

Submersible waste water pumps Discharge BSP 3" / DN 80. Single channel impeller, spherical clearance 50 mm.

TP 53 M

Application

HOMA TP 53 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.

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: 40°C, short term up to 60°C.

Betriebsart: Permanent (S1).

Design

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

Pump: Single stage centrifugal pump with horizontal discharge BSP3"M.

Impeller: 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 H. Degree of protection IP 68. Thermal sensors embedded in the winding on request (standard with TP53M50, TP53M12/2W, TP53M17/2W and model Ex).

Motor Start:

TP53M12-37: Direct-on-line

TP53M50: Direct-on-line or

Start-delta-start

Cable:

TP53M12-37: H07RN-F 4 G 1,5

TP53M12-37Ex: H07PLUS 6 G 1,5

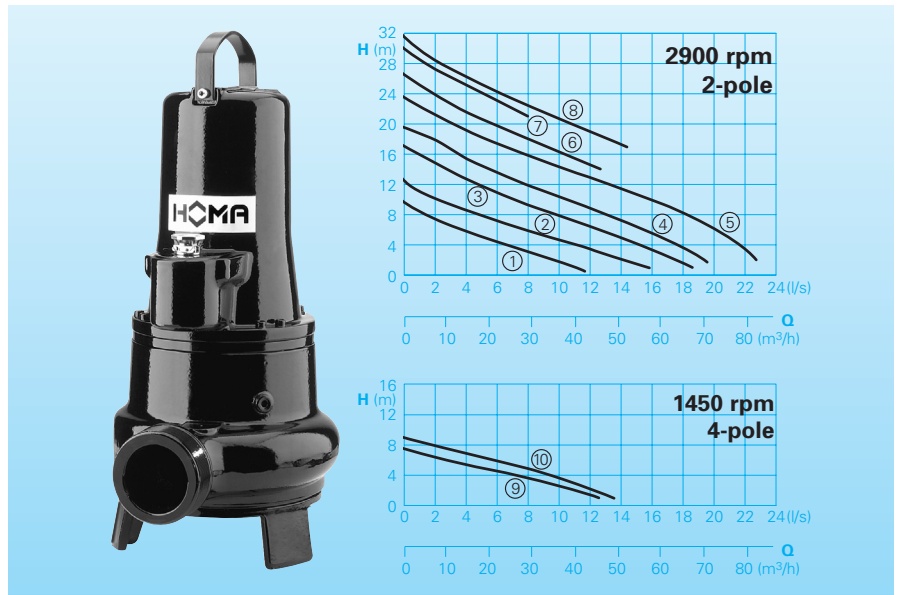
TP53M 50(Ex): H07RN-F(PLUS) 10 G 1,5

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 up to 1,6 kW/2-pole with mechanical seal and lip seal. Oil inspection from outside.

Explosion protection: All models available with explosion proof motors according to $\text{Ex II 2 G Ex c d II B T4(T3)}$.

Performances



Technical Data

Curve No.	Pump type	Motor P ₁ (kW)	P ₂ (kW)	Capacitor* (μF)	Speed (rpm)	Nominal current (A)	Weight (kg)
①	TP 53M 12/2 W (A) (Ex)	1,1	0,8	25	2900	4,8	26,0**
②	TP 53M 17/2 W (A) (Ex)	1,6	1,2	30	2900	7,6	27,0**
①	TP 53M 11/2 D (A) (Ex)	1,0	0,8		2900	1,9	26,0**
②	TP 53M 14/2 D (A) (Ex)	1,3	1,0		2900	2,5	27,0**
③	TP 53M 23/2 D (A) (Ex)	2,3	1,8		2900	3,8	40,0
④	TP 53M 26/2 D (A) (Ex)	2,6	2,1		2900	4,5	40,0
⑤	TP 53M 37/2 D (A) (Ex)	3,7	3,1		2900	6,5	45,0
⑥	TP 53M 37/2 MD (A) (Ex)	4,0	3,4		2900	6,6	45,0
⑦	TP 53M 37/2 HD (A) (Ex)	3,7	3,1		2900	6,5	45,0
⑧	TP 53M 50/2 DT (Ex)	5,2	4,4		2840	8,7	56,0
⑨	TP 53M 12/4 W (A)	1,2	0,9	40	1450	5,8	40,0
⑩	TP 53M 13/4 D (A) (Ex)	1,3	1,0		1450	2,6	40,0

Model W: 230-240V/1Ph 50Hz

Model D: 400-415V/3Ph 50Hz

Model A: With automatic level control HOMA-Nivomatik

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

Model Ex: Explosion proof

** **Weight Ex Model:** + 5 kg

Materials

Motor housing, Impeller, Pump housing	Cast iron EN-GJL-250
Rotor shaft, screws	stainless steel
Mechanical seal	Siliziumkarbid
Seal kit	NBR

Equipment supplied

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

Model W (230 V / 1 Ph):

10 m of cable. Control box W19; WT19 (Standardpump); WT19 (Ex-Pump) available as accessories.

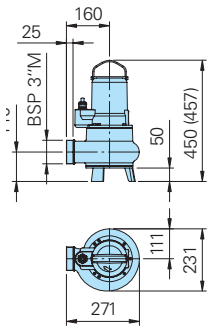
Model D (400 V / 3Ph):

10 m of cable. Control box D32; DT32 available as accessories.

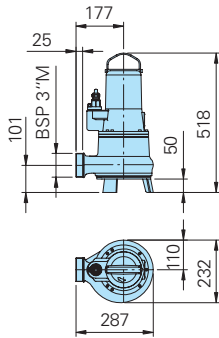
Model A: With additional automatic level control and control box DA10/32; DA10/12 with overload protection, manual-auto switch and 10-m of cable. 1Ph- model with integrated capacitor. Model Ex with intrinsically safe relay.

Dimensions and Installation / Free standing pump with base stand (all dimensions in mm)

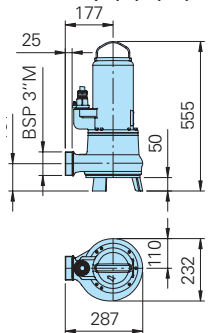
TP53M12/2W(Ex),
TP53M17/2W(Ex)
TP53M11/2D(Ex);
TP53M14/2D(Ex)



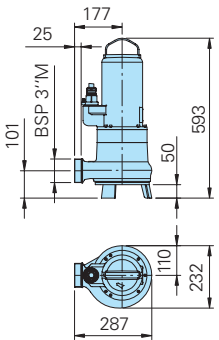
TP53M12/4W,
TP53M13/4D(Ex)
TP53M23/2D(Ex),
TP53M26/2D(Ex)



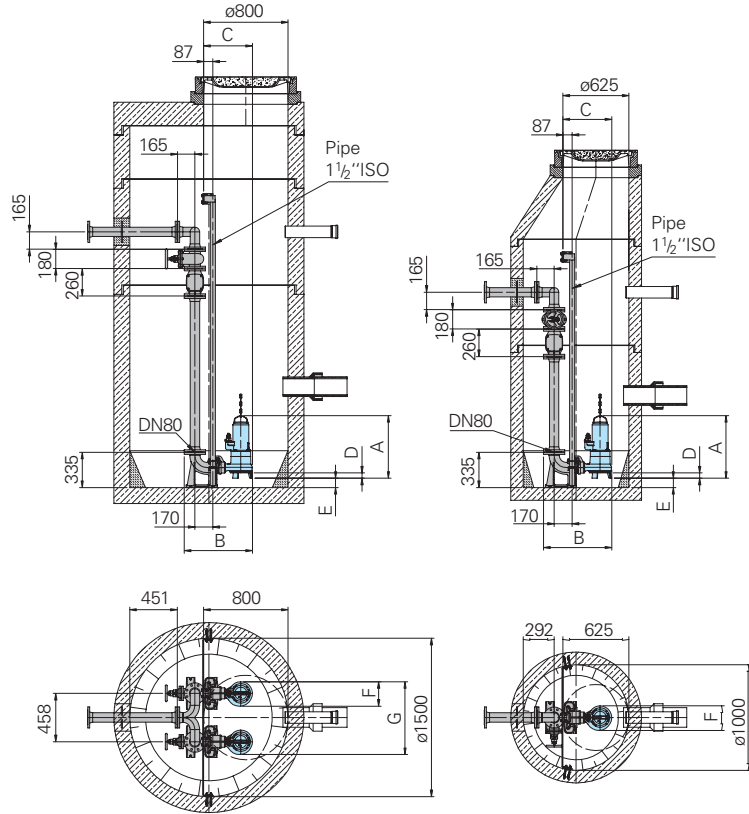
TP53M37/2MD(Ex),
TP53M37/2(H)D(Ex)



TP53M50/2DT(DEx)

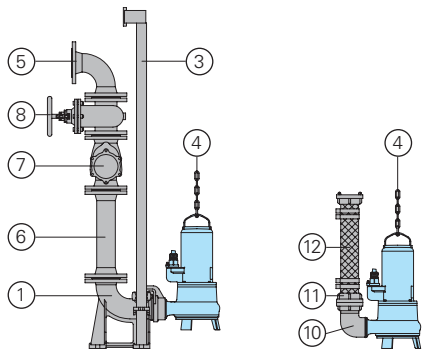


Permanent sump installation with auto-coupling system.



Typ	A	B	C	D	E	F	G
TP53M50/2DT(DEx)	593	645	462	50	89	232	690
TP53M37/2MD(Ex)+(H)D(Ex)	555	645	462	50	89	232	690
TP53M12/4W, TP53M13/4D(Ex), TP53M23-26/2D(Ex)	518	645	462	50	89	232	690
TP53M12-17/2W(Ex), TP53M11-14/2D(Ex)	450 (457)	629	446	50	81	231	689

Accessories



Part Description	Dimension	Part No.
① Cast iron autocoupling system with auto-coupling with flange DN 80 and upper slide rail bracket BSP 1 1/2"		
- Type KK80/R3" with flanged pump coupling	BSP 3" F	8604035
- Type KK80/80 with flanged pump coupling	DN 80	8604025
○ Auto-coupling system complete or partial in stainless steel	all types	on request

Part Description	Dimension	Part No.	Part Description	Dimension	Part No.
○ Screw-kits for installation of coupling system		on request	⑧ Flanged gate valve with gasket and fixing bolts	DN 80 DN 100	2216080 2216100
Threaded flange	DN 80/BSP3" F	2215080	⑩ 90° elbow	BSP 3" F/M	2111805
③ Guide rails, pair, per m steel galvanized	BSP 1 1/2"	2190155	Flanged 90° elbow	DN 80	2153302
stainless steel	BSP 1 1/2"	2190254	Threaded flange	DN 80/BSP 3" F	2215080
④ Lifting chain, proved capacity up 200 kg division 984 mm, 4x12 with eyelet 2m long		2800371	⑪ STORZ-fixed coupling	B-3" F	2010602
special lengths		on request	STORZ-hose coupling	B-75 mm dia.	2013502
Shackle stainless steel	for chain 5 mm Ø	2801390	⑫ Reinforced hose with 2 B-size half couplings, 75 mm dia.	length 2 m length 3 m length 5 m	2161042 2161043 2161045
⑤ 90° flanged elbow	DN 80 DN 100	2153302 2153303	Flanged reinforced hose 90 mm dia., DN 80	length 2 m length 3 m length 5 m	2161032 2161033 2161035
Flanged Y-piece for twin pump arrangement, horizontal discharge (vertical discharge on request)	3x DN 80 DN 80/80/100 3x DN 100	2160006 2160008 2160010	Reinforced hose per m	75 mm dia. 90 mm dia.	2632075 2632090
⑥ Flanged discharge pipe with gasket and fixing bolts, per m	DN 80 DN 100	2152081 2152201	Flanged spigot DN 80	90 mm dia.	2171014
Discharge pipe, per additional m	DN 80 DN 100	2150080 2150100	Hose band	85/20 92/20	2308520 2309221
Flanged reducer		on request	○ Control panel for single or twin pump stations for automatic operation		on request
⑦ Flanged swing check valve with gasket and fixing bolts	DN 80 DN 100	2212807 2212809			



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