

GIANTMIX FR 30°

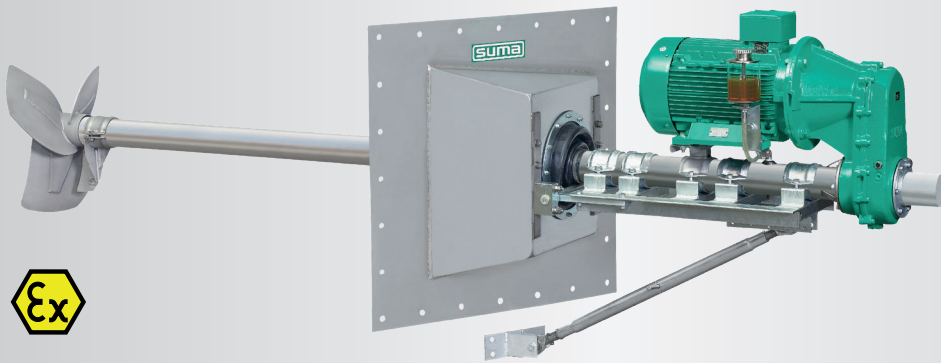
FR1 30° 75-240

FR3 30° 110-330

FR4 30° 150-330

FR4 30° 150-480

FR5 30° 185-480





Application

Long axis agitator for biogas and manure tanks
 Dry matter content up to 14 %
 Substrate temperature up to 70°C
 pH-value 5.5 - 8.2

Technical data

Tube length 9.8 / 13.1 ft
 Tube Ø 4 x 0.16 (max. 9.8 ft)
 or x 0.22 in, ss304, ss316 on request
 Sealing plate / frame 38.6 x 38.6 in ss304
 ss316 on request
 Sound pressure level 75 dB(A)
 Sealing membrane in EPDM60
 Installation up to 4.9 ft below substrate level,
 deeper immersion depths on request
 Oil equalizing container for monitoring the tightness
 Option: Power take-off with protection for an alternativ
 tractor operation (at max. HD+ 700)
 Agitator completely in modular design
Accessory: POM protection to minimize abrasion

Motor

10 hp : 8-poles or 15.0 / 20.0 / 25.0 hp : 4-poles
 PTC thermistors 160°C as overheat protection
 Ex-Motor  II 3G Ex nA IIA T3 Gc
 Special design 18.0 hp:  II 2G Ex e IIA T3 Gb
 Optional: Rain protection hood (ss304)

Gear

Spur gear drive, helical teeth, low noise level
 Reduction ratio $i = 3.69$ or 5.31
 Own oil circuit, gear oil SAE85W-140 / API GL-5
 Oil change all 2,000 operating hours

Bearing

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

Propeller

3-blade high efficiency propeller, dynamically balanced



| | | | |
|------|-------|---------|-------------------|
| FR1: | 10 hp | 240 rpm | Propeller HD+ 800 |
| FR3: | 15 hp | 330 rpm | Propeller HD+ 660 |
| FR4: | 20 hp | 330 rpm | Propeller HD+ 750 |
| FR4: | 20 hp | 480 rpm | Propeller HD+ 540 |
| FR5: | 25 hp | 480 rpm | Propeller HD+ 580 |

Standard in ss304, optional ss316, or hardened steel

Adjustment range

Sealing plate 30° ss304 with tight lateral alignment
 Vertical inclination ($\pm 11^\circ$) through upper link or optional
 $\pm 25^\circ$ through rack winch

Ex-zone

Ex-Zone 2 (outside the tank)
 and Zone 1 (inside the tank)
 Special design FR4 18.0 hp for Zone 1 (outside)
 Classification mechanical components
  II 2G ck IIA T3

Control switch (optional)

Star-delta switch (up to max. 20 hp),
 soft start or frequency converter
 Delivery without connecting cable



GIANTMIX FR 30°

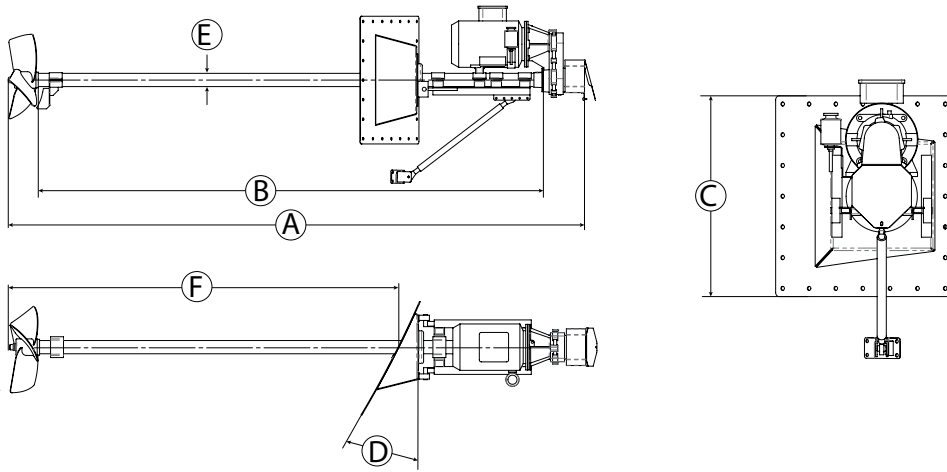
FR1 30° 75-240

FR3 30° 110-330

FR4 30° 150-330

FR4 30° 150-480

FR5 30° 185-480



Dimensions

| Type | A [Ø in ft] | B [ft] | C [ft] | D | E [in] | | | |
|------------------------------|-------------|------------|--------|-----|--------|--|--|--|
| FR4 / FR5 | 11.5 / 14.8 | 9.5 / 12.8 | 3.2 | 30° | Ø 4 | | | |
| FR1 / FR3 / FR4 (330 rpm) | | | 3.9 | | | | | |

Technical data

| Type | Rated Power [hp] | Propeller speed [rpm] | Frequency [Hz] | Gear reduction ratio | Propeller diameter [in] | Axial force [lbf] | Flow velocity [ft/s] * | Pumping rate Water [gal/min] | Weight approximate [lbs] | | | |
|------|------------------|-----------------------|----------------|----------------------|-------------------------|-------------------|------------------------|------------------------------|--------------------------|--|--|--|
| FR1 | 10.0 | 240 | 60 | 3.69 | 31.5 | 449 | 6.9 | 22718 | 1212 | | | |
| FR3 | 15.0 | 330 | 60 | 5.31 | 26.0 | 517 | 10.8 | 16648 | 1212 | | | |
| FR4 | 20.0 | 330 | 60 | 5.31 | 29.5 | 696 | 12.1 | 24832 | 1212 | | | |
| FR4 | 20.0 | 480 | 60 | 3.69 | 21.3 | 606 | 13.8 | 14529 | 1212 | | | |
| FR5 | 25.0 | 480 | 60 | 3.69 | 22.8 | 719 | 13.5 | 16378 | 1212 | | | |

Subject to technical changes

* measured in water and 3.94 distance

As per: 2018-07

© SUMA America Inc. | 2700 Patriot Blvd Suite 250 | Glenview, IL 60026

Tel: (312) 945 9049 | E-mail: sales@gosuma.com | www.gosuma.com