

| OKI aerator mixer



# Main industries and applications

The submersible OKI 1000 and 2000 aerator mixers are heavy-duty devices suitable for applications in the continuous and/or intermittent aeration of both municipal and industrial wastewater. It can withstand many harsh types of wastewater with no performance degradation and will tackle intermittent process problems.

The OKI aerator mixer range has been designed to meet the process requirements in versatile municipal and industrial applications:

- Activated sludge basins and sequencing batch reactor (SBR), membrane bio reactors (MBR), and moving bed biofilm reactor (MBBR), providing aeration and mixing in a single unit for degrading the biomass
- Mixing and equalization basins, providing uniform wastewater loading to downstream processes and eliminating odors
- Sludge storage and stabilization, providing odor control as well as oxidation of sludge
- Flotation of oil and grease
- Additional aeration
- Plants with chemical and petrochemical effluents
- Heavily-loaded plants
- Deep basins



Oil and gas



Hydrocarbon processing



Power generation



Pulp, paper and board



General industry



Chemical process industry



Water and wastewater

## Key customer benefits

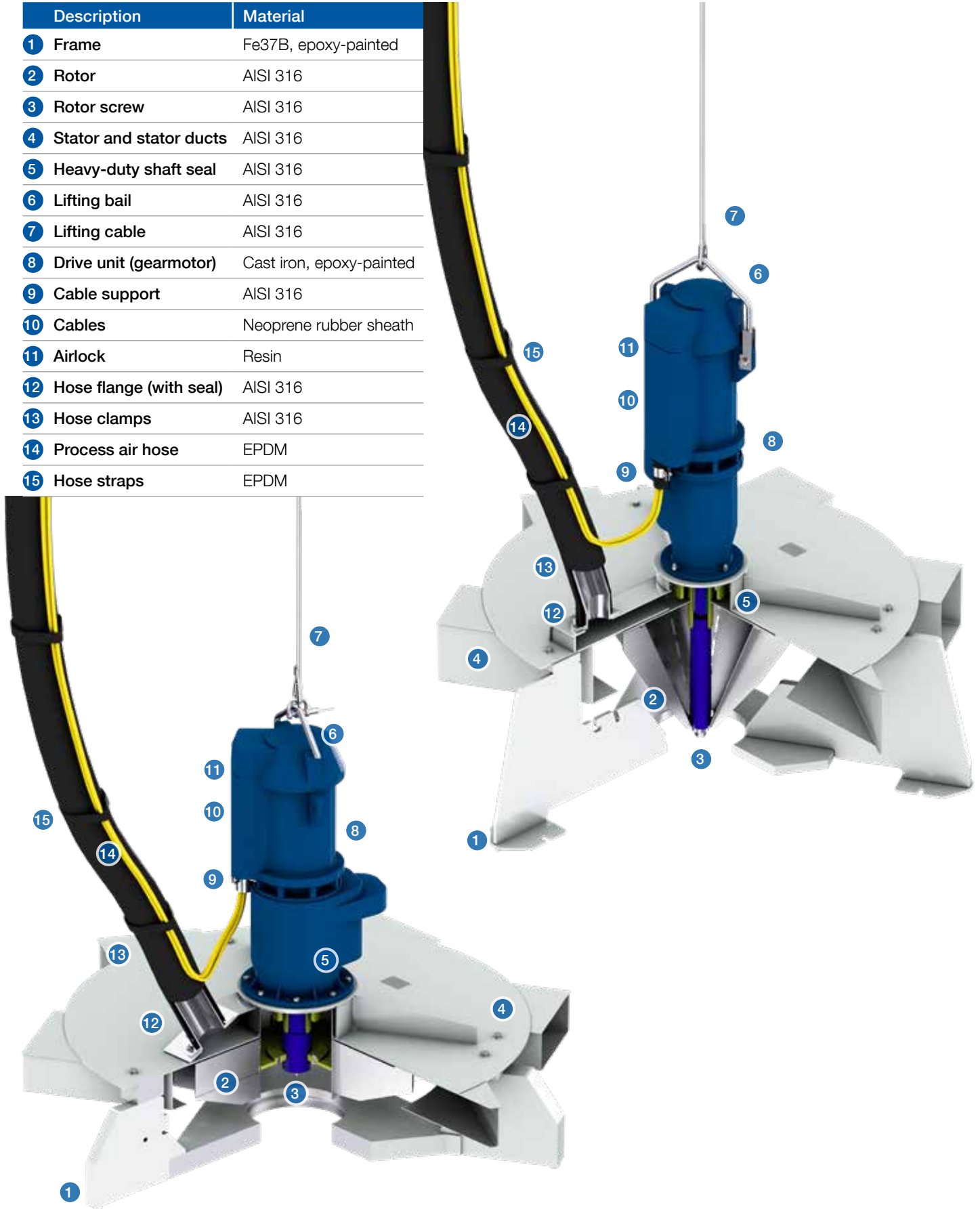
The OKI aerator mixer range has been designed using our long experience and in-depth knowledge of how to maximize value for our customers.

Key benefits include:

- High process efficiency and high standard oxygen transfer rate (SOTR)
- Adjustable oxygen transfer
- Superb pumping capacity
- Designed for non-clogging operation
- Good corrosion resistance
- Lifetime sustainable high-aeration efficiency
- Especially suited for heavy-duty continuous and intermittent processes
- Easy and quick installation without emptying the tank
- Lifiable and selfstanding, making it easy to change the plant configuration—no need to empty the tank
- Low maintenance need (maintenance interval three years)
- Suitable for all usual tank depths, especially deep tanks which no longer require air cooling
- Complete delivery including suitable air hose, lifting cable and electrical cables making installation safe and easy
- Can run as an aerator and/or mixer according to process requirements

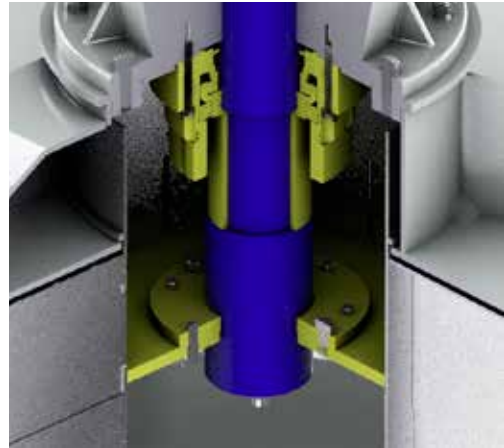
# Components and materials

Description	Material
1 Frame	Fe37B, epoxy-painted
2 Rotor	AISI 316
3 Rotor screw	AISI 316
4 Stator and stator ducts	AISI 316
5 Heavy-duty shaft seal	AISI 316
6 Lifting bail	AISI 316
7 Lifting cable	AISI 316
8 Drive unit (gearmotor)	Cast iron, epoxy-painted
9 Cable support	AISI 316
10 Cables	Neoprene rubber sheath
11 Airlock	Resin
12 Hose flange (with seal)	AISI 316
13 Hose clamps	AISI 316
14 Process air hose	EPDM
15 Hose straps	EPDM



# Shaft seal

- Specially designed for OKI aerator mixer
- Heavy-duty mechanical labyrinth seal
- Superior reliability based on fourfold protection (four sealing barriers)



# Submersible gearmotor

- Power range 5-37 kW / 7-49 hp
- Water-cooled
- Protection class IP68
- Motors are equipped with thermal switches
- Available for 50 and 60 Hz

Two-speed motors available for OKI 1070 and OKI 1090 series:

- aeration at high speed
- mixing without air at low speed

## Gearbox

- Two or three stage helical heavy-duty gearbox
- Oil-lubricated
- Low maintenance need

# Installation

OKI is delivered complete including suitable process air hose as well as lifting and electrical cables, making installation safe and easy. As such, OKI aerator mixer is a complete unit ready for quick and easy installation and connection without emptying the tank.

OKI aerator mixer is connected to a plant air manifold by an air distribution hose (process air hose).



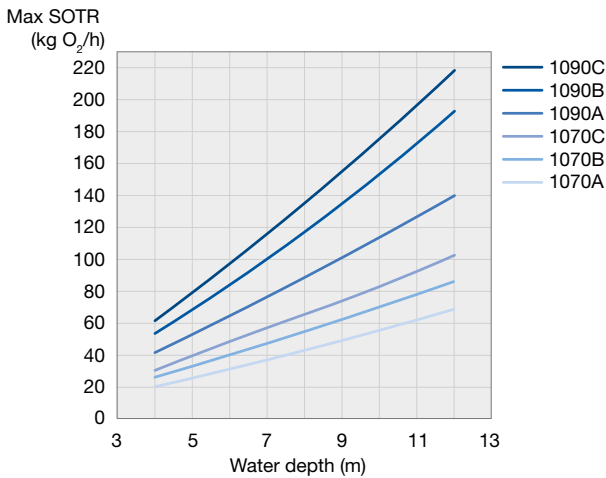
# Operating data

	50 Hz	60 Hz
Power range	5-37 kW	7-49 hp
Air flow	up to 60 m <sup>3</sup> /min	up to 2'100 ft <sup>3</sup> /min
SOTR	up to 410 kg O <sub>2</sub> /h	up to 900 lb O <sub>2</sub> /h
Operation depth	up to 12 m	up to 40 ft.
Air temperature without additional cooling	up to 120°C	up to 248°F

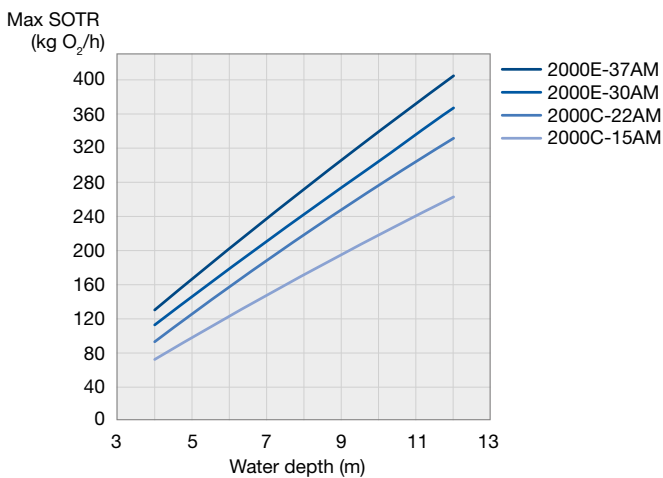
For more than 12 m / 40 ft. operation depth, please contact your local sales representative.

## Performance ranges

### OKI1000



### OKI2000







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