

**Submersible motor pumps
für chemically polluted drainage water.
Free passage 10 mm.**

CH413

Application

Pumps for conveying drainage water which is polluted with alkaline or acid chemicals. With the advantage of thick wall casting and viton seals, they are the ideal solution to pump mediums with pH-value between 5-14. They are suitable for laundries, car washes, food industries and many other applications. **DIN EN 12050-2:** Design tested and monitored.

Installation: Stationary or mobile.

Pumped medium: Clear- or domestic drainage water, pH-value 5 – 14. Max. temperature of pumped medium: 40°C, for brief periods up to 60°C.

Operating mode: Motor submerged: Continuous operation (S1). Motor not submerged or medium temperature 41- 60 °C: Intermittent operation (S3 30%)

Design

Fully submersible pump, consisting of:

Pump: Single-stage with horizontal discharge.

Impeller: Open multi-blade impeller, free passage 10 mm.

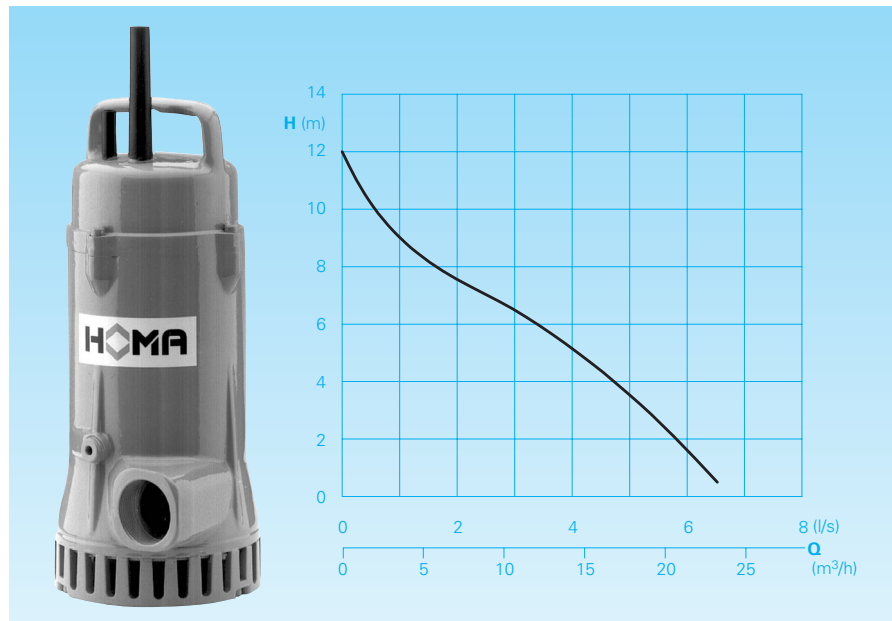
Motor: Fully submersible motor, sealed against pressurized water, oil-filled. Insulation class H. Protection rating IP 68. Single phase version with thermal sensor in the winding for temperature monitoring. Electrical compartment is separate from motor.

Connecting cable W: H07RN8-F 4G1,5
Connecting cable D: H07RN-F 4G1,5 with protection hose (polyolefine).

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

Seal: Combination of mechanical seal and radial seal that is independent of the direction of rotation.

Conveying capacities



Pump type	Motor input		Voltage 50 Hz (V)	Nominal current (A)	Weight (kg)
	P ₁ (kW)	P ₂ (kW)			
CH413 W(L)	1,1	0,7	230/1Ph	4,7	20,0
CH413 D(L)	1,2	0,8	400/3Ph	2,2	20,0

Rotational speed: 2900 rpm
Discharge: BSP1 1/2

Model L: without switchgear, with loose cable end.

Materials

Pump housing, impeller, motor housing	Cast iron EN-GJL-250
Motor shaft	Stainless steel
Mechanical seal	Sic/Sic
Elastomers	Viton
Mechanical connection parts	Stainless steel

Scope of supply

Pump with 10 m of connecting cable

Model W (230V/1Ph):

With switchgear W1, motor protection, ON-OFF-switch and mains plug.

Model D (400V/3Ph):

With switchgear D32, motor protection, ON-OFF-switch and CEE reversing plug.

Model L:

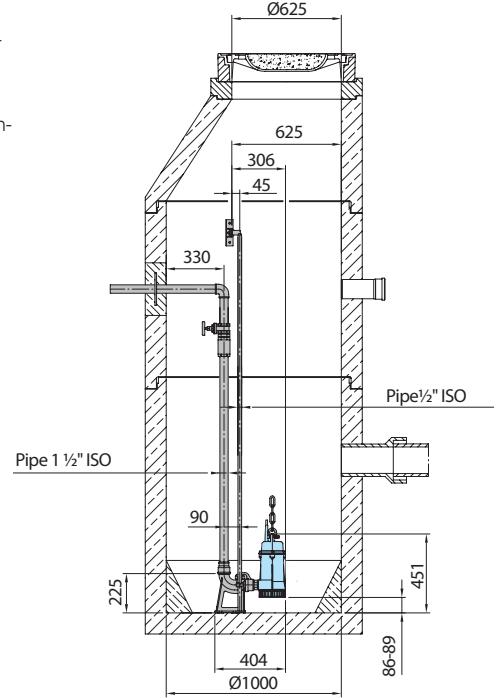
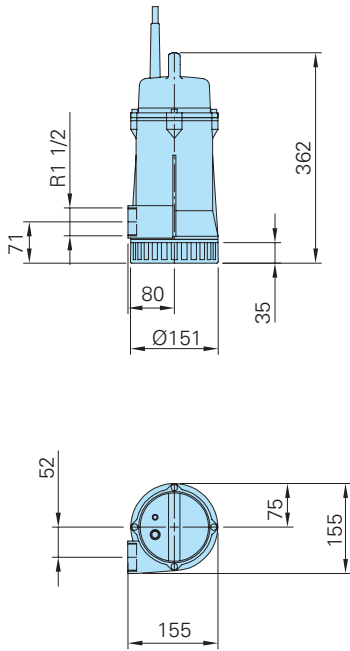
With loose cable end. Possible switch-gears available as accessories. The capacitor required for operation is installed in the pump.

Dimensions and installation example (all dimensions in mm)

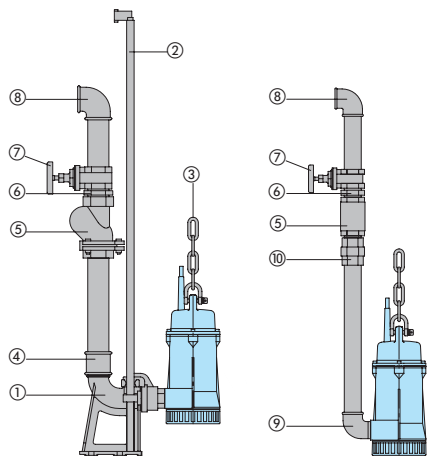
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Shaft installation with automatic coupling system.

The pump is simply pulled up on the solid two-pipe guide for maintenance or replacement without walking through the shaft. When it is lowered again, it automatically couples to the pressure line. This installation is possible for single and multi-pump stations. Advantages: low space requirement, particularly service-friendly and economical.



Accessories



Description	Size	Part no.
① Automatic coupling system GG with mating flange, base elbow with thread and slide rail bracket KK50/BSP1 1/2"	BSP2"/BSP1 1/2"	8604000
○ Coupling system completely or partly in stainless steel	all	on request
○ Screw-Kits for fastening coupling systems		on request
○ Intermediate bracket for slide rail bracket extension Ø 1/2" for KK50		7320271

Description	Size	Part no.
② Guide rails, in pairs, per m		
Galvanized steel	Ø 1/2"	2190085
Stainless steel	Ø 1/2"	2190250
③ Pump chain sets, tested. With shackle, single or dual row, different lengths and load bearing capacities		on request
④ Double socket, galvanized	BSP 2" F BSP 2" F x BSP 1 1/2" F	2109102 2102210
⑤ Non-return ball valve GG	BSP 1 1/2" F BSP 2" F	2212902 2212903
⑥ Double nipple, galvanized	BSP 1 1/2" M BSP 2" M	2009020 2009018
⑦ Shut-off gate valve, MS	BSP 1 1/2" F BSP 2" F	2216015 2216020
⑧ 90° bend, galvanized	BSP 1 1/2" F BSP 2" F	2113605 2113606
T-piece for merging the pressure pipe in double pump stations	BSP 1 1/2" F BSP 2" F	2114302 2114306
⑨ 90° bend, galvanized	BSP 1 1/2" F/M BSP 2" F/M	2111505 2111506
⑩ Transitional screw mounting, galvanized	BSP 1 1/2" M/F	2114305
○ STA-hose-screw mounting, brass	BSP 1 1/2" M	2001513
STORZ-fixed coupling	C-G 1 1/2" M	2010003

Description	Size	Part no.
○ PVC-hose, per m	1 1/2" Ø 38 mm	2621500
Plastic spiral hose, per m	Ø 50 mm	2632050
STORZ hose coupling	C-38 Ø C-52 Ø	2013002 2013003
Hose clamp	1 1/2" 2"	2304854 2306009
Synthetic pressure hose, with rubber lining, complete with C-couplings C-52 mm Ø	10 m 15 m 20 m 30 m	2611310 2611315 2611320 2611330
○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,		see HOMA accessories



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