

Long-axis agitator Giantmix FT



FT1 75-240
 FT3 110-330
 FT4 150-330
 FT4 150-480
 FT5 185-330
 FT5 185-480
 FT6 220-330
 FT6 220-480

Powerfull
High efficiency
Low cost maintenance



Application

Biogas tanks
 (Fermenter - Post digester - End storage tanks)
 Dry matter content up to 14 %
 Substrate temperature up to 70°C
 pH-value 6.5 - 8.2

Technical Data

Tube length 4.0 / 5.0 / 5.5 / 6.0 m
 Tube Ø 159 x 5 mm, ss304 inclusive robust tube within tube technology
 Sealing plate 120x120 cm (143x143), ss304 ss316 on request
 Sound pressure level 75 dB(A)
 Sealing membranes of EPDM60
 Installation up to 8 m below substrate level
 Oil inspection glass for monitoring the tightness
 Agitator completely manufactured in modular design
 Option: power take-off with protection for alternative operation with tractor (max. HD+ 700)

Motor

7.5 kW : 8-poles
 11.0 / 15.0 / 18.5 / 22.0 kW : 4-poles
 60 Hz, special tensions on request
 PTC thermistors 160°C (overheat protection)
 Ex-Motor Ex II 3G Ex nA IIA T3 Gc
 Special design 13.5 kW: Ex II 2G Ex e IIA T3 Gb
 Option: rain protection hood (ss304)

Gear

Spur gear, helical teeth, low noise level
 Reduction ratio $i = 3.83$ or 5.31
 Own oil circuit gear oil SAE85W-140 / API GL-5
 Oil change all 2,000 operating hours

Bearing

2 tapered roller bearing to absorb the axial forces
 Mechanical seals SiC/SiC, independent of rotation direction
 Interim bearings for the drive shaft (slide bearings)

Propeller

3-blade high efficiency propeller, dynamically balanced

FT1:	7.5 kW	240 rpm	Propeller HD+ 800
FT3:	11.0 kW	330 rpm	Propeller HD+ 660
FT4:	15.0 kW	330 rpm	Propeller HD+ 750
FT4:	15.0 kW	480 rpm	Propeller HD+ 540
FT5:	18.5 kW	330 rpm	Propeller HD+ 780
FT5:	18.5 kW	480 rpm	Propeller HD+ 580
FT6:	22.0 kW	330 rpm	Propeller HD+ 800
FT6:	22.0 kW	480 rpm	Propeller HD+ 620

Standard in ss304, optional ss316 or hardened steel

Adjustment range

Lateral adjustment $\pm 30^\circ$ through handspindle
 Tilt adjustment up to $\pm 30^\circ$ through hydraulic cylinder
 Tank openings: 800 x 800 mm (plate 120 cm)
 1,000 x 1,000 mm (plate 143 cm)

Ex-Zone

Ex-Zone 2 (outside tank) and Zone 1 (inside tank)
 Special design FT4 13.5 kW for Zone 1 (outside)
 Classification mechanical components:

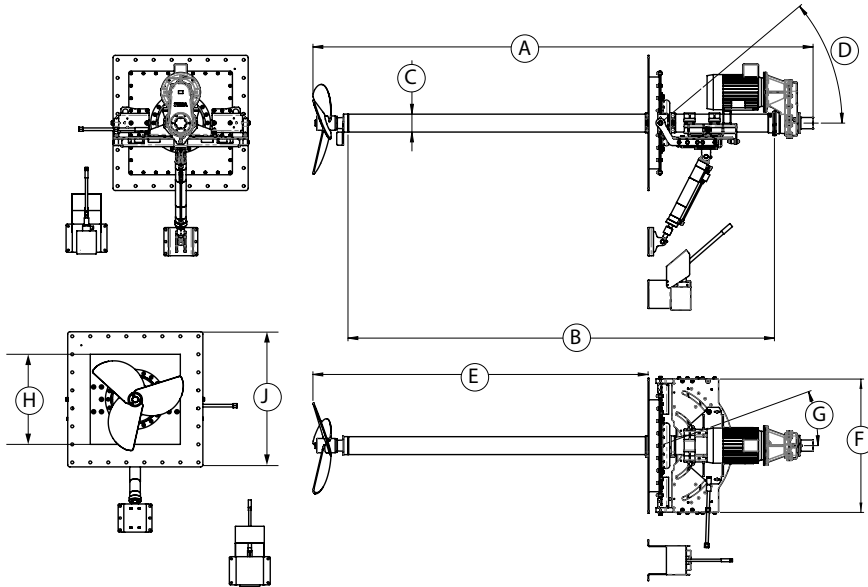
Ex II 2G ck IIA T3

Control switch (optional)

Soft start or frequency converter
 Delivery without connecting cable

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Dimensions

Type	A [m]	B [m]	C [mm]	D	E [m]	F [m]	G	H [m]	J [m]
FT 1-6	4.6 / 5.6 6.1 / 6.6	4.0 / 5.0 5.5 / 6.0	∅ 159	max. ± 30°	3.3 / 4.3 4.8 / 5.3	1.227	± 30°	0.8	1.2 / 1.43

Technical Data

Type	Rated Power [kW]	Propeller speed [rpm]	Frequency [Hz]	Gear reduction ratio	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s]	Pumping rate water [m ³ /min]	Weight approximate [kg]			
FT1	7.5	240	60	3.69	800	2.0	3.0	86	950			
FT3	11.0	330	60	5.31	660	2.3	3.3	63	950			
FT4	15.0	330	60	5.31	750	3.1	3.7	94	950			
FT4	15.0	480	60	3.69	540	2.7	4.2	55	950			
FT5	18.5	330	60	5.31	780	3.4	3.7	103	950			
FT5	18.5	480	60	3.69	580	3.2	4.1	62	950			
FT6	22.0	330	60	5.31	800	3.9	3.7	108	950			
FT6	22.0	480	60	3.69	620	3.8	4.2	73	950			

Subject to technical changes

* measured in water and 1.2 m distance

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