Submersible motor pumps for waste water and feces.
Discharge G3 / DN 80.
Single channel impellers, free passage 50 mm.

TP53 M

Application

Submersible motor pumps in the TP53 series are used for conveying domestic drainage, waste water, feces as well as sludge. With their large free passage of 50 mm, they are particularly well suited for use with media containing coarse solids and fibers. Ideal for economical disposal in municipal, private, trade and industry applications.

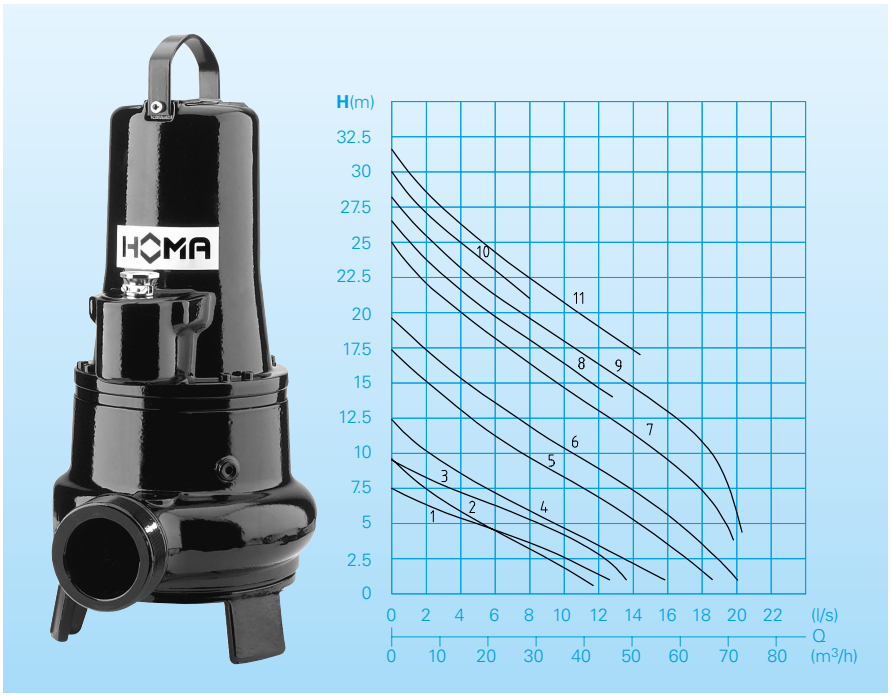
DIN EN 12050-1: Design tested and monitored.

Installation: Stationary or mobile. Version with float switch for use as automatic water level controlled drainage pump.

Pumped medium: Clean water and waste water with solid and fibrous content and feces.
Max. temperature of pumped medium: 40°C, for non-ex pumps brief periods up to 60° C.

Operating mode: Continuous operation (S1).

Conveying capacities



Design

Fully submersible pump, consisting of:

Pump: Single-stage with horizontal discharge G3.

Impeller: Closed single-channel impeller for sludgy media containing solids or fibrous content. Free passage 50 mm.

Motor: Fully submersible motor, sealed against pressurized water. Insulation class H. Protection rating IP 68. Thermal sensor for temperature monitoring in the winding.
Start type: TP53M12-37: Direct start
TP53M50: Direct start or star-delta start
Connecting cable:
Model W: H07RN8-F 4G1,5
Model D and Ex: H07RN8-F 6G1,5
TP53M50(Ex): H07RN8-F 10G1,5

Shaft/bearing: Strongly dimensioned chrome steel shaft, lifetime-lubricated roller bearings.

Seal: Combination of 2 mechanical seals (silicon carbide/silicon carbide) inside the oil chamber that is independent of the direction of rotation (models above 1,8 kW).
Models up to 1,6 kW combinations of mechanical seal and radial seal. Oil control possible from the outside.

Explosion protection: Depending on the submersible pump motor, also available in explosion-proof design according to ATEX Directive 2014/34/EU.

Technical Data

Curve No.	Pump type	Motor input P_1 (kW)	P_2 (kW)	Capacitator (µF)	Rotational speed (rpm)	Nominal current (A)	Weight (kg)
①	TP53M 12/4 W (A)	1,2	0,9	40	1450	5,8	40,0
②	TP53M 12/2 W (A) (Ex)	1,1	0,8	25	2900	4,8	26,0**
②	TP53M 11/2 D (A) (Ex)	1,0	0,8		2900	1,9	26,0**
③	TP53M 13/4 D (Ex)	1,3	1,0		1450	2,6	40,0
④	TP53M 14/2 D (Ex)	1,3	1,0		2900	2,5	27,0**
④	TP53M 17/2 W (A) (Ex)	1,6	1,2	30	2900	7,6	27,0**
⑤	TP53M 23/2 D (A) (Ex)	2,3	1,8		2900	3,8	40,0
⑥	TP53M 26/2 D (A) (Ex)	2,6	2,1		2900	4,5	40,0
⑦	TP53M 37/2 D (A) (Ex)	3,7	3,1		2900	6,5	45,0
⑧	TP53M 37/2 MD (A) (Ex)	4,0	3,4		2900	6,6	45,0
⑨	TP53M 50/2 MD (Ex)	5,2	4,4		2840	8,7	56,0
⑩	TP53M 37/2 HD (A) (Ex)	3,7	3,1		2900	6,5	45,0
⑪	TP53M 50/2 D (Ex)	5,2	4,4		2840	8,7	56,0

Model W: 230V/1Ph 50Hz
Model D: 400V/3Ph 50Hz
Model A: with automatic HOMA-Nivomatik float switch

* **Capacitor:** for the operation it is necessary to install a capacitor into the switchgear.
Model Ex: explosion-proof
** **Weight Ex Model:** + 5 kg

Materials

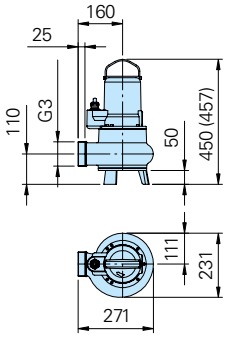
Pump housing, impeller, motor housing	Cast iron EN-GJL-250
Motor shaft, screws	Stainless steel
Mechanical seals	Silicon carbide
Wear ring	Bronze
Elastomers	NBR

Scope of supply

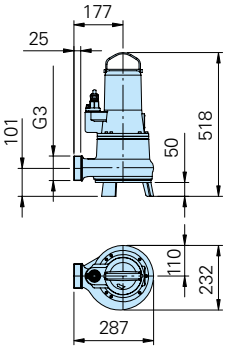
Pump with base stand, without auto coupling (see accessories). With 10 m of loose cable end, switchgear (see accessories)
Model A: With automatic float switch and switchgear WA10/19; DA10/32; DA10/12 with motor protection, manual-auto-switch. Built in operating capacitor (just 1 Ph-models), mains plug. Ex-Model with intrinsically safe control circuit relay.

Dimensions and installation example / Floorstanding installation with base stand (all dimensions in mm)

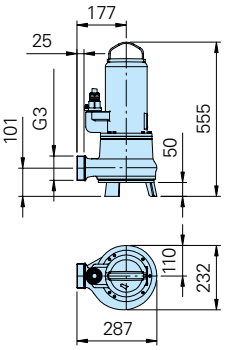
TP53M12/2W(Ex), TP53M17/2W(Ex), TP53M11/2D(Ex), TP53M14/2D(Ex)



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

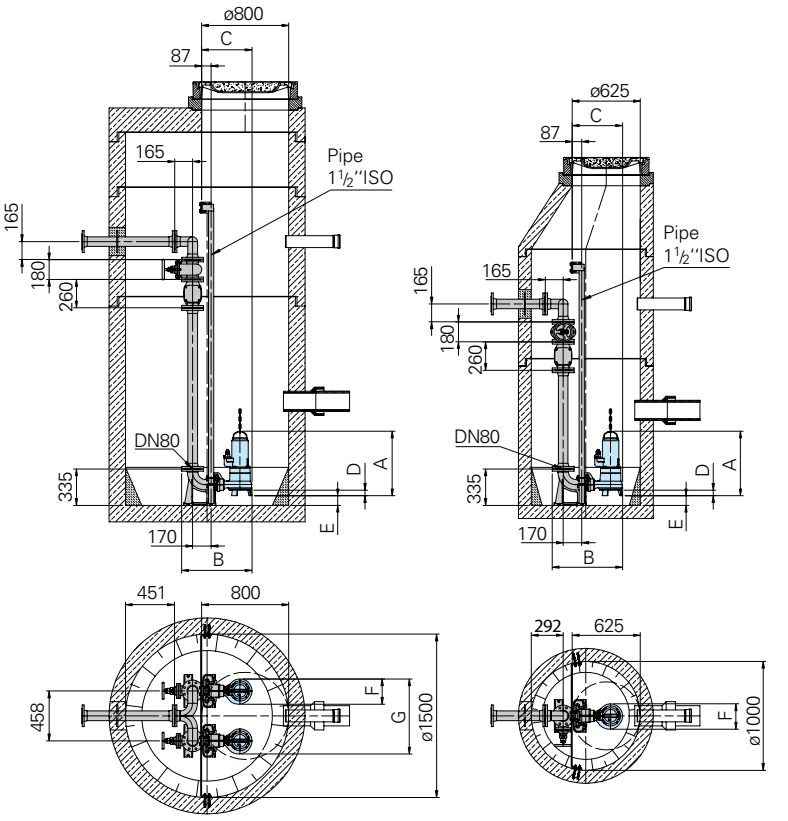


TP53M37/2MD(Ex), TP53M37/2(H)D(Ex)



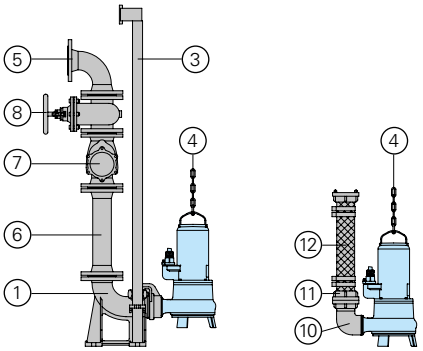
TP53M50/2(M)D(Ex),

Shaft installation with automatic coupling system



Type	A	B	C	D	E	F	G
TP53M50/2MD(Ex)+D(Ex)	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



Description	Size	Part no.
① Automatic coupling system GG, with coupling base elbow DN 80, Coupling mating flange and slide rail bracket BSP1½"		
– Type KK80/R3"	R3" F	8604035
– Type KK80/80	DN 80	8604025
○ Coupling system completely or partly in stainless steel	all	on request
○ Screw-Kits for fastening coupling systems		on request

Description	Size	Part no.
○ Intermediate bracket for slide rail bracket extension	Ø 1½" for KK80	7322901
○ Threaded flange	DN 80/R3"F	2215080
③ Guide rails (A4 stainless steel) for coupling kits in corresponding sizes and lengths of 3m and 6m		on request
④ Pump chain sets, tested. With shackle, single or dual row, different legths and load bearing capacities		on request
⑤ 90° bend with 2 flanges	DN 80 DN 100	2153302 2153303
Connection piece for merging the pressure pipe in double pump stations 3 flanges, discharge horizontal (vertical discharge on request)	3x DN 80 DN 80/80/100 3x DN 100	2160006 2160008 2160010
⑥ Pressure pipe with 2 flanges (FF-piece) 1 m long, 1 set of screws and seal	DN 80 DN 100	2152081 2152201
Pressure pipe extension, per m	DN 80 DN 100	2150080 2150100
Flanged reducer (FFR-piece) with 2 flanges		on request

Description	Size	Part no.
⑦ Non-return valve with flanges	DN 80 DN 100	2212807 2212809
⑧ Flanged gate valve with flanges	DN 80 DN 100	2216080 2216100
⑩ 90° connection bend 90° Pipe bend with 2 flanges	R3"F/M DN 80	2111805 2153302
Threaded flange	DN 80/R3"F	2215080
⑪ STORZ-fixed coupling	B-G3"F	2010602
STORZ-hose coupling	B-75 mm Ø	2013502
⑫ Plastic spiral hose, 75 mm Ø, with 2-B-quick-couplings	2 m long 3 m long 5 m long	2161042 2161043 2161045
○ Plastic spiral hose, 90 mm Ø, with 2 flange connectors, DN 80	2 m long 3 m long 5 m long	2161032 2161033 2161035
Plastic spiral hose, per m	Ø 75 mm Ø 90 mm	2632075 2632090
Flange connector DN 80	90 mm Ø	2171014
Hose clamps	85/20 92/20	2308520 2309221
○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,	see HOMA accessories	

Type Tested and Monitored
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We reserve the right to alter our specifications without notice!

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