

Stainless steel submersible pumps for waste water containing solids. Spherical clearance 35-65 mm.

TCV, TCM

Application

Homa TCV and TCM series pumps are suitable for pumping drainage water and waste water. With 35 up to 65 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.

Installation: Permanent or transportable. Models with float switch control for automatic pump operation, depending on liquid level in the sump.

Pumped liquid: Clear water and drainage water, sewage containing soft solids. Max. liquid 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.

Impeller: Model TCV with vortex impeller for liquids containing a high level of impurities or fibrous matter and containing gas. Spherical clearance 35 up to 65 mm.

Model TCM with open single channel impeller for liquids containing impurities and sludge with solid particles. Spherical clearance 65 mm.

Motor: Fully submersible, pressure tight electric motor. Insulation class F. Motor protection IP 68. Single phase motors 230-240 V with thermal sensors embedded in the winding.

Cable:

TCV408-519W(A): H07RN-F3G1

TCM616W(A): H07RN-F3G1,5

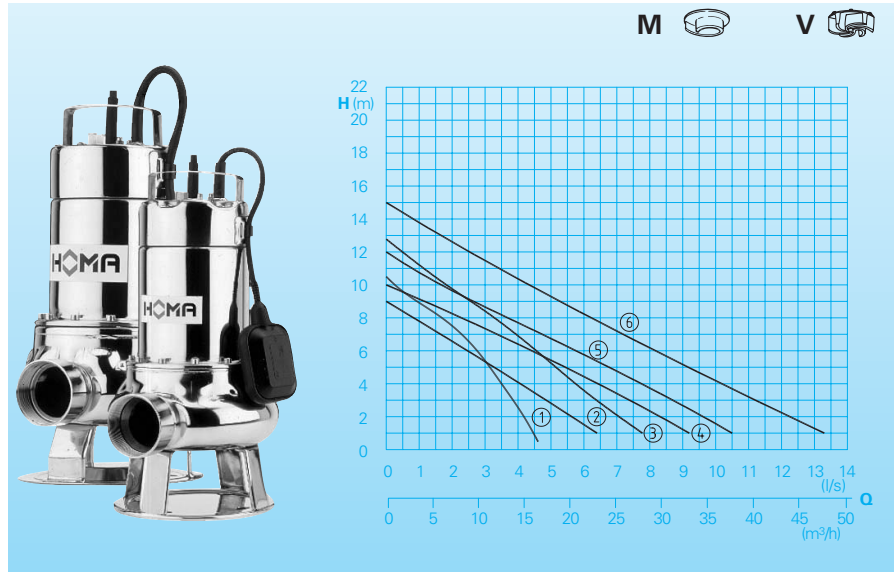
TCV513-620D: H07RN-F4G1,5

TCM616-622D: H07RN-F4G1,5

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

Seals: Combination of mechanical seal and lip seal in a separate oil chamber. TCV408: Combination of 2x lip seal and SIC-mechanical seal.

Performance



Technical Data

Curve No.	Pump type	Motor P ₁ (kW)	P ₂ (kW)	Nominal current (A)	Discharge	Spherical clearance (mm)	Weight (kg)
①	TCV 408 WA	1,1	0,8	4,9	G 1 ½ IG	35	7,1
②	TCV 514 W(A)	1,4	0,8	6,0	G 2 IG	50	11
③	TCV 519 W(A)	1,9	1,1	9,6	G 2 IG	50	13
②	TCV 513 D	1,4	0,9	2,4	G 2 IG	50	11
③	TCV 517 D	2,2	1,2	3,7	G 2 IG	50	13
④	TCV 620 D	2,4	1,4	4,5	G 2 ½ IG	65	22
⑤	TCM 616 W(A)	1,6	1,0	8,0	G 2 ½ IG	65	21
⑤	TCM 616 D	2,0	1,1	4,3	G 2 ½ IG	65	21
⑥	TCM 622 D	2,4	1,4	4,5	G 2 ½ IG	65	22

Model W: 230-240V/1Ph 50 Hz

Model D: 400-415V/3Ph 50 Hz

Model A: With automatic level control HOMA-Nivomatik

Impeller: TCV = Vortex Impeller

TCM = Open single channel impeller

Speed: 2900 rpm

Materials

Motor housing, pump housing, impeller	Stainless steel 1.4301
Rotor shaft	Stainless steel 1.4305
Screws	Stainless steel
Mechanical seal	Carbon-graphit / chrome steel
Elastomere	Perbonane

Equipment supplied

Pump with base stand, without auto-coupling (see accessories): TCV408: PP-sheet, hose connection and float lock

Model W (230-240 V / 1 Ph):

With 10 m of cable and plug.

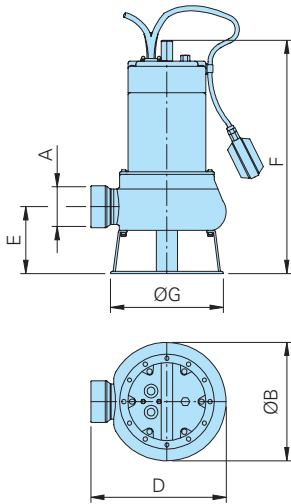
Model D (400-415 V / 3 Ph):

With 10 m of cable. Control boxes D32; DA10/32 available as accessories.

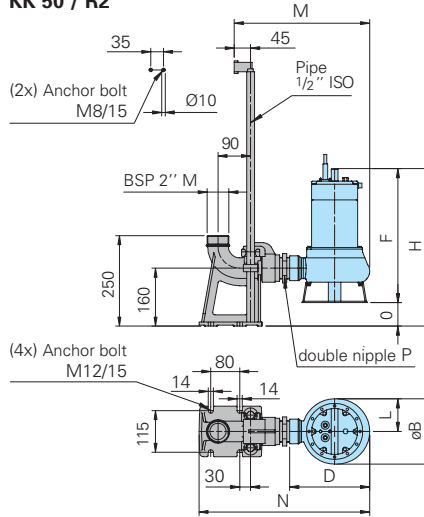
Model A: With additional automatic level control HOMA-Nivomatik.

Dimensions and Installations (all dimensions in mm)

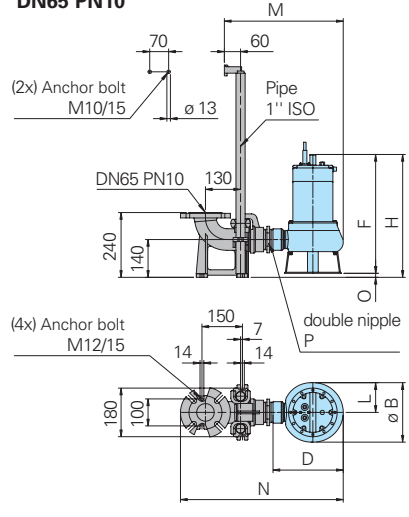
Free standing pump with base stand



Wet well installation with auto-coupling system KK 50 / R2"

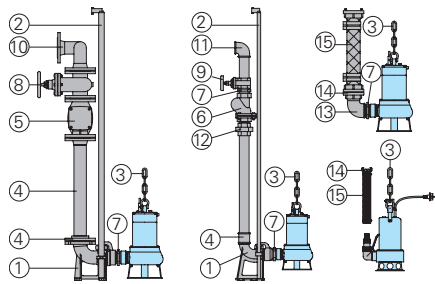


Wet well installation with auto-coupling system DN65 PN10



Pump type	A	ØB	D	E	F	ØG	H	L	M	N	O	P
TCV 408 WA	G1 1/2"IG	166	186	84	378	166	454	83	329	427	76	R1 1/2"AG
TCV 514 WA, TCV 513 D	G2"IG	180	221	95	370	180	435	90	374	471	65	R2"AG
TCV 517 D, TCV 519 WA	G2"IG	180	207	86	407	180	481	90	360	458	74	R2"AG
TCV 620 D, TCM 616 WA, TCM 616 D, TCM 622 D	G2 1/2"IG	220	260	125	440	210	455	110	440	603	15	R2 1/2"AG

Accessories



Description	Dim.	Part No.
① Auto-coupling system GG with flanged pump coupling - for TCV408, cast iron auto-coupling with thread, Cast iron upper slide rail bracket R1/2" KK50/R1 1/2"		8604000
- cast iron auto-coupling with thread, Cast iron upper slide rail bracket R1/2" KK50/R2"		8604005
- cast iron auto-coupling with flange, Cast iron upper slide rail bracket R1" KK65/R2 1/2"		8604015
○ Auto-coupling system complete or partial in stainless steel	all types	on request
○ Screw-kits for installation of on coupling-system		on request
○ Supporting bracket for guide rail extension	Ø 1/2" für KK80 Ø 1" für KK65	7320271 7323714

Part Description	Dimension	Part No.
② Guide rails, pair, per m steel galvanized	BSP 1/2"	2190085
	BSP 1"	2190135
stainless steel	BSP 1/2"	2190250
	BSP 1"	2190252
③ Pump chain sets, testet. With shackle, One- or Two-strand, different lengths and load capacities		on request
④ Threaded flange	DN 65/ BSP 2 1/2" F	2215060
Flanged pipe	DN 65	on request
Galvanized double nipple	BSP 2" F BSP 2 1/2" F/ BSP 1 1/2" F	2109102 2102210
⑤ Cast iron swing check valve	DN 65	2212805
⑥ Cast iron swing check valve	BSP 1 1/2" F BSP 2" F BSP 2 1/2" F	2212902 2212903 2211513
⑦ Galvanized double nipple	BSP 1 1/2" M BSP 2" M BSP 2 1/2" M	2009020 2009018 2009025
⑧ Cast iron gate valve	DN 65	2216065
⑨ Cast iron gate valve	BSP 1 1/2" F BSP 2" F BSP 2 1/2" F	2216015 2216020 2216025
⑩ 90° flanged elbow	DN 65	2153301
Flanged Y-piece for twin-pump arrangement	3 x DN 65 DN 65/65/80	2160002 2160004
⑪ 90° galvanized elbow	BSP 1 1/2" F BSP 2" F BSP 2 1/2" F	2113605 2113606 2113610

Part Description	Dimension	Part No.
T-piece for twin-pump arrangement	BSP 1 1/2" F BSP 2" F BSP 2 1/2" F	2114302 2114306 2114308
⑫ Galvanized pipe union	BSP 1 1/4" M/F BSP 2" M/F BSP 2 1/2" M/F	2114305 2114311 2114312
⑬ 90° galvanized elbow	BSP 1 1/2" M/F BSP 2" M/F BSP 2 1/2" M/F	2111505 2111506 2111705
⑭ Fixed coupling bronze	BSP 1" F	2005323
⑭ STORZ fixed coupling	C-BSP 2" F B-BSP 2 1/2" F	2010204 2010502
STORZ-hose coupling	C-52 mm Ø B-75 mm Ø	2013003 2013502
STA-tube coupling, bronze	BSP 1 1/2" F	2001513
⑮ Synthetic pressure hose with rubber lining and couplings, C-52 mm Ø	length 10 m length 15 m length 20 m length 30 m	2611310 2611315 2611320 2611330
B-75 mm Ø	length 10 m length 15 m length 20 m length 30 m	2611210 2611215 2611220 2611230
Reinforced hose, per m	1" Ø 50 mm Ø 75 mm Ø	2632025 2632050 2632075
PVC-tube, per m	1" Ø 1 1/2"	2621000 2621500
Hose bands	3/4" - 1" 1 1/2" 2" 85/20	2302330 2304854 2306009 2308520

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



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