

Electric submersible pumps for waste water containing solids. Spherical clearance 28 mm.

TP 28

Application

HOMA TP 28 series pumps are suitable for pumping drainage water or waste water. By their 28 mm spherical clearance they are especially able to pump liquids with larger suspended solids like fibres, textiles etc. They are used for various applications in public and private sector, trade and industry.

DIN EN 12050-2: Conformity and design approved and controlled by LGA, certificate No. 0220119.

Installation: Transportable or permanent. Models with floatswitch control for automatic pump operation, depending on liquid level in the sump.

Pumped liquid: Clear water and drainage water, sewage containing soft solids. Max. liquid temperature: 35°C short term up to 60°C.

Operation: Permanent (S1).

Design

Fully submersible, compact integrated motor-pump unit consisting of:

Pump: Single stage centrifugal pump with horizontal discharge BSP 1 1/2" F.

Impellers: M = Open single channel impeller for liquids containing impurities and sludge with solid particles.

V = Vortex impeller for liquids containing a high level of impurities or fibrous matter and containing gas.

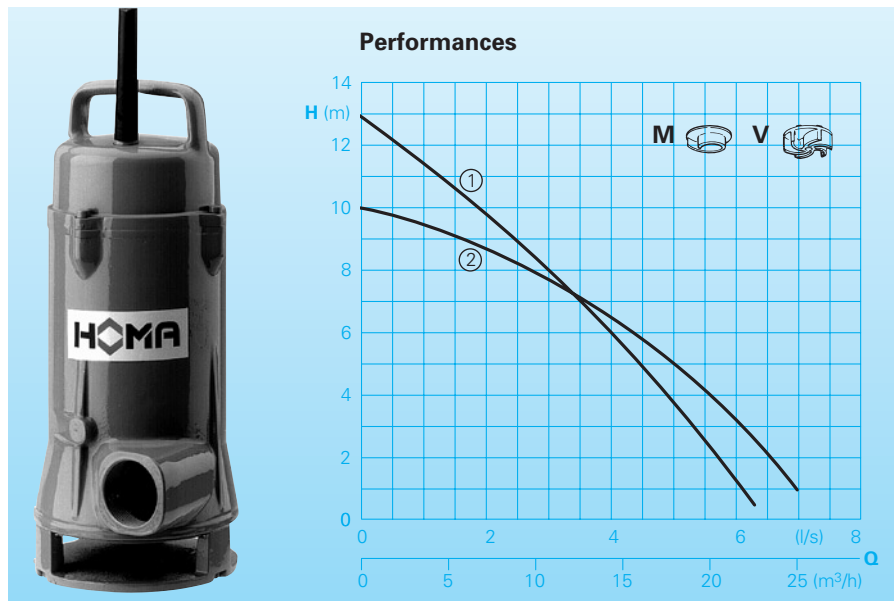
Motor: Fully submersible, pressure tight electric motor, oil filled. Insulation class F. Degree of protection IP 68. TP 28 VW (A) with thermal sensors embedded in the winding.

Cable connection chamber totally isolated from motor housing.

Cable: H07 RN - F4 G 1,5
Model WA: H07 RN - F5 G 1,5

Shaft/Bearing: Large diameter stainless steel rotor shaft, pre-lubricated bearings.

Seals: Combination of mechanical seals (silicon-carbide/silicon-carbide) and lip seals.



Technical Data

| Curve No. | Pump type | Motor- input P ₁ (kW) | Motor- output P ₂ (kW) | Capacitor* (µF) | Speed (rpm) | Nominal current (A) | Weight (kg) |
|-----------|-------------------|----------------------------------|-----------------------------------|-----------------|-------------|---------------------|-------------|
| ① | TP 28M10/2 W (A) | 1,0 | 0,7 | 25 | 2900 | 4,7 | 22 |
| ① | TP 28M10/2 D (A) | 1,0 | 0,7 | | 2900 | 1,8 | 22 |
| ② | TP 28V W (A) | 1,1 | 0,9 | | 2900 | 5,6 | 22 |
| ② | TP 28V 11/2 W (A) | 1,1 | 0,9 | 25 | 2900 | 5,6 | 22 |
| ② | TP 28V 11/2 D (A) | 1,1 | 0,9 | | 2900 | 2,2 | 22 |

Model W: 230-240 V / 1 Ph

Model D: 400-415 V / 3 Ph

*Capacitor: Necessary capacitor which is installed in the control box.

Model A: With automatic level control HOMA-Nivomatik

Materials:

| | |
|---------------------------------------|-------------------------------|
| Motor housing, pump housing, impeller | Cast iron GG 25/EN-GJL-250 |
| Rotor shaft, screws | Stainless steel |
| Mechanical seal | Silicon-carbide |
| Seal kit | Perbonane |

Equipment supplied

Pump with base stand, without auto-coupling (see accessories):

Model W (230-240 V/1 Ph):

Control box W19 fitted with overload protection, capacitor, on-off switch, 10 m of cable and plug.

Model D (400-415 V/3 Ph):

Control box D32 fitted with overload protection, on-off switch, 10 m of cable and phase inverter.

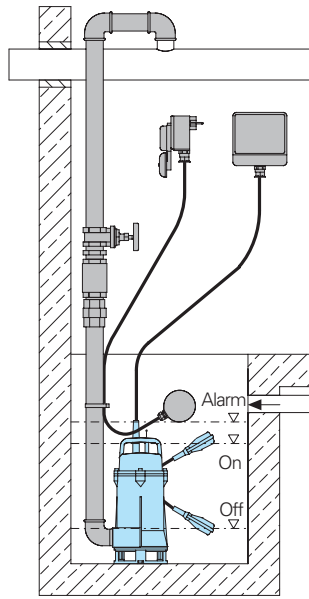
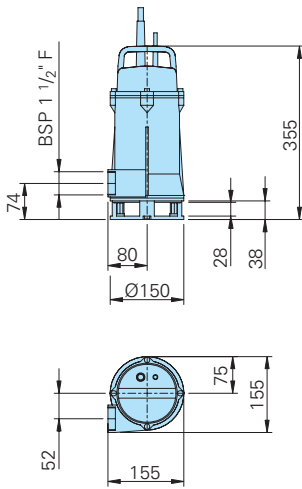
Model A: With additional automatic level control, AS-float switch, control box WA/19; DA06/32 with manual-auto switch and 6 m of cable.

Model TP28VW(A):

Without control box, with 10 m of cable and plug, capacitor installed in the pump.

Dimensions and Installations

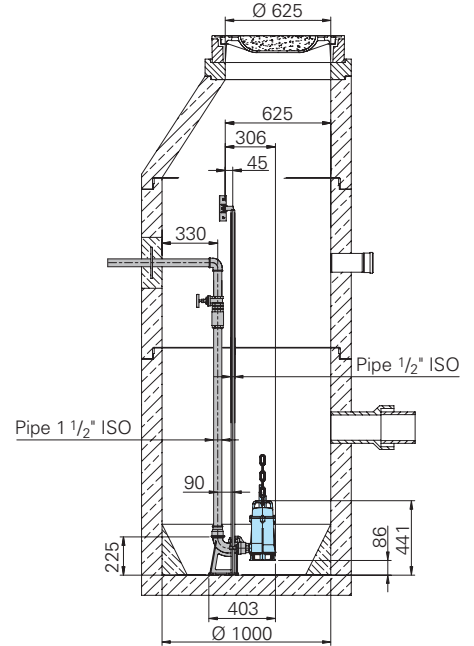
Permanent sump installation with base stand



Permanent sump installation with auto-coupling system.

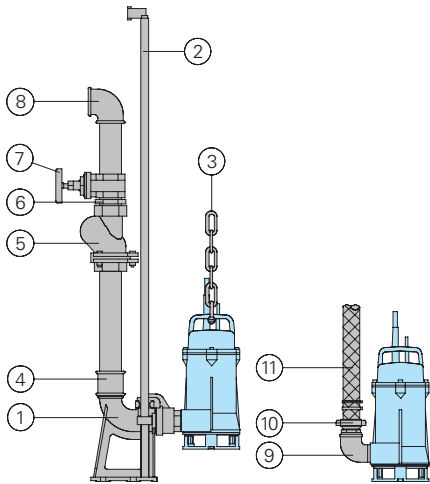
Permanent installation utilising a submerged auto-coupling guide rail system for automatic connection and disconnection of the pump from the pipework from outside the sump. Applicable for single or multi pump stations.

Advantages: Little space requirement, comfortable and economical service and maintenance.



all dimensions in mm

Accessories



| Part Description | Dimension | Part No. |
|---|-------------|------------|
| ① Auto-coupling system type KK 50/R1 1/2", with: | | 8604000 |
| - Cast iron auto-coupling with flange and thread | BSP2" | |
| - Cast iron flanged pump coupling | BSP1 1/2" M | |
| - Cast iron upper slide rail bracket | 1 1/2" dia. | |
| ○ Auto-coupling system complete or partial in stainless steel | all types | On request |

| Part Description | Dimension | Part No. |
|---|----------------|------------|
| ○ Screw-kits for installation of coupling-systems | | On request |
| ② Guide rails, pair, per m | | |
| steel galvanized | 1/2" dia. | 2190085 |
| stainless steel | 1/2" dia. | 2190250 |
| ③ Lifting chain | | |
| steel galvanized | 5 mm dia. | 2800350 |
| stainless steel | 5 mm dia. | 2800353 |
| Shackle | | |
| steel galvanized for chain 5 mm dia. | | 2801450 |
| stainless steel for chain 5 mm dia. | | 2801390 |
| ④ Galvanized double socket | | |
| BSP 2" F | | 2109102 |
| BSP 2" F/ | | 2102210 |
| BSP 1 1/2" F | | |
| ⑤ Cast iron swing check valve | | |
| BSP 1 1/2" F | | 2212902 |
| BSP 2" F | | 2212903 |
| ⑥ Galvanized double nipple | | |
| BSP 1 1/2" M | | 2009020 |
| BSP 2" M | | 2009018 |
| ⑦ Bronze gate valve | | |
| BSP 1 1/2" F | | 2216015 |
| BSP 2" F | | 2216020 |
| ⑧ 90° galvanized elbow | | |
| BSP 1 1/2" F | | 2113605 |
| BSP 2" F | | 2113606 |
| T-piece for twin pump arrangement | | |
| BSP 1 1/2" F | | 2114302 |
| BSP 2" F | | 2114306 |
| ⑨ 90° galvanized elbow | | |
| BSP 1 1/2" F/M | | 2111505 |
| BSP 2" F/M | | 2111506 |
| ⑩ Brass STA-hose coupling | | |
| BSP 1 1/2" M | | 2001513 |
| STORZ-hose coupling | C-BSP 1 1/2" M | 2010003 |

| Part Description | Dimension | Part No. |
|--|------------|------------|
| ⑩ PVC hose, per m | 1 1/2" | 2621500 |
| Reinforced hose, per m | 50 mm dia. | 2632050 |
| STORZ-hose coupling with spigot | C-38 dia. | 2013002 |
| | C-52 dia. | 2013003 |
| Hose bands | | |
| 1 1/2" | | 2304854 |
| 2" | | 2306009 |
| Synthetic pressure hose with rubber lining and couplings, | | |
| C-52 mm dia. length 10 m | | 2611310 |
| length 15 m | | 2611315 |
| length 20 m | | 2611320 |
| length 30 m | | 2611330 |
| ○ Alarm device AL 3 | | 1586140 |
| Mains-operated with connector for battery 9 V (see below) for mains-independent operation with integrated buzzer. Mains connection 230-240/1Ph | | |
| Battery 9 V for mains-independent operation | | 1952215 |
| Floatswitch MB, mercury free, on or off, with integrated counter weight | | |
| Cable length | | |
| 6 m | | 1465706 |
| 10 m | | 1465710 |
| ○ Control panel for single or twin pump stations for automatic operation | | On request |



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