



ABS SUBMERSIBLE AERATOR TA/TAK

- ❑ Easy and quick installation without emptying the tank
- ❑ No aerosol effect and no sedimentation on the bottom of the basin
- ❑ Good oxygen transfer (SOTR) and aeration efficiency values (SAE)
- ❑ Self-cleaning system
- ❑ Replaceable wear parts

Applications

These submersible aerators TA/TAK are suitable for all gas-liquid reactions at temperatures below 70°C and pressures below 2 bar absolute.

Applications in sewage and water treatment:

Mixing and equalizing basins:

Equalizing of wastewater pollution load and wastewater quantities, as well as avoidance of odour problems.

Activated sludge basins and SBR reactors:

Biological degradation of organic substances.

Sludge stabilisation:

Avoidance of odour problems as well as further oxidation of the organic substances.

Flotation:

Flotation of oil and grease.

Lagoon aeration:

Improvement of natural aeration.

Neutralization:

Neutralization of alkaline wastewater with CO₂ or flue gas.

Special applications:

Aeration with pure oxygen or ozone.

The submersible aerator is positioned on the bottom of the basin without anchorage.

For maintenance and inspection work the aerator can be lifted by means of a mobile crane.

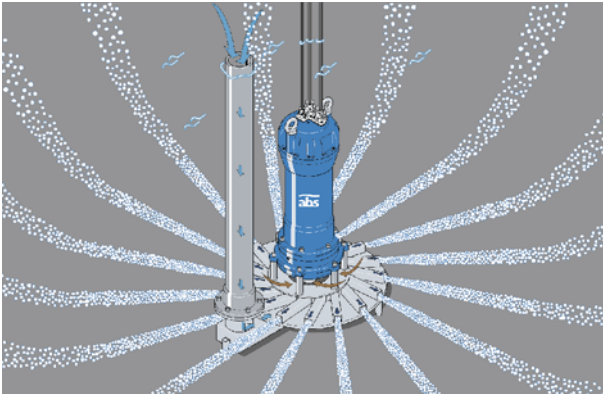
The hydraulic parts are made of stainless steel and then passivated. This ensures long life and effective operating even in highly corrosive liquids.

In order to increase the wear resistance of heavily loaded parts, it is possible to add an additional galvanic coating of chrome to part of the surface.

Operation principle

The submersible aerator TA/TAK is a submerged motor, blower, pump and mixer, all combined in one unit.

It consists of a star-shaped impeller directly connected to the motor shaft, a stator surrounding the impeller as well as an air pipe to atmosphere.



The impeller rotates inside the stator creating a vacuum and automatically aspirating air through the air pipe.

At the same time, water flows into the impeller, is thoroughly mixed with the air and radially discharged through the channels of the stator. This system ensures fine bubbles.

TA series

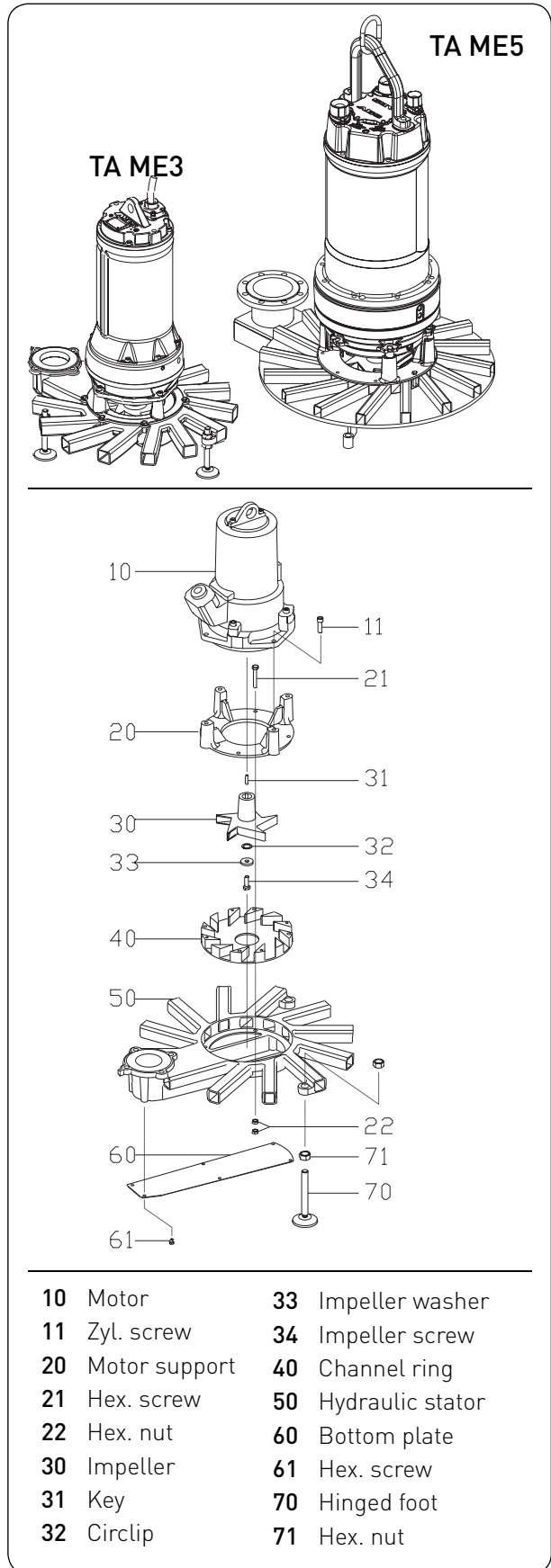
TA 152 - TA 2400. Models varying from 3 to 75 kW.

TAK series

TAK 901 - TAK 2400 (with channel extensions).
Models varying from 18.5 to 75 kW. The TAK version is upgrading the SOTR and SAE values to 15 - 20 %.

Technical Specifications

| | |
|---------------------|-----------------------------|
| Height: | 629 - 1750 mm |
| Length TA: | ∅ 485 - 1050 mm |
| Width TA: | 581 - 1345 mm |
| Diameter TAK: | 3845 - 4025 mm |
| Rated motor power: | 3 - 75 kW |
| Installation depth: | 3 - 8 m |
| SOTR: | 3 - 80 kg O ₂ /h |



- | | |
|------------------|---------------------|
| 10 Motor | 33 Impeller washer |
| 11 Zyl. screw | 34 Impeller screw |
| 20 Motor support | 40 Channel ring |
| 21 Hex. screw | 50 Hydraulic stator |
| 22 Hex. nut | 60 Bottom plate |
| 30 Impeller | 61 Hex. screw |
| 31 Key | 70 Hinged foot |
| 32 Circlip | 71 Hex. nut |



Av. Colonial 5771 - Callao

Central 464-0404 Email: info@unitec.pe

www.unitec.pe