

# Light Wastewater Pump Type ABS MF 154HW

**SULZER**

Compact submersible pump for the removal of domestic and commercial high temperature wastewater that can contain solids up to 20 mm.

## Applications

The MF 154HW submersible pump has been designed to cover a wide range of internal and external dewatering applications, but primarily where the temperature of the medium exceeds the standard upper limit (40 °C) to a maximum allowable temperature of 80 °C.

- Pumping of high temperature discharge water from laundries, commercial dishwashers and washing machines.
- Filling and emptying of containers to the drainage of flooded cellars and removal of rainwater.
- Suitable for use in septic tanks and pumping effluent from locations below the backwash level in accordance with EN 12056.
- The vortex hydraulics are particularly suitable for the pumping of fluids containing gaseous or abrasive particles.
- The compact shape of the MF, fittings for easy mounting, and small sump requirements ensure a quick and cost-effective installation of the pump.
- The MF 154HW pump is designed for short term (S2) and intermittent (S3) operation only, operating in 8-minute / 10% cycles i.e. 0.8 minutes ON / 7.2 minutes OFF.
- Maximum allowable temperature of the pumped medium is 80 °C (intermittent only).

## Construction

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

## Bearings

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

## Shaft sealing

Between motor and hydraulic section by means of a high quality mechanical seal of carbon / silicon carbide. Seal at motor side is an oil-lubricated NBR lip seal. Both are independent of direction of rotation and resistant to temperature shock.

## Temperature monitoring

Thermal sensors in the stator to switch off the pump in the case of overheating and switch on automatically after cooling down.

## Hydraulic section with vortex impeller

Free solids passage 20 mm.

## Materials

Description	Material
Upper lid	Stainless steel 1.4301 (AISI 304)
Motor housing	Cast iron EN-GJL-250
Rotor shaft	Stainless steel 1.4021 (AISI 420)
Volute	Cast iron EN-GJL-250
Impeller	Polyamide
Cable	Neoprene
Fasteners	Stainless steel 1.4401 (AISI 316)



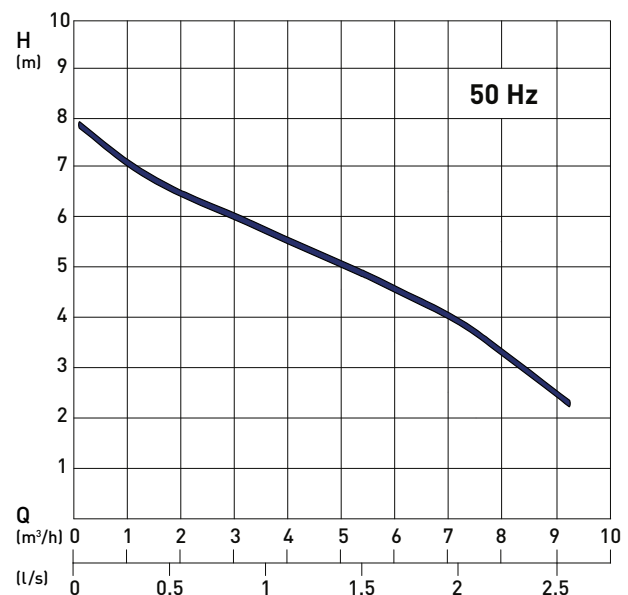
## Features

- Simple, cost-effective, pump installation.
- Vortex hydraulics for blockage-free pumping in critical applications.
- Free-standing on legs or pedestal mounted.
- Discharge connections G 1½" internal - 1¼" adaptor.
- Mechanical and lip seals on rotor shaft.
- Thermal sensors to protect motor against overheating.
- Float switch for automatic level control.
- EasyFit plug-in cable connection.
- Fitted with Schuko plug.

## Motor

Single-phase 220-240 V, 50 Hz, 2-pole (2900 r/min) motor. Insulation class F; protection type IP68.

## Performance curve



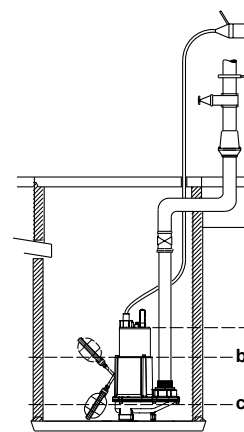
H = Total Head; Q = Discharge Volume. Curves to ISO 9906.

## Technical data

MF 154HW		
Discharge connection		G 1½"-1¼"
Motor power (kW)*	P <sub>1</sub>	0.65
	P <sub>2</sub>	0.42
Speed (r/min)		2900
Rated voltage (V)		220-240 1~
Rated current (A)		2.8
Cable type (H07RN-F, enhanced version)		3G1.0
Cable length (m)		10
Weight (kg)		8.5
Solids size (mm)		20

\* P<sub>1</sub> = Power taken from mains. P<sub>2</sub> = Power at motor shaft  
 According to VDE regulations submersible pumps for use externally must have a fixed cable connection with a length of at least 10 m. Regulations vary by country.

## Installation example

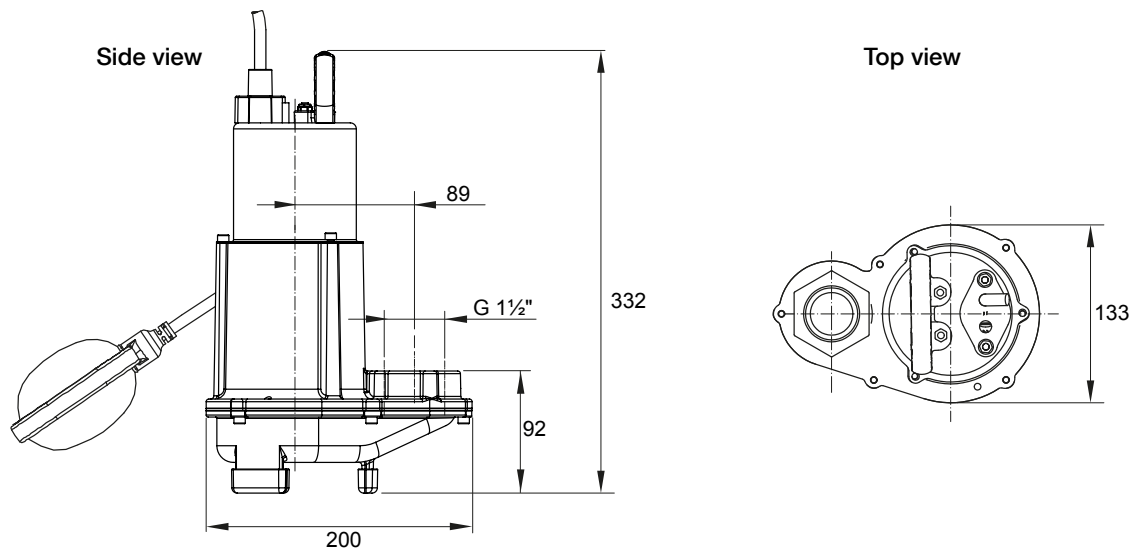


**a:** Max. submergence level when the medium temperature is above 60 °C

**b:** Switch on

**c:** Switch off

## Dimensions (mm)



## Accessories

	Description	Size	Part no.
Fixed installation	<b>Pedestal</b> (cast iron EN-GJL-250) vertical discharge, without bend	G 1¼"	62325012
	<b>Bracket Kit</b> vertical discharge	G 1¼"	62325014
	<b>Guide Rail</b> (galvanized steel)	1¼" x 1 m	31380007
		1¼" x 2 m	31380008
		1¼" x 3 m	31380009
		1¼" x 4 m	31380010
		1¼" x 5 m	31380011
	<b>Chain Kit</b> (galvanized steel) including shackle	3 m	61265065
		4 m	61265093
		6 m	61265069
		7 m	61265096
	<b>Chain Kit</b> (stainless steel) including shackle	3 m	61265081
4 m		61265099	
6 m		61265085	
7 m		61265102	
General	<b>Non-return Valve</b> (EN-GJL-250) ball valve with internal thread	G 1¼"	61400525
		G 1½"	61400526
	<b>Gate Valve</b> (brass) with internal thread	G 1¼"	14040005
		G 1½"	14040006