

# Agitators & Pumps for agriculture

Our service range



## AGITATORS FOR AGRICULTURE

Since the establishment of our company in 1957 and the invention of the first electric agitator, we are working continuously for your advantages.

Thanks to our many years of experience in the agricultural sector, our products are optimally adapted to your needs and offer the perfect solution for every area of application.









## Our propellers

The propeller 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. We provide you a large selection of varieties. So we can offer you the perfect solution for your application.

We develop and manufacture suction and push propeller as well as aerodynamically optimised high-performance blades (HD+). Diameters from 230 mm to 900 mm and speeds from 1,450 rpm to 180 rpm allow specific configurations. All our agitator blades are precisely balanced. This guarantees bearing-friendly energy-saving operation.

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.

However, stirring blades are also wearing parts. Therefore, we design our propellers to be downward compatible. Your SUMA agitator can always be retrofitted with a new propeller.



Propeller L4



Propeller LD



Suction propeller S



Push propeller D



High performance propeller HD / HD+

## TANK TYPES



Closed Tank



Tank concrete Top



Open Tank



Steel Tank



Open Lagoon



Slalom Channel

## Long axis agitators for the agricultural sector



GIANTMIX FR  
stationary



GIANTMIX Z3 HY  
stationary



GIANTMIX Z3



GIANTMIX Z4



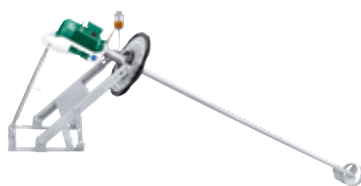
GIANTMIX Z5



GIANTMIX Z6



REKORDMIX



REKORDMIX B1



GIANTMIX BG2



GIANTMIX MZR



GIANTMIX Z3 / Z4 for  
guide rail



GIANTMIX MZR Lagoon

### Our tractor-driven agitators

GIANTMIX Z3



GIANTMIX Z4



GIANTMIX Z5



GIANTMIX Z6





## GIANTMIX FR stationary



Type	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
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	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

- Together with model specific mounting console for the stationary installation
- For dry matter content up to 14 %
- For installation up to 8 m below substrate level
- Optional PTO with protection unit for an alternative tractor operation
- Optional without motor and only with PTO (FR HY stationary)



FR stationary - Steel tank



FR stationary - Closed tank



## GIANTMIX Z3 HY stationary



Type	Tractor power	Ø Propeller	Speed	Tube length	Ø Tube
Z3 HY stat.	60 kW	620   560 mm	540   750 rpm	2.0   2.5 m	100 x 3 mm
	72 kW	660   580 mm	540   750 rpm		
	88 kW	700   620 mm	540   750 rpm		

- Together with installation console for stationary installation
- Installation up to 8 m beneath substrate level
- PTO with protection unit for tractor operation
- Completely modular designed



Z3 HY stationary- Concrete tank





## GIANTMIX Z3



Type	Tractor power	Ø Propeller	Speed	Tube length	Ø Tube
Z3	44 kW	480 mm	1,000 rpm	3.5 - 5.5 m	100 x 3 mm
	60 kW	520 mm			
	72 kW	560 mm			
	88 kW	580 mm			

- Long-axis agitator for tractor use
- Attachment at lower control arm with jaw
- Agitator completely modular designed
- Lubrication through oil bath in the agitator tube, intermediate bearing and balanced propellers guarantee smooth running
- Optional with reversing gear for pressure and suction operation
- Optional for a stationary installation with mounting bracket (Z3 HY stationary)



Z3 - Attachment at tractor



Z3 - Open tank

## GIANTMIX Z4



Type	Tractor power	Ø Propeller	Speed	Tube length	Ø Tube
Z4	72 kW	560 mm	1,000 rpm	5.0 - 7.0 m	121 x 4 mm
	88 kW	580 mm			
	100 kW	620 mm			
	130 kW	660 mm			

- Long axis agitator for tractor use
- Single-acting hydraulic cylinder
- Agitator completely modular designed
- Lubrication through oil bath in the agitator tube, intermediate bearing and balanced propellers guarantee smooth running
- Optional with reversing gear for pressure and suction operation
- Optional swiveling cylinder



Z4 with drive shaft - Closed tank



Z4 with swiveling cylinder - Closed tank

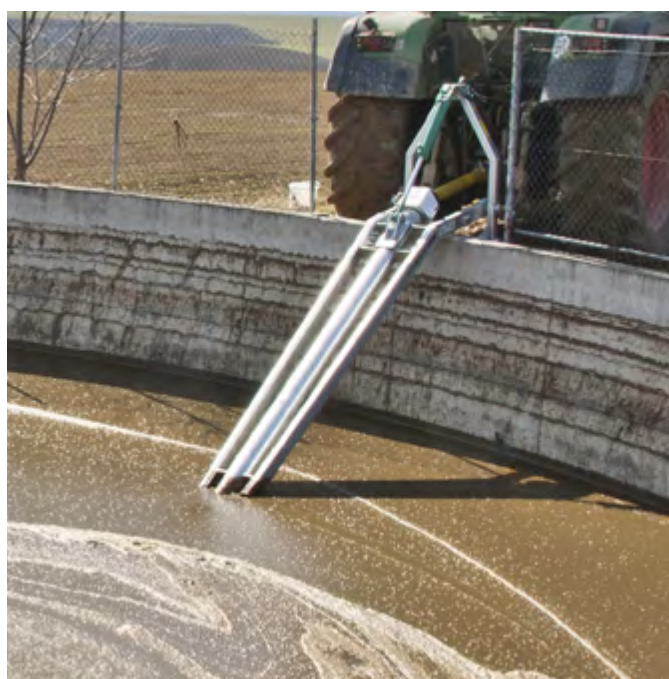


## GIANTMIX Z5



Type	Tractor power	Ø Propeller	Speed	Tube length	Ø Tube
Z5	100 kW	660   620 mm	750   1,000 rpm	6.0 - 8.0 m	159.0 x 6.3 mm
	130 kW	700   660 mm	750   1,000 rpm		
	160 kW	700 mm	1,000 rpm		

- Long axis agitator for open tanks and lagoons
- For installation depths up to 6 m
- Three-point-frame with hydraulic cylinder for vertical adjustment, max. 45°
- Agitator completely modular designed
- Lubrication through oil bath in the agitator tube, intermediate bearing and balanced propellers guarantee smooth running



Z5 - Open tank



Z5 - Open tank



## GIANTMIX Z6

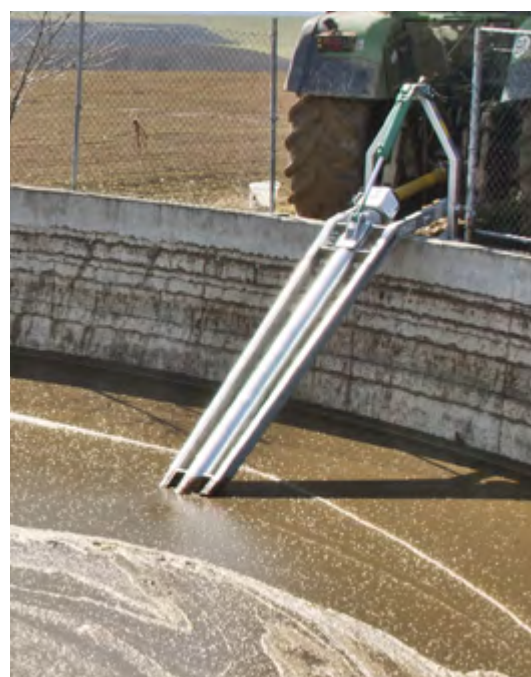


Type	Tractor power	Ø Propeller	Speed	Tube length	Ø Tube
Z6	160 kW	780   700 mm	750   1,000 rpm	7.5   9.0 m	193.7 x 6.3 mm
	170 kW	850   720 mm	750   1,000 rpm		
	200 kW	850 mm	1,000 rpm		

- Long-axis agitator for open tanks and lagoons
- For installation depths up to 7 m
- Three-point-frame with hydraulic cylinder for vertical adjustment, max. 45°
- Agitator completely modular designed
- Lubrication through oil bath in the agitator tube, intermediate bearing and balanced propellers guarantee smooth running



Z6 - Lagoon with foil cover



Z6 - Open pit



## REKORDMIX



Optional with undercarriage  
Standard 100 cm / Narrow 58 cm



Optional with hanging rack EB2

Type	Motor power	Ø Propeller	Speed	Tube length	Ø Tube
Rekordmix L1	4.0 kW	320 mm	945 rpm	2.25 - 4.25 m	70 x 3 mm
Rekordmix L2	5.0 kW	275 mm	1,450 rpm	2.25 - 4.25 m	70 x 3 mm
Rekordmix L3	7.5 kW	300 mm	1,450 rpm	2.25 - 4.25 m	70 x 3 mm

- Application in small tanks with low dry matter content of up to 8 %
- Motor handle with handhold
- Multiple bearing stub shaft in oil bath
- Optional mobile version with trolley
- Optional mounting on tank wall or opening through brackets for dowelling or hanging rack EB2



REKORDMIX - Closed tank with concrete top



REKORDMIX with trolley



### GIANTMIX B1



Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
B1	4.0 kW	320 mm	950 rpm	3.75   4.25 m	70 x 3 mm

- Especially for lagoons
- For dry matter content up to 10 %
- 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



Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
BG2	4.0 kW	700   620 mm	180   250 rpm	4.0   5.0 m	101.6 x 5.74 mm
BG2	7.5 kW	700   520 mm	280   380 rpm	4.0   5.0 m	101.6 x 5.74 mm
BG2	10.0 kW	750   580 mm	280   380 rpm	4.0   5.0 m	101.6 x 5.74 mm

- Especially for lagoons
- For dry matter content up to 12 %
- 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



BG2 - Steel tank



BG2 - Open Lagoon

## GIANTMIX MZR | Z3 / Z4 for guide rail



Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
MZR	Motor 11.0   15.0   18.5 kW	580 mm	400 rpm	4.0 - 6.0 m	100 x 3 mm
Z3	Schlepper 44 - 88 kW	480 - 580 mm	1,000 rpm	4.0 - 6.0 m	100 x 3 mm
Z4	Schlepper 72 - 130 kW	560 - 660 mm	1,000 rpm	7.0 m	121 x 4 mm

### GIANTMIX MZR

- Long axis agitator for ring- and slalom channels
- Installation depth up to 2 m
- PTO with protective guard for alternative use with tractor
- Optional guide rail with rear upstand for an easier installation of the GIANTMIX

### GIANTMIX Z3 / Z4 for guide rail

- Long axis agitator for ring- and slalom channels
- For tractor use
- Guide rail with rear upstand for an easier installation of the GIANTMIX

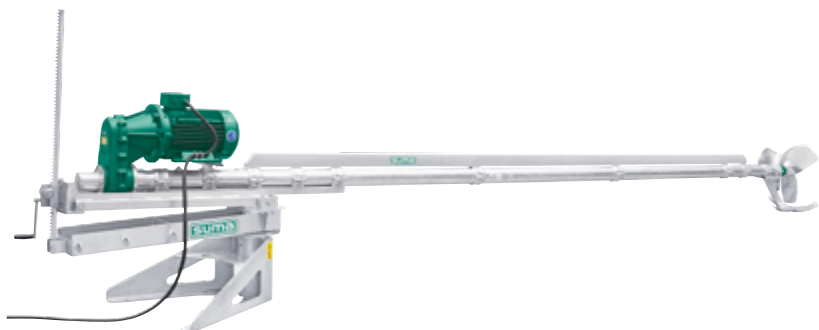


MZR - Slalom channel



Z3 with guide rail - Slalom channel

### GIANTMIX MZR Lagoon



Type	Power	Ø Propeller	Speed	Tube length	Ø Tube
MZR Lagune	15.0   18.5 kW	660   700 mm	400 rpm	7.0 m	121 x 4 mm

- Long axis agitator for lagoons
- For installation depth up to 4 m
- Swivel device 360° horizontally
- Stabilisation tube
- Control through soft start / star-delta switch (MZR with 18.5 kW control only with soft-start)
- Vertical adjustment with a robust pinion rack



MZR Lagoon - Open lagoon



## Submersible agitators for the agricultural sector



OPTIMIX 2G 3 / 4 kW



OPTIMIX 2A 3 / 4 kW



OPTIMIX 2G



OPTIMIX 2A



OPTIMIX 2G 90-75



OPTIMIX 3G



OPTIMIX ECO mobil



OPTIMIX 2G mobile



OPTIMIX stationary



OPTIMIX adjustable



Suspension mounting  
frame EV

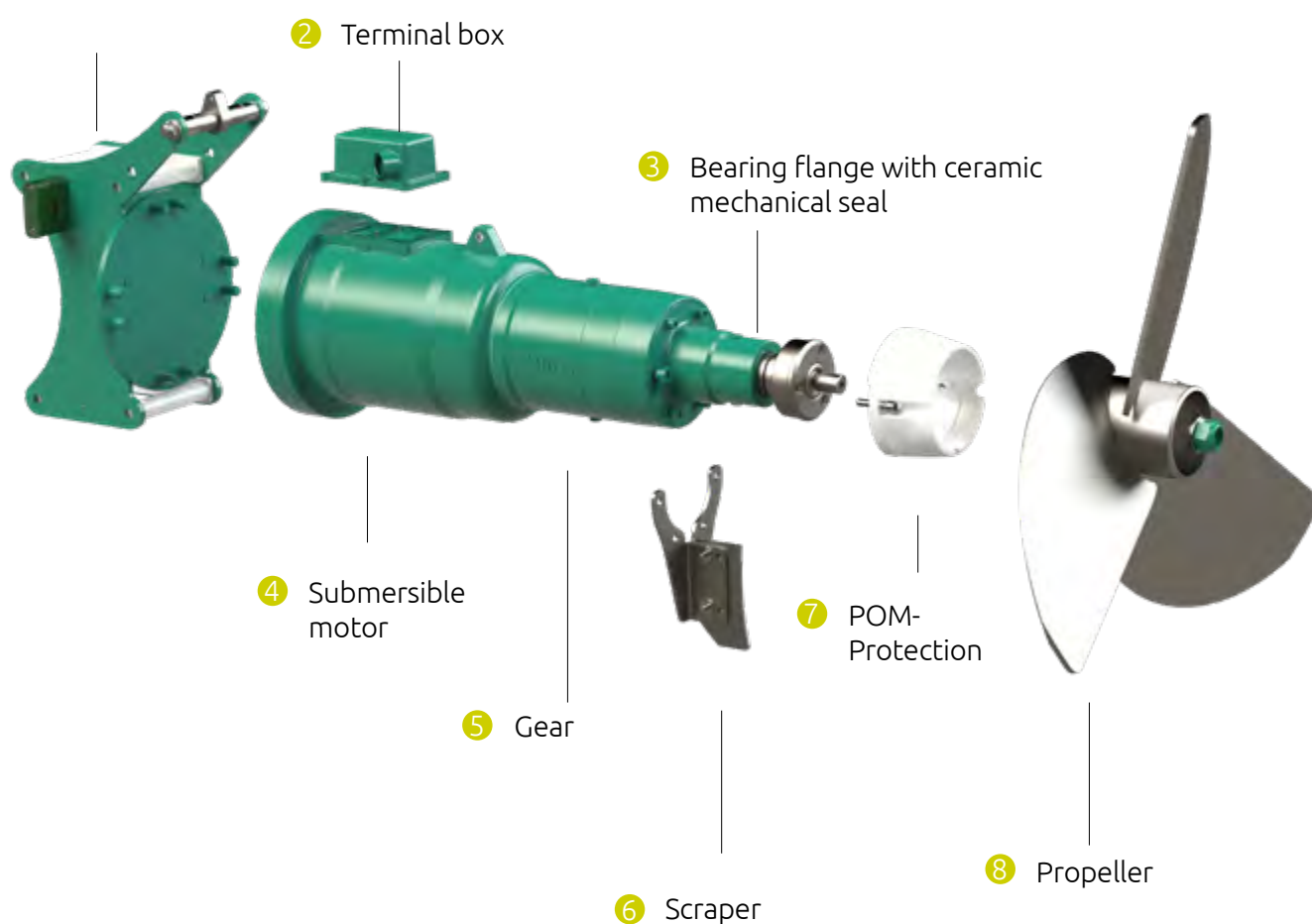
### Submersible agitator OPTIMIX

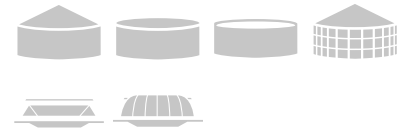
Thanks to our modular design, our submersible mixers can be individually combined in regard to motor power, gear, propeller and mast size. This enables us to offer an agitator that is optimally matched to your needs.

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

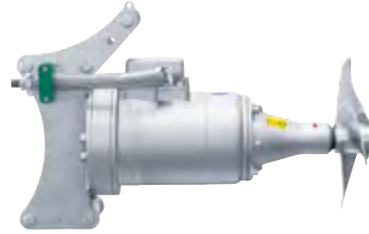




### OPTIMIX 2G | 2A 3 / 4 kW



Cast iron housing



Stainless steel

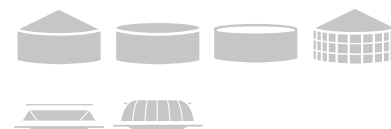
Type	Power	Ø Propeller	Speed
2G   2A	3.0 kW	380 mm	710 rpm
2G   2A	4.0 kW	310 mm	950 rpm

- Specially for smaller tanks
- For dry matter content up to 8 %
- OPTIMIX 2A completely made of stainless steel for aggressive media with low pH values



2A 3 / 4 kW - Closed Tank





## OPTIMIX 2G | 2A



Cast iron housing



Stainless steel

Type	Power	Ø Propeller	Speed
2G   2A	4.0 kW	700   620 mm	180   250 rpm
2G   2A	9.0 kW	800   580 mm	280   380 rpm
2G	11.0 kW	820   620	280   380 rpm
2G	15.0 kW	850 mm	275 rpm
2G   2A	15.0 kW	660 mm	380 rpm
2A	13.5 kW	800   620 mm	280   380 rpm

### OPTIMIX 2G

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

### OPTIMIX 2A

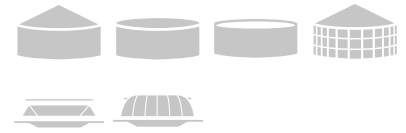
- For aggressive media with low pH values
- For dry matter content up to 12 %
- OPTIMIX 2A 13.5 kW authorized for Ex-Zone 1



2G with EV - Steel Tank



2A with EV - Closed Tank



### OPTIMIX 2G 90-75



Type	Power	Ø Propeller	Speed
2G	5.5 kW	1,400 mm	75 rpm
2G	9.0 kW	1,400 mm	75 rpm

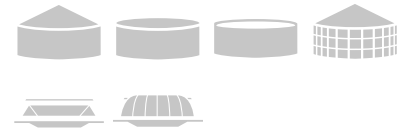
- Mainly for flow preservation in combination with other agitators
- For dry matter content up to 12 %
- 3-bladed LT 1400 propeller galvanized, stainless steel or hardened steel



2G - Closed Tank



2G - Open Lagoon

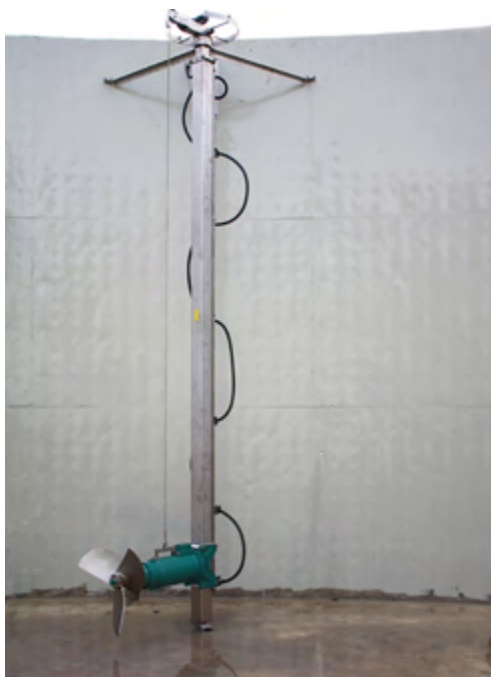


### OPTIMIX 3G



Type	Power	Ø Propeller	Speed
3G	25.0 kW	900 mm	270 rpm

- High performance agitator for large tank dimensions
- For dry matter content up to 12 %
- High thrust of 4.5 kN



3G with EV - Open Tank



3G with EV - Concrete Tank





### OPTIMIX ECO mobile



Type	Power	Ø Propeller	Speed
ECO	7.5 kW	300 mm	1,450 rpm

- For small pits with an opening of at least 35 x 60 cm
- For closed pits with a depth up to 3.5 m
- Trolley standard (1,000 mm) or narrow (570 mm)
- Traverse for clamping to the top of the tank
- Flexibility regards to height, direction of rotation and site of use, as guide mast is not bound by ground bearing



OPTIMIX ECO mobile - Tank with concrete top



### OPTIMIX 2G mobile



Type	Power	Ø Propeller	Speed
2G mobil	9.0 kW	480   520 mm	380 rpm

- For small pits with an opening of at least 90 x 60 cm
- For closed pits up to 4.0 m depth
- Trolley standard (1,000 mm)
- Traverse for clamping to the top of the tank
- Optimally suited for use inside buildings
- Flexibility regards to height, direction of rotation and site of use, as guide mast is not bound by ground bearing
- Optional telescope system if ceiling height is limited

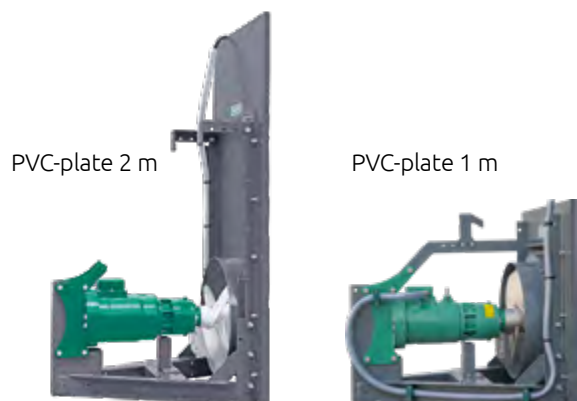


2G mobile - Tank with concrete top



2G mobile - Closed Tank

### OPTIMIX stationary



Type	Power	Ø Propeller	Speed
2G	9.0 kW	580 mm	380 rpm
2A	13.5 kW	620 mm	380 rpm
2G	15.0 kW	620 mm	380 rpm

- For ring and slalom channels
- Up to 2.0 m depth
- PVC-plate 30 mm thick 1.0 m / 2.0 m high
- Funnel channel width 700 - 750 mm
- Propeller galvanized or ss304



OPTIMIX stationary - Slalom system



OPTIMIX stationary - Slalom system



## OPTIMIX adjustable



Type	Power	Ø Propeller	Speed
2G	9.0 kW	580 mm	380 rpm
2A	13.5 kW	620 mm	380 rpm
2G	15.0 kW	660 mm	380 rpm

- For ring and slalom channels
- Up to 2.0 m depth
- PVC-plate 30 mm 1,000 x 1,100 mm
- Funnel channel width 800 mm
- Propeller galvanized or ss304
- Height adjustable with cable winch











OPTIMIX adjustable - Slalom channel



OPTIMIX adjustable - Slalom channel

## Suspension mounting frame EV



Type	Mounting	Tank height	Guiding system	Tank types
EV3	Wall support inside	4 - 12 m	on the rope / mast	  
EV4	Wall support outside	4 - 12 m	on the rope	 
EV5	Wall support inside	4 - 12 m	on the rope / mast	  

- For tank heights from 4-12 m
- Lateral rotation +/- 60°
- SUMA cable guide and strain relief behind the guide mast
- Easy maintenance without draining off the substrate and descending into the tank
- The whole OPTIMIX series are suitable for the EV
- Optional height indication for exact determination of the agitator height within the tank



EV3



EV4



EV5

## Overview Accessories

### GIANTMIX Z-Series



Drive shaft



Protection ring

Z5	Normal drive shaft W 2500 (L=1010) max. 162 kW / 220 PS with 1.000 rpm	√
	Normal drive shaft W 2600 (L=1210) max. 193 kW / 263 PS with 1.000 rpm	
Z6	Normal drive shaft W2600 max. 193 kW / 263 PS with 1.000 rpm	√

### REKORDMIX



Protection ring



Bracket



Trolley



Hanging rack

### GIANTMIX / OPTIMIX



Star-delta switch



Soft start


POM-  
protection

GIANTMIX MZR with guide rail	√ (MZR 18.5 kW not possible)	√	
OPTIMIX stationary	√	√	√
OPTIMIX stationary	√	√	√
OPTIMIX 2G / 2A	√	√	√
OPTIMIX 3G / 3A		√	√
GIANTMIX MZR Lagoon	√ (MZR 18.5 kW not possible)	√	



## Pumps for agriculture

With our range of pumps PRESSURA, we offer a perfectly matched system of agitator and pump for stirring, mixing, homogenising, pumping and filling.

Achieve the best results when pumping slurry and conveying other liquids, substrates and media.

See for yourself!

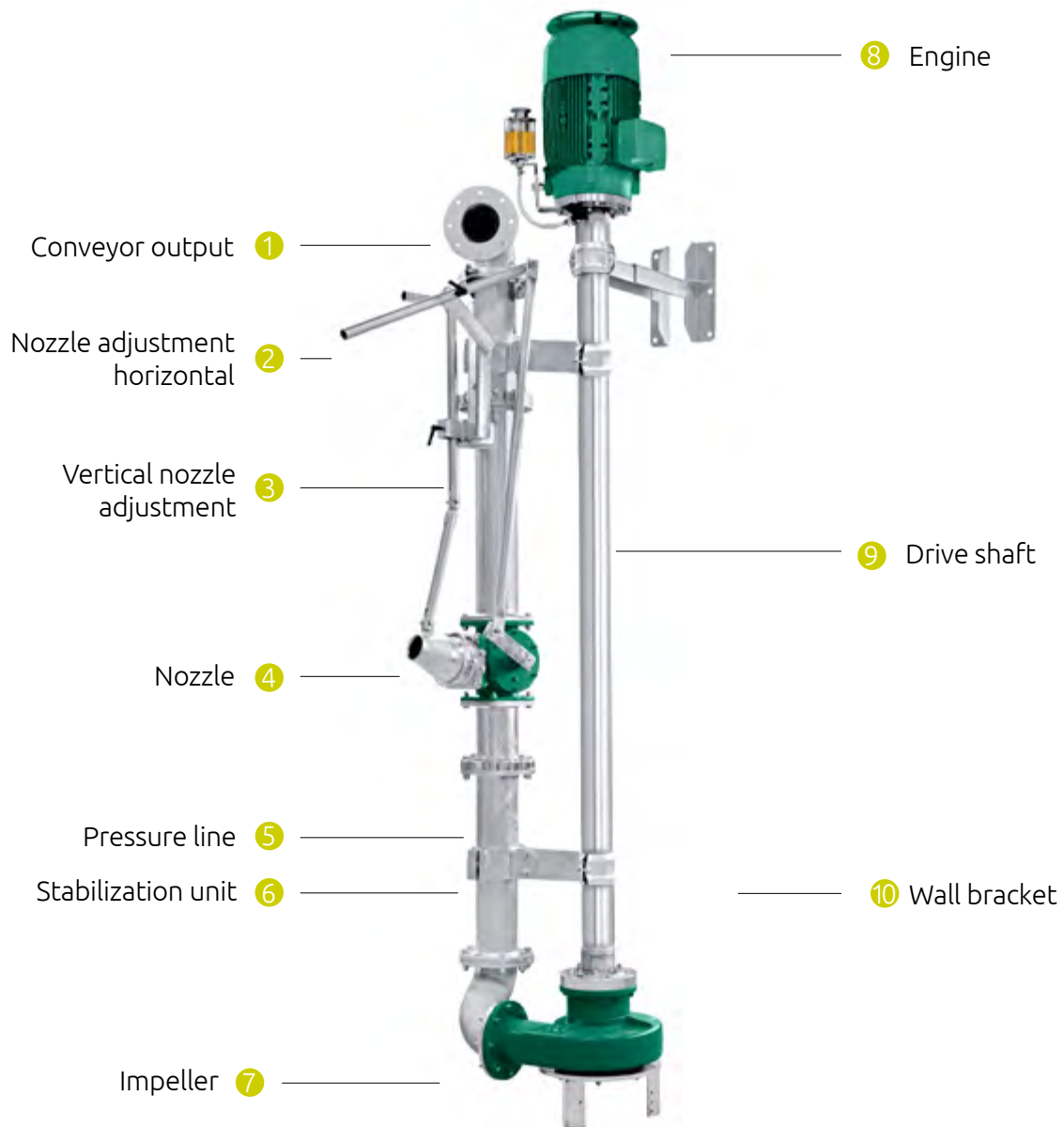








## Long shaft pump



PRESSURA LW - Concrete tank



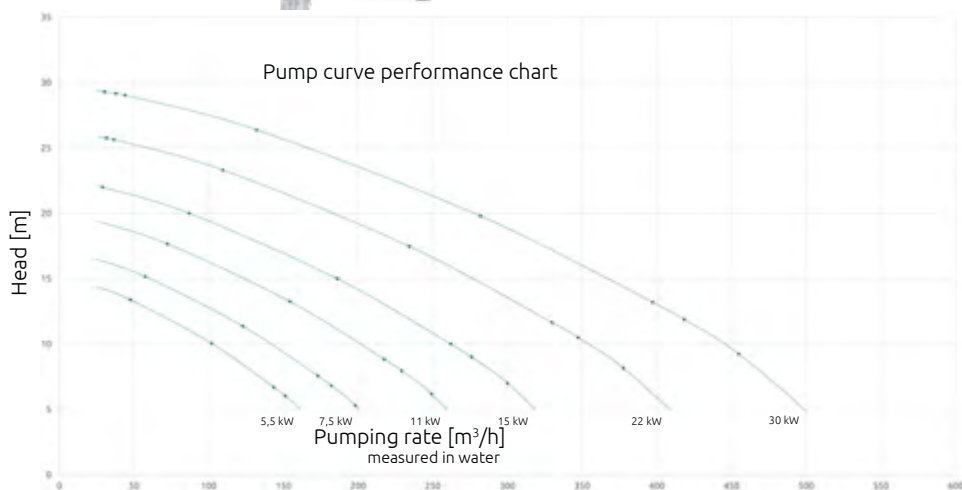
PRESSURA LW - With lifting frame in Pit





## PRESSURA LW

- Long-shaft pump
- Stirring, mixing, homogenising, pumping, filling
- For pit depth from 1.5 - 8.0 m
- Max. head 15 - 30 m
- Max. pumping rate 192 - 531 m<sup>3</sup>/h
- Available with or without nozzle
- Vertically  $\pm 25^\circ$  and horizontally  $260^\circ$  adjustable
- Selectable nozzle height
- Adjustable wall brackets
- Optional lifting frame available



Type	Rated Power	Rotation speed	Max. pumping rate	Max. head	Ø Impeller	Flange connection
LW 55	5.5 kW	1,458 rpm	192 m <sup>3</sup> /h	15 m	200 mm	100 DN
LW 75	7.5 kW	1,458 rpm	231 m <sup>3</sup> /h	17 m	211 mm	100 DN
LW 110	11.0 kW	1,458 rpm	291 m <sup>3</sup> /h	20 m	235 mm	125 DN
LW 150	15.0 kW	1,458 rpm	350 m <sup>3</sup> /h	22 m	250 mm	125 DN
LW 220	22.0 kW	1,458 rpm	440 m <sup>3</sup> /h	26 m	270 mm	150 DN
LW 300	30.0 kW	1,458 rpm	531 m <sup>3</sup> /h	30 m	287 mm	150 DN

## Submersible pump



PRESSURA TP - Concrete Tank

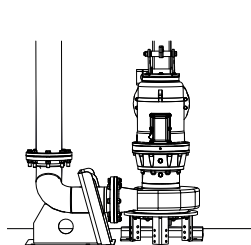


PRESSURA TP - Concrete Tank

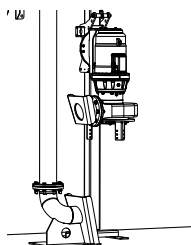


## PRESSURA TP

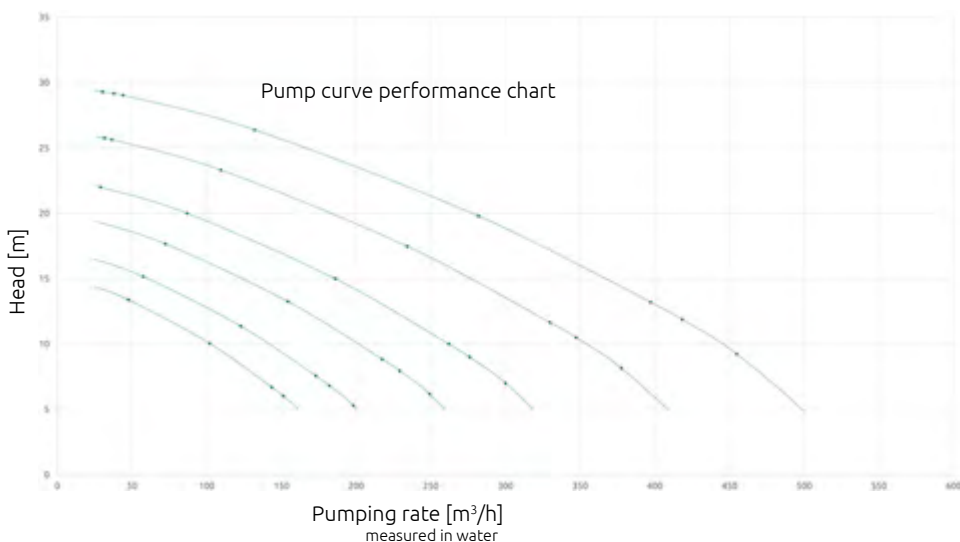
- Submersible pump
- Stirring, mixing, homogenising, pumping, filling
- For pit depths from 1.5 - 8.0 m
- Max. head 15 - 30 m
- Max. pumping rate 192 - 531 m<sup>3</sup>/h
- Guidance system: Suspension mounting frame EV3
- Vertical adjustment with rope winch
- Horizontal adjustment up to  $\pm 60^\circ$
- Optional: Completely made of stainless steel



Stirring adjustment



Pumping adjustment



Type	Rated power	Rotation speed	Max. pumping rate	Max. head	Ø Impeller	Flange connection
TP 55	5.5 kW	1,458 rpm	192 m <sup>3</sup> /h	15 m	200 mm	100 DN
TP 75	7.5 kW	1,458 rpm	231 m <sup>3</sup> /h	17 m	211 mm	100 DN
TP 110	11.0 kW	1,458 rpm	291 m <sup>3</sup> /h	20 m	235 mm	125 DN
TP 150	15.0 kW	1,458 rpm	350 m <sup>3</sup> /h	22 m	250 mm	125 DN
TP 220	22.0 kW	1,458 rpm	440 m <sup>3</sup> /h	26 m	270 mm	150 DN
TP 300	30.0 kW	1,458 rpm	531 m <sup>3</sup> /h	30 m	287 mm	150 DN



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