

# Submersible Recirculation Pump Type ABS RCP 400

# SULZER

## 60 Hz

Compact, submersible recirculation pump type ABS RCP is designed for pumping activated sludge in treatment plants during the nitrification and denitrification process, as well as for pumping of storm, surface and river water.

### Construction

The submersible recirculation pump type RCP is designed as a compact, water-pressure-tight unit, including propeller and bracket with well proven automatic coupling system using a single guide rail. The single guide rail coupling system guarantees quick and economical installation to DIN-flange. The RCP is available in EC and optional in stainless steel (CR).

Maximum allowable temperature of the medium for continuous operation is 40 °C (104 °F).

#### Motor:

Squirrel cage, 3-phase, 8-pole 60 Hz. Protection type IP 68, with stator insulation Class F (155 °C/311 °F), max. submergence 20 m (66 ft).

#### Propeller:

Technically optimized, axially operating 2- 3-blade propellers with very good self-cleaning effect for vibration-free operation. The propellers are designed to achieve high thrusts and therefore a high flow capacity in axial direction.

#### Solids deflection ring:

The patented solids deflection ring protects the mechanical seal from damage by ingress of solid or fibrous matter.

#### Bearings:

All bearings are lubricated-for-life and maintenance-free, with a calculated life time of more than 100,000 h.

#### Shaft sealing:

Mechanical seal: Silicon carbide / Silicon carbide. O-Rings / lip seals: NBR.

#### Seal monitoring:

DI-system with sensors in the oil, motor and cable connection chambers.

#### Temperature monitoring:

TCS-Thermo-Control-System with thermal sensors in the stator which open at 140 °C (284 °F).

#### Cable:

10 m (33 ft) sewage resistant material.

#### Optional lengths (m):

15 (49 ft), 20 (66 ft), 30 (98 ft), 40 (131 ft), 50 (164 ft).

#### Options:

Explosion-proof version, seals in viton, EMC cable, cable protection sleeve, PTC or PT 100 in the stator, insulation class H \*.

#### Weight:

118 kg (260 lbs).

\* not in FM version.



### Motor data

Motor	A 35/8	A 46/8
Rated power (kW / hp)	3.5 / 4.7	4.8 / 6.2
Rated current at 460 V (A)	8.8	10.3
Speed (min <sup>-1</sup> )	858	841
Motor efficiency (%)	76.0	76.0
Power factor	0.66	0.74

### Materials

Part	EC (cast iron)	CR (stainless steel)
Motor housing	EN-GJL-250, painted (ASTM A48; Class 35B)	1.4571 (AISI 316 Ti)
Connection chamber	EN-GJL-250/EN-GJS-400-18 (ASTM A48; Class 35B/ ASTM A536; 60-40-18)	1.4408 (CF-8M)
Motor shaft	1.4021 (AISI 420)	1.4404 (AISI 316)
Propeller	1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)
Fasteners / Motor	1.4401 (AISI 316)	1.4401 (AISI 316)
Bracket	galv.steel or 1.4571 (AISI 316 Ti)	1.4571 (AISI 316 Ti)

### Performance field

