

# Flygt 4400 series

Large submersible mixers for high-efficient, low-speed mixing



**The submersible mixers in the Flygt 4400 series are designed for highly efficient, low-speed mixing of large volumes, with minimal power consumption. The mixers are ideal for wastewater treatment processes, such as activated sludge, oxidation ditches, MBBR processes, sequencing batch reactors and retention tanks.**

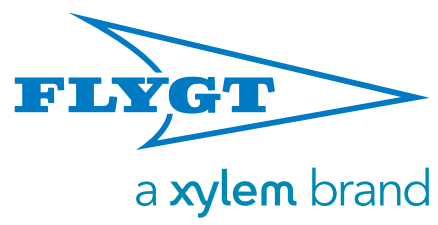
### High-efficient drive unit with IE3 motor

The drive units have a rugged gearbox and a squirrel-cage induction motor with IE3 motor efficiency, minimizing power consumption. Stator windings are trickle impregnated in resin and rated at Class H 180°C (355°F), providing excellent resistance to overheating and an exceptionally long service life.



### Energy savings with unique propeller

Flygt 4400 mixers have unique propellers maximizing output thrust with minimized power (N/kW). Engineered for hydraulic excellence with high-strength materials, the signature "banana-blade" propellers have a backswept self-cleaning design to ensure non-clog performance.



# Flygt 4400 series

## Customized for low life-cycle costs

Each model in the series, Flygt 4410, Flygt 4430 and Flygt 4460, can be customized with a wide range of motor categories and sizes, gear ratios and propeller diameters. The durable design and high-efficiency performance also ensure trouble free-operation. In fact, a major overhaul is only needed every 10 years in most applications.

## Performance Data

(N/kW per ISO 21630)	50 Hz		60 Hz	
<b>Flygt 4410</b>				
Rated power 50/60 Hz, kW (hp)	0.9	2.3	0.9-1.1 (1.2-1.5)	1.8-2.6 (2.4-3.5)
Thrust, N	180-1380	410-2490	260-1446	583-2614
Mixer efficiency, N/kW	Up to 1456	Up to 1250	Up to 1427	Up to 1140
Propeller speed, rpm	17-27	26-47	21-26	31-49
Propeller size, m	1.4 - 2.5		1.4 - 2.5	
<b>Flygt 4430</b>				
Rated power 50/60 Hz, kW (hp)	4.3		4.5-4.6 (6.0-6.2)	
Thrust, N	410-3847		590-4008	
Mixer efficiency, N/kW	Up to 1205		Up to 1118	
Propeller speed, rpm	26-48		32-57	
Propeller size, m	1.4-2.5		1.4-2.5	
<b>Flygt 4460</b>				
Rated power 50/60 Hz, kW (hp)	5.7		6.3 (8.4)	
Thrust, N	1630-4583		2330-4384	
Mixer efficiency, N/kW	Up to 1050		Up to 1000	
Propeller speed, rpm	36-48		44-57	
Propeller size, m	1.8-2.5		1.8-2.5	

## Technical Data

Motor data	Type Insulation Starting method	Squirrel-cage 4- or 6-pole induction motor, IE3 optional Class H (180 C, 356 F), trickle impregnated Direct on-line, star-delta, VFD
Materials	Gear housing, stator housing, oil housing, hub Shaft Propeller Lifting device, stand unit Oil (oil-housing) Oil (gear-housing) O-rings	Cast iron, ASTM 35B Stainless steel, ASTM/AISI 431 Reinforced polyurethane plastic Stainless steel, ASTM 316L Paraffin oil ISO VG32 Mineral oil with additives, viscosity close to ISO VG 220 Nitrile rubber
Monitoring	Thermal contacts Leakage sensor in the stator housing (FLS) Leakage sensor in the oil housing (KOD)	Opening temperature 125 C (257 F) Optional Optional
Cable	SUBCAB heavy-duty submersible cable SUBCAB screened heavy-duty submersible cable	10, 16 or 20 m (30, 53 or 65 ft) 10 or 20 m (30 or 65 ft)
Application limits	Liquid temperature Liquid viscosity pH of the mixed liquid Chlorides in the mixed liquid Depth of immersion	Max. 40 C (104 F) Max. 5000 cp 6-11 Max. 200 ppm Max. 20 m (65 ft)
Weight and dimensions	Max. weight Max. length (from guide bar) 2-bladed propeller, diameter	4410: 280 kg (620 lb), 4430: 360 kg (800 lb), 4460: 360 kg (800 lb) 4410: 965 mm (38 in), 4430: 1070 mm (42 in), 4460: 1070 mm (42 in) 1400 mm (55 in), 1600 mm (63 in), 1800 mm (71 in), 2000 mm (79 in), 2200 mm (87 in), 2500 mm (98 in)
Installation	Tripod guide bar system	100 x 150 mm (4x6 in)
Certificates	Approvals for product safety and usage in hazardous zones	EN, IECEx, UKEx, CSA and FM