

Submersible waste water pumps
Discharge R 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, certificate No. 0220119.

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

Pumped medium: Clear water and drainage water, sewage containing soft solids. Max. medium 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 3" 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 model Ex).

Cable: H07 RN - F4 G 1,5
Model Ex.: H07 RN - F(Plus)7 G 1,5

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

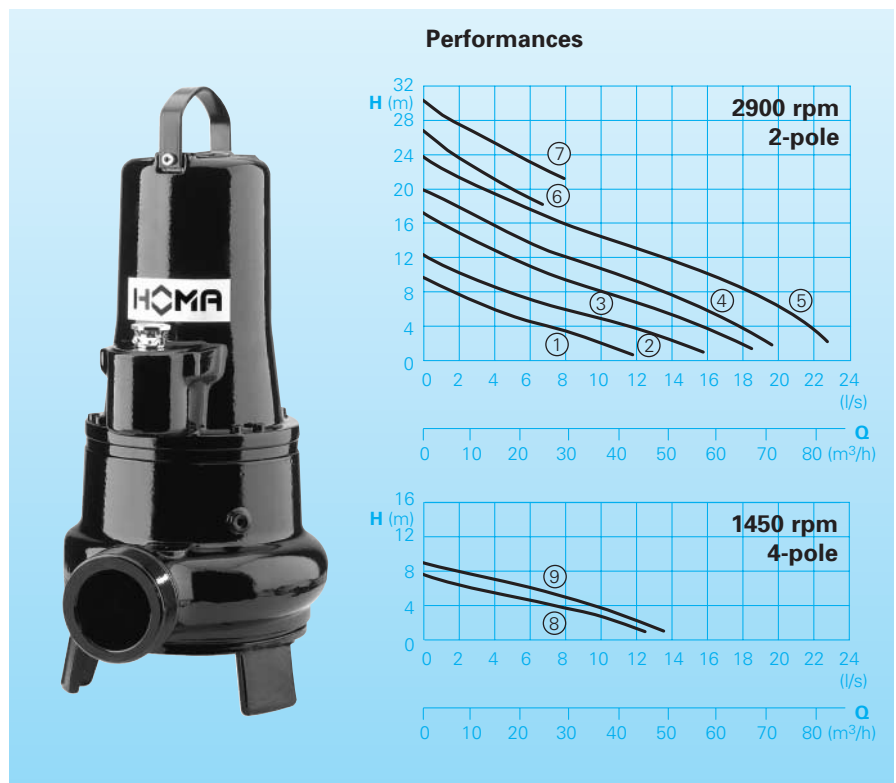
Seals: Combination of mechanical seals (silicon-carbide/silicon-carbide) in a separate oil chamber. Models up to 1,6 kW/2-pole with mechanical seal and lip seal. Oil inspection from outside.

Explosion protection: All models available with explosion proof motors according to II 2 G Ex d [ib] IIBT4.

Equipment supplied

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

Model W: (230-240 V / 1 Ph): 10 m of cable. Attention: The pump requires a capacitor for operation, which is integrated in the control box (see accessories).



Technical Data

Curve No.	Pump type	Motor input P ₁ (kW)	Motor output P ₂ (kW)	Voltage 50 Hz (V)	Speed (rpm)	Nominal current (A)	Spherical clearance (mm)	Weight (kg) Standard	Weight (kg) Model Ex
①	TP53 M12/2W(A)(Ex)	1,1	0,8	230-240/1Ph	2900	4,8	50	26	31
②	TP53 M17/2W(A)(Ex)	1,6	1,2	230-240/1Ph	2900	7,6	50	27	32
①	TP53 M11/2D (A)(Ex)	1,0	0,8	400-415/3Ph	2900	1,9	50	26	31
②	TP53 M14/2D (A)(Ex)	1,3	1,0	400-415/3Ph	2900	2,5	50	27	32
③	TP53 M23/2D (A)(Ex)	2,3	1,8	400-415/3Ph	2900	3,8	50	40	40
④	TP53 M26/2D (A)(Ex)	2,6	2,1	400-415/3Ph	2900	4,5	50	40	40
⑤	TP53 M37/2D (A)(Ex)	3,7	3,2	400-415/3Ph	2900	6,5	50	45	45
⑥	TP53 M26/2HD (A)(Ex)	2,6	2,1	400-415/3Ph	2900	4,5	50	40	40
⑦	TP53 M37/2HD (A)(Ex)	3,7	3,2	400-415/3Ph	2900	6,5	50	45	45
⑧	TP53 M12/4W(A)	1,2	0,9	230-240/1Ph	1450	5,8	50	40	40
⑨	TP53 M13/4D(A)(Ex)	1,3	1,0	400-415/3Ph	1450	2,6	50	40	40

Discharge: BSP 3" M

Model A: With automatic level control HOMA-Nivomatik
Model Ex: Explosion proof

Model D: (400-415 V / 3Ph): 10 m of cable.

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

Materials:

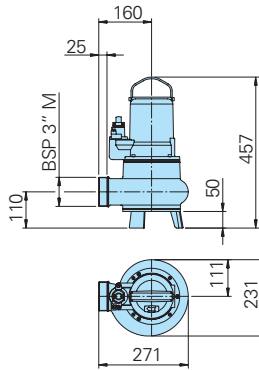
Motor housing,	
pump housing	Cast iron GG 25
Impeller	
- up to 1,6 kW/2-pole	Polypropylene GFK
- other types	Cast iron GG 25
Wear ring	Bronze
Mechanical seal	Silicon-carbide
Rotor shaft, screws	Stainless steel
Seal kit	Perbonane

Installations and Dimensions

Free standing pump with base stand

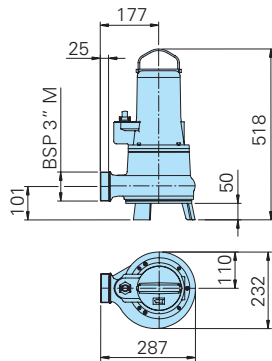
TP 53 M 12/2W, TP 53 M 11...,

TP 53 M 14..., TP 53 M 17...

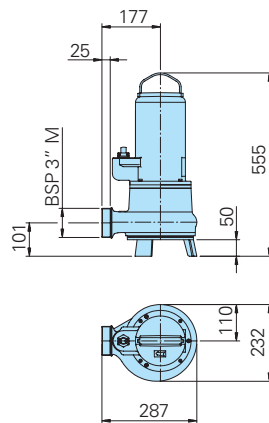


TP 53 M 12/4W, TP 53 M 13...

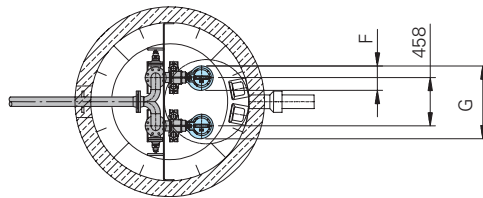
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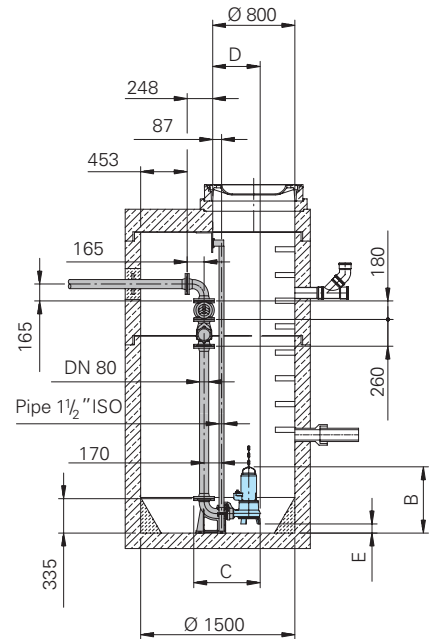
TP 53 M 37...



Typ	B	C	D	E	F	G
TP 53 M 12/2W	538	629	446	81	231	689
TP 53 M 11...						
TP 53 M 14...						
TP 53 M 17...						
TP 53 M 12/4W	607	645	462	89	232	690
TP 53 M 13						
TP 53 M 23						
TP 53 M 26						
TP 53 M 37	644	645	462	89	232	690

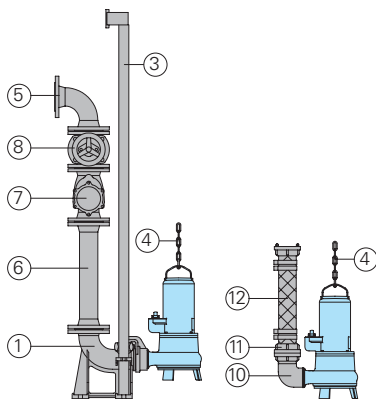


Wet well installation with auto-coupling system.



all dimensions in mm

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
Threaded flange	DN 80/BSP3" F	2215080

Part Description	Dimension	Part No.
③ Steel galvanized guide rails, pair, per m	BSP 1 1/2"	2190155
④ Steel galvanized lifting chain	5 mm dia.	2800350
Steel galvanized shackle	Size 5/16"	2801450
⑤ 90° flanged elbow	DN 80	2153302
	DN 100	2153303
Flanged Y-piece for twin pump arrangement, horizontal discharge (vertical discharge on request)	3x DN 80	2160006
	DN 80/80/100	2160008
	3x DN 100	2160010
⑥ Flanged discharge pipe with gasket and fixing bolts, per m	DN 80	2152081
	DN 100	2152201
Discharge pipe, per additional m	DN 80	2150080
	DN 100	2150100
Flanged reducer		On request
⑦ Flanged swing check valve with gasket and fixing bolts	DN 80	2212807
	DN 100	2212809
⑧ Flanged gate valve with gasket and fixing bolts	DN 80	2216080
	DN 100	2216100
⑩ 90° elbow	BSP 3" F/M	2111805
Flanged 90° elbow	DN 80	2153302
Threaded flange	DN 80/BSP 3" F	2215080
⑪ STORZ-fixed coupling	B-3" F	2010602
STORZ-hose coupling	B-75 mm dia.	2013502

Part Description	Dimension	Part No.
⑫ Reinforced hose with 2 B-size half couplings, 75 mm dia.	length 2 m	2161042
	length 3 m	2161043
	length 5 m	2161045
Flanged reinforced hose 90 mm dia., DN 80	length 2 m	2161032
	length 3 m	2161033
	length 5 m	2161035
Reinforced hose per m	75 mm dia.	2632075
	90 mm dia.	2632090
Flanged spigot DN 80	90 mm dia.	2171014
Hose band	85/20	2308520
	92/20	2309220
○ Synthetic pressure hose with rubber lining and couplings, B-75 mm dia.	length 10 m	2611210
	length 15 m	2611215
	length 20 m	2611220
	length 30 m	2611230
Reinforced hose, per m	75 mm dia.	2632075
Hose bands	85/20	2308520
○ Control box for pumps without level control, with overload protection, on-off switch		
- for 1Ph-pumps (incl. capacitor) stand. model.		
TP53 M12/4W		1923111
TP53 M 12/2W		1918108
TP53 M 17/2W		1918113
- for 1Ph-pumps (incl. capacitor) Model Ex		
TP53 M 12/4WEx		1912425
TP53 M 12/2WEx		1945020
TP53 M 17/2WEx		1945030
- for 3Ph-pumps standard		
Nominal current	1,7 up to 2,5	2,4 A 1926085
	2,5 up to 4,0	4,0 A 1926090
	4,1 up to 6,3	6,3 A 1926095
	6,4 up to 10,0	10,0 A 1926100
- for 3Ph-pumps Model Ex.		
Nominal current	1,7 up to 2,5	2,4 A 1926215
	2,5 up to 4,0	4,0 A 1926220
	4,1 up to 6,0	6,0 A 1926225
	6,1 up to 9,0	9,0 A 1926230



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○ Control panel for single or twin pump stations for automatic operation