

Submersible motor pumps for domestic drainage- and waste water. Vortex impellers, free passage 50-65 mm.

TP50 V

Application

Submersible motor pumps in the TP50 series are used for conveying domestic drainage- and waste water as well as sludge. With their large free passage of 50-65 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 12050-2: 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.

Max. temperature of pumped medium: 40°C, for non-ex pumps brief periods up to 60°C.

Operating mode: Continuous operation (S1).

Design

Fully submersible pump, consisting of:

Pump: Single-stage with horizontal discharge G2 1/2.

Impeller: Vortex impeller for media containing gas or air, with coarse or long stringy components that are prone to clogging. Free passage 50-65 mm.

Motor: Fully submersible motor, sealed against pressurized water. Insulation class H. Protection rating IP 68. Thermal sensor for temperature monitoring in the winding.

Type of start: TP50V13-40: direct-on-line
TP50V50: direct-on-line or star-delta-start.

Connecting cable:

Model W: H07RN8-F 4G1,5

Model D and Ex: H07RN8-F 6G1,5

TP50V(Ex): H07RN8-F 10G1,5

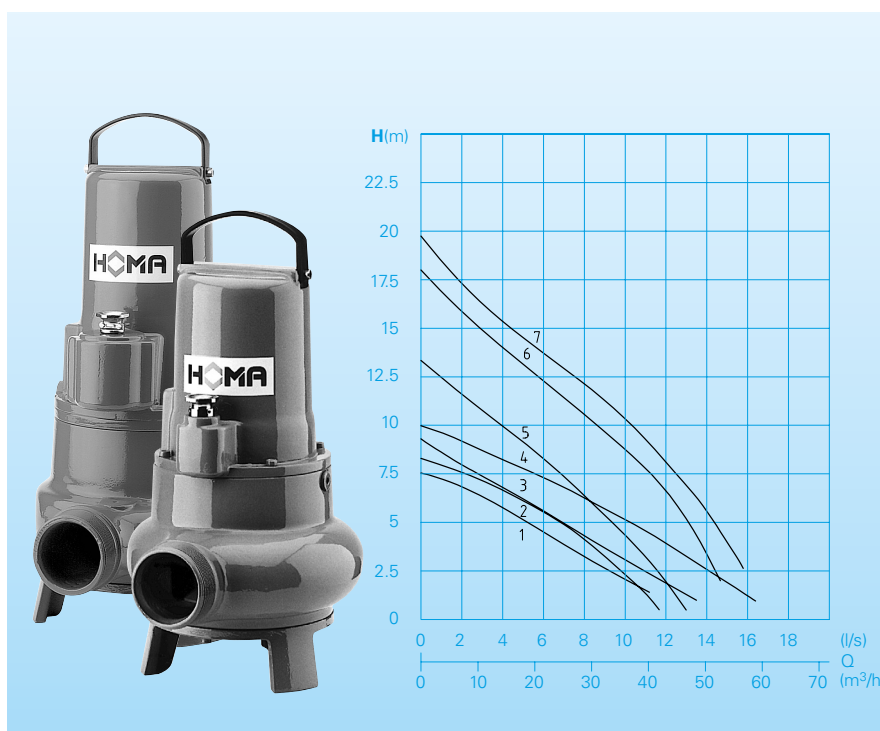
Shaft/bearing: strongly dimensioned chrome steel shaft, lifetime-lubricated roller bearings.

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: All pump types are also available in explosion-proof design according to ATEX Directive 2014/34/EU.

Conveying capacities



Technical Data

Curve No.	Pump type	Motor input P ₁ (kW)	P ₂ (kW)	Capacitor (μF)	Rotational speed (rpm)	Nominal current (A)	Free passage (mm)	Weight (kg)
①	TP50V 17/2 W (A) (Ex)	1,6	1,2	30	2900	7,6	65	27,0**
②	TP50V 13/4 D (A) (Ex)	1,3	1,0		1450	2,6	50	40,0
③	TP50V 17/2 D (A) (Ex)	1,6	1,2		2900	2,9	65	27,0**
④	TP50V 23/4 D (A) (Ex)	2,3	1,8		1450	5,0	62	45,0
⑤	TP50V 26/2 D (A) (Ex)	2,6	2,1		2900	4,5	50	40,0
⑥	TP50V 40/2 D (A) (Ex)	4,0	3,4		2900	6,6	50	45,0
⑦	TP50V 50/2 D (Ex)	5,2	4,4		2840	8,7	50	56,0

Model W: 230V/1Ph 50Hz

Model D: 400V/3Ph 50Hz

Model A: with automatic float switch
HOMA-Nivomatik

* **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
Elastomers	NBR

Scope of supply

Pump with integrated 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.

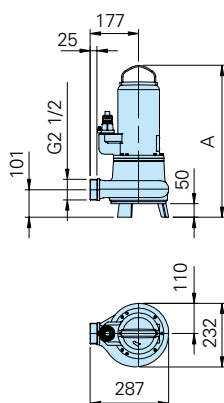
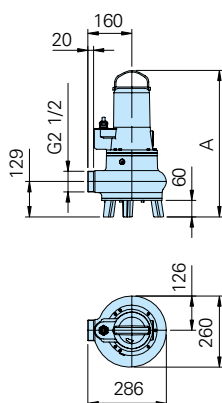
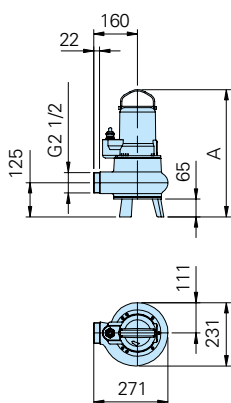
Dimensions and installation example (all dimensions in mm)

Floorstanding installation with base stand

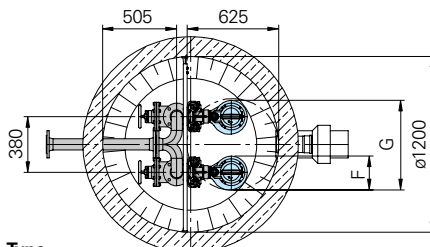
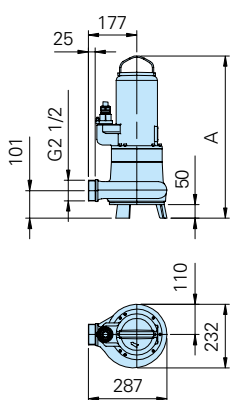
TP50V17/2W+D(Ex)

TP50V23/4D(Ex)

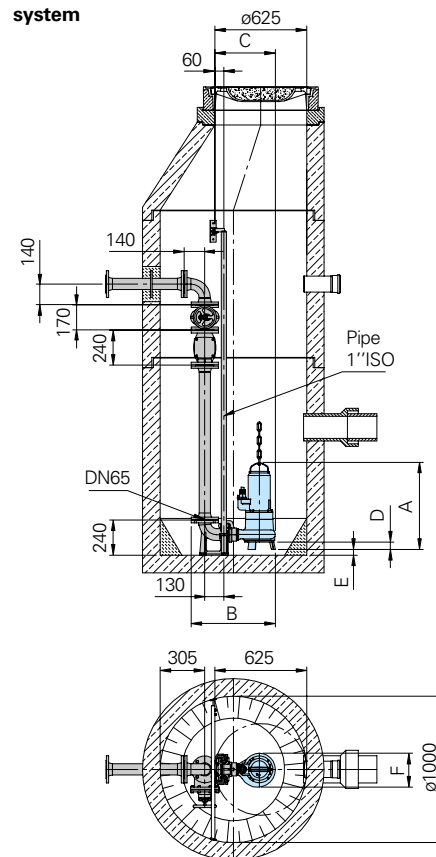
TP50V40/2D(Ex),
TP50V26/2D(Ex), TP50V13/4D(Ex)



TP50V50/2DT(Ex)

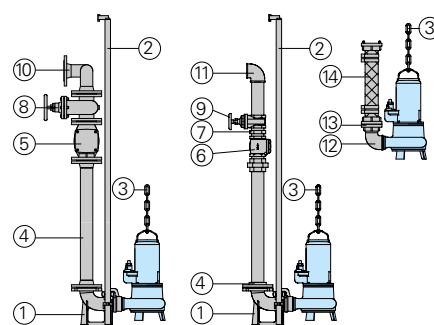


Shaft installation with automatic coupling system



Type	A	B	C	D	E	F	G
TP50V50/2DT(Ex)	593	575	412	50	39	232	612
TP50V40/2D(Ex)	555	575	412	50	39	232	612
TP50V13/4D(Ex), TP50V26/2D(Ex)	518	575	412	50	39	232	612
TP50V17/2W+D(Ex)	465 (472)	559	396	65	16	231	611
TP50V23/4D(Ex)	572	573	411	60	11	260	640

Accessories



Description	Size	Part no.
① Automatic coupling system GG with mating flange, base elbow with flange and slide rail bracket KK65/BSP2 1/2"	DN65/BSP2 1/2"	8604015
○ Coupling system completely or partly in stainless steel	all	on request

Description	Size	Part no.
○ Screw-Kits for fastening coupling systems	on request	
○ Intermediate bracket for Ø 1" slide rail bracket extension for KK65	7323714	
② Guide rails (A4 stainless steel) for coupling kits in corresponding sizes and lengths of 3m and 6m)	on request	
③ Pump chain sets, tested. With shackle, single or dual row, different lengths and load bearing capacities	on request	
④ Threaded flange	DN 65/ BSP 2 1/2" F	2215060
Pipe with flanges	DN 65	on request
⑤ Non-return valve GG	DN 65	2212805
⑥ Non-return valve GG	BSP 2 1/2" F	2212513
⑦ Double nipple, galvanized	BSP 2 1/2" M	2009025
⑧ Shut-off gate valve GG	DN 65	2216065

Description	Size	Part no.
⑨ Shut-off gate valve MS	BSP 2 1/2" F	2216025
⑩ 90° bend with flanges	DN 65	2153301
Connection piece for pressure pipe with 3 flanges	3 x DN 65 DN 65/65/80	2160002 2160004
⑪ 90° bend, galvanized	BSP 2 1/2" F	2113610
T-piece for merging the pressure pipe in double pump stations	BSP 2 1/2" F	2114308
⑫ 90° bend, galvanized	BSP 2 1/2" F/M	2111705
⑬ STORZ-fixed coupling	B-G2 1/2" F	2010502
STORZ-hose coupling	B-75 mm Ø	2013502
⑭ Synthetic pressure hose with rubber lining, with couplings	10 m long 15 m long 20 m long 30 m long	2611210 2611215 2611220 2611230
Plastic spiral hose, per m	Ø 75 mm	2632075
Hose clamp	85/20	2308520
○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,	see HOMA accessories	



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