

Electric submersible pumps for waste water containing solids. Single channel impeller, spherical clearance 50 mm.

TP 50 M

Application

HOMA TP 50 series pumps are suitable for pumping drainage water or waste water. With 50 mm spherical clearance they are 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 float switch 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: Intermittent.

Design

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

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

Impeller: M = Closed single channel impeller for liquids containing impurities and sludge with solid particles. Spherical clearance 50 mm.

Motor: Fully submersible, pressure tight electric motor. Insulation class F. Degree of protection IP 68. Thermal sensors embedded in the winding on request (standard with TP50M50 and model Ex).

Motor Start:

TP50M12-37: Direct-on-line

TP50M50: Direct-on-line or Star-delta-start

Cable:

TP50M12-37: H07RN-F4G1,5

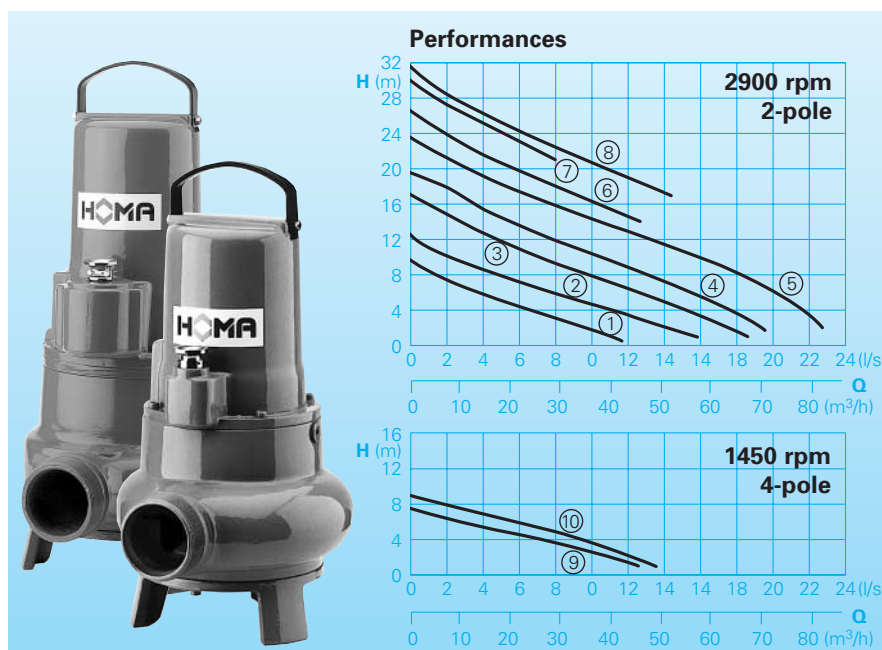
TP50M12-37Ex: H07PLUS6G1,5

TP50M50(Ex): H07RN-F(PLUS)10G1,5

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

Seals: Combination of mechanical seals (silicon-carbide/silicon-carbide) in a separate oil chamber (models above 1,8 kW). Models up to 1,6 kW with mechanical seal and lip seal. Oil inspection from outside.

Explosion protection: All models available with explosion proof motors according to $\text{Ex II 2 G EEx d [ib] IIBT4}$.



Technical Data

Curve No.	Pump type	Motor- input P ₁ (kW)	Motor- output P ₂ (kW)	Capacitor* (μF)	Speed (rpm)	Nominal current (A)	Spherical clearance (mm)	Weight (kg) Standard model	Model Ex
①	TP50 M12/2W(A)(Ex)	1,1	0,8	25	2900	4,8	50	26	31
②	TP50 M17/2W(A)(Ex)	1,6	1,2	30	2900	7,6	50	27	32
①	TP50 M11/2D (A)(Ex)	1,0	0,8		2900	1,9	50	26	31
②	TP50 M14/2D (A)(Ex)	1,3	1,0		2900	2,5	50	27	32
③	TP50 M23/2D (A)(Ex)	2,3	1,8		2900	3,8	50	40	40
④	TP50 M26/2D (A)(Ex)	2,6	2,1		2900	4,5	50	40	40
⑤	TP50 M37/2D (A)(Ex)	3,7	3,2		2900	6,5	50	45	45
⑥	TP50 M37/2MD (A)(Ex)	4,0	3,2		2900	6,6	50	45	45
⑦	TP50 M37/2HD (A)(Ex)	3,7	3,2		2900	6,5	50	45	45
⑧	TP50 M50/2DT (Ex)	5,2	4,4		2840	8,7	50	56	56
⑨	TP50 M12/4W(A)	1,2	0,9	40	1450	5,8	50	40	40
⑩	TP50 M13/4D(A)(Ex)	1,3	1,0		1450	2,6	50	40	40

Model W: 230-240 V / 1 Ph

Model D: 400-415 V / 3 Ph

* Capacitor: For the operation it is necessary to install a capacitor in the control box.

Model A: With automatic level control HOMA-Nivomatik

Model Ex: Explosion proof

Materials:	
Motor housing, pump housing	Cast iron GG 25/EN-GJL-250
Impeller	Cast iron GG 25/EN-GJL-250
Wear ring	Bronze
Mechanical seal	Silicon-carbide
Rotor shaft, screws	Stainless steel
Seal kit	Perbonane

Equipment supplied

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

Model W (230-240 V/1 Ph): 10 m of cable. Control box WA10/19(Ex) available as accessories.

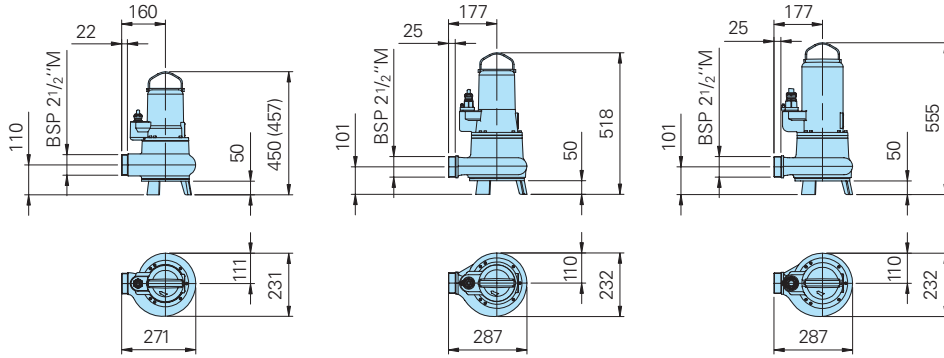
Model D (400-415 V/3Ph): 10 m of cable. Control box D32; DT32 available as accessories.

Model A: With additional automatic level control, control box DA10/32; DA10/12; WA10/19 with overload protection, manual-auto switch and 10 m of cable. Model Ex with intrinsically safe relay.

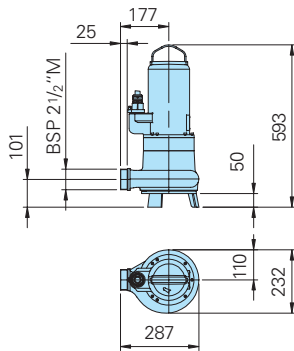
Dimensions and Installations / Free standing pump with base stand

TP50M12/2W(Ex), TP50M17/2W(Ex) TP50M12/4W, TP50M13/4D(Ex) TP50M37/2MD(Ex),
 TP50M11/2D(Ex), TP50M14/2D(Ex) TP50M23/2D(Ex), TP50M26/2D(Ex) TP50M37/2(H)D(Ex)

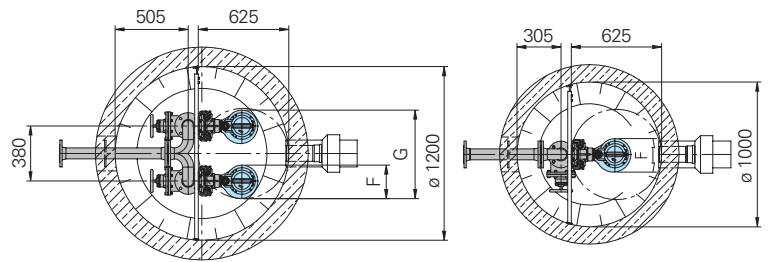
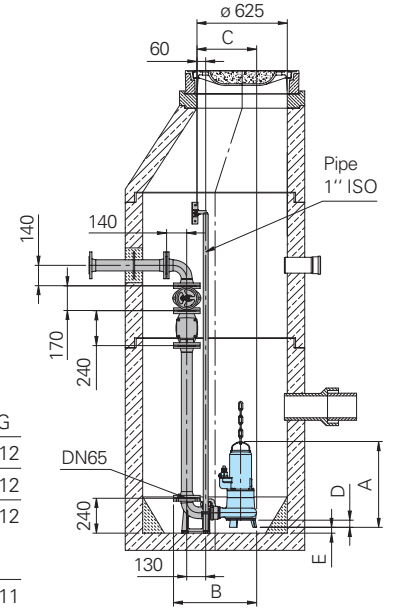
Permanent sump installation with auto-coupling system



TP50M50/2DT(DEx)

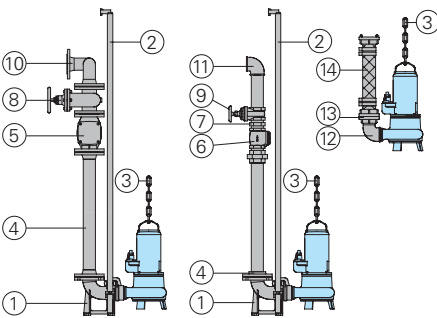


Type	A	B	C	D	E	F	G
TP50M50/2DT(DEx)	593	575	412	50	39	232	612
TP50M37/2MD(Ex)+(H)D(Ex)	555	575	412	50	39	232	612
TP50M12/4W, TP50M13/4D (Ex) TP5023-26/2D(Ex)	518	575	412	50	39	232	612
TP50M12-17/2W(Ex) TP50M11-14/2D(Ex)	450(457)	559	396	50	31	231	611



all dimensions in mm

Accessories



Part Description	Dimension	Part No.
① Auto-coupling system type KK65/R 2 1/2" with:		8604015
- Cast iron auto-coupling with flange	DN 65	
- Cast iron flanged pump coupling	BSP 2 1/2" F	
- Cast iron upper slide rail bracket	BSP 1"	

Part Description	Dimension	Part No.
② Guide rails, pair, per m		
steel galvanized	1" dia.	2190135
stainless steel	1" dia.	2190252
③ Lifting chain, per m		
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 Threaded flange	DN 65/ BSP 2 1/2" F	2215060
Flanged pipe	DN 65	On request
⑤ Cast iron swing check	DN 65	2212805
⑥ Cast iron swing check	BSP 2 1/2" F	2212513
⑦ Galvanized double nipple	BSP 2 1/2" M	2009025
⑧ Cast iron gate valve	DN 65	2216065
⑨ Bronze gate valve	BSP 2 1/2" F	2216025
⑩ 90° flanged elbow	DN 65	2153301
Flanged Y-piece for twin-pump arrangement	3 x DN 65 DN 65/65/80	2160002 2160004
⑪ 90° galvanized elbow	BSP 2 1/2" F	2113610
T-piece for twin-pump arrangement	BSP 2 1/2" F	2114308

Part Description	Dimension	Part No.
⑫ 90° galvanized elbow	BSP 2 1/2" F/M	2111705
⑬ STORZ-fixed coupling	BSP 2 1/2" F	2010502
STORZ-hose coupling	B-75 mm dia.	2013502
⑭ Synthetic pressure hose with rubber lining and couplings, B-75 mm dia.	length 10 m length 15 m length 20 m length 30 m	2611210 2611215 2611220 2611230
Reinforced hose, per m	75 mm dia.	2632075
Hose bands	85/20	2308520
○ Control panel for single or twin pump stations for automatic operation		On request



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