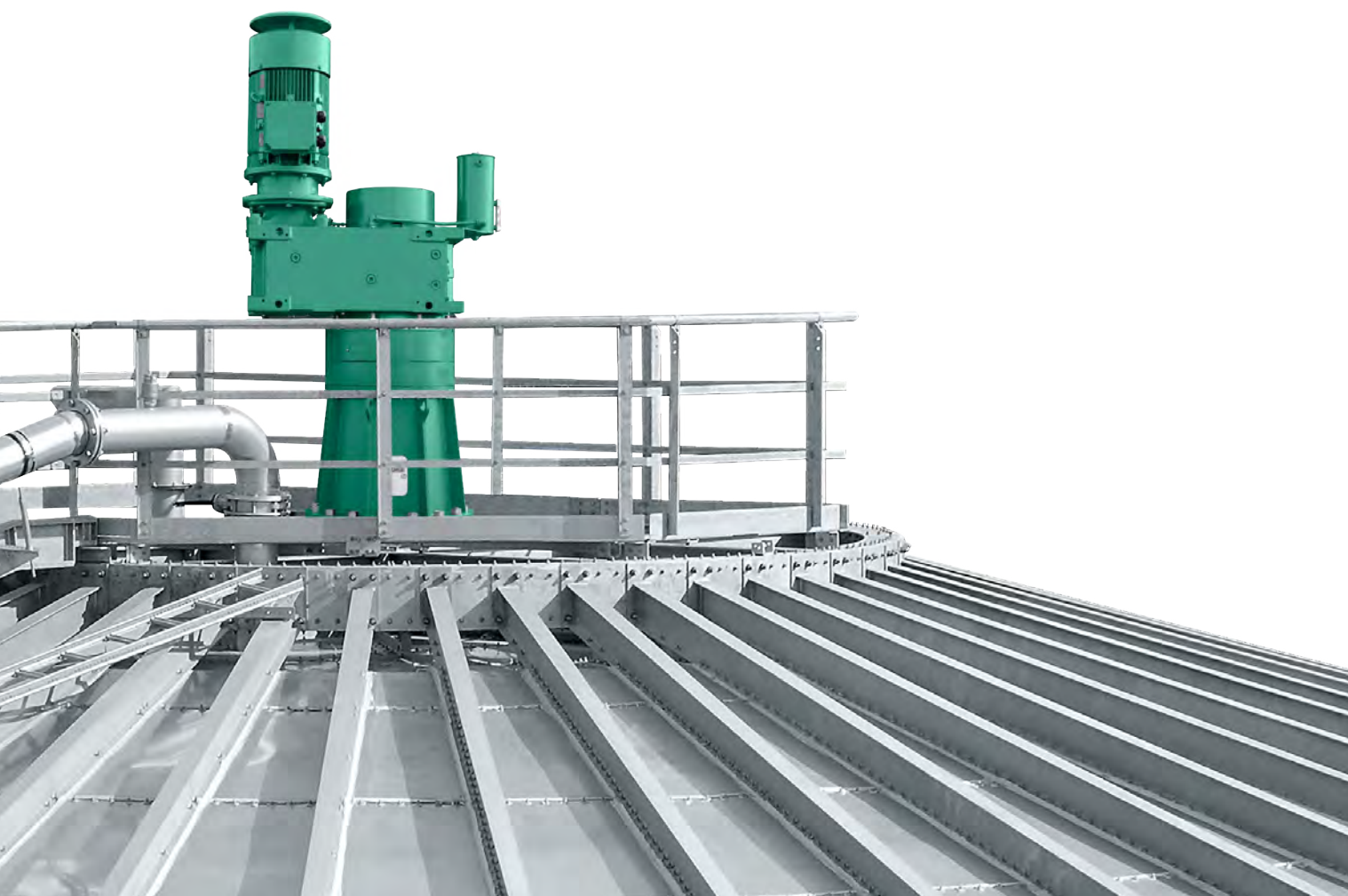




WE SOLVE & MOVE.

Agitators for industry



AGITATORS FOR INDUSTRY

We offer customized agitator solutions, specially tailored to your requirements in the industrial sector.

Our long-axis and submersible agitators are used in a wide range of industrial sectors: Whether wastewater management, tunnel construction, chemicals, petrochemicals or food industry - we meet every mixing challenge.



Our propellers

Efficient stirring is a decisive factor for the success of our processes. The agitator blade takes a central role in this. The blade influences the efficiency and the result of agitation like no other component of the agitator. However, depending on the tank, the agitator location and the substrate properties, the requirements on the agitator blade vary significantly.

As an experienced partner for industrial agitators, we offer you a wide range of agitator blade variants to optimize your processes. We develop and manufacture suction and push propeller, as well as aerodynamically optimized high-performance blades (HD+). Diameters from 250 to 2.600 and speeds from 950 rpm to 30 rpm allow specific configurations for maximum energy efficiency.

The material of the propeller must be suitable for the pH value of the substrate. Depending on the aggressiveness of the medium, either steel, galvanised, painted, hardened, or stainless steel is suitable.

With the possibility of uncomplicated retrofitting with a new agitator blade, even on older models, you always have all options open to meet your requirements and maintain the optimum performance of your agitator.



Propeller LD



High performance propeller HD / HD+



Propeller XT



Propeller WX



Steel hardened



Stainless steel ss304 / ss31



Polymer coated



Sprayed armored

TANK TYPES



Closed Tank



Tank concrete Top



Open Tank



Steel Tank

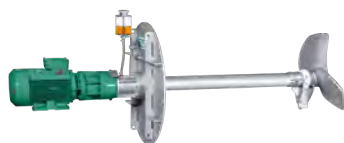


Open Lagoon



Slalom Channel

Long axis agitators for the industrial sector



GIANTMIX FR light



GIANTMIX FR 30°



GIANTMIX FR SP



GIANTMIX FR stationary



GIANTMIX FT | FT top mount



GIANTMIX FX | FX top mount



GIANTMIX AMX | AMX top mount



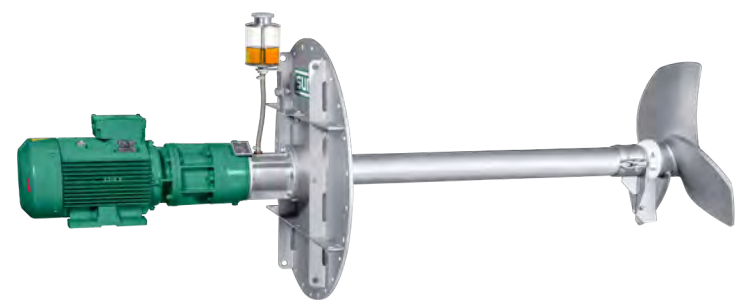
REKORDMIX B1



GIANTMIX BG2 | BG2 top mount



GIANTMIX FR light



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
FR 40-180	4.0 kW	700 mm	180 rpm	0.85 kN	44 m³/min
FR 40-250	4.0 kW	620 mm	250 rpm	0.95 kN	38 m³/min
FR 75-280	7.5 kW	700 mm	280 pm	2.0 kN	57 m³/min
FR 75-380	7.5 kW	520 mm	380 rpm	1.35 kN	35 m³/min

- Especially for concrete or steel tanks with nearly constant substrate levels
- For dry matter content up to 12 % and pH-value 6.5-8.2
- Tube length 1.0 | 1.5 in ss304 or ss316
- Installation depth up to 6 m beneath substrate level
- Easy assembly and maintenance outside the tank



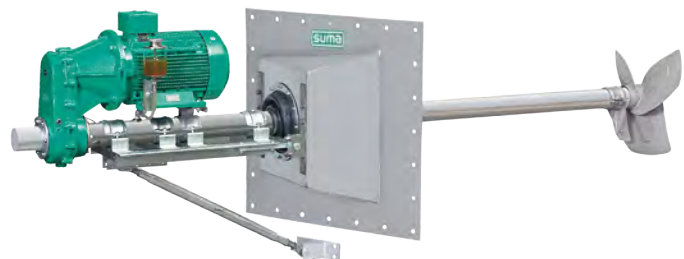
FR light - Steel tank



FR light - Concrete tank

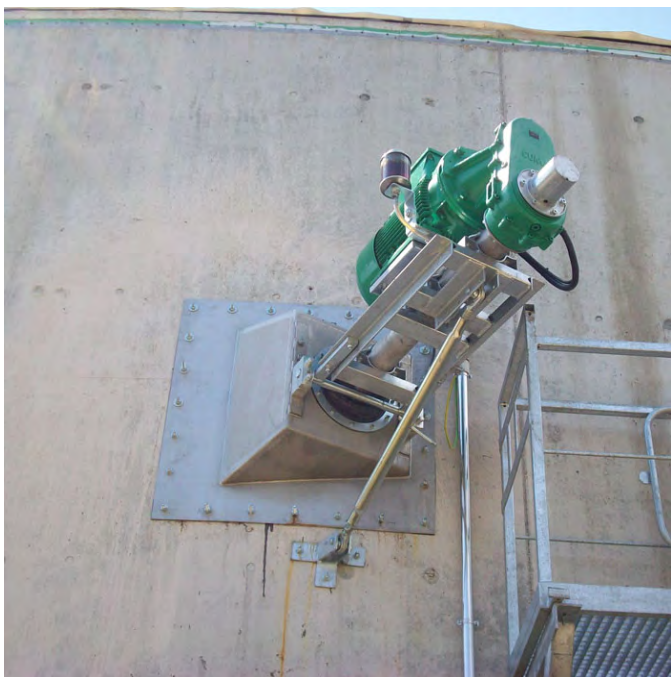


GIANTMIX FR 30°



Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
FR3	11.0 kW	800 620 mm	275 400 rpm	3.0 4.0 m	101.6 x 4.0 bzw. 5.7 mm
FR4	15.0 kW	850 660 mm	275 400 rpm	3.0 4.0 m	101.6 x 4.0 bzw. 5.7 mm
FR5	18.5 kW	700 mm	400 rpm	3.0 4.0 m	101.6 x 4.0 bzw. 5.7 mm

- Specially for fermenter and secondary fermenter with nearly constant substrate
- For dry matter content up to 14 %
- Installation depth up to 1.5 m beneath substrate level
- Vertical inclination $\pm 11^\circ$ through upper link or optional $\pm 25^\circ$ through rack winch
- Optional PTO with protection for an alternative tractor operation



FR 30° - Concrete tank



GIANTMIX FR SP



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
FR3	11.0 kW	800 620 mm	275 400 rpm	3.2 3.9 kN	94 68 m³/min
FR4	15.0 kW	850 660 mm	275 400 rpm	3.6 4.3 kN	120 85 m³/min
FR5	18.5 kW	700 mm	400 rpm	4.3 kN	96 m³/min

- Mainly for fermenter and end storages with nearly constant substrate levels
- For dry matter content up to 14 % and pH-values from 6.5 - 8.2
- Tube length 3.0 | 4.0 m in ss304 or ss316
- Installation depth up to 8 m beneath substrate level
- Horizontally adjustable ± 25°, Vertically adjustable ±11° optional ±30°
- Easy assembly and maintenance outside the tank



FR SP - Concrete tank



FR SP - Open lagoon



GIANTMIX FR stationary



Type	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
FR3	11.0 kW	750 mm	275 rpm	2.5 3.0 m	101.6 x 4.0 5.7 mm
FR3	11.0 kW	580 mm	400 rpm	2.5 3.0 m	101.6 x 4.0 5.7 mm
FR4	15.0 kW	800 mm	275 rpm	2.5 3.0 m	101.6 x 4.0 5.7 mm
FR4	15.0 kW	620 mm	400 rpm	2.5 3.0 m	101.6 x 4.0 5.7 mm
FR5	18.5 kW	660 mm	400 rpm	2.5 3.0 m	101.6 x 4.0 5.7 mm

- Installation console for stationary installation
- For dry matter content up to 14 %
- Tube length 2.5 | 3.0 m in ss304
- Installation depth up to 8 m beneath substrate level



FR stationary - Steel tank



FR stationary - Steel tank



GIANTMIX FT | FT top mounting



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
FT4	15.0 kW	850 660 mm	275 400 rpm	4.1 3.3 kN	119 84 m³/min
FT5	18.5 kW	880 700 mm	275 400 rpm	4.4 3.9 kN	132 94 m³/min

- For dry matter content up to 14 %
- Installation depth up to 8 m beneath substrate level
- Tube length 4.0 | 5.0 | 5.5 | 6.0 m in ss304
- Horizontal adjustment up to ± 30° through handspindle
- Vertical adjustment up to ± 30° through hydraulic cylinder
- GIANTMIX FT also available as version for top mounting



FT - Closed tank



FT top mount - Closed tank



GIANTMIX FX | FX top mounting

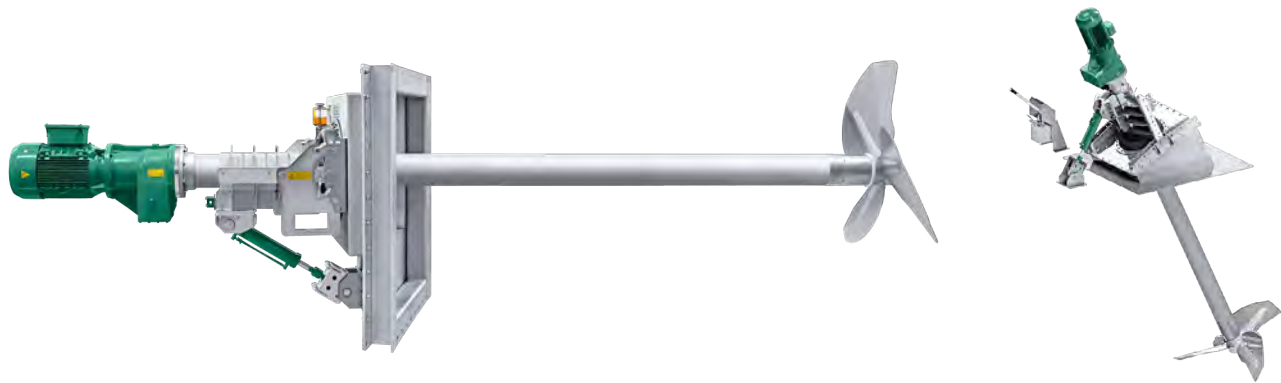


Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
FX4	15.0 kW	1.200 mm	128 rpm	4.0 m	159 x 8 mm
FX5	18.5 kW	1.600 mm	65 rpm	4.0 m	159 x 8 mm
FX6	22.0 kW	1.300 mm	128 rpm	4.0 m	159 x 8 mm

- For highly viscous substrates with dry matter content up to 15 %
- Installation depth up to 6 m beneath substrate level
- Vertical inclination up to -2° to -30°
- Thrust of up to 8.1 kN
- GIANTMIX FX top mounting for installation on top of the tank



GIANTMIX AMX | AMX top mount



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
AMX5	18.5 kW	1.600 mm	82 rpm	8.1 kN	412 m³/min
AMX6	22.0 kW	1.600 mm	82 rpm	8.7 kN	412 m³/min

- Especially for highly viscous substrates with high dry matter content up to 16 %
- Installation depth up to 6 m beneath substrate level
- Tube length 4.0 | 5.0 | 6.0 m in ss304
- Vertical inclination through hydraulic cylinder +5° / -30°
- GIANTMIX AMX also available as version for top mounting



AMX - Closed Tank



AMX top mount - Closed tank



REKORDMIX B1



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
Rekordmix B1	4.0 kW	320 mm	950 rpm	0.6 kN	18 m³/min

- Especially for lagoons
- For dry matter content up to 10 %
- Tube length 3.75 | 4.25 m in ss304
- Vertical adjustment through upper link
- Gastight lead through using EPDM membrane with ring flanges on the foil reduces the risk of cracking due to vibrations



B1 - Closed lagoon



B1 - Open lagoon



GIANTMIX BG2 | BG2 top mount



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
BG2	4.0 kW	700 620 mm	180 250 rpm	0.85 0.95 kN	44 38 m³/min
BG2	7.5 kW	700 520 mm	280 380 rpm	2.0 1.35 kN	57 35 m³/min
BG2	10.0 kW	750 580 mm	280 380 rpm	2.3 1.8 kN	74 48 m³/min

- Especially for lagoons
- For dry matter content up to 12 %
- Tube length 4.0 | 5.0 m in ss304 or ss316
- Vertical adjustment through upper link
- Gastight lead through using EPDM membrane with ring flanges on the foil reduces the risk of cracking due to vibrations
- GIANTMIX BG2 also available as version for top mounting



BG2 - Open lagoon



BG2 top mount - Concrete tank

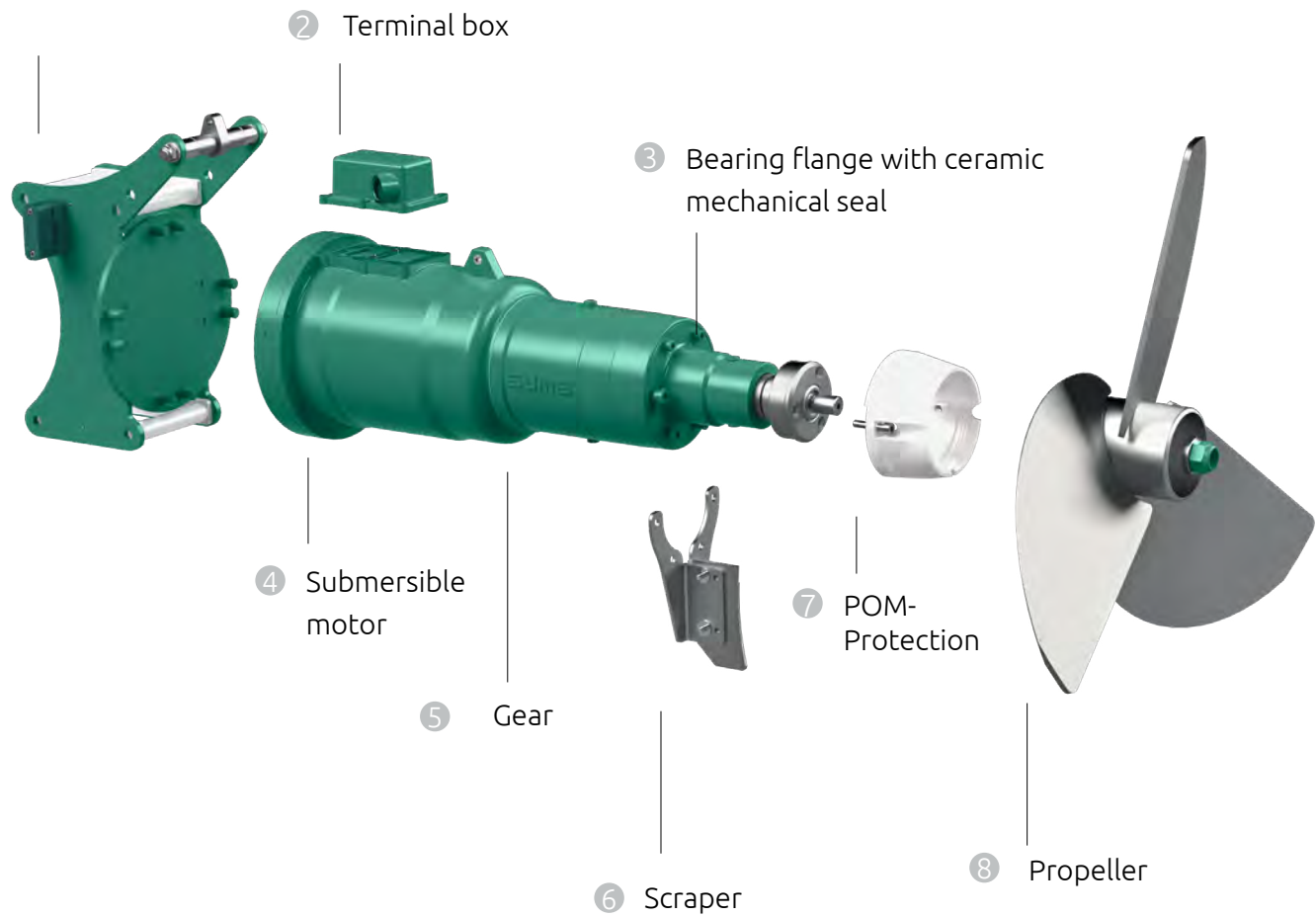
Submersible agitator OPTIMIX

Thanks to our modular design, our submersible mixers can be individually combined in regard to motor power, gear, propeller and mast size. This enables us to offer an agitator that is optimally matched to your needs.

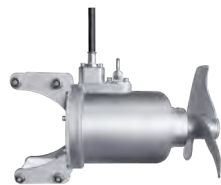
All our submersible mixers are suitable for substrate temperatures of up to 55°C and have separated oil chambers for motor, gear and bearing housing. Our special SUMA mechanical seal SiC/SiC seals the rotating shaft to the bearing flange and prevents substrate from entering the agitator blade bearing.

Microbe-resistant cable includes as standard in the delivery.

① 4-roller guide unit



Submersible mixers for the industrial sector



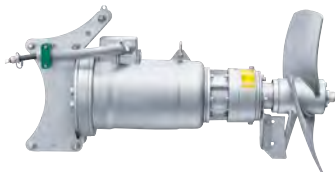
OPTIMIX 2A 15-720



OPTIMIX 2G 90-65



OPTIMIX 2G 30-30



OPTIMIX 2A



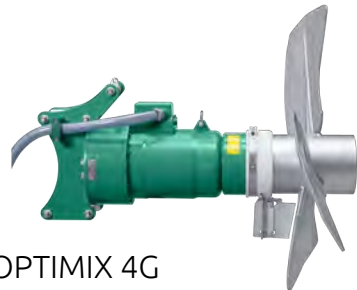
OPTIMIX 2G



OPTIMIX 2G 30-710



OPTIMIX 3G



OPTIMIX 4G



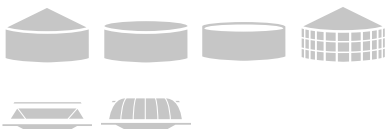
Suspension mounting
frame EV



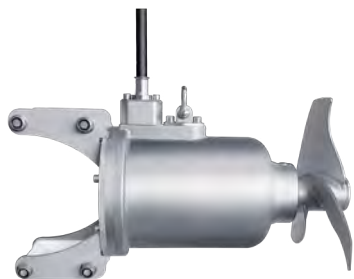
MGD



GDD

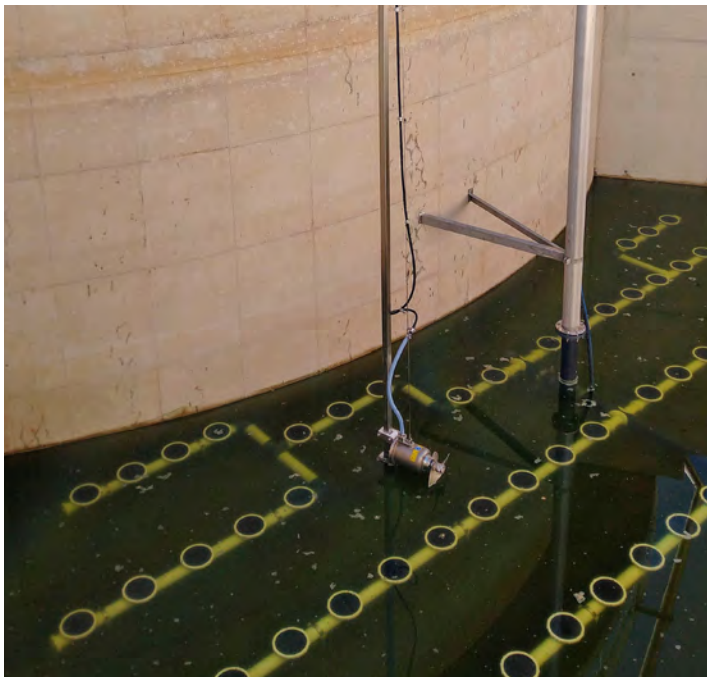


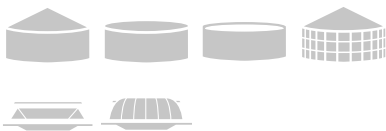
OPTIMIX 2A 15-720



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
2A	0.8 kW	250 mm	738 rpm	0.24 kN	7 m³/min
2A	1.5 kW	320 mm	728 rpm	0.43 kN	13 m³/min
2A	2.2 kW	340 mm	714 rpm	0.50 kN	16 m³/min

- Fast running agitator for low pH-values
- Specially designed for use in the industrial sector - in particular for water and waste water management
- For dry matter content up to 4 % and pH-values from 5.5 - 8.2
- Completely made of stainless steel
- Self-cleaning stainless steel propeller





OPTIMIX 2G 90-65



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
2G	9.0 kW	1.400 mm	65 rpm	3.2 kN	162 m³/min

- Mainly for flow preservation in combination with other agitators
- For dry matter content up to 12 %
- 3-bladed XT 1400-25 propeller painted steel, optionally V2A, or hardened steel



OPTIMIX 2G 30-30



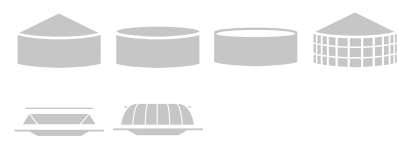
Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
2G 20-30	3.0 kW	2.200 mm	30 rpm	2.1 kN	251 m³/min
2G 30-30	3.0 kW	2.600 mm	30 rpm	3.45 kN	409 m³/min

- Submersible agitator for use in municipal and industrial wastewater
- For circulation of large water volumes, flow generation and maintenance, prevention of sedimentation, prevention of flocculation and oxidation and denitrification processes
- For dry matter content up to 4 %
- Approved in explosion protection zone 2



2G - Open tank

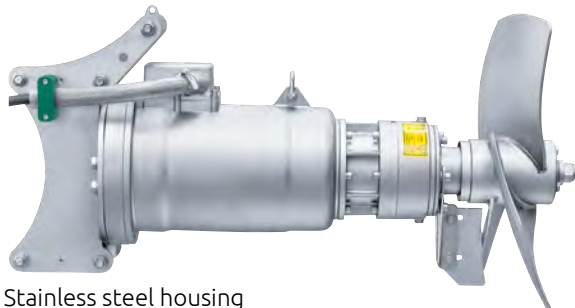




OPTIMIX 2G | 2A



Cast iron housing

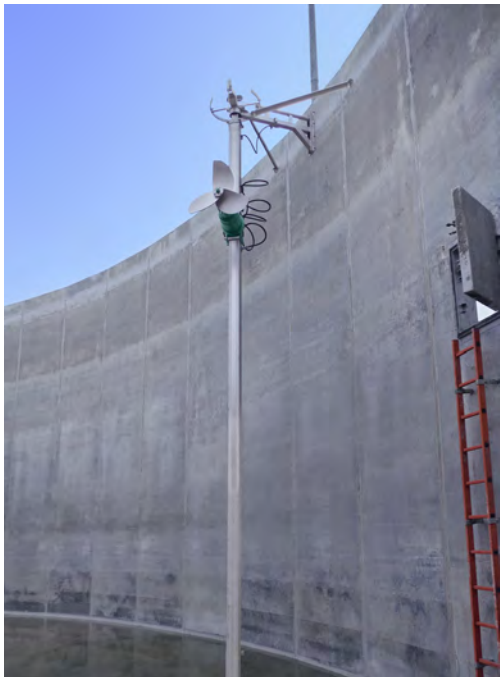


Stainless steel housing

Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
2G 2A	4.0 kW	620 mm	250 rpm	0.95 kN	38 m³/min
2G 2A	9.0 kW	800 580 mm	280 380 rpm	2.8 1.9 kN	94 51 m³/min
2G	11.0 kW	820 620 mm	280 380 rpm	3.6 2.55 kN	128 64 m³/min
2G	15.0 kW	660 mm	380 rpm	3.1 kN	81 m³/min
2A	15.0 kW	850 660 mm	280 380 rpm	4.1 3.1 kN	120 81 m³/min
2A	13.5 kW	800 620 mm	280 380 rpm	2.9 2.55 kN	94 64 m³/min

- OPTIMIX 2G
- For dry matter content up to 12 %
 - Optional available as direct rotor without gear

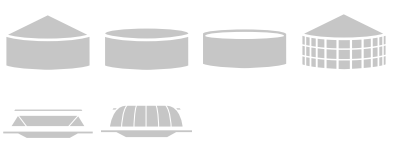
- OPTIMIX 2A
- For aggressive media with low pH values
 - For dry matter content up to 12 %
 - OPTIMIX 2A 13.5 kW authorized for Ex-Zone 1



2G with EV - Concrete tank



2A with EV - Open tank



OPTIMIX 2G 30-710

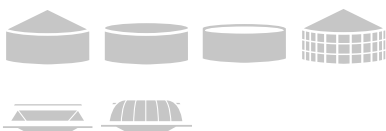


Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
2G	3.0 kW	380 mm	710 rpm	0.7 kN	24 m³/min

- Especially for smaller tanks
- For dry matter content up to 8 %



2G 3 kW - Closed Tank



OPTIMIX 3G



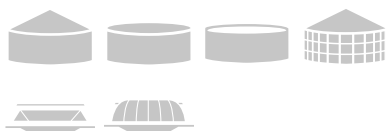
Cast iron housing

Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
3G	25.0 kW	900 mm	270 rpm	4.5 kN	135 m³/min

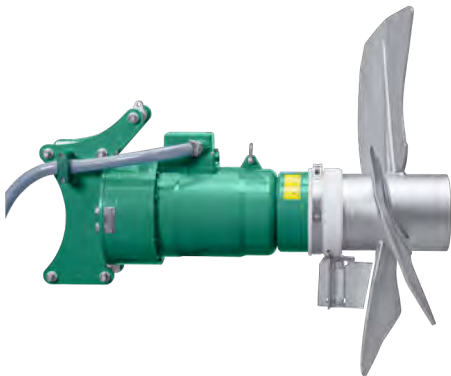
- High performance agitator for large tank dimensions
- For dry matter content up to 12 %



3G - Concrete tank



OPTIMIX 4G 150-135



Type	Power	Ø Propeller	Speed	Axial force	Pumping rate
4G	15.0 kW	1.200 mm	135 rpm	6.5 kN	223 m³/min

- Submersible agitator especially for viscous substrate
- For dry matter content up to 14 %
- IE4 motor with efficiency of 93.3%
- Approved for Ex-zone 2



4G with EV - Closed tank



4G with EV - Open tank

Suspension mounting frame EV



Type	Doweling	Tank height	Cable guidance	Tank types
EV3	Wall bracket inside	4 - 12 m	on rope / mast	
EV4	ceiling mount outside	4 - 12 m	on the rope	
EV5	Wall bracket inside	4 - 12 m	on mast / rope	

- For a 4-12 m container height
- Lateral rotation $\pm 60^\circ$
- SUMA cable guidance and strain relief behind the guide mast
- Easy maintenance of the agitator without draining off the substrate or decending into the tank
- The whole OPTIMIX series are suitable
- Optional height indication to determine the exact height of the agitator within the tank



EV3



EV4



EV5

Suspension mounting frame EV3 light



- For open concrete tanks (not gastight).
- For tanks with up to 7 m height
- Lateral rotation $\pm 60^\circ$
- Suitable for OPTIMIX 2A 15-720
- Base frame and wall support in ss304

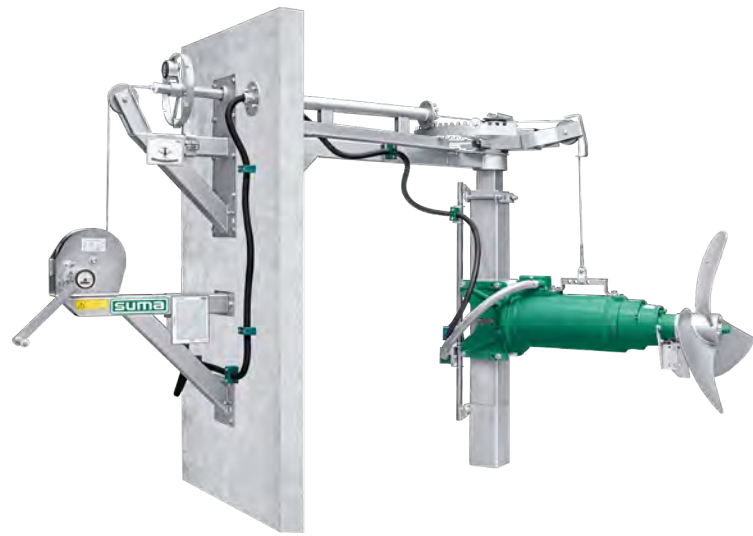


EV3 light





Mast gastight wall lead through MGD



- Guide mast with base frame for tanks with a depth up to 14 m
- External vertically rotation 210°
- Adjustable in height through cable winch
- Optional SUMA height indication to determine the exact agitator height in the tank
- Optional angle display to determine the exact angle position of the agitator
- Optional other heights on request



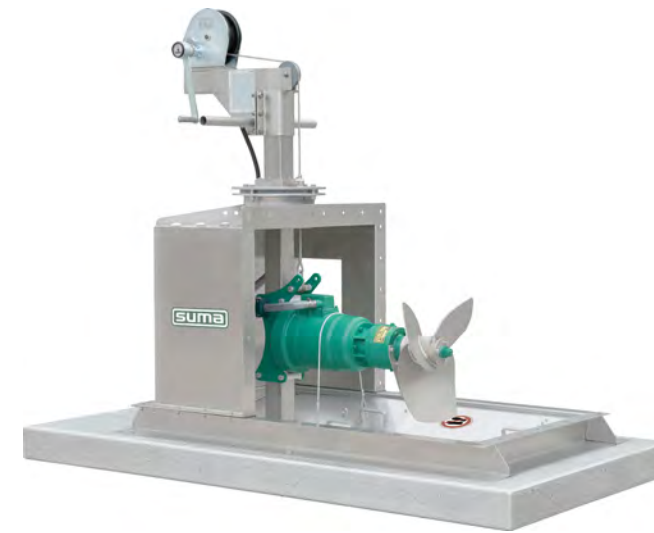
MGD - Betonbehälter mit 2G



MGD - Betonbehälter mit 2G



Gastight ceiling lead through GDD



- Especially for closed tanks, lagoons with bridges and other special tanks up to 12 m depth
- Lateral adjustment up to 360°
- SUMA height indication to determine the exact agitator height in the tank
- For all OPTIMIX series applicable
- Optional available access cover reduces the loss of gas while maintenance
- Optional other heights on request

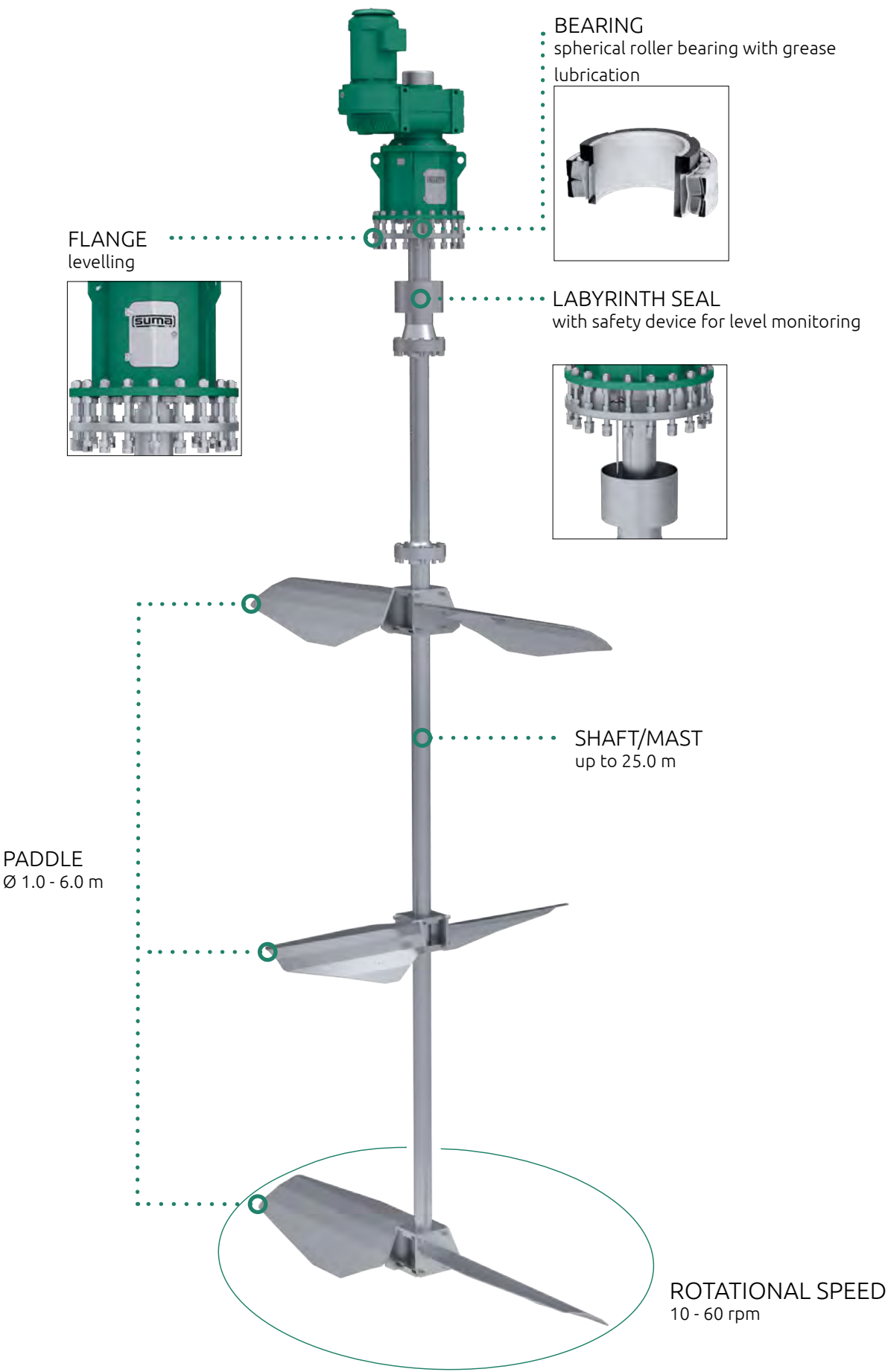


GDD - Betonbehälter



GDD - Stahlbehälter

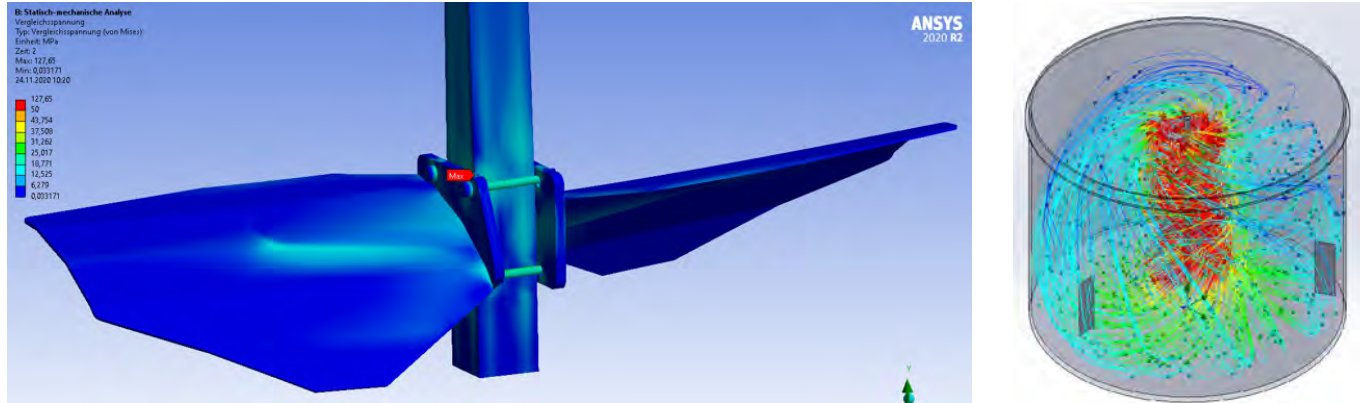
Central mixer



Central mixer

For solutions perfectly tailored to your requirements, we draw on our extensive product portfolio of agitators. This includes the central mixer Z-MIX, which ensures axial mixing of your ferment for fermentation of sewage sludge, waste, and agricultural and industrial residues. In particular, the Z-MIX is suitable for use in tanks, where diameter and height correspond to a similar length. The agitator is characterized by low energy consumption.

ENGINEERING
Based on tank geometry, substrate properties and many other factors, our engineers use software-supported flow simulations and load capacity calculations to design a central mixer that will perfectly meet with your requirements.



PRODUCTION
Since the company foundation in 1957 the value creation has almost exclusively taken place at our headquarters. Our ideal manufacturing depth impacts the quality during the entire process chain, enabling us to carry out adjustments with ease any time and to execute customization cost-effectively.



SERVICE & ASSEMBLY
By purchasing a SUMA mixer, you have chosen maximum quality. Be it for a new installation, modification, component exchange or maintenance work - our team of experienced service specialist will support you 24 hours a day, 365 days a year. Depending on the customer's requirements, the Z-MIX can be installed from outside or in sections from inside. In addition access to the drive shaft offers easy maintenance.







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