

# Long-axis agitator Giantmix FR stationary



Type FRI - 9.5 hp  
Type FR3 - 15.0 hp  
Type FR4 - 20.4 hp  
Type FR5 - 24.5 hp

**Powerfull**  
**Innovative Design**  
**Low cost maintenance**



## Application

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

## Technical Data

tube length 8.2 / 9.8 ft  
Tube Ø 4 x 0.16 or 0.22 in in ss304  
Rubber compression seal Ø 0.8 in galvanized  
Sound pressure level 72 dB(A)  
Installation up to 19.7 ft below substrate level possible  
Oil inspection glas as a service indicator (monitoring the impermeability)  
Option: Power take-off with protection for an alternativ tractor operation

## Motor

Low speed: 9.5 hp - 8 poles / 15 hp & 20.4 hp - 6 poles  
High speed: 24.5 hp - 4 poles  
60 Hz, special voltages on request  
Thermal protection 3 x PTC 160°C (Overheat protection)  
Ex-Motor (Series)  II 3G Ex nA II T3 Gc  
Special version with 17.7 hp  II 2G Ex e IIA T3 Gb

## Gear

Spur gear drive, helical teeth, low noise level  
Reduction ratio  $i = 3.69$   
Oil chamber, gear oil SAE 85W-140 / API GL-5  
Oil change after 2,000 operating hours

## Bearing

2 tapered roller bearings for thrust  
Mechanical seals SiC/SiC,  
Interim bearings for the drive shaft

## Propeller

3-blade high efficiency propeller, dynamically balanced



FR1: 9.5 hp / propeller HD+ 700 / 240 rpm  
FR3: 15.0 hp / propeller HD+ 660 / 315 rpm  
FR4: 20.4 hp / propeller HD+ 700 / 315 rpm  
FR5: 24.5 hp / propeller HD+ 560 / 480 rpm

Optional galvanized, hardened steel, ss304 and hardened ss304

## Ex-Zone (tube and gear)

Ex-Zone 2 (outside the tank) and Zone 1 (inside the tank)  
Special version FR with 17.7 hp kW for Zone 1 (outside tank)

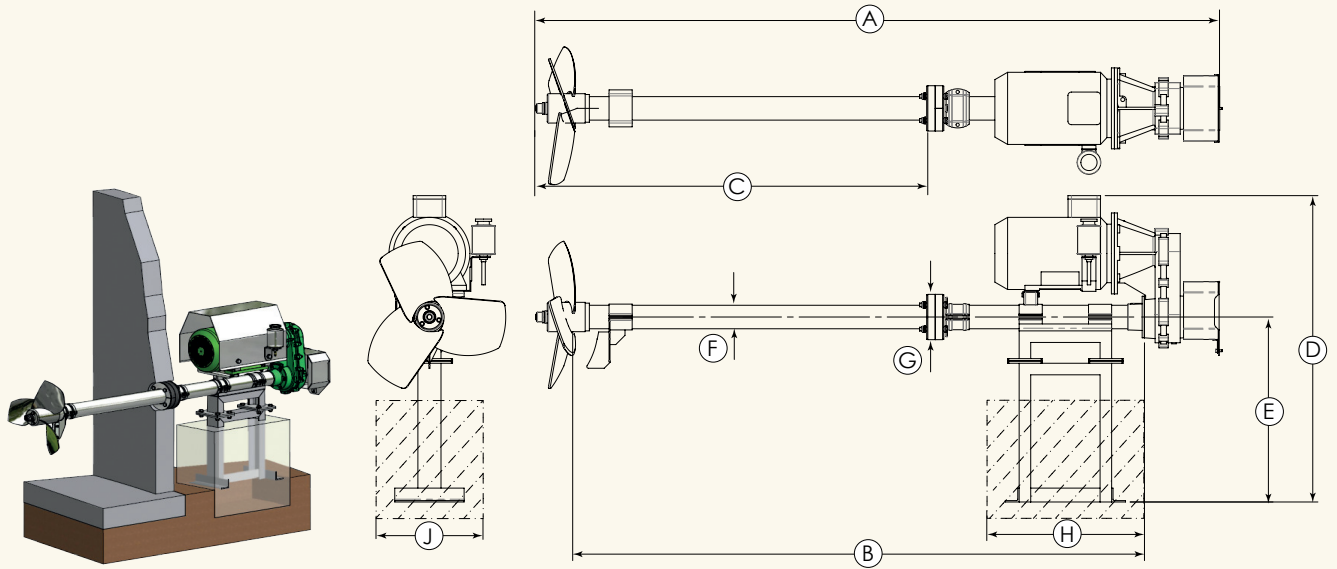
Classification mechanical components

  II 2G ck IIA T4

## Control box (optional)

Star-Delta-Switch, Soft starter, Frequency converter  
Delivery without connecting cable

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Dimensions									
Type	A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	G [in]	H [in]	J [in]
FR 1 - 5	118 / 138	98 / 118	63 / 82.6	52	31.5	4	7.9	31.5	19.7

Technical Data									
Type	Rated Power [hp]	Frequency [Hz]	Gear reduction ratio	Propeller speed [rpm]	Propeller diameter [in]	Axial force [kN]	Flow velocity [ft/s] *	Pumping rate Water [gal/min]	Weight approximate [lbs]
FR1	9.5	60	3.69	240	<b>27.6</b>	1.4	8.2	14529.5	660
FR3	15	60	3.69	315	<b>26</b>	2.1	10.5	16642.8	660
FR4	20.4	60	3.69	315	<b>27.6</b>	2.6	10.8	19284.6	660
FR5	24.5	60	3.69	480	<b>22.1</b>	3.0	13.8	15850.3	660

Subject to technical changes

\* measured in water with a distance of 3.9 ft