

# Submersible Mixer Type ABS RW 200 and 280

# SULZER

## 50 Hz

Compact submersible mixer for flushing and cleaning of pump sumps.

### Applications

The compact submersible mixers of the RW 200 / RW 280 series are designed for mixing applications in pump sumps, i.e. the prevention of sedimentation deposits and floating scum. They have a maximum continuous running time of one hour, and up to a total of eight hours in every twenty four.

The RW 200 / 280 series can be installed regardless of the tank shape and is suitable for the cleaning of pump sumps up to Ø 5 m or 24 m<sup>2</sup>. Depending on the intensity of mixing required, one or more mixers may be installed.

The optimum flow direction for a particular application can be achieved quite simply by adjusting the mixer position horizontally or vertically ( $\pm 30^\circ$ ) on the mounting bracket.

Horizontal adjustment is not possible in a guide rail installation. In a hanging installation, swivelling in the horizontal plane is facilitated by the conical threaded pipe connection.

The coupling bracket, adjusting plate, and 10 m cable with free cable ends, are supplied as standard.

**For optimum selection in general mixing applications the following information is required:**

- Application
- Tank / sump dimensions
- Medium to be mixed
- Viscosity and specific weight of medium
- Temperature, dry matter content etc.

### Construction

- Water-pressure-tight encapsulated modular motor with cast iron housing, oil chamber and propeller, form a compact, robust, unit construction.
- 3-phase, 4-pole motor, 1 450 minimum r/min, insulation class F, protection class IP 68.
- Rotor shaft supported in lubricated-for-life ball bearings.
- Tandem shaft sealing with lip seal and silicon carbide mechanical seal as standard. Option of viton mechanical seal.
- Patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.
- Blockage-free, cast iron, 2-blade propeller.
- Thermal sensors in the stator give a warning and switch off the unit if excessive temperatures are reached in the motor.
- Maximum allowable temperature of the medium is 40 °C.

### Materials

Description	Material
Motor housing	Cast iron EN-GJL-250
Motor shaft	Stainless steel 1.4021 (AISI 420)
Oil chamber	Cast iron EN-GJL-250
Propeller	Cast iron EN-GJL-250
Fasteners	Stainless steel 1.4401 (AISI 316)



### Features

- Easy installation
- Small space requirements
- Adjustable bracket allows direction to be altered
- Guide rail mounting option
- Cast iron housing
- Wear-resisting propeller
- High power reserves
- Patented solids deflection ring
- Modular motor
- Available as standard or explosion-proof

**Identification code:** e.g. RW 2022 13/4 Ex

#### Hydraulics:

RW.....Mixer series  
 20 .....Propeller diameter (cm) nominal  
 2 .....Propeller type  
 2 .....Hydraulic number

#### Motor:

13 ..... Motor power  $P_2$  kW x 10  
 4 ..... Number of poles  
 Ex ..... Motor version (EX only on request)

### Accessories

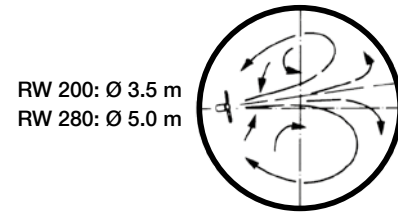
Description	Part no.	
Mounting brackets	wall or floor	62995000
	wall (extended)	62990006
	pipe G 1½"	62990007
	guide rail 60 x 60 mm open	61265048
	guide rail 60 x 60 mm closed	61265049
	guide rail 50 x 50 mm open	61265050
	guide rail 50 x 50 mm closed	61265051
Concrete base	62990008	

## Technical Data

RW	2022	2822
Motor	S13/4	S25/4
Propeller diameter [mm]	200	280
Propeller angle	16°	16°
Speed [r/min]	1 450	1 450
Motor power [kW]*	$P_1 = 1.9$ $P_2 = 1.3$	$P_1 = 3.3$ $P_2 = 2.5$
Rated voltage [V]	230 3~, 400 3~	230 3~, 400 3~
Rated current [A]: 230 V 400 V	6.3 3.6	10.1 5.8
Cable type [TL90 07RN-F]	4G1.5 + 3x0.5	4G1.5 + 3x0.5
Cable length [m]	10, 20, 30, 40, 50	10, 20, 30, 40, 50
Weight [kg]	26.0	32.0

\*  $P_1$  = Power taken from mains.  $P_2$  = Power at motor shaft.

## Maximum Tank Sizes



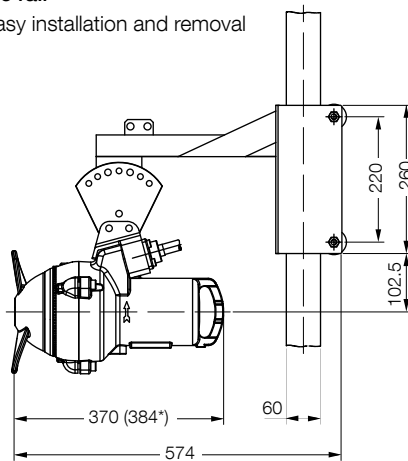
RW 200: 3.0 x 5.0 m  
RW 280: 4.0 x 6.0 m



## Dimensions (mm)

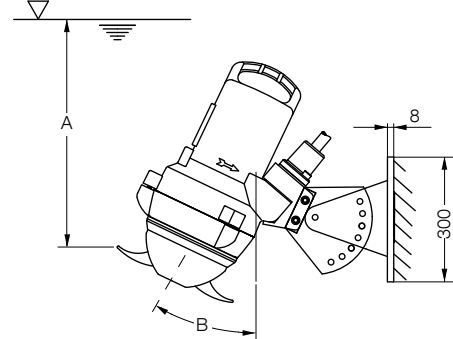
### Guide rail

for easy installation and removal



\* RW 280

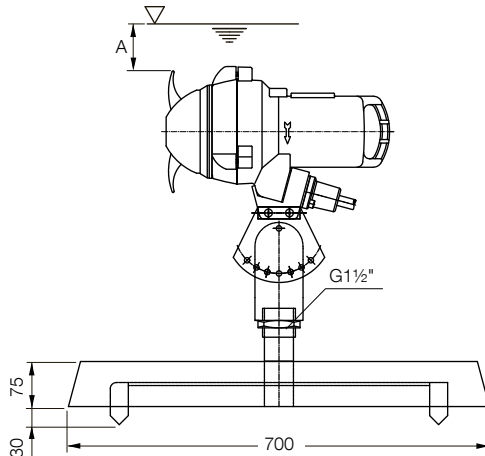
### Wall mounted



A = min. 500 mm B = max. 30°

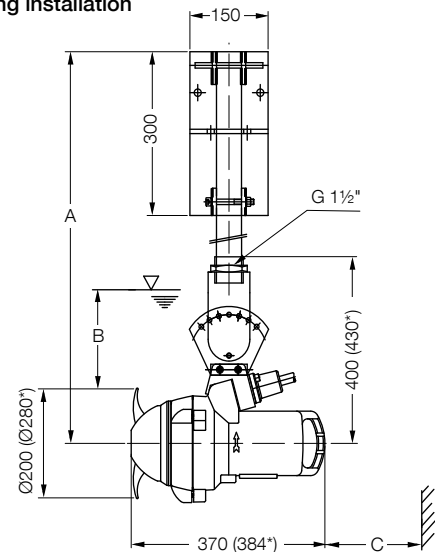
### Floor mounted

on moveable concrete base



A = min. 400 mm

### Hanging installation



A = max. 2 m B = min. 400 mm C = min. 450 mm

\* RW 280