

GIANTMIX FR SP

FR1 75-200

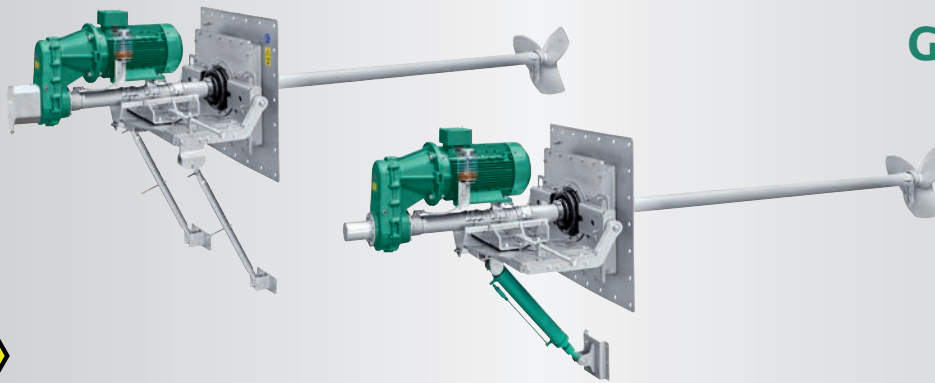
FR3 110-275

FR3 110-400

FR4 150-275

FR4 150-400

FR5 185-400



Application

Long-axis agitator
 Dry matter content up to 14 %
 Substrate temperature up to 70°C
 pH-values 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 98x98/120x120/143x143cm ss304,
 ss316 on request
 Sound pressure 75 dB(A)
 Sealing membranes of EPDM60
 Installation up to 8 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, ss316 or hardend steel

Adjustment range

Horizontal adjustable $\pm 25^\circ$ through spindle
 Vertical adjustable through upper link ($\pm 11^\circ$), optional
 through hydraulic cylinder up to $\pm 30^\circ$ or through pinion
 rack

Tank openings:	700 x 700 mm (Plate 98 cm)
	800 x 800 mm (Plate 120 cm)
	1,000 x 1,000 mm (Plate 143 cm)

Ex-Zone

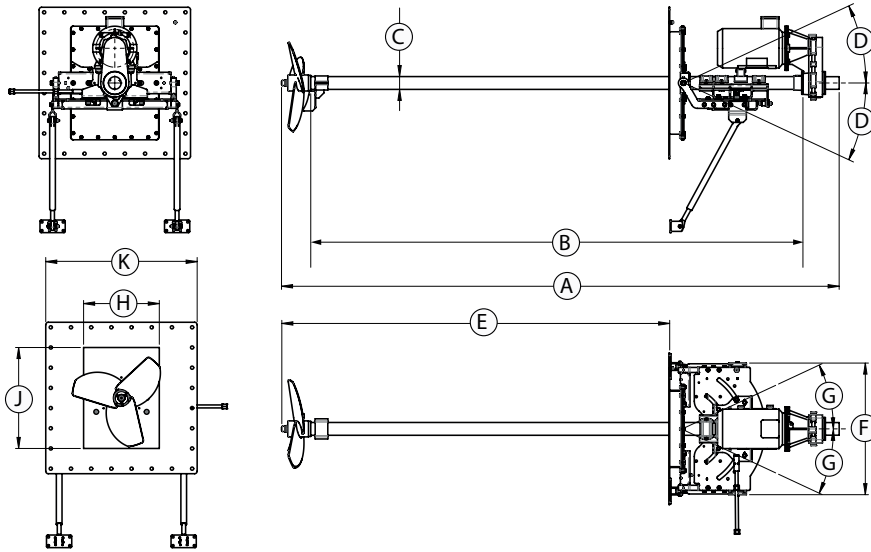
Ex-zone 2 (outside tank) and zone 1 (inside tank)
 Special system FR with 13.5 kW für Zone 1 (outside)
 Classification mechanical components
CE II 2G Ex h IIA T3 Gb

Control switch (optional)

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

GIANTMIX FR SP

FR1 75-200
FR3 110-275
FR3 110-400
FR4 150-275
FR4 150-400
FR5 185-400



Dimensions

Type	A [Ø in m]	B [m]	C [mm]	D	E [m]	F [m]	G	H [m]	J [m]	K [m]
FR3 / FR4 / FR5	3.5 / 4.5	2.9 / 3.9	101.6	± 11° / ± 30°	2.1 / 3.1	1.1	± 25°	0.6	0.6	0.98
FR1 / FR3 / FR4 (275 rpm)									0.8	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 [m ³ /min]	Weight approximate [kg]
FR1	7.5	200	400	18.0	50	0.70	3.69	850	2.0	2.6	85	650
FR3	11.0	275	400	19.6	50	0.88	5.31	800	2.9	3.2	95	650
FR3	11.0	400	400	19.6	50	0.88	3.69	620	2.5	3.9	70	650
FR4	15.0	275	400	27.7	50	0.85	5.31	850	4.1	3.6	119	650
FR4	15.0	400	400	27.7	50	0.85	3.69	660	3.3	4.3	84	650
FR5	18.5	400	400	33.7	50	0.85	3.69	700	3.9	4.3	94	650

Subject to technical changes

* measured in water and 1.2 m distance

As per: 2021-03

© SUMA Rührtechnik GmbH | Martinszeller Str. 21 | DE-87477 Sulzberg
 Phone: +49 8376 / 92131 - 0 | Fax: - 19 | info@suma.de | www.suma.de/en