

GIANTMIX FR 30°

FR1 30° 75-200

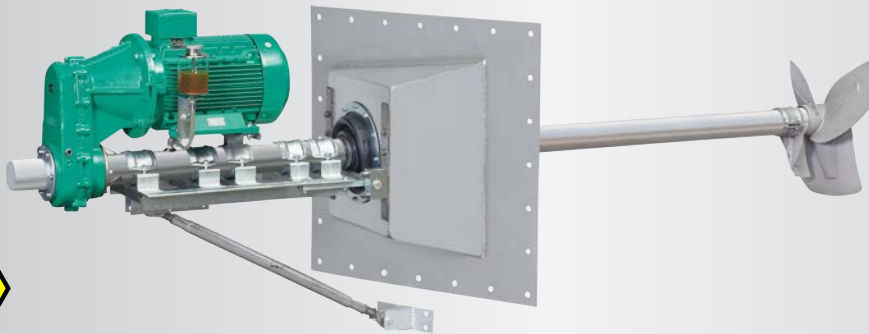
FR3 30° 110-275

FR3 30° 110-400

FR4 30° 150-275

FR4 30° 150-400

FR5 30° 185-400



Application

Long-axis agitator for closed tanks
 Dry matter content up to 14 %
 Substrate temperature up to 70°C
 pH-value 6.5 - 8.2

Technical Data

Tube length 3.0 / 4.0 m
 Agitator shaft Ø 101.6 x 4.0 (max. 3 m)
 or x 5.7 mm in ss304 - ss316 version on request
 Sealing plate/-frame 98x98/120x120 cm ss304,
 ss316 on request
 Sound pressure 75 dB(A)
 Sealing membranes of EPDM60
 Installation up to 1.5 m beneath substrate level,
 deeper immersion depths on request
 As standard with upper link
 Oil equalizing container for monitoring the tightness
 Optional PTO with protection for an alternative tractor
 operation (max. HD+ 700)
 Agitator completely manufactured in modular design
 POM protection to minimize abrasion

Motor

7.5 kW - 8-poles 11.0 / 15.0 / 18.5 kW : 4-poles (IE3 - motor)
 400 V, 50 Hz, special voltages on request
 PTC thermistors 160°C (overheat protection)
 Ex-Motor II 3G Ex nA IIA T3 Gc
 Special design 13.5 kW: II 2G Ex eb 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 chamber, gear oil SAE 85W-140 / API GL-5
 Oil change interval all 2,000 operation hours

Bearing

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

Propeller

3-blade high efficiency propeller, dynamically balanced

FR1:	7.5 kW	200 rpm	propeller HD+ 850
FR3:	11.0 kW	275 rpm	propeller HD+ 800
FR3:	11.0 kW	400 rpm	propeller HD+ 620
FR4:	15.0 kW	275 rpm	propeller HD+ 850
FR4:	15.0 kW	400 rpm	propeller HD+ 660
FR5:	18.5 kW	400 rpm	propeller HD+ 700

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
 Tank opening: 700 x 700 mm (980 mm plate)
 800 x 800 mm (1200 mm plate)

Ex-zone

Ex-Zone 2 (outside the tank)
 and Zone 1 (inside the tank)
 Special design FR4 13.5 kW for Zone 1 (outside)
 Classification mechanical components:
 II 2G Ex h IIA T3 Gb

Control switch (optional)

Star-delta switch (up to max. 15 kW),
 soft start or frequency converter
 Delivery without connecting cable

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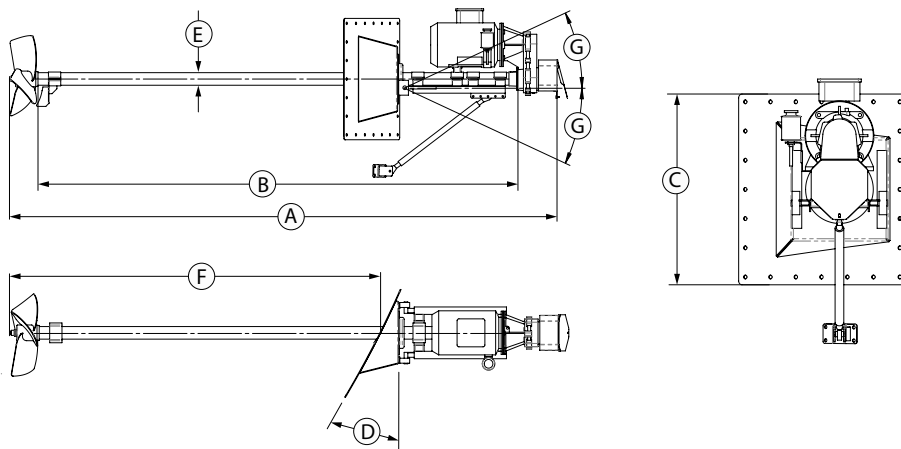
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FR4 30° 150-275

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FR5 30° 185-400



Dimensions

Type	A [m]	B [m]	C [m]	D	E [mm]	F [m]	G
FR3 / FR4 / FR5	3.5 / 4.5	2.9 / 3.9	0.98	30°	101.6	2.0 / 3.0	± 11° / ± 25°
FR1 / FR3 FR4 (275 U/min)			1.2				

Technical Data

Type	Rated Power [kW]	Propeller speed [rpm]	Rated Voltage [V]	Rated Current [A]	Frequency [Hz]	Power factor cos φ	Gear reduction	Propeller diameter [mm]	Axial force [kN]	Flow velocity [m/s] *	Pumping rate water [m³/min]	Weight approximate [kg]
FR1	7.5	200	400	18.0	50	0.70	3.69	850	2.0	2.6	85	550
FR3	11.0	275	400	19.6	50	0.88	5.31	800	3.0	3.2	95	550
FR3	11.0	400	400	19.6	50	0.88	3.69	620	2.5	3.9	70	550
FR4	15.0	275	400	27.7	50	0.85	5.31	850	4.1	3.6	119	550
FR4	15.0	400	400	27.7	50	0.85	3.69	660	3.3	4.3	84	550
FR5	18.5	400	400	33.7	50	0.85	3.69	700	3.9	4.3	94	550

Subject to technical changes

* measured in water and 1.2 m distance