1.700	1.300	230	7,4	2800	6,0	50,0	25	A
HMP-P 450	15610	1.700	1.300	230	7,4	2800	6,0	50,0	22	A
HMP 450 E	15538	1.700	1.300	230	7,4	2800	6,0	50,0	22	A

Dimensions:



Type	Art.-no.	Discount group	Figure
Pre-filter 1", small complete	11321	A	
Pre-filter 1", large complete	11324	A	
Compact float switch for ZPK/E-ZW/ZM650	14549	A	
Float switch 10m for interm. coupling	11393	A	
Dry-Run Protection LP/3,	11401	A	
Suction hose kit 7 m	11356	A	
Upgrade package, steel 20 l *	12439	A	
Upgrade package, steel 60 l *	12476	A	
Upgrade package stainless steel 20 l *	12520	A	
Upgrade package stainless steel 50 l *	12541	A	
Upgrade package PU/epoxy 20 l *	12540	A	
Upgrade package PU/epoxy 60 l *	12542	A	

* Upgrade packages consist of: reinforced hose, 5-way-piece, mechanical pressure switch, manometer

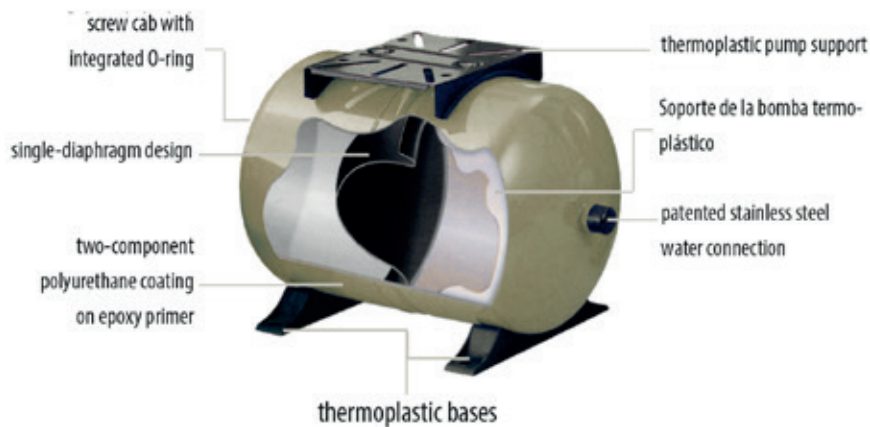




fig.: membrane vessel, powder coated with Butyl membrane

This membrane vessel is used with our booster units HWX-P, EPA -P, HMP-P and with all water supply packages. A 4 year warranty will be granted on the Butyl-membrane vessel and the Butyl-membrane.

float switch for supplementary coupling					
cable length [m]	unction "emptying" = floated ON	function „filling“ = floated OFF	function „changer“ can be used for both functions	Discount group	Figure
0,5	13146	13147	14526	A	
2	14509	14514	14527	A	
5	14504	14507	14529	A	
10	14499	14495	14532	A	
15	14521	14523	14536	A	
20	14522	14524	14537	A	

The float switch is not suitable for low-tension current below 20 mA! Maximum contact rating AC 16(6)A, 250 V

float switch for supplementary coupling for lower current application

cable length [m]	unction "emptying" = floated ON	Discount group	Figure
0,5	17053	A	
2	17054	A	
5	17055	A	
10	17056	A	
15	17057	A	
20	17059	A	

The float switch is not suitable for low-tension current below 20 mA! Maximum contact rating AC 16(6)A, 250V

electronic pressure controllers
ZD 15 & ZD 20
Features:

- device for automatic pump control
- substitutes the usual system with expansion vessel
- switches pump according to opening and closing of the tapping point
- switching-off the pump in case of water shortage to feature dry-run protection


Technical data:

Type	Art.-no.	U [V]	I _n [A]	Cut-in pressure	Maximum operating pressure	Maximum media temperature [°C]	Minimum flow rate	Protection class	Protection class	Discount group
ZD 15	15714	230	16 (6)	1,5 bar	8	060	1 l/min	65	G1	A
ZD 20	15715	230	30 (16)	1,5 bar	10	060	1 l/min	65	G 11/4	A

electronic pressure controllers
ZD TOP
Features:

- pressure switch, reversible between mode 'start-up pressure' – 'cut-out pressure' (membrane vessel is needed) and mode 'start-up pressure' – cut-out when flow rate = 0 (no need of a membrane vessel), fault memory and frost protection


Technical data:

Type	Art.-no.	Mains supply	Motor current	I _n [A]	Allowed maximum pressure	Maximum media temperature [°C]	Q _{max} [m ³ /h]	Target pressure control range	Start pressure control range	Con-nection	Frequency control range	Protection class	Discount group
ZD TOP	17014	sin- gle-phase 230 V	sin- gle-phase 230 V	15	10 bar	30	6,0	1 - 9 bar	0,5 - 8 bar	G1	none	65	A

Features:

- exactly adjustable start pressure 1.5 - 3.0 bar
- built-in protection against dry running
- Protection against pressure shocks
- With ART System (Automatic Reset Test). With dry-running, the system stops automatically and re-starts automatically in periodic cycles.
- Protection class IP 65



Applications:

- The Ad Pro is a compact device for the automatic control and protection of electric pumps. It combines pressure switch, float switch and check valve.

Technical data:

Type	Art.-no.	U [V]	Frequency [Hz]	Max. motor performance	Max. current consumption	Cut-in pressure	Allowed maximum pressure [bar]	Protection class IP	Max. temperature [C°]	Max. flow rate [m³/h]	Connection	Weight [kg]	Discount group
ZP Control AdPro	20293	230	50/60	1,5 kW	16(8) A	1,5 bar	10	65	060	10	G1	0,72	E

ZP Control 05 Basic & ZP Control 05 Comfort

Features:

- Pressure diaphragm and integrated non-return valve
- built-in protection against dry running
- Digital pressure display (bar and psi)
- Built-in flow sensor with permanent digital detection
- Standby mode
- With ART System (Automatic Reset Test): With dry-running, the system stops automatically and re-starts automatically in periodic cycles.
- Protection class IP 65
- ZP control 05 comfort: (in addition to ZP Control 05 Basic): Built-in pressure transmitter with digital display, integrated current sensor with digital output, protection device against overcurrent



Applications:

- For the control and protection of 1-phase pumps up to 2.2 kW

Technical data:

Type	Art.-no.	U [V]	Frequency [Hz]	Max. motor performance	Max. current consumption [A]	Cut-in pressure [bar]	Max. operating pressure [bar]	Protection class IP	Max. temperature [C°]	Max. flow rate [m³/h]	Connection	Weight [kg]	Discount group
ZP Control 05 Comfort	20294	230	50/60	2,2 kW	30 (16)	0,5 - 4 bar	8	65	060	8	G1	1,3	E
ZP Control 05 Basic	20645	230	50/60	2,2 kW	30 (16)	0,5 - 4 bar	8	65	060	8	G1	1,3	E

Features:

- Protection against dry running through pressure setting
- digital pressure switch with min/max pressure setting or only min. or max. pressure
- Switching function can be reversed
- Sleep mode for energy saving
- Pressure display in bar or psi
- Double protection against dry running through current monitor and min. pressure setting (only ZP Control 01 Comfort)
- Overcurrent protection (only ZP Control 01 Comfort)
- In case of quick switching intervals, alarm triggered due to pressure loss on the expansion vessel (only ZP Control 01 Comfort)
- Auto reset after triggering the protection against dry running


Applications:

- for the control of pumps in combination with expansion vessel

Technical data:

Type	Art.-no.	U [V]	f [Hz]	I _n [A]	Cut-in pressure [bar]	Cut-of pressure [bar]	Max. difference [bar]	Factory setting (On / Off) [bar]	Maximum media temperature	Protection class IP	Connection	Discount group
ZP Control 01 Basic	20054	230	50 / 60	30 (16)	0,5 - 7	1 - 8	0,5 - 1,5	3 / 4	50	55	1/4" FT	E
ZP Control 01 Comfort	20055	230	50 / 60	30 (16)	0,5 - 7	1 - 8	0,5 - 1,5	3 / 4	50	55	1/4" FT	E

Dry-run protection
ZP Safe

Features:

- Overcurrent protection / protection against dry running for pumps through current measurement
- In case of quick switching intervals, alarm triggered due to pressure loss on the expansion vessel
- Auto reset after triggering the protection against dry running
- Types of calibration: self-learning & manual setting
- easy installation / also for retrofitting (plug & coupling)


Technical data:

Type	Art.-no.	U [V]	f [Hz]	I _n [A]	Protection class	Max. ambient temperature [°C]	Discount group
ZP Safe	20056	230	50 / 60	30 / 16	IP 65 (IP 44)	50	E

Benefits:

- insulation-protected PVC housing IP55
- PG connection with strain relief
- Dry-run protection
- Frost protector
- Alarm recording
- Auto-reset function
- adjustable pressure 0,5 – 8 bar
- very easy installation (by connecting the control and setting the desired pressure)



Features:

- With ART System (Automatic Reset Test). With dry-running, the system stops automatically and re-starts automatically in periodic cycles.
- Automatic recovery of system settings after a power failure
- Built-in pressure transmitter with digital display. Built-in flow sensor with permanent digital detection. Recording of operations and thus information about operating hours, number of starts, number of power interruptions. Alarm recording: Type and number of alarm messages from the date of commissioning
- Protection from wrong connection and overcurrent.
- Protection from short-circuit.
- Built-in protection against dry running
- AIS function (Anti-ice System) with integrated temperature sensor. If the temperature falls below 5°C, the pump will be activated to frost protection mode.
- Mains supply 230V (three-pin plug)

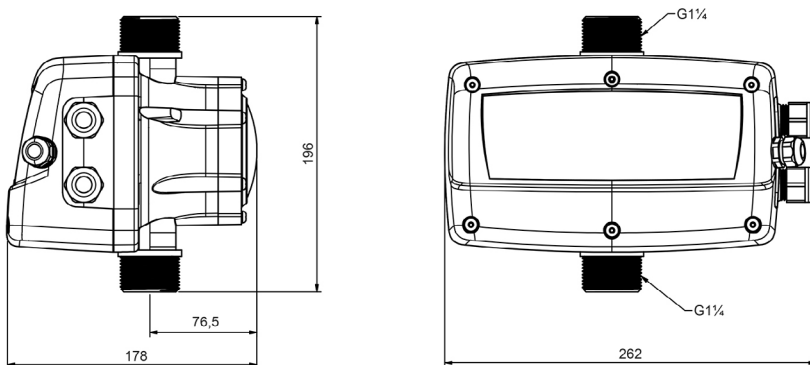
Applications:

- Control for individual pumps with alternating current (230 V, 12MM) or three-phase motor (3 x 230 V, 10 MT) by means of frequency converter

Technical data:

Type	Art.-no.	Mains supply	Motor current	I _n [A]	Allowed maximum pressure	Maximum media temperature	Q _{max} [m ³ /h]	adjustable pressure [ba]	Pressure connection	Frequency [Hz]	Protection class IP	Discount group
ZP Speedcontrol Basic MT	20198	230 V	3 x 230 V	10 A	15 bar	040	15	0,5 up to 12	1 1/4" AG	50/60	55	E
ZP Speedcontrol Basic MM	20197	230 V	230V	10 A	15 bar	040	15,0	0,5 up to 12	1 1/4" AG	50/60	55	E

Dimensions:



Benefits:

- Frequency converter for pumps up to 2.2 kW
- Connection possibility of AC- and DC pumps
- adjustable pressure 0.5 to 13 bar
- Built-in pressure transmitter and flow sensor
- insulation-protected PVC housing IP 54
- Dry-run protection
- PG connections with strain relief
- LCD clear text display, illuminated
- Frost protector
- Alarm recording
- Automatic reset function
- freely adjustable differential pressure and run-on time



Features:

- With ART System (Automatic Reset Test). With dry-running, the system stops automatically and re-starts automatically in periodic cycles. Also in case of power failure, all entries will be retained. Following this, the system will automatically restart.
- Built-in pressure transmitter with digital display. Built-in flow sensor with permanent digital detection. LCD-operating display with digital visualisation. Recording of operations and thus information about operating hours, number of starts, number of power interruptions. Alarm recording: Kind and number of alarm messages from start-up. PID-access in the Expert Menu.
- Protection from wrong connection and overcurrent. Protection from short-circuit.
- Built-in protection against dry running AIS function (Anti-Ice System) Built-in temperature sensor; Below 5° C, the control will automatically switch the pump to frost protection mode.
- Mains supply 230V (three-pin plug)

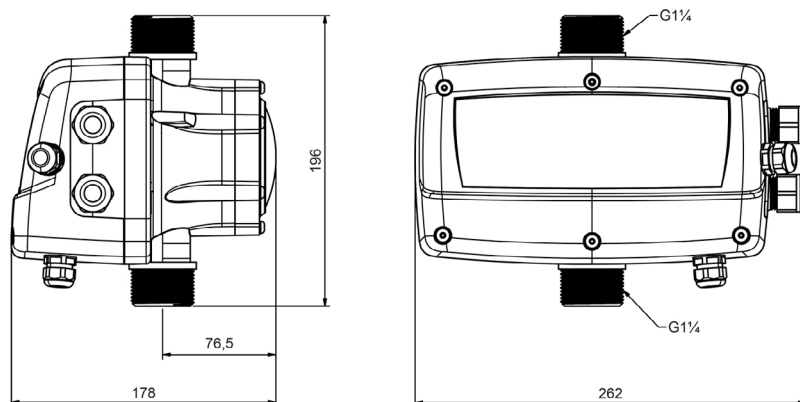
Applications:

- Control for pumps with alternating current (230 V) or three-phase motor (3 x 230 V) with frequency converter
- The type of pump can be selected by means of the configuration menu. Pre-set voltage: 230 V
- Combined control of 2 pumps is possible

Technical data:

Type	Art.-no.	U [V]	Motor current	I _n [A]	Allowed maximum pressure [bar]	Maximum media temperature	Q _{max} [m ³ /h]	adjustable pressure [bar]	Pressure connection	Frequency [Hz]	Protection class IP	Discount group
ZP Speed-control Comfort	18858	230	230V or 3 x 230 V	9 A or 10 A	15	040	10	0,5 up to 12	1 1/4" AG	50/60	55	E

Dimensions:



Benefits:

- Aluminium heat exchanger
- Control and information panel with LCD screen
- insulation-protected PVC housing IP55
- PG connection with strain relief
- Alarm recording
- Auto-reset function
- large setting range of operating pressure 0.5 – 16 bar



Features:

- With ART System (Automatic Reset Test). In case of dry running, the system will automatically stop and periodically re-start
- Automatic recovery of system settings after a power failure
- Built-in pressure transmitter with digital display
- Recording of operations and thus information about operating hours, number of starts, number of power interruptions. Alarm recording: Type and number of alarm messages from the date of commissioning
- STC function (Smart Temperature Control): If the electronics assembly / the converter reaches a temperature of 85°C, the frequency will be slowed. This way, the temperature is decreased, but the water flow is kept.
- Designed for wall mounting
- Supply voltage 1x230 V (1010 MT) or 3x400 V (1309 TT)

Applications:

- Pump control by means of frequency converter. It can control an individual pump or 2 pumps in combination (master-slave mode with alternating pump activation)

Scope of delivery:

- Pressure sensor included in scope of delivery

Technical data:

Type	Art.-no.	Mains supply [V]	Motor current [V]	I _n [A]	Allowed maximum pressure [bar]	Maximum media temperature [C°]	adjustable pressure [bar]	Frequency [Hz]	Protection class IP	Discount group
ZP Speedcontrol Box MT	20295	230	3 x 230	9	15 bar	050	0,5 up to 16	50/60	55	E
ZP Speedcontrol Box TT	20296	400	3 x 400	10	15 bar	050	0,5 up to 16	50/60	55	E

Benefits:

- compact and fully automatic rainwater harvesting system
- fast installation (plug & pump - connect > plug-in > ready)
- wall-mounting for space-saving installation
- low-noise centrifugal pump
- automatic hygiene flush in potable water tank
- automatic feed from drinking water network in case of lack of rainwater
- version „Comfort“: filling level display with capacitive measurement process, connection possibilities for feeder pump or backflow guard

Features:

- fully automatic electronic control of the entire installation
- integrated domestic water works CPS 15-4 with automatic control KIT 02
- house-internal drinking water replenishing on demand directly to the pump by-passing the tank
- case made of PE, cover of ABS, recyclable
- 3-way control valve made of brass
- pump case and impellers, made of stainless steel 1.4301
- suction and discharge case made of α -brass
- shaft made of stainless steel 1.4401
- guide wheels made of special (Noryl®)
- double end face mechanical seal consisting of carbon + ceramic

Applications:

- compact central unit for automatic control and water supplies from rainwater utilization plants
- detached house and two-family house
- clear water without aggressive and abrasive components

Scope of delivery:

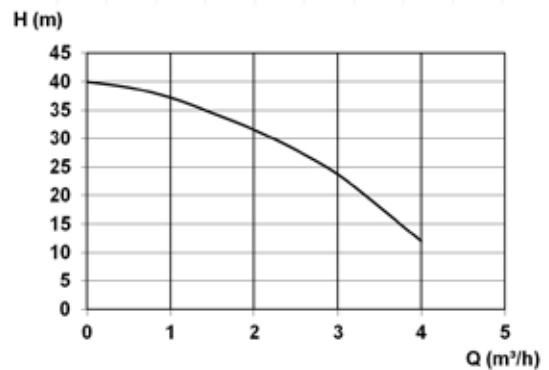
- filling level transducer with cable, 20 m long
- wall-mounting set including noise-protection dowels

Technical data:

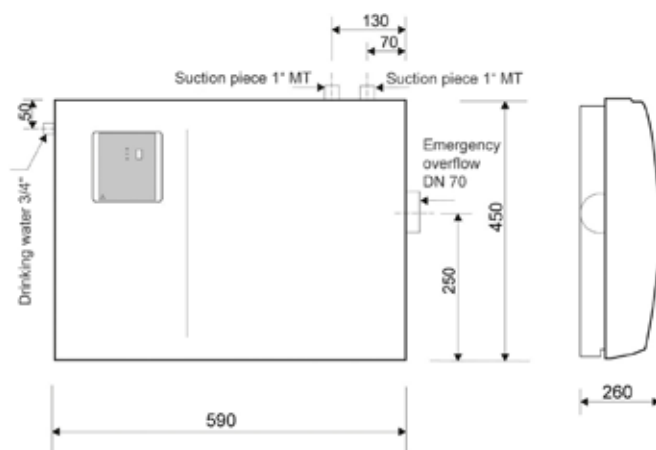
Type	Art.-no.	P ₁ [W]	Cut-in pressure [bar]	Make-up volume [m ³ /h]	U [V]	I _n [A]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Raincenter PRO Basic 15	19081	900	2,4	3,5	230	4,0	4,0	40,0	28	H
Raincenter PRO Comfort 15	19084	900	2,4	3,5	230	4,0	4,0	40,0	28	H



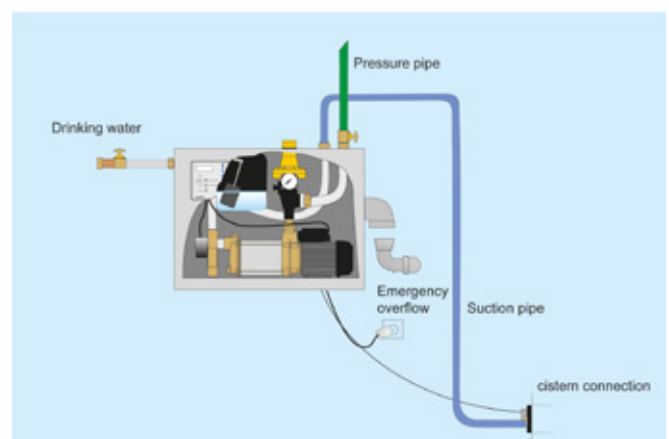
Characteristics:



Dimensions:



Installation example:



Benefits:

- compact and fully automatic rainwater harvesting system with high pumping capacity
- fast installation (plug & pump - connect > plug-in > ready)
- wall-mounting for space-saving installation
- low-noise centrifugal pump
- automatic hygiene flush in potable water tank
- version, Comfort: filling level display with capacitive measurement process, connection possibilities for feeder pump or backflow guard

Features:

- fully automatic electronic control of the entire installation
- integrated domestic water works CPS 20-5 with automatic control KIT 2
- house-internal drinking water replenishing on demand directly to the pump by-passing the tank

Applications:

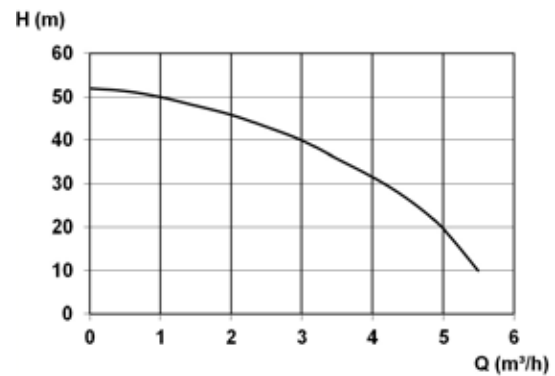
- compact central unit for automatic control and water supplies from rainwater utilization plants
- multi-apartment houses and similar objects
- clear water without aggressive and abrasive components

Scope of delivery:

- filling level transducer with cable, 20 m long
- wall mounting set including vibration-damping equipment



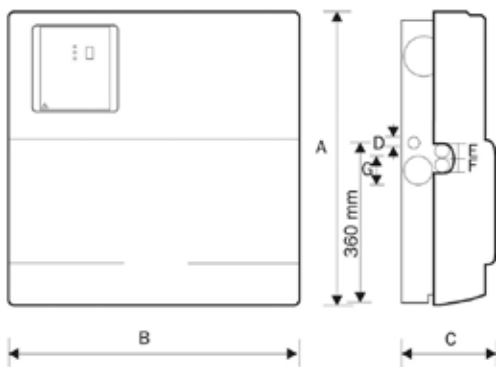
Characteristics:



Technical data:

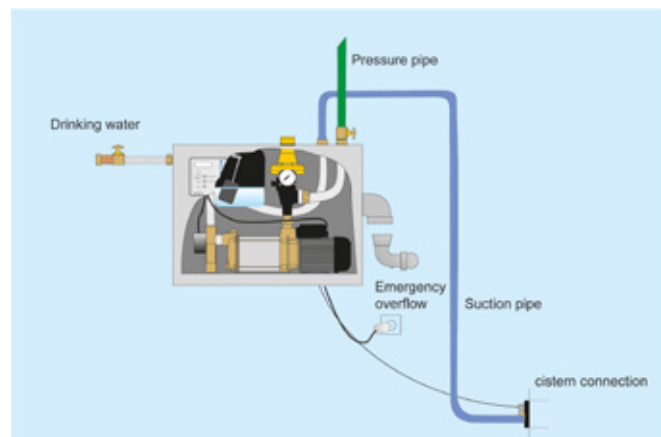
Type	Art.-no.	P ₁ [W]	Cut-in pressure [bar]	Make-up volume [m³/h]	U [V]	I _n [A]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
Raincenter Basic 25	19080	1.350	2,4	5,0	230	6,1	5,2	52,0	34,5	H
Raincenter Comfort 25	19083	1.350	2,4	5,0	230	6,1	5,2	52,0	34,5	H

Dimensions:



A Height [mm]	630
B Width [mm]	630
C Depth [mm]	340
D Drinking water	3/4" MT
E Suction piece	1" FT
F Pressure port	1" FT
G Emergency overflow	DN 70

Installation example:



Benefits:

- plug-in, automatic rainwater utilisation system
- electronic Speed Control Comfort, in combination with the CPS pump, ensures performance- and noise-optimised operation
- acoustic alarm message with forwarding option
- Quick to assemble (plug & pump: connect > plug in > ready for operation)
- automatic water feed from the drinking water network in case of water shortage

Features:

- plug-in compact system for automatic use of rainwater from a cistern
- automatic water feed from the drinking water network in case of water shortage and acoustic alarm message in case of overflow
- Collection container made of PE with assembled, multi-stage, low-noise centrifugal pump model CPS
- Suction height up to 8.5 m
- Quality motor with thermal overload protection
- Switching between rain water and drinking water - and vice versa - takes place automatically

Applications:

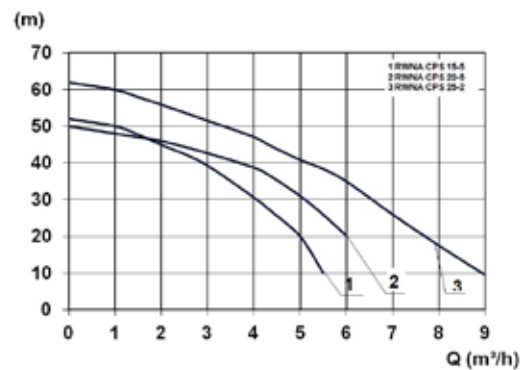
- Garden irrigation
- Domestic water supply

Scope of delivery:

- plug-in system, including float switch with 20 m connection cable (for cistern), 2 pieces of flexible connection hoses
- 1 piece KG elbow DN 100 - 87° with overflow set Ø 110



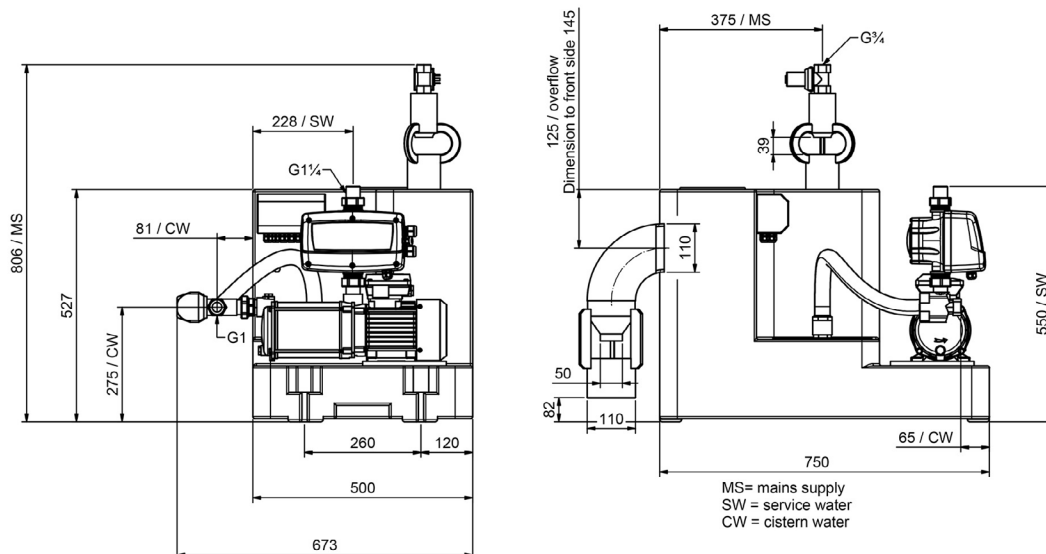
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
RWNA CPS 15-5 B	20065	1.100	850	230	5,0	speed regulated	4,0	50,0	31,1	A
RWNA CPS 20-5 B	20066	1.350	1.050	230	6,1	speed regulated	5,2	52,0	32,1	A
RWNA CPS 25-5 B	20067	2.000	1.500	230	9,0	speed regulated	9,0	62,0	37,9	A

Dimensions:



Benefits:

- plug-ready, automatic control and drinking water feeding unit
- combinable with various pump types
- for easy retrofitting for existing horizontal centrifugal pumps
- integrated non-return valve for installation below the backflow level
- version ‚Comfort‘: filling level display with capacitive measurement process, connection possibilities for feeder pump or backflow guard

Features:

- fully automatic electronic control of the entire installation
- in combination with the pumps CPS 15
- house-internal drinking-water replenishing on demand

Applications:

- compact unit for automatic control and water replenishing from rainwater utilization plants
- detached house or two-family house

Scope of delivery:

- level giver with 20 m cable
- wall-mounting set



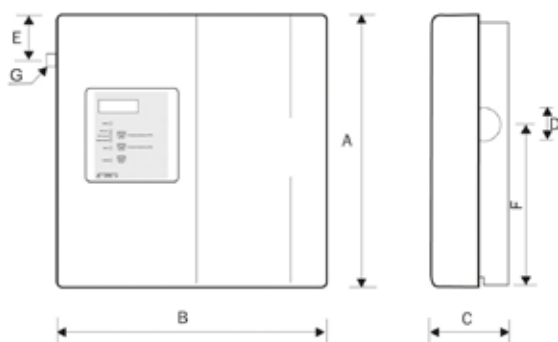
The Tacomat Basic is the central intelligence unit of the rainwater utilisation system. Its control unit monitors, checks and controls the entire plant, thus ensuring steady operational safety. If necessary, the consumers can optionally be supplied with water from the rainwater cistern or an own intermediate storage unit. Due to these two independent circuits, it is possible to further maintain operational safety in case of water shortage or maintenance works. Via a signal of the guide value sensor or a manual switch, the control of the Tacomat will open the drinking water feed line to the pump. While doing so, only that much drinking water is fed as is

taken from the tapping point. Likewise, the control, either automatically or manually triggered, will switch back to rainwater operation from the cistern. The relevant operating status is evident from the visual display. According to DIN 1988, the Tacomat has been designed with a “free outlet” and can even be easily installed below the backflow level. Installation below the backflow level requires an on-site backwater-proof connection of the emergency overflow according to DIN 1986 and DIN EN 12056, for example via an already existing lifting unit.

Technical data:

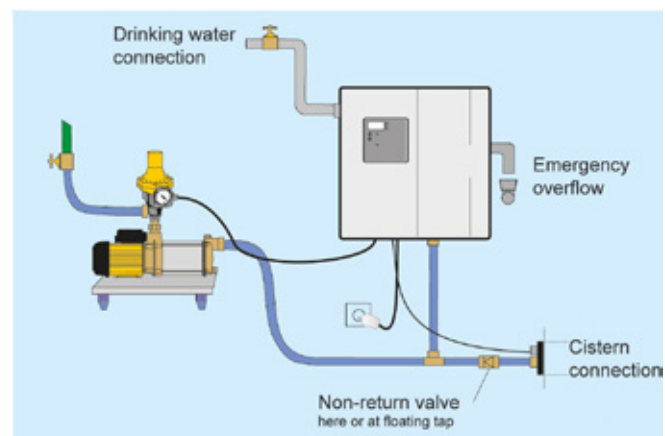
Type	Art.-no.	Make-up volume [m ³ /h]	Weight [kg]	Discount group
Tacomat 2 Basic 15	19085	3,5	14	H
Tacomat 2 Comfort 15	19086	3,5	14	H

Dimensions:



A Height [mm]	460
B Width [mm]	460
C Depth [mm]	210
D Emergency overflow	DN 70
E [mm]	120
F [mm]	265
G Drinking water	3/4"
Suction side	1" MT

Installation example:



Benefits:

- plug-in, automatic control and drinking water feed unit
- can be combined with different pump types
- high storage volume and high flow rates make it possible to use large pumps
- for easy refitting for existing horizontal centrifugal pumps
- integrated check valve for installation below the backflow level
- Type Comfort: Fill level indicator with capacitive measuring method, connection possibility for feeder pump or back pressure guard

Features:

- Fully automatic, electronic control of the entire system
- In combination with the Pumps CPS 15/20/25 or Combipress 60
- In-house, needs-based drinking water feed

Applications:

- Compact unit for automatic control and drinking water feed of rainwater utilisation systems
- Single-family or two-family house

Scope of delivery:

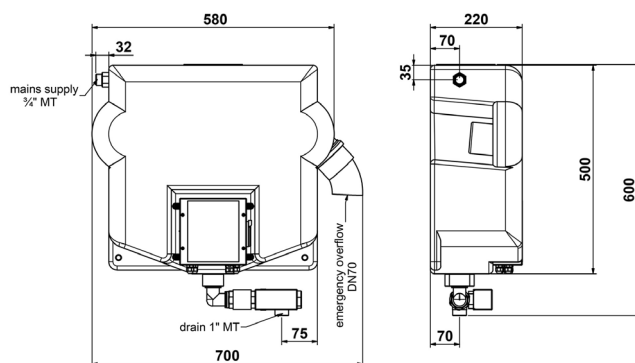
- Level transmitter with 20 m cable
- Wall bracket set

Technical data:

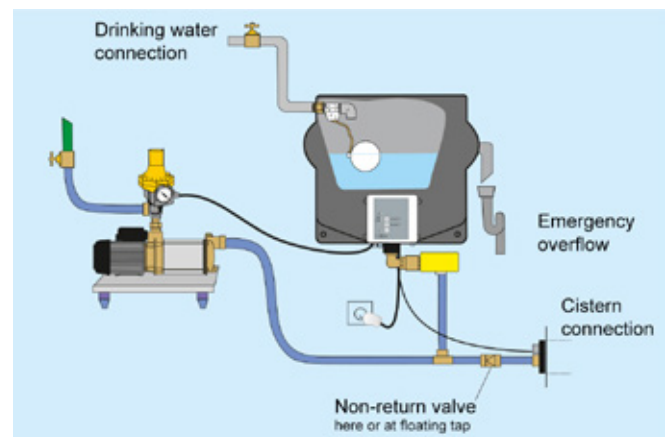
Type	Art.-no.	Make-up volume [m ³ /h]	Weight [kg]	Discount group
Tacomat 5 Basic 15	20454	5,0	9,0	H
Tacomat 5 Comfort 15	20455	5,0	9,0	H



Dimensions:



Installation example:



Benefits:

- automatic potable water separation
- fast installation (plug & pump - connect > plug-in > ready)
- low-noise centrifugal pump

Features:

- self-priming, maintenance-free, multi-stage, horizontal centrifugal pump
- drinking-water connector 3/4", external thread, right-hand side; discharge connector 1", internal thread, emergency overflow, optionally left-hand or right-hand side
- automatic control Kit 5 Optimatic: - When one of the consumers gets opened, the pump is automatically switched on. - When all the consumers are closed, the pump is automatically switched off
- suction and discharge case made of α-brass
- pump case and impellers consist of stainless steel 1.4301
- shaft made of stainless steel 1.4401
- end face mechanical seal consisting of carbon + ceramic
- guide wheels made of special (Noryl®)
- motor case made of light metal L-2521
- o-ring made of NBR
- case Kit-05 Optimatic, PPO recyclable

Applications:

- irrigation
- pressure boost
- for clear water without aggressive components

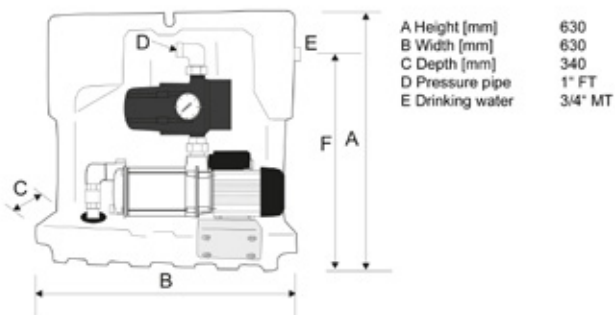
Scope of delivery:

- plug-ready

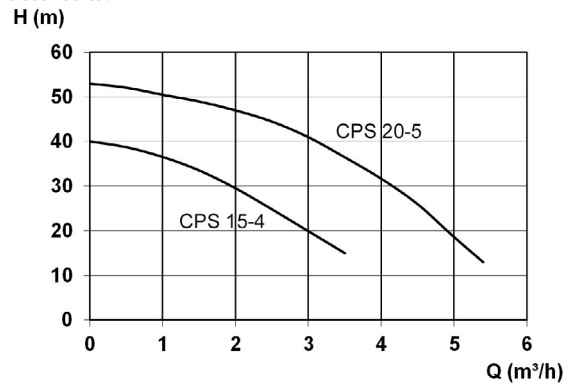
Technical data:

Type	Art.-no.	P ₁ [W]	Make-up volume [m ³ /h]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Potable water isolating system CPS 15 4M B 230V Kit 05 OPTIMATIC	18859	900	5,0	4,0	2850	4,0	40,0	25	H
Potable water isolating system CPS 20 5M B 230V Kit 05 OPTIMATIC	18860	1.350	5,0	6,1	2850	5,2	52,0	25	H

Dimensions:



Characteristics:



Benefits:

- versatile usage
- automatic operation with defined switch points by fixed, vertical float switch
- intake of the cleanest water by supplied floating intake
- LAB-LIP-SEAL system - the motor is protected by three lip seals

Features:

- compact and corrosion-resistant sewage water submersible pump
- including floating tap and check valve
- fixed vertical float switch
- with built-in compressor
- connecting cable, 10 m long

Applications:

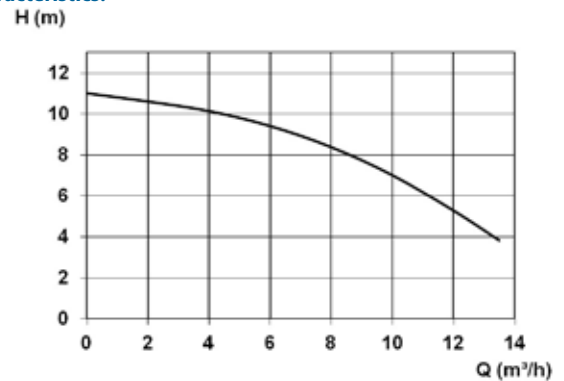
- feeder pump for rainwater modules with long
- suction lines and bigger suction heights
- supply of service water

Scope of delivery:

- 10 meter connection cable



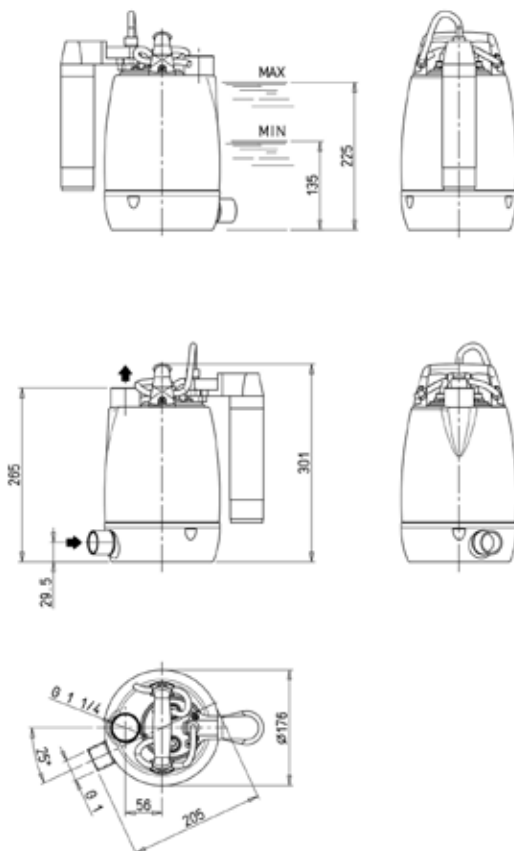
Characteristics:



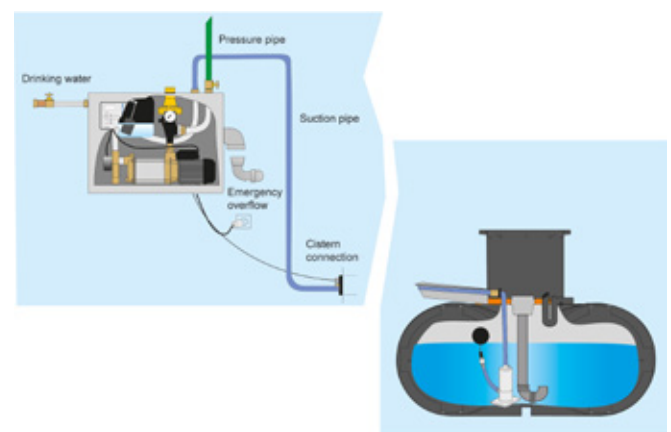
Technical data:

Type	Art.-no.	P ₁ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
Lademax	19096	780	230	3,5	2850	13,5	11,0	8	H

Dimensions:



Installation example:



Benefits:

- intake of the cleanest water due by floating body and distance bracket

Features:

- with the floating tap FLUX, the cleanest water is always sucked from appr. 15 cm below water surface due to the float ball. With very low water level, the screen will never sink that far to touch the cistern bot-tom due to the hose length. In this way, the pump is protected from sucking neither the floating layer nor sediments
- PE-threaded elbow joint 1" made of brass
- special gem inhibiting spiral rubber hose 1", optionally 2 m or 3 m long
- check valve
- screen, mesh size 1 mm, protects the pump form suctioning of sediments or floating layer
- screen and hose clamps made of corrosion-resistant stainless steel
- float made of PE

Applications:

- for rainwater utilization plants in detached houses and two-family houses
- application in tanks that are fed with filtered rainwater
- suction of the cleanest water appr. 15 cm below water surface

Scope of delivery:

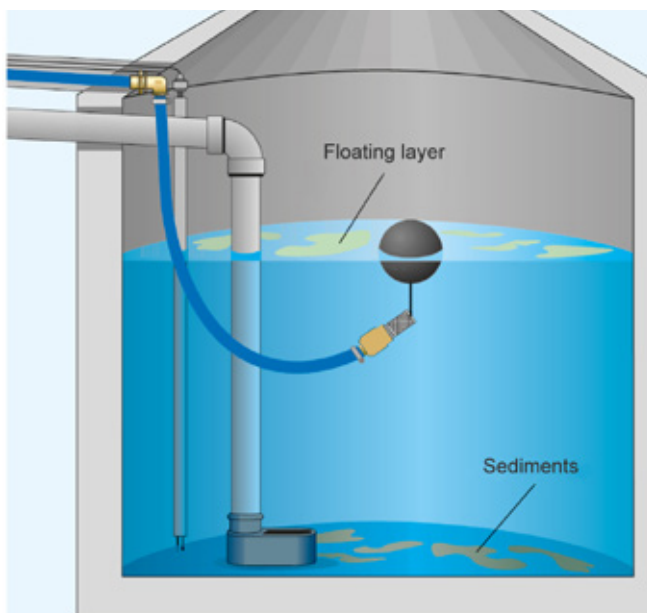
- threaded elbow joint made of brass
- spiral suction hose made of gem-inhibiting thermoplastic
- check valve made of brass



Technical data:

Type	Art.-no.	Weight [kg]	Discount group
Floating intake FLUX 2 m for Raincenter and Tacomat	19113	3	H
Floating intake FLUX 3 m for Raincenter and Tacomat	19114	3,6	H
Floating intake FLUX 2m version 1 1/4"	19111	4	H
Floating intake FLUX 3m version 1 1/4"	19112	4,3	H
Suction device for Flux	19110	0,9	H
Special rubber hose 1"	19125	0,3	H
Special rubber hose 1 1/4"	19124	0,4	H

Installation example:



Features:

- no height off set between inlet and overflow outlet
- slotted screen filter made of first-rate stainless steel
- high efficiency due to large filter area
- for cleaning purpose, the filter cartridge can be easily removed
- fast and simple assembly by pipe joints
- attached non-return flap for NW 100 and NW 150 (small animal protection) on option
- drainage-safe according to the standards: DIN EN 12056/EN 752 and DIN EN 1610
- high-capacity slotted filter cartridge: The robust and precise stainless-steel slotted screen is characterised by its unique hydraulic effect. The trapezoidal screen profiles suck the incoming water through the filter, which provides for a very high water output (efficiency) of average 96% due to that design. Even with strong rain (cloud-burst), the efficiency reaches 90% yet. The extremely smooth screen surface prevents settling of dirty matters. They are rinsed into the overflow as sludge discharge. In this way, the filter is self-cleaning to large extent. We recommend, however, inspecting the slotted screen cartridge on a regular basis and cleaning, if required. This is particularly true after special weather conditions. For that purpose, just put it in the disk washer.

Applications:

- The quality of the filtered rainwater is best suited for washing machines, WC-flushing and garden irrigation
- In addition, the alphaClean-filter can be easily retrofitted in cisterns constructed of concrete and synthetic material



Technical data:

Type	Art.-no.	max. roof surface [m ²]	Weight [kg]	Discount group
AlphaClean filter DN 100	19450	300	2	H
AlphaClean filter DN 100 NRV	19451	300	3	H
AlphaClean filter DN 150 NRV	19452	620	5	H

Rain water harvesting
Storage installation filter

Benefits:

- very low space requirement
- low-maintenance due to self-cleaning effect
- optimal inflow of filter surface - resulting in high efficiency up to 99%
- stable filter housing

Features:

- rainwater filter for rainwater tanks constructed of concrete and synthetic material
- delivery includes a lifting hook for easy maintenance of the screen cartridge
- inlet and outlet as spigot for PVC-KG pipe produced according to DIN 19534 and PE-HD according to DIN 19537, connection size: DN 100
- screen insert: Slot wedge wire insert made of stainless steel
- filter receptacle: Recyclable synthetic material

Applications:

- for filtration of rainwater
- for installation in the tank
- for roof areas up to 160 m²
- detached house, two-family house up to multi-apartment houses and similar objects



Technical data:

Type	Art.-no.	Weight [kg]	Discount group
Storage installation filter DN 100 S	19122	2,5	H
Storage installation filter DN 150 W	19123	7	H

Benefits:

- optimum for underground constructions
- little vertical off set between rainwater inlet and residual water outlet to the conduit (20 mm or 25 mm)
- high efficiency, collecting capacity up to 99%
- low maintenance - self-cleaning to large extent
- unlimited lifetime of the filter cartridge as made of stainless steel
- optimum adaption to the terrain - due to extensions to be cut to length

Features:

- filter body made of polyethylene
- filter cartridge made of stainless steel
- filter type NW 100: All connectors NW 100; filter type NW 150: 3-in-1-filter for connectors optionally NW 100/125/150
- optimum flow onto the filter surface area
- first rain is dissipated
- delivery includes a lifting hook for easy maintenance of the screen cartridge
- complying with DIN EN 12056 (previously DIN 1986-2)

Applications:

- All the leaves in the rainwater and other contaminations are separated by the filter cartridge and directly guided to the conduit. The cleaned water is fed to the cistern. The mesh size of the filter cartridge is designed for optimum water output and minimum passage of dirty particles. Basically, the filter cartridge requires little maintenance only, but is not completely free of maintenance, since with heavy contamination by fir needles, leaves, moss, carbon black and pollen, shorter cleaning intervals become necessary.
- For filtration of rainwater
- For connection of any number of downpipes, for roof areas up to appr. 160 m² with the filter NW 100 and up to 450 m² with the filter NW 150
- For underground installation in the drainage line upstream to the rainwater tank
- Detached house, two-family house up to multi-apartment houses and similar objects

Scope of delivery:

- filter housing
- filter insert

Dimensions:

DN 100



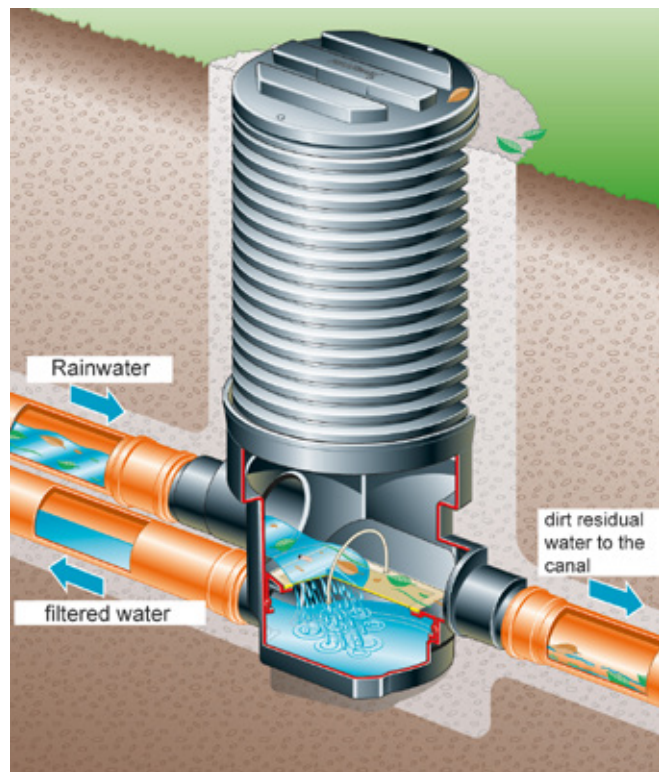
DN 150



Technical data:

Type	Art.-no.	Weight [kg]	Discount group
Underground installation filter DN 100	19119	2	H
Underground installation filter DN 150	19120	7,5	H
Extension piece 80 cm	19121	4,5	H

Installation example:



Benefits:

- full passage acc. to DIN EN 12056
- no whirl-up of bottom sediments
- plug-ready with nominal width DN 100
- improved water quality in cistern due to oxygen enrichment

Features:

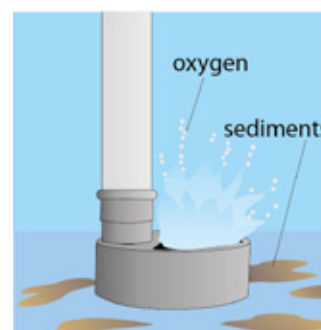
- The rainwater fed to the tank is reversed on the bottom of the tank by the calmed intake in such a way that the ground sediments are not whirled, but nevertheless the stored rainwater is permanently enriched with fresh oxygen. In this way, the excellent water quality is assured
- large outlet to calm the rainwater intake
- large base area for stable installation
- inlet connector NW 100

Applications:

- for rainwater harvesting systems in single-family houses and two-family houses
- to calm the inflow of rainwater into the tank

Technical data:

Type	Art.-no.	Weight [kg]	Discount group
Calmed inlet DN 100 with transition sleeve	19115	2	H



Benefits:

- plug-ready with nominal width DN 100
- full passage acc. to DIN EN 12056
- large water volume protects from dehydration
- version with animal protection available

Features:

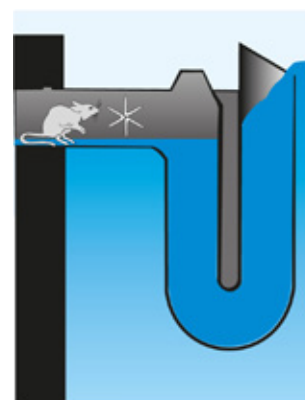
- The overflow trap removes the floating layer from the water surface and the trap discharges that layer. With every overflowing of the tank, the trap is re-filled with water to provide for a permanent air trap towards the conduit. The animal protection prevents animals from invading into the tank
- component ready-to-insert made of polyethylene (PE), recyclable
- integrated animal protection
- big water volume protects from dry-out.
- full passage complying with DIN EN 12056 (previously DIN 1986)

Applications:

- for rainwater utilization plants
- application in tanks that are fed with filtered rainwater; overflow for connection to the conduit with air trap

Technical data:

Type	Art.-no.	Weight [kg]	Discount group
Overflow siphon DN 100	19116	1,2	H
Overflow siphon DN 100 with animal protection	19117	1,4	H



Benefits:

- jacket cooling for continuous duty horizontal / emerged - no additional cooling pipe required
- slim design (78 mm outer diameter)
- available as complete set
- wear-resistant, glass fibre reinforced PP impellers and guide wheels for high durability
- factory-set extension of power cable possible
- switch device with integrated overload protection and capacitor for safe operation



Features:

- oil-filled asynchronous motor within stainless steel housing with thermal contact
- jacket cooling for continuous duty horizontal / emerged
- sealed with high-grade mechanical seal
- brass bearing shield
- stainless steel pump housing and motor shaft
- modern, powerful pump hydraulics with impellers and guide wheels made of wear-resistant plastic
- TM FU with 100 Hz motor and frequency converter for constant water pressure

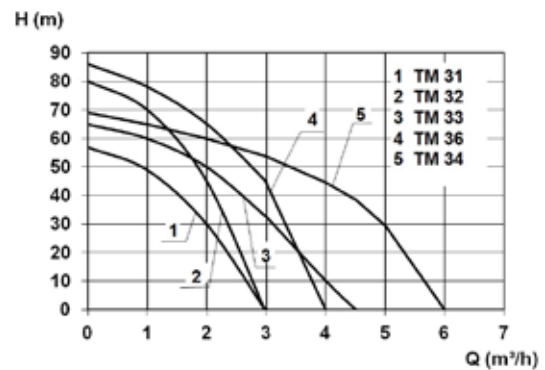
Applications:

- water pumping from deep wells and rainwater cisterns
- domestic water supply, garden irrigation

Scope of delivery:

- pump with 20 m power cable and plug with integrated capacitor, power switch and motor protection
- TM FU with 20 m power cable, pressure controller for constant water pressure and 1 m power cable with plug
- Attention! Non-return valve is not included in scope of delivery
- TM FU with enclosed 1" non-return valve

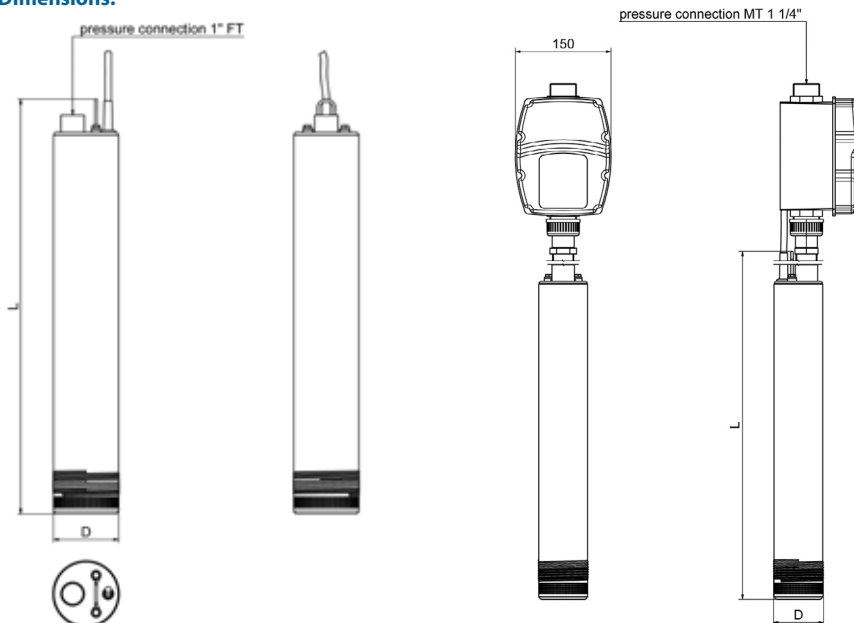
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
TM 31	11962	860	460	230	3,8	2800	3,1	57,0	12	A
TM 32	11973	1.130	640	230	5,2	2800	3,1	80,0	14	A
TM 33	11981	1.130	640	230	5,2	2800	4,5	65,0	13	A
TM 34 SC	17289	2.400	1.500	230	8,2	2800	6,0	69,0	12	A
TM 36 SC	17290	2.400	1.500	230	8,2	2800	4,0	86,0	13	A

Dimensions:



Type	L [mm]	D [mm]
TM 31	805	78
TM 32	1000	78
TM 33	845	78
TM 34 SC	548	78
TM 36 SC	600	78

Benefits:

- jacket cooling for continuous duty horizontal / emerged - no additional cooling pipe required
- slim design (100 mm outer diameter)
- available as complete set
- wear-resistant, glass fibre reinforced PP impellers and guide wheels for high durability
- factory-set extension of power cable possible
- switch device with integrated overload protection and capacitor for safe operation

Features:

- oil-filled asynchronous motor within stainless steel housing with thermal contact
- jacket cooling for continuous duty horizontal / emerged
- sealed with high-grade mechanical seal
- brass bearing shield
- stainless steel pump housing and motor shaft
- modern, powerful pump hydraulics with impellers and guide wheels made of wear-resistant plastic

Applications:

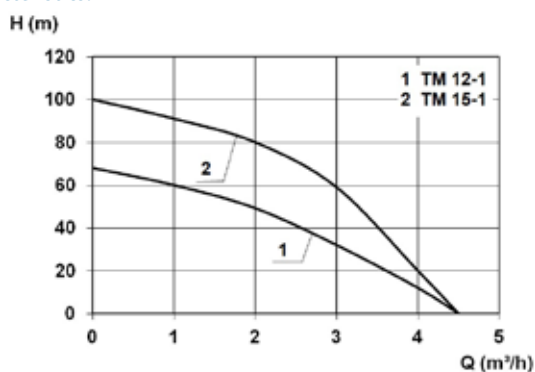
- water pumping from deep wells and rainwater cisterns
- domestic water supply, garden irrigation

Scope of delivery:

- pump with 20 m power cable and plug with integrated capacitor, power switch and motor protection
- TM SC with 20 m power cable, pressure controller ZFU 100 for constant water pressure and 1 m power cable with plug
- Attention! Non-return valve is not included in scope of delivery



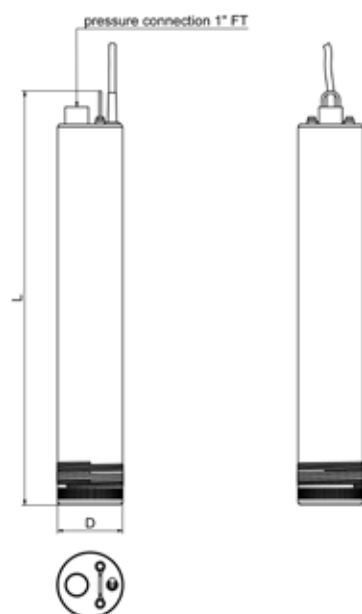
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
TM 12-1	13913	1.200	800	230	5,2	2800	4,5	68,0	12	A
TM 15-1	13925	2.100	1.200	230	9,3	2800	4,5	100,0	14	A

Dimensions:



Type	L [mm]	D [mm]
TM 12-1	625	100
TM 15-1	770	100

Benefits:

- Intake of the cleanest water short beneath the water surface
- jacket cooling for continuous operation
- including stainless steel pump holder for stable, horizontal usage
- ideal for usage in cisterns, even in case of low water level

Features:

- oil-filled asynchronous motor within stainless steel housing with thermal contact
- jacket cooling for continuous duty horizontal / emerged
- sealed with high-grade mechanical seal
- brass bearing shield
- stainless steel pump housing and motor shaft
- modern, powerful pump hydraulics with impellers and guide wheels made of wear-resistant plastic

Applications:

- irrigation of home and garden and water supply from rainwater cisterns

Scope of delivery:

- pump with 20 m power cable and plug with integrated capacitor, power switch and motor protection
- floating discharge 1 1/4" with filter, tube length 1 m
- horizontal bracket with clamps



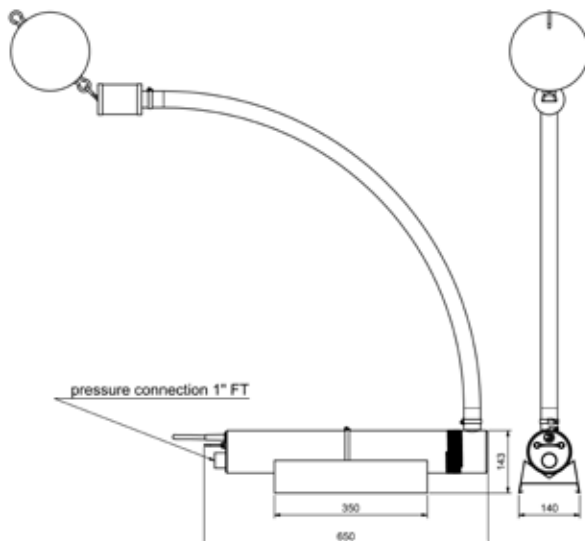
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
TM 12-1 FI	13915	1.200	800	230	5,2	2850	4,5	68,0	14	A
Conversion kit floating intake for 4" TM-borehole pumps	14096								3	B

Dimensions:



Benefits:

- complete package for automatic operation
- dry-run protection for additional safety included in the scope of delivery
- jacket cooling for continuous duty horizontal / emerged

Features:

- complete package for automatic operation of the borehole pump and with additional dry-run protection
- oil-filled asynchronous motor within stainless steel housing with thermal contact
- jacket cooling for continuous duty horizontal / emerged
- sealed with high-grade mechanical seal
- brass bearing shield
- stainless steel pump housing and motor shaft
- modern, powerful pump hydraulics with impellers and guide wheels made of high-grade stainless steel (TME) or wear-resistant plastic (TM)

Applications:

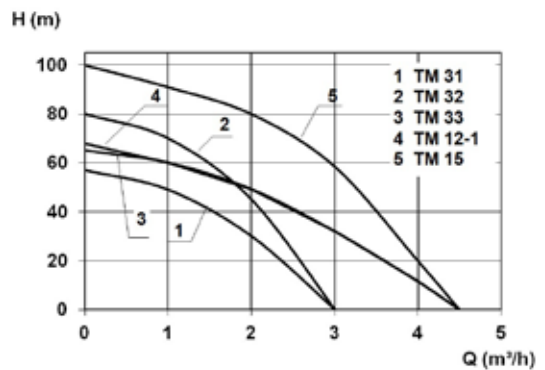
- water pumping from deep wells and rainwater cisterns
- domestic water supply, garden irrigation
- agriculture

Scope of delivery:

- pump with 20 m power cable and plug with integrated capacitor, power switch and motor protection
- electronic pressure switch with dry-run protection
- 10 m stainless steel rope with 4 rope clips
- non-return valve



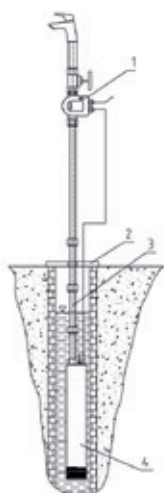
Characteristics:



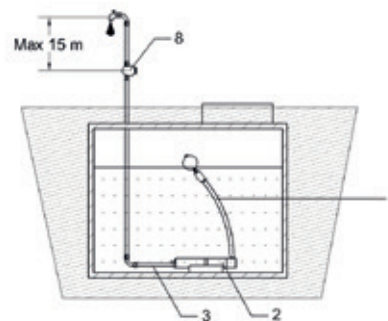
Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Weight [kg]	Discount group
Irrigation package TM 31	11963	860	460	230	3,8	2800	3,1	57,0	15	A
Irrigation package TM 32	11974	1.130	640	230	5,2	2800	3,1	80,0	17	A
Irrigation package TM 33	11982	1.130	640	230	5,2	2800	4,5	65,0	16	A
Irrigation package TM 12-1	11943	1.200	800	230	5,2	2800	4,5	68,0	15	A
Irrigation package TM 15-1	11909	2.100	1.200	230	9,3	2800	4,5	100,0	17	A
Irrigation package TM 12-1 FI	13917	1.200	800	230	5,2	2800	4,5	68,0	17	A

Installation example:



1 pressure switch
 2 wellhead
 3 pressure pipe
 4 pump



1 floating intake
 2 pump with bedding
 3 pressure pipe
 8 pressure switch with dry-run protection

Benefits:

- complete package for automatic operation
- dry-run protection for additional safety included in the scope of delivery
- jacket cooling for continuous duty horizontal / emerged
- expansion tank with butyl membrane 4 years guarantee

Features:

- complete package for automatic operation of the borehole pump and with additional dry-run protection and expansion tank
- oil-filled asynchronous motor within stainless steel housing with thermal contact
- jacket cooling for continuous duty horizontal / emerged
- sealed with high-grade mechanical seal
- brass bearing shield
- stainless steel pump housing and motor shaft
- modern, powerful pump hydraulics with impellers and guide wheels made of high-grade stainless steel (TME) or wear-resistant plastic (TM)

Applications:

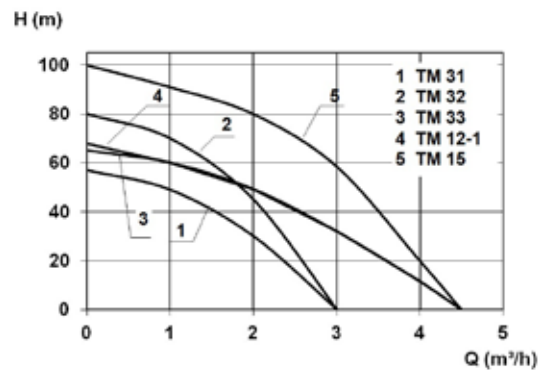
- water pumping from deep wells and rainwater cisterns
- domestic water supply, garden irrigation
- agriculture

Scope of delivery:

- borehole pump TM with 20 m power cable and plug with integrated capacitor, power switch and motor protection
- 20 litres expansion tank, powder-coated, butyl-membrane
- 4 years guarantee on expansion tanks and membrane
- pressure switch, manometer, 5-way-piece, reinforced hose
- dry-run protection Hydrostop
- 10 m stainless steel rope with 4 rope clips
- non-return valve



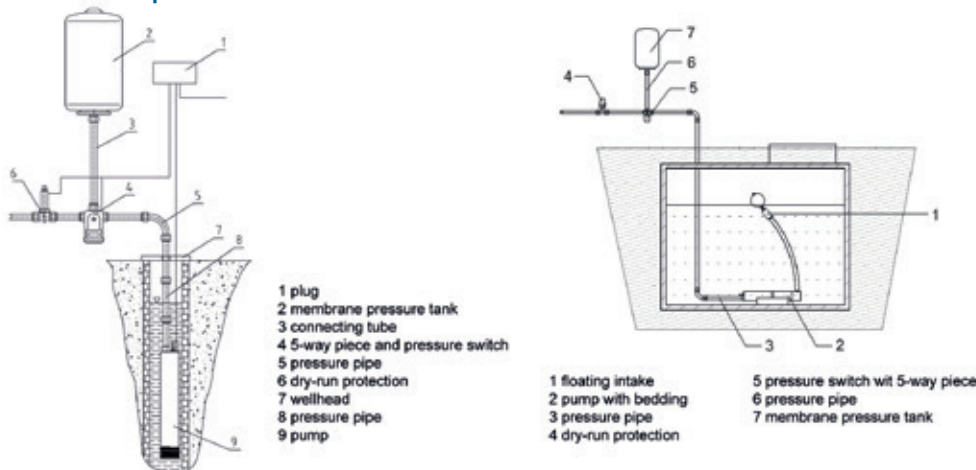
Characteristics:



Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m ³ /h]	H _{max} [m]	Weight [kg]	Discount group
Water supply package TM 31	11964	860	460	230	3,8	2800	3,1	57,0	21	A
Water supply package TM 32	11975	1.130	640	230	5,2	2800	3,1	80,0	23	A
Water supply package TM 33	11983	1.130	640	230	5,2	2800	4,5	65,0	22	A
Water supply package TM 12-1	11944	1.200	800	230	5,2	2800	4,5	68,0	21	A
Water supply package TM 15-1	11910	2.100	1.200	230	9,3	2800	4,5	100,0	23	A
Water supply package TM12-1 Fl SE	13918	1.200	800	230	5,2	2800	4,5	68,0	23	A

Installation example:



Type	Art.-no.	Discount group
Switch box ZS three-phase version up to 5,5 kW, direct activation	11289	B
Switch box ZS three-phase version up to 4,0 kW, direct activation with dry-run protection	11290	B
Switch box ZS single-phase version with dry-run protection	11293	B
Hang-in electrode made of stai without cable	11295	B
Electrode cable H07-RN-F 1x1,5mm ²	11298	B
Stainless steel rope 4 mm 7 x 19 -WSC-1570 N/ qmm sZ	11305	B
Rope clamp 4/5mm stainless steel (2 pieces per loop required)	11304	B
Shrink-on sleeve up to 4x2,5mm incl. production of the shrink joint	11300	B
Underwater cable 4 X 1,5 mm ² special cable blue	12458	B
Underwater cable 4 x 2,5 mm ² special cable blue	12464	B

Benefits:

- powerful diaphragm pump technology
- suitable for dry-run
- extensive standard accessories
- oil-proof (version USS 4000)

Features:

- mobile diaphragm pump with dry-run protection
- suction head up to 6,5 m
- universally applicable with exchangeable suction nozzles
- mono-phase motor with 10 m power cable
- oil-resistant diaphragm, suction hose and discharge hose as standard for USS 4000

Applications:

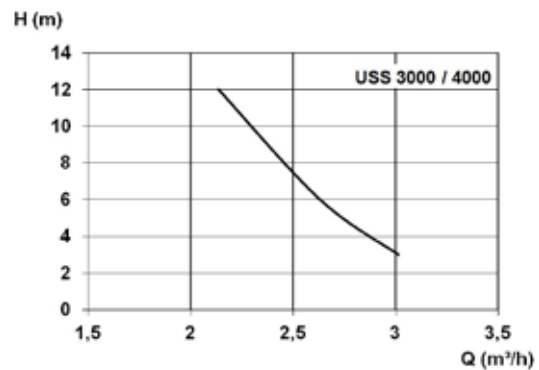
- cleaning of reservoirs
- abolishment of disasters or floodings
- cleaning of swimming pools or pond systems
- pumping of abrasive media
- residual drainage of containers

Scope of delivery:

- pre-assembled ready for connection with 10 m power cable and plug
- 3,5 m 1" suction hose and discharge hose
- 3 suction nozzles
- 3 stainless steel suction pipes 0,5 m



Characteristics:



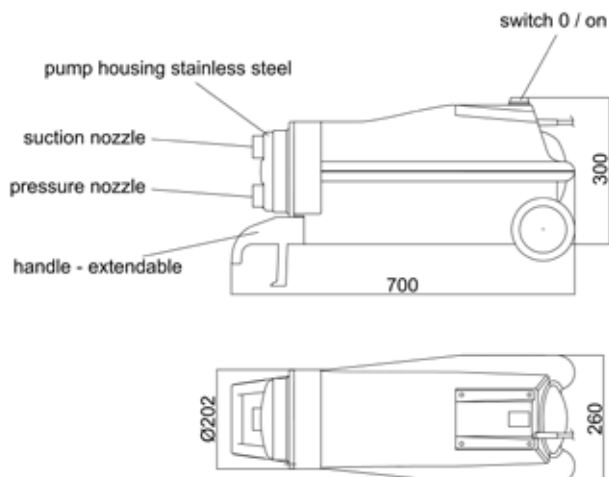
The Zehnder universal suction cleaner USS 3000 / 4000 removes mud and unwanted solids from garden ponds. The robust diaphragm pumps continuously, even small stones and sand due to the left out collection tank. Silty, flooded cellars and manholes are dewatered quick and targeted. Waste water residues in pools are efficiently extracted. The Zehnder universal suction cleaner USS 3000 / 4000 operates powerful and with low-noise. In many cases it replaces submersible pumps and wet vacuum cleaners due to its high performance. Dry-run - every pump's dead - is no problem for the USS 3000 / 4000. The USS 3000 / 4000 is standardly supplied with extensive accessories.

The hose kits for suction and pressure side, the handle piece with extension and 3 suction nozzles are part of it. Robust plastic wheels and a solid, height-adjustable handle ensure highest mobility comfort. Highest product quality is a matter of course at Zehnder. Each USS 3000 / 4000 is tested before delivery and provided with the Zehnder quality seal.

Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	n [min ⁻¹]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
USS 3000	15639	270	150	230	1,2		3,0	12,0	15	28	A
USS 4000 oil-resistant	15645	270	150	230	1,2		3,0	12,0	15	24,5	A

Dimensions:



Benefits:

- powerful and variable quadruple diaphragm pump technology
- suitable for dry-run
- extensive standard accessories
- oil-proof (version USS 8000)

Features:

- Professional suction cleaner as mobile, controllable, quadruple diaphragm pump
- suction head up to 6,5 m
- unlike conventional centrifugal pumps dry-run does not damage the pump, the diaphragm technique even allows dry suction - filling of pump housing or hoses is not required
- The USS 7000 must not be used for oily media. The USS 8000 is suitable for oily media.

Applications:

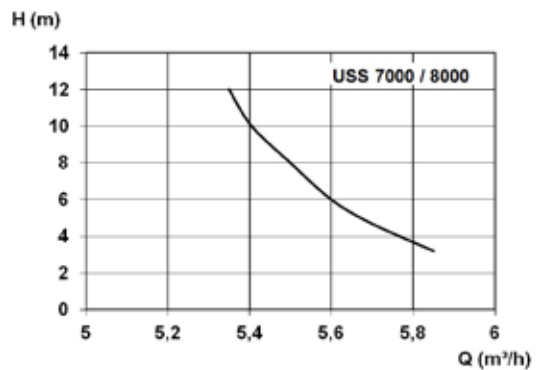
- universal drainage or cleaning (flooded and silty cellars, swimming pools etc.)

Scope of delivery:

- pre-assembled ready for connection with 10 m power cable and plug
- 3,5 m 1" suction hose and discharge hose
- 3 suction nozzles
- 3 stainless steel suction pipes 0,5 m



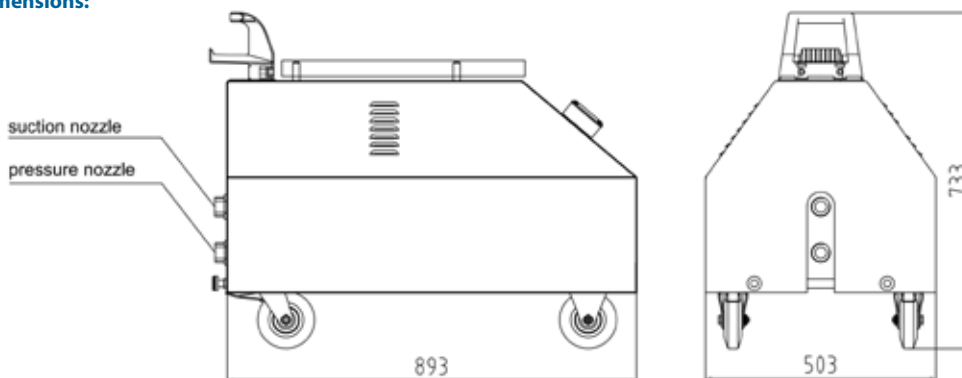
Characteristics:






Technical data:

Type	Art.-no.	P ₁ [W]	P ₂ [W]	U [V]	I _n [A]	Q _{max} [m³/h]	H _{max} [m]	Solids handling [mm]	Weight [kg]	Discount group
USS 7000	15653	1.000	750	230	3,7	5,8	12,0	15	45	B
USS 8000 oil-resistant	15658	1.000	750	230	3,7	5,8	12,0	15	45	B

Dimensions:



Accessories:

Type	suitable for USS 3000 & USS 7000	suitable for USS 4000 & USS 8000	Art.-no.	Discount group	Figure
Suction mat with 3,5 m hose	x		12560	B	
Suction bell TS 1,2-3,0 m	x		13051	B	
Suction bell TS 1,8-4,8 m	x		13052	B	
Hose extension 5 m	x		15684	B	
Hose extension 10 m	x		15685	B	
Hose extension 20 m	x		15686	B	
Hose extension 5 m oil-resistant		x	15690	B	
Hose extension 10 m oil-resistant		x	15691	B	
Hose extension 20 m oil-resistant		x	15692	B	
Stainless steel suction pipe	x	x	12317	B	

Features:

- complete pressure rising system with pumps
- frames, sensors, fittings and pipe system made of stainless steel
- diaphragm extension tank
- frequency converter ensures consistent operation
- pressure switch or pressure sensor to control stage operation

Transported mediums:

- drinking water acc. DIN 2000
- industrial water without abrasive or long-fibred components

Applications:

- pressure compensation in houses, public and industrial buildings
- drinking water supply, water supply for fire-fighting

Scope of delivery:

- unit complete with pumps, diaphragm extension tank and control box
- optional accessories: flexible pipe connection, diaphragm expansion tank, noise damping, remote control/data transfer



Find out more about our pressure rising systems in the catalogue of our second brand 'Bluezpring' and in our brochure 'Pressure rising systems' or send your request to info@zehnderpumps.com


Technical data:

Q _{max} [m ³ /h]	H _{max} [m]	pumps	Media temperature
24	240	according to DIN 1988, 1 – 4 centrifugal pumps standing beside, 1 as reserve pump	up to 25° according to DIN 1988

Customized PE / PP tanks
Features:

- special containers made of polyethylene (PE) or polypropylene (PP) in-sealed or open version
- round or angular free standing tanks without pressure
- wall thickness meets the test and building codes of the Institute for civil engineering in Berlin
- connections either flanged or as plain end pipe
- custom-designed containers available on request

Characteristics:

- low weight
- food-grade quality and suitable for drinking water
- impact and shock resistant
- high resistance against acids and caustic solutions
- PE (HWU) is weather and light resistant making it suitable for outdoor use

Applications:

- sewage collection containers
- container for neutralisation plants
- collecting basins
- overflow tank
- filter containers
- initial collecting containers
- silt traps

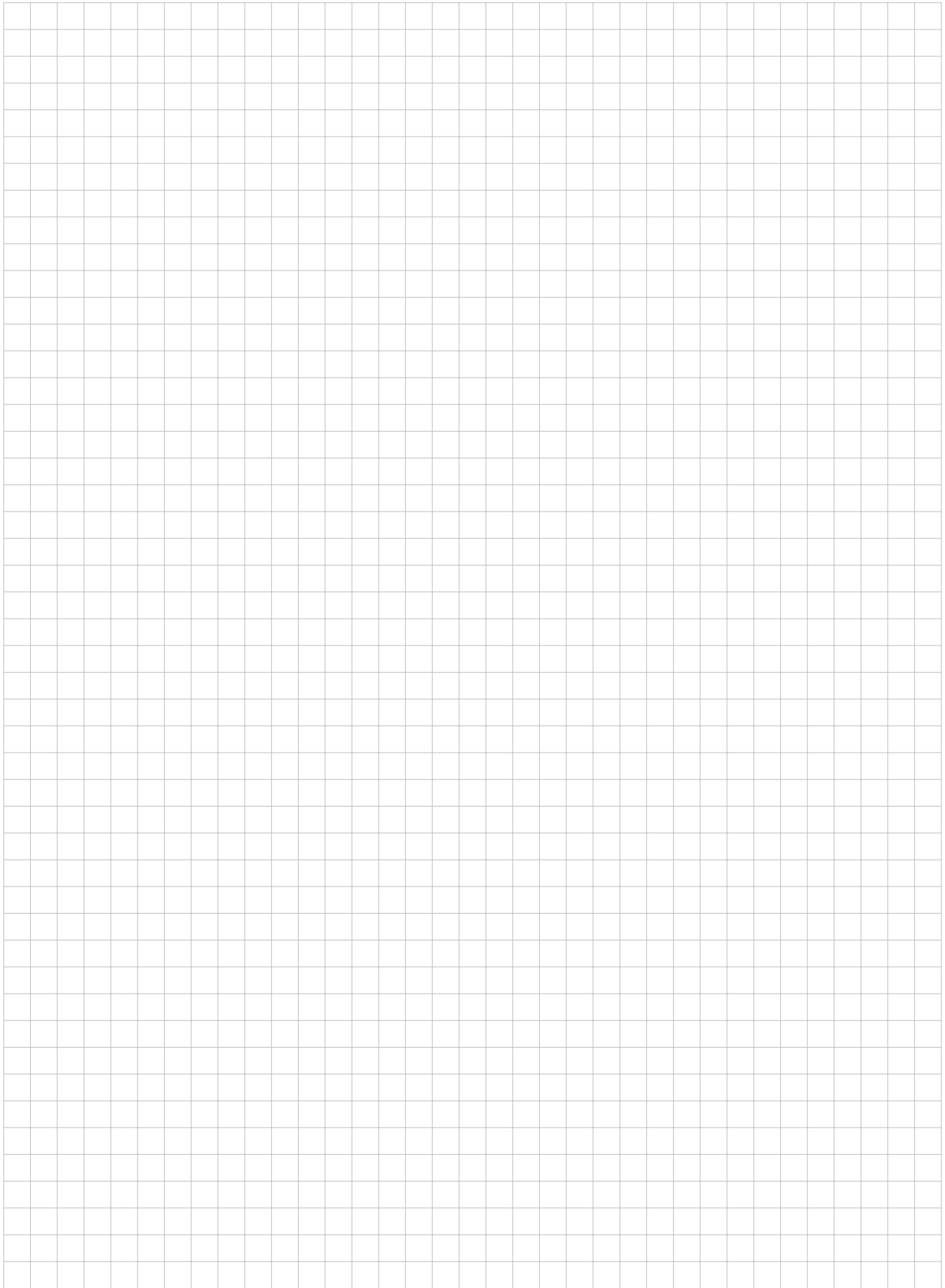
Scope of delivery:

- special containers according to a technical drawing
- on-site welding available on request

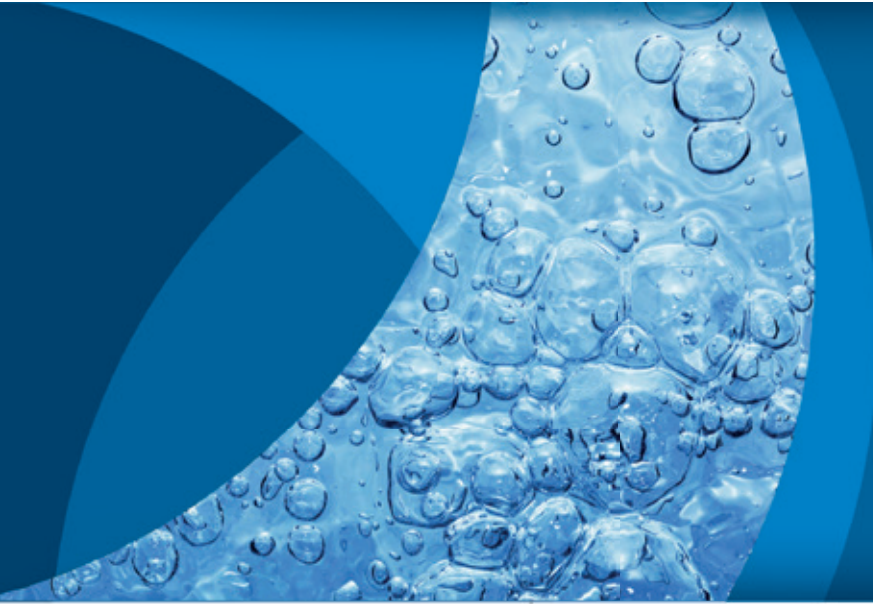
Technical data:

Features	working volume [l]	max. length [mm]	max. width [mm]	max. height [mm]	max. diameter [mm]
round	50 - 20.000	-	-	-	2.000
angular	100 - 20.000	5.000	2.500	2.500	-





Pumps and units for industrial and domestic use.



www.zehnder-pumpen.com



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