

**Stainless steel submersible motor pumps for domestic drainage- and waste water. Free passage 35-50 mm.**

## TCV

### Application

Submersible motor pumps in the TCV series are used for conveying domestic drainage- and waste water with coarse solids and fibrous content. 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: 35°C, for brief periods up to 60°C.

**Operating mode:** Intermittent operation.

### Design

Fully submersible pump, consisting of:

**Pump:** Single-stage with horizontal discharge.

**Impeller:** V = Vortex impeller for media containing gas or air, with coarse or long stringy components that are prone to clogging.

**Motor:** Fully submersible motor, sealed against pressurized water. Insulation class F. Protection rating IP 68. 1-phase motor with thermal sensor in the winding for temperature monitoring.

Connecting cable:

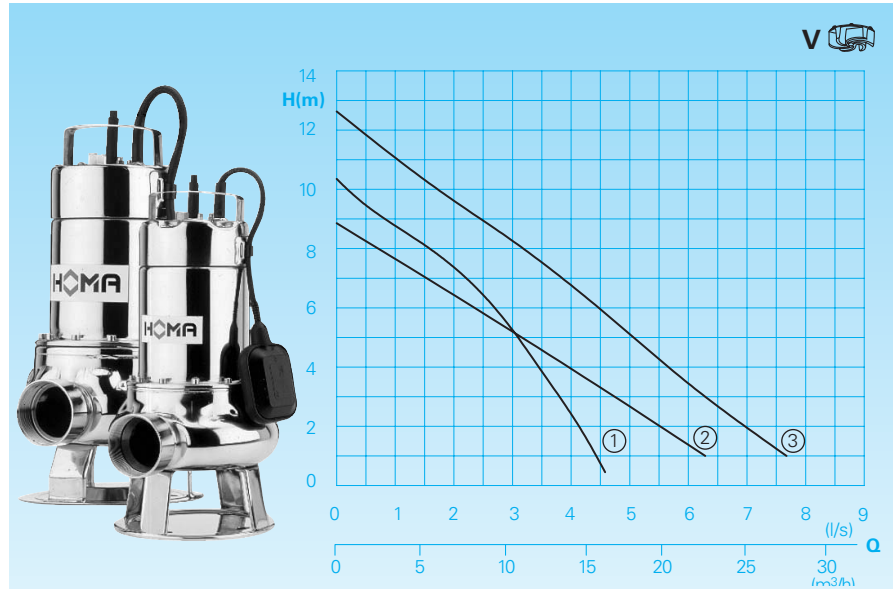
TCV408-519W(A): H07RN-F3G1

TCV513-620D: H07RN-F4G1,5

**Shaft/bearing:** Chrome steel shaft, lifetime-lubricated roller bearings.

**Seal:** Combination of mechanical seal and radial seal in oil chamber. TCV408: Combination of 2 shaft sealing rings and SIC mechanical seal.

### Conveying capacities



### Technical data

Curve No.	Pump type	Motor input P <sub>1</sub> (kW)	Motor input P <sub>2</sub> (kW)	Nominal current (A)	Discharge	Free passage (mm)	Weight (kg)
①	TCV408 WA	1,1	0,76	4,9	G1 1/2	35	7,1
②	TCV514 W(A)	1,4	0,75	6,0	G2	50	11,0
③	TCV519 W(A)	1,9	1,1	9,6	G2	50	13,0
②	TCV513 D	1,4	0,9	2,4	G2	50	11,0
③	TCV517 D	2,2	1,2	3,7	G2	50	13,0

**Model W:** 230V/1Ph 50Hz

**Model D:** 400V/3Ph 50Hz

**Model A:** with automatic HOMA-Nivomatik float switch

**Impeller:** Vortex impeller

**Rotational speed:** 2900 rpm

### Materials

Pump housing, impeller, motor housing	Stainless steel 1.4301
Motor shaft	Stainless steel 1.4305
Screws	Stainless steel
Mechanical seals	Carbon graphite/ Chrome steel
Elastomers	NBR

### Scope of supply

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

**Model W (230 V / 1 Ph):**

With 10 m of connecting cable and mains plug.

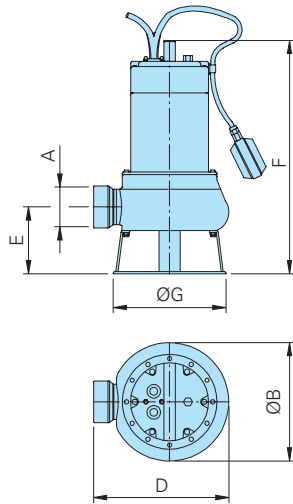
**Model D (400 V / 3 Ph):**

With 10 m of loose cable end. Switchgears D32; DA10/32 available as accessories.

**Model A:** Additionally with automatic float switch HOMA-Nivomatik.

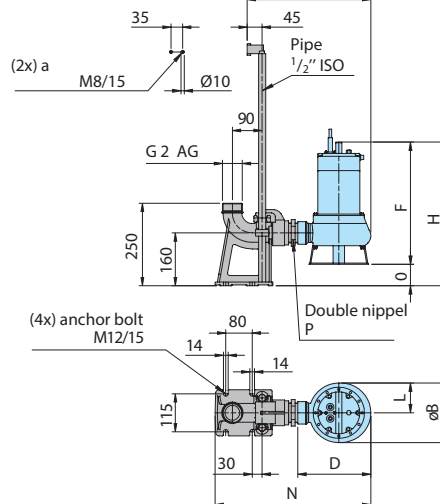
**Dimensions and installation example** (all dimensions in mm)

**Floorstanding installation with base stand**

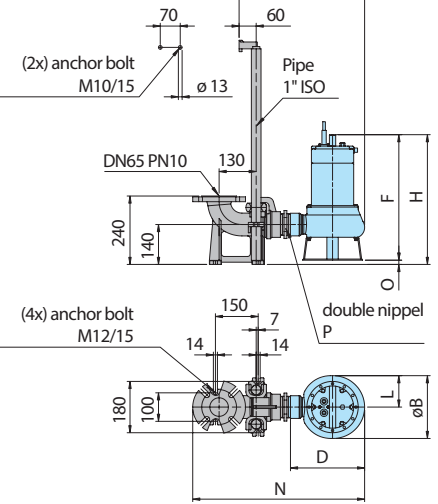


**Wet well installation with auto-coupling system**

**KK 50 / BSP2"**

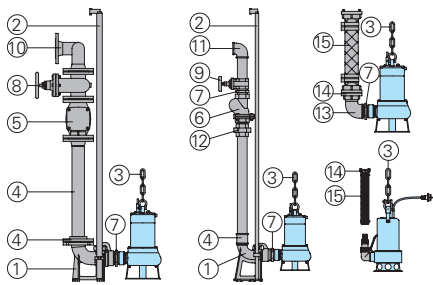


**DN65 PN10**



Pump type	A	ØB	D	E	F	ØG	H	L	M	N	O	P
TCV408 WA	G1 1/2	166	186	84	378	166	454	83	329	427	76	R1 1/2
TCV514 WA, TCV513 D	G2	180	221	95	370	180	435	90	374	471	65	R2
TCV517 D, TCV519 WA	G2	180	207	86	407	180	481	90	360	458	74	R2

**Accessories**



Description	Size	Part no.
① Automatic coupling system GG with mating flange - for TCV408, base elbow with thread, slide rail bracket BSP1/2" KK50/BSP1 1/2"		8604000
- Base elbow with thread, slide rail bracket BSP1/2" KK50/BSP2"		8604005
- Base elbow with flange, slide rail bracket BSP1" KK65/BSP2 1/2"		8604015
○ Coupling system completely or partly in stainless steel	all	on request
○ Screw-Kits for fastening of coupling systems		on request
○ Intermediate bracket for slide rail bracket extension for KK80	Ø 1/2"	7320271
	Ø 1"	7323714

Description	Size	Part no.
② Slide rails, in pairs, per m Galvanized steel	Ø 1/2"	2190085
	Ø 1"	2190135
Stainless steel	Ø 1/2"	2190250
	Ø 1"	2190252
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 flange	DN 65	on request
Double socket, galvanized	BSP 2"F BSP 2"F/ BSP 1 1/2"F	2109102 2102210
⑤ Non-return valve, GG	DN 65	2212805
⑥ Non-return ball valve	BSP 1 1/2"F BSP 2"F BSP 2 1/2"F	2212902 2212903 2211513
⑦ Double nipple, galvanized	BSP 1 1/2"M BSP 2"M BSP 2 1/2"M	2009020 2009018 2009025
⑧ Shut-off gate valve, GG	DN 65	2216065
⑨ Shut-off gate valve, MS	BSP 1 1/2"F BSP 2"F BSP 2 1/2"F	2216015 2216020 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 1 1/2"F BSP 2"F BSP 2 1/2"F	2113605 2113606 2113610
T-piece for merging the pressure pipe in double pump stations	BSP 1 1/2"F BSP 2"F BSP 2 1/2"F	2114302 2114306 2114308

Description	Size	Part no.
⑫ Transition screw connection galvanized	BSP 1 1/2"M/F BSP 2"M/F BSP 2 1/2"M/F	2114305 2114311 2114312
⑬ 90° bend, galvanized	BSP 1 1/2"F/M BSP 2"F/M BSP 2 1/2"F/M	2111505 2111506 2111705
⑭ Fixed coupling, brass	BSP1"F	2005323
⑭ STORZ-fixed coupling	C-G 2"F B-G 2 1/2"F	2010204 2010502
STORZ-hose-coupling	C-52 mm Ø B-75 mm Ø	2013003 2013502
STA-threaded hose fitting, brass	BSP 1 1/2"F	2001513
⑮ Synthetic-pressure hose, with rubber lining and couplings	C-52 mm Ø 10 m long 15 m long 20 m long 30 m long	2611310 2611315 2611320 2611330
	B-75 mm Ø 10 m long 15 m long 20 m long 30 m long	2611210 2611215 2611220 2611230
Plastic spiral hose, per m	1" Ø 25 mm Ø 50 mm Ø 75 mm	2632025 2632050 2632075
PVC-hose, per m	1" Ø 25 mm 1 1/2" Ø 38 mm	2621000 2621500
Hose clamp	3/4"-1" 1 1/2" 2" 85/20	2302330 2304854 2306009 2308520
○ For pump controllers and switchgears for mobile and stationary applications, measuring systems and monitoring devices,	see HOMA accessories	



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