

Submersible drainage pumps for chemically polluted drainage water. Spherical clearance 10 mm.

CH 407, CH 413

Application

HOMA CH 407 and CH 413 are submersible drainage pumps. They are used for pumping 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: 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, pH-value 5-14. 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 1 1/4" F.

Impeller: Open multi-channel impeller, spherical clearance 10 mm.

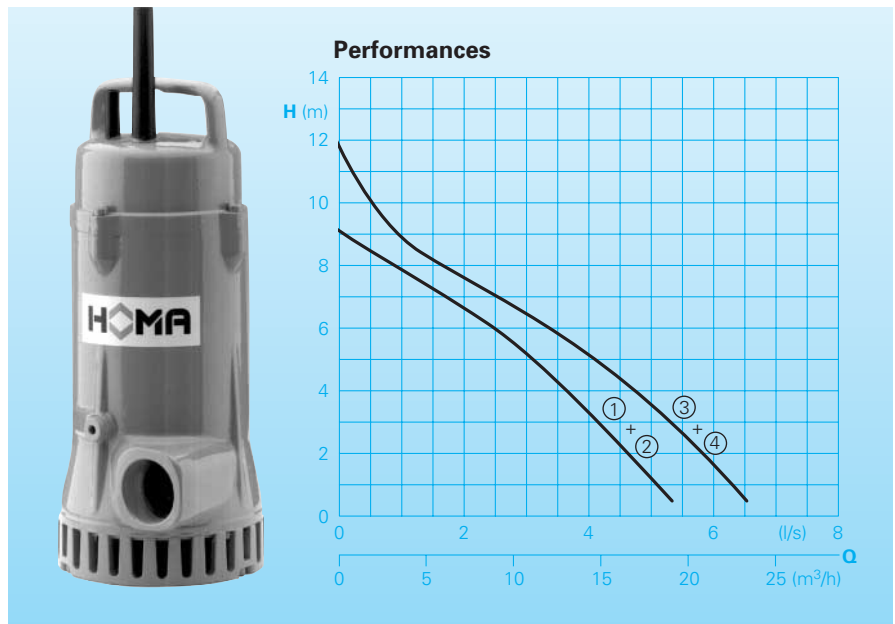
Motor: Fully submersible, pressure tight electric motor, oil filled. Insulation class B. Degree of protection IP 68.

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

Cable: H07 (PLUS) 4 G1,5 with protection hose (polyolefine).

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

Seals: Combination of mechanical seal (silicon-carbide) and lip-seal (viton).



Technical Data

Curve No.	Pump type	Motor-input P ₁ (kW)	Motor-output P ₂ (kW)	Capacitor* (µF)	Speed (rpm)	Nominal current (A)	Weight (kg)
①	CH 407 W(A)	0,8	0,5	20	2900	3,4	18
②	CH 407 D(A)	0,8	0,5		2900	1,5	18
③	CH 413 W(A)	1,1	0,7	25	2900	4,7	20
④	CH 413 D(A)	1,2	0,8		2900	2,2	20

Model W: 230-240 V / 1 Ph

Model D: 400-415 V / 3 Ph

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

Model A: With automatic level control HOMA-Nivomatik

Materials:

Suction sieve, suction cover, impeller, motor bearing housing, motor housing, motor housing cover	Cast iron GG 25/EN-GJL-250
Rotor shaft, screws	Stainless steel
Mechanical seal	Silicon-carbide
Seal kit	Viton
Cable	Chloroprene-indian rubber

Equipment supplied

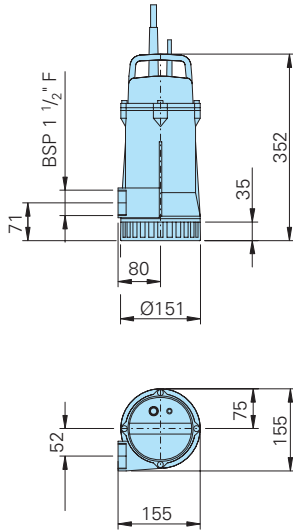
Model W (230-240 V / 1 Ph):
Control box W19 fitted with overload protection, on-off switch, 10 m of cable, capacitor and plug.

Model D (400-415 V / 3 Ph):
Control box D32 fitted with overload protection, on-off switch, 10 m of cable and phase inverter.

Model A: With additional automatic level control Homa-Nivomatik, control box WA05/19 or DA05/32 with manual-auto switch and 5 m of cable. Automatic operation with acid resistant float switches requires a special control box (see accessories). Therefore, on request the pumps are also available without the standard control box.

Dimensions and Installations

CH 407, CH 413

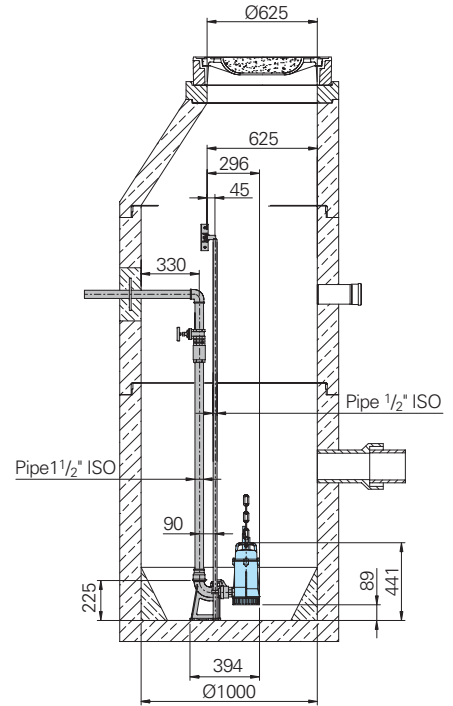


all dimensions in mm

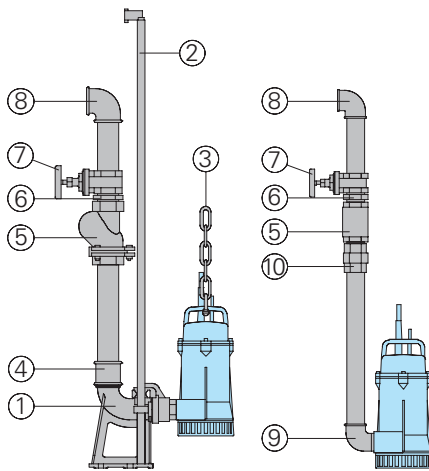
Permanent sump installation with auto-coupling system.

Permanent installation utilising a submerged auto-coupling guide rail system for automatic connection and disconnection of the pump from the pipework from outside the sump. Applicable for single or multi pump stations.

Advantages: Little space requirement, easy pump service and maintenance.



Accessories



Part Description	Dimension	Part No.
① Auto-coupling system type KK 50/R 1 1/2" with:		8604000
- Cast iron auto-coupling with flange and thread	DN 50	
- Cast iron flanged pump coupling	BSP 1 1/2" F	
- Cast iron upper slide rail bracket	BSP 1 1/2" M	
② Guide rails, pair, per m		
steel galvanized	1/2" dia.	2190085
stainless steel	1/2" dia.	2190250

Part Description	Dimension	Part No.
③ Lifting chain, per m		
steel galvanized	5 mm dia.	2800350
stainless steel	5 mm dia.	2800353
Shackle		
steel galvanized for chain 5 mm dia.		2801450
stainless steel for chain 5 mm dia.		2801390
④ Galvanized double socket	BSP 2" F	2109102
	BSP 2" Fx	2102210
	BSP 1 1/2" F	
⑤ Cast iron swing check valve	BSP 1 1/2" F	2212902
	BSP 2" F	2212903
⑥ Galvanized double nipple	BSP 1 1/2" M	2009020
	BSP 2" M	2009018
⑦ Bronze gate valve	BSP 1 1/2" F	2216015
	BSP 2" F	2216020
⑧ 90° galvanized elbow	BSP 1 1/2" F	2113605
	BSP 2" F	2113606
T-piece for twin pump arrangement	BSP 1 1/2" F	2114302
	BSP 2" F	2114306
⑨ 90° galvanized elbow	BSP 1 1/2" F/M	2111505
	BSP 2" F/M	2111506
⑩ Galvanized pipe union	BSP 1 1/2" F/M	2114305
○ Brass STA hose coupling	BSP 1 1/2" M	2001513
STORZ-fixed coupling	C-BSP 1 1/2" M	2010003
○ PVC-hose, per m	1 1/2"	2621500
Reinforced hose, per m	50 mm dia.	2632050
STORZ-hose coupling with spigot	C-38 dia.	2013002
	C-52 dia.	2013003
Hose bands	1 1/2"	2304854
	2"	2306009
Synthetic pressure hose with rubber lining	10 m	2611310
	15 m	2611315
and couplings, C-52 dia.	20 m	2611320
	30 m	2611330

Part Description	Type	Part No.
○ Control box for automatic operation (replace the standard control box), with overload protection, manual-off-auto switch without floatswitch (see below) for types:		
- CH 407 W	WZ19-04/K20	1912407
- CH 413 W	WZ19-05/K25	1912410
- CH 407 D	DZ12-R02DR	1924100
- CH 413 D	DZ12-R03DR	1924105
○ Floatswitch for control box type WZ/DZ (2 floatswitches, per pump necessary)		
- standard model length 10 m	MB	1465710
- oil resistant model length 10 m	BO	1466545
- acid resistant model length 10 m	BS	1466548
○ Floatswitch bracket		7321405
○ Control panels for single or twin pump stations for automatic operation		On request

HOMA
P U M P T E C H N O L O G Y

HOMA Pumpenfabrik GmbH
P.O.Box 22 63, D-53814 Neunk.-Seelscheid
Tel. +49 (0)22 47/702-0, Fax +49 (0)22 47/702-44
e-mail: info@homa-pumpen.de
www.homapumps.com