

# ABS LIGHT WASTEWATER PUMP MF 054 to 804



DIN/EN 12050-2

**ABS submersible pumps of the MF series with their large solids passage offer quality, reliability, performance and ease of installation, covering a wide range of dewatering applications tailored to meet the needs of ABS customers**

## Applications

- ABS submersible pumps of the MF series have been designed for the economical reliable dewatering of buildings and sites
- Pumping effluent from locations below the backwash level in accordance with standard DIN/EN 12056
- Filling or emptying containers
- Suitable for use in septic tanks
- For the emptying of flooded cellars
- For drainage
- For pumping of rainwater

The Vortex hydraulics are particularly suitable for the pumping of fluids containing gaseous or abrasive particles.

For use on building sites, the MF 354, MF 504 & MF 804 are also available as VO-versions with screen and hose coupling. Economic installation, thanks to its compact shape, small sump requirements, fittings for easy mounting and short installation time.

## Construction

The water tight fully flood proof cast iron motor and the hydraulics section comprise a compact robust unit construction.

### Motor

Three-phase 400 V3~ or single-phase 220-240 ~V, 50 Hz, 2-pole (2900 min<sup>-1</sup>), insulation class F, protection type IP68.

### Bearings

The stainless steel rotor shaft is supported in lubricated-for-life ball-bearings.

### Shaft sealing

Between motor and hydraulic section by means of high quality mechanical seal, carbon / silicon carbide (MF 054-334) and silicon carbide (all others), independent of direction of rotation and resistant to temperature shock. Motor side: oil lubricated lip seal.

### Temperature monitoring

TCS-Thermo-Control-System with thermal sensors in the stator to switch off the pump in the case of over-heating and switch on automatically after cooling down.

### Hydraulic section with Vortex impeller

Free solids passage 20 mm (MF 054/154), 30 mm (MF 254/324/334), 40 mm (MF 354/404/504/604/804) and 60 mm (MF 565/665).

### Medium temperature

Max. 40° C continuous use, 60° C intermittent use (max. 5 min).



- ☐ Simple cost-effective pump installation
- ☐ Vortex hydraulics for blockage-free pumping in critical applications
- ☐ Free standing or pedestal usage
- ☐ Reliable, quality products
- ☐ Mechanical seal standard
- ☐ Excellent after-sales service and support
- ☐ Range of discharge sizes from G 1 1/4" to DN 65
- ☐ Thermal sensors as standard to protect motor

## Materials

Upper Lid \_\_\_\_\_ Stainless Steel 1.4301 (AISI 304)  
Motor Housing \_\_\_\_\_ Cast Iron GG-25  
Rotor Shaft \_\_\_\_\_ Stainless Steel 1.4021 (AISI 420)  
Volute \_\_\_\_\_ Cast Iron GG-25  
Impeller \_\_\_\_\_ Polyamide  
Fasteners \_\_\_\_\_ Stainless Steel 1.4401 (AISI 316)

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## Technical Data

Type	Discharge connection internal thread	Motor power* P <sub>1</sub> P <sub>2</sub> kW   kW		Speed at 50 Hz min <sup>-1</sup>		Rated voltage  V	Rated current  A	Cable** without/ with KS m	Level control	Weight  kg
MF 054 W	G 1¼"/1½"	0.39	0.24	2900	Single phase	220-240 ~	1.7	10 /3***	□/• as KS	7.4
MF 154 W	G 1¼"/1½"	0.66	0.42	2900	Single phase	220-240 ~	3.0	10 /3***	□/• as KS	9
MF 254 W	G 1¼"/1½"	0.72	0.47	2900	Single phase	220-240 ~	3.1	10 /3***	□/• as KS	9
MF 324 W	G 1¼"/1½"	0.83	0.54	2900	Single phase	220-240 ~	3.6	10 /3***	□/• as KS	9
MF 334 D	G 1¼"/1½"	0.83	0.56	2900	Three phase	400 3 ~	1.4	10 /3***	□/• as KS	9
MF 354 W	G 2"	1.1	0.7	2900	Single phase	220-240 ~	4.8	10 /3***	□/• as KS	15
MF 404 D	G 2"	1.13	0.8	2900	Three phase	400 3 ~	2.0	10 /3***	□/• as KS	15
MF 504 W	G 2"	2.0	1.5	2900	Single phase	220-240 ~	9.0	10 /3***	□/• as KS	17
MF 604 D	G 2"	2.0	1.5	2900	Three phase	400 3 ~	3.5	10 /3***	□/• as KS	17
MF 804 D	G 2"	2.6	2.0	2900	Three phase	400 3 ~	4.6	10 /3***	□/• as KS	20
MF 565 W	DN 65 <sup>1)</sup>	2.6	1.8	2900	Single phase	220-240 ~	11.6	10 /3***	□/• as KS	24
MF 665 D	DN 65 <sup>1)</sup>	2.6	2.0	2900	Three phase	400 3 ~	4.6	10 /3***	□/• as KS	24
MF-VO 354 W	G 2"/C	1.1	0.7	2900	Single phase	220-240 ~	4.8	10	□/• as KS	15
MF-VO 504 W	G 2"/C	2.0	1.5	2900	Single phase	220-240 ~	9.0	10	□/• as KS	17
MF-VO 804 D	G 2"/C	2.6	2.0	2900	Three phase	400 3 ~	4.5	10	□/• as KS	20

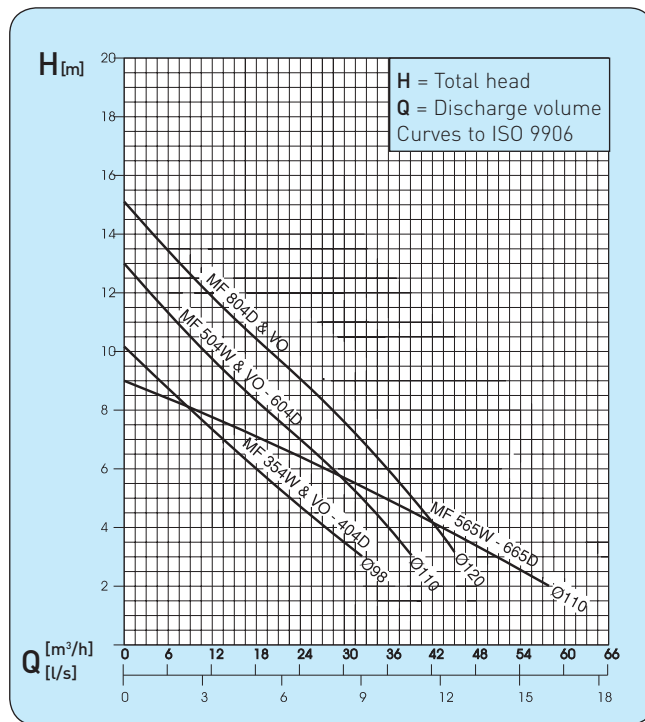
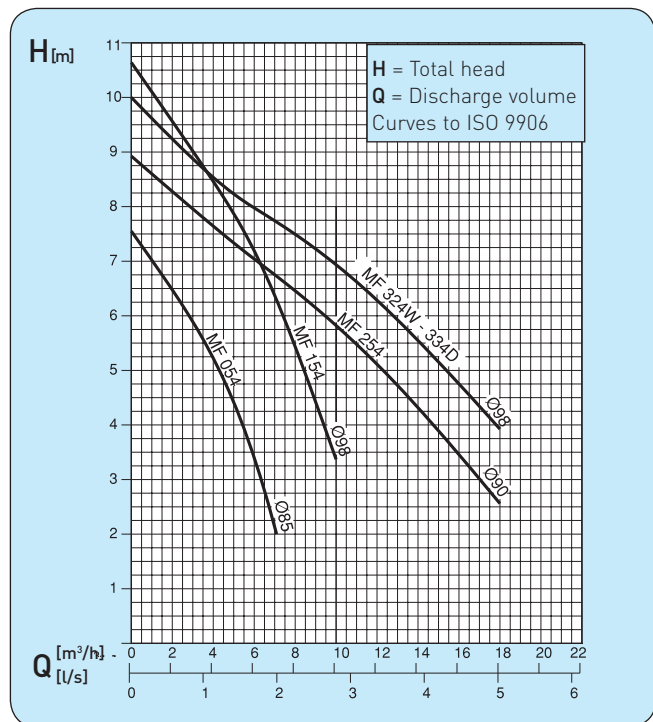
\*P<sub>1</sub> = Power taken from mains  
P<sub>2</sub> = Power at motor shaft  
<sup>1)</sup> DN = Dimension in mm (no internal thread)

\*\* = Single-phase with EURO plug if fitted, cable H07RN-F3G1.0 and three-phase with CEE plug; cable H07RN-F4G1.0

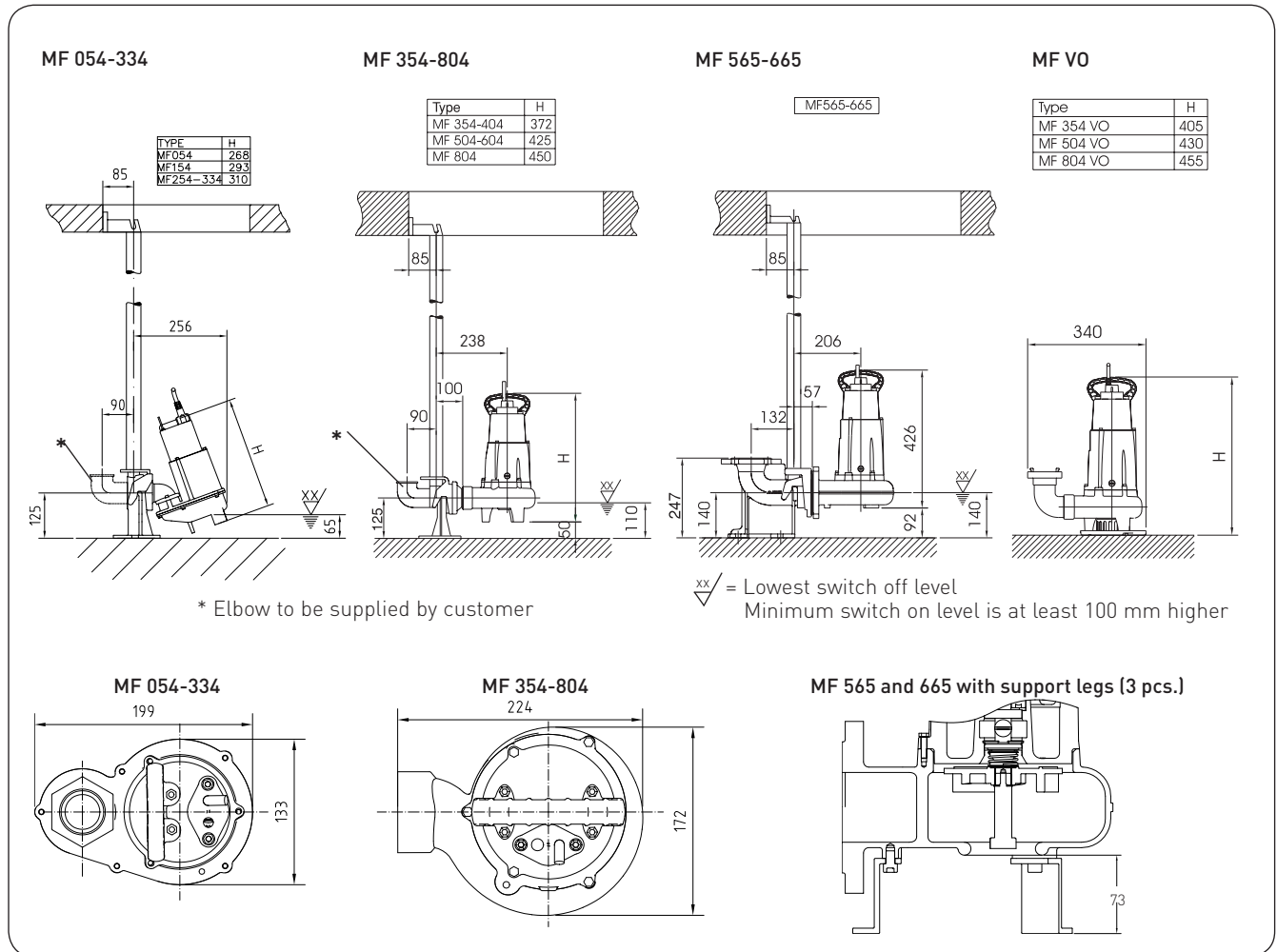
\*\*\*= For external applications, the following VDE regulations apply: Submersible pumps for use externally must have a fixed cable connection with a length of at least 10 m. Regulations vary in other countries.

• = standard  
□ = supplied as accessory

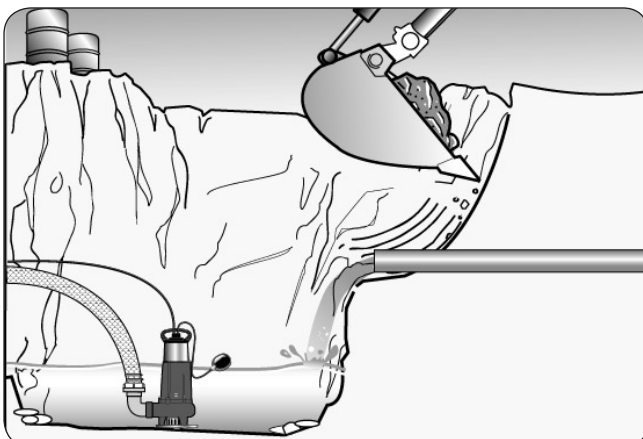
## Performance Curves 50 Hz



## Dimensions

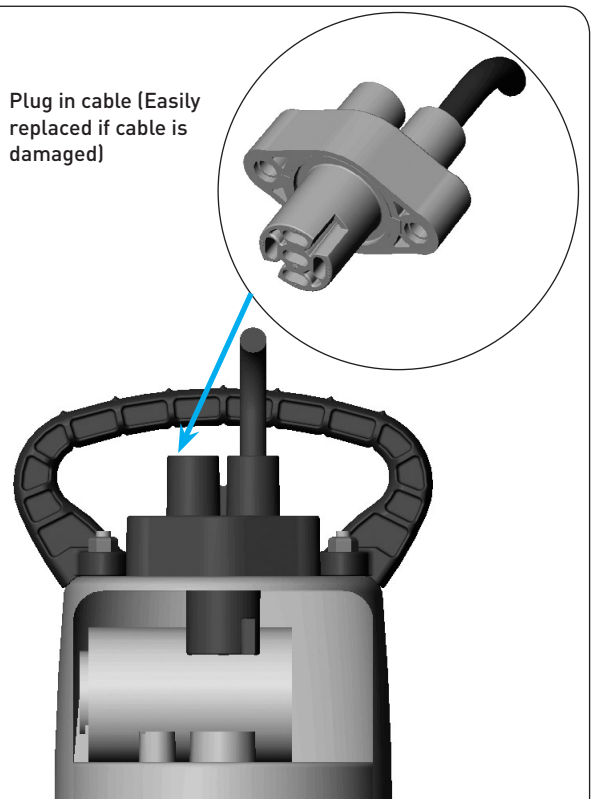


## Installation Examples



## Innovation – plug-in cable connection

Plug in cable (Easily replaced if cable is damaged)



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### Accessories

Description (Material)	Size	Part No.	Models
□ <b>Pedestal</b> (cast iron) complete with transition piece	G1½"/2" G2"/G2" DN 65	62325012 62320560 62320673	MF 054-334 MF 354-804 MF 565/665
□ <b>Guide tube</b> (steel, galv.)	1¼" 1 m 2 m 3 m 4 m 5 m	31380007 31380008 31380009 31380010 31380011	MF 054-804 MF 054-804 MF 054-804 MF 054-804 MF 054-804
□ <b>Chain Kit</b> (galv. steel) including shackle	3 m 4 m 6 m 7 m	61265065 61265093 61265069 61265096	MF 054-804 MF 054-804 MF 054-804 MF 054-804
□ <b>Non-return valve</b> (synthetic) with internal thread	G1¼" G1½" G2" G2½" DN 65	61400511 61400512 61400513 61400543	MF 054-334 MF 054-334 MF 354-804 MF 565-665
□ <b>Gate valve</b> (brass) with internal thread	G1¼" G1½" G2"	14040005 14040006 14040007	MF 054-334 MF 054-334 MF 354-804
□ <b>ABS control system</b> for duplex pumping stations in corrosion resistant plastic housing with automatic change of the operating sequence, acoustical alarm and potential-free fault signal plus float switches. Check with ABS for details.			
□ <b>Plug in alarm</b> for DIN type socket 230 V with audible alarm. Alarm diode and cancel button, potential-free fault output, mains operated, however, supplied with loading unit for mains independent operation.		16020201	MF 054-804
□ <b>NC batteries</b> (for mains independent operating) 9V TR7-8		12820018	MF 054-804
□ <b>ABS alarm contact float</b> with KS float switch	KS 5 = 5 m KS10= 10 m	62450016 62450017	MF 054-804 MF 054-804

### Accessories for transportable use

Description (Material)	Size	Part No.	Model
□ <b>Heavy duty discharge hose</b> with built-in hose couplings	10 m 20 m	15030041 15030043	MF VO MF VO
□ <b>Coupling spanners</b> (2 needed)	A-B-C	15010020	MF VO
□ <b>Automatic level control</b> with socket into which pump can be plugged without the need to do any wiring (for DIN plugs only) for Single Phase for Three Phase	KS-Z 10 NKT-21	08410205 08520225	
□ <b>Support legs</b>		61405015	MF 565-665

ABS can supply a wide range of accessories suitable for either the fixed installation method using the ABS pedestal and single guide rail or for portable applications. Level controls and control panels are also available for twin pump installations.

