

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.

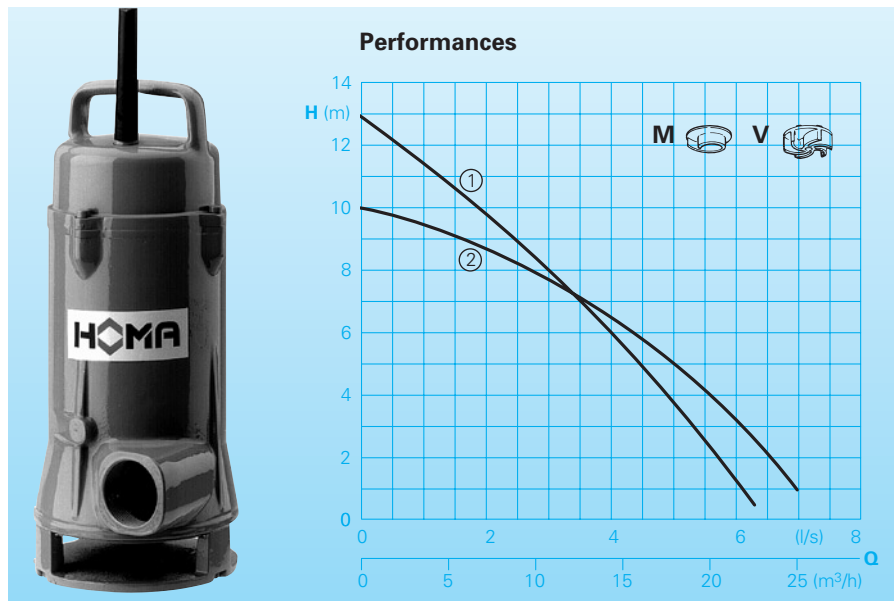
Motor: Fully submersible, pressure tight electric motor, oil filled. Insulation class F. Degree of protection IP 68. TP 28 VW (A) with thermal sensors embedded in the winding.

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.

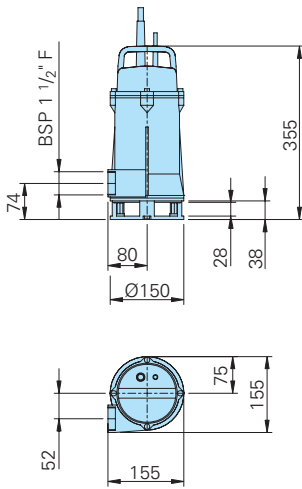
Model A: With additional automatic level control, AS-float switch, control box WA/19; DA06/32 with manual-auto switch and 6 m of cable.

Model TP28VW(A):

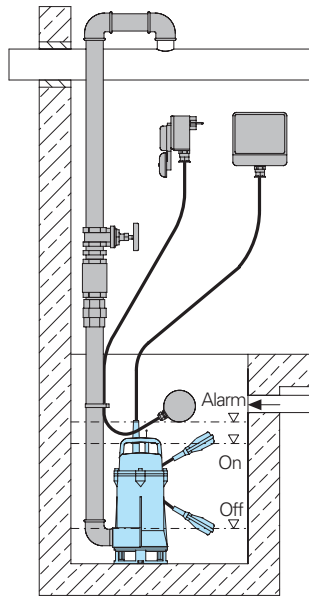
Without control box, with 10 m of cable and plug, capacitor installed in the pump.

Dimensions and Installations

Permanent sump installation with base stand



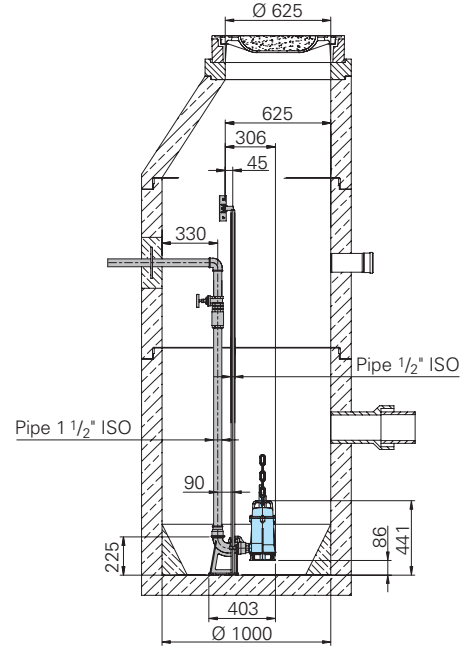
all dimensions in mm



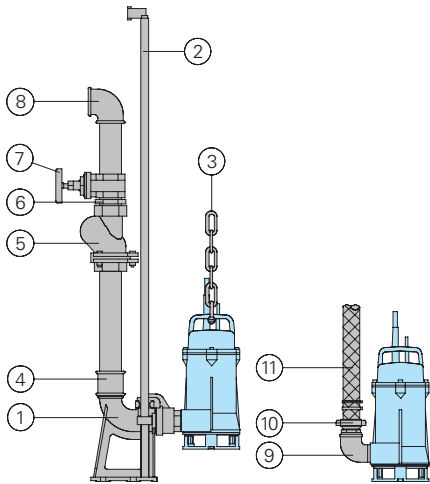
Permanent sump installation with auto-coupling system.

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.



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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