Agitators & Pumps for agriculture

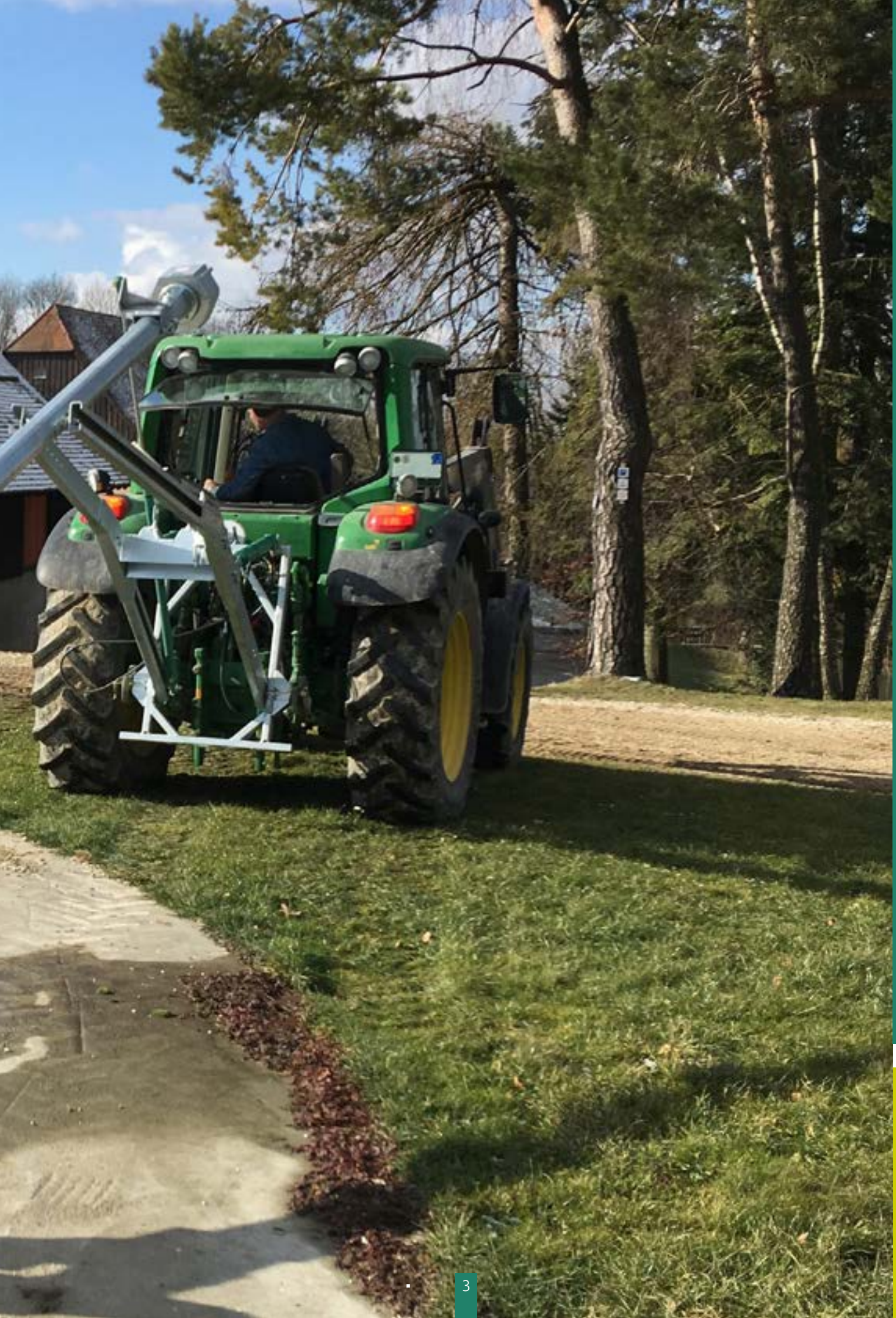
Our service range

AGRICULTURE

AGITATORS FOR AGRICULTURE

Since the establishment of our company in 1957 and the invention of the first electric agitator, we are working continously 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

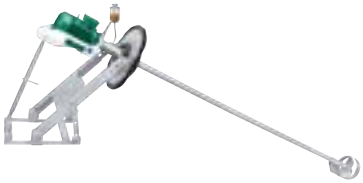
GIANTMIX Z3

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 or 5.7 mm in ss304
FR4	15.0 kW	620 mm	400 rpm	2.5 / 3.0 m	101.6 x 4.0 or 5.7 mm in ss304
FR5	18.5 kW	660 mm	400 rpm	2.5 / 3.0 m	101.6 x 4.0 or 5.7 mm in ss304

- 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 72 kW 88 kW	620 | 560 mm 660 | 580 mm 700 | 620 mm	540 | 750 rpm 540 | 750 rpm 540 | 750 rpm	2.5 | 2.5 m	100 x 3 mm

- 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 60 kW 72 kW 88 kW	480 mm 520 mm 560 mm 580 mm	1,000 rpm	3.5 - 5.5 m	100 x 3 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 88 kW 100 kW 130 kW	560 mm 580 mm 620 mm 660 mm	1,000 rpm	5.0 - 7.0 m	121 x 4 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 130 kW 160 kW	660 | 620 mm 700 | 660 mm 700 mm	750 | 1,000 rpm 750 | 1,000 rpm 1,000 rpm	6.0 - 8.0 m	159.0 x 6.3 mm

- 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

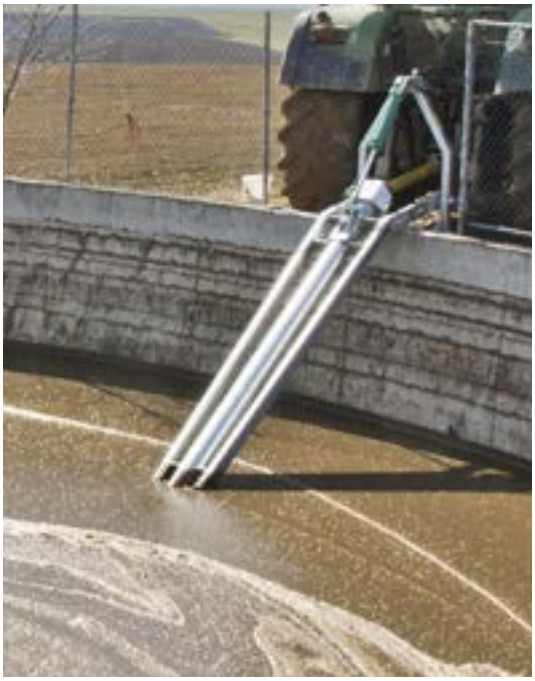
Z5 - Open tank

GIANTMIX Z6

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

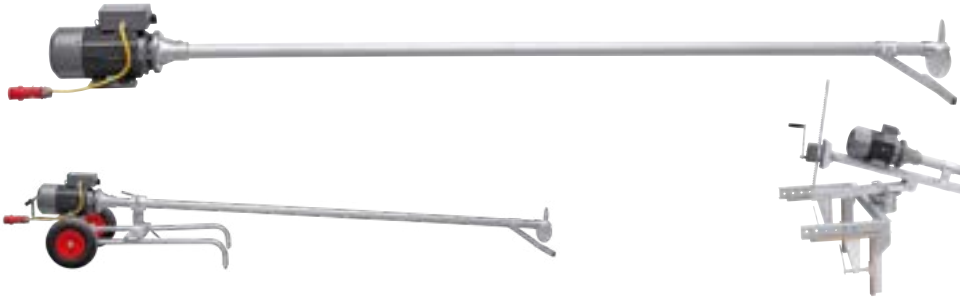
- Long-axis agitator for open tanks and lagoons
- For installation depths up to 7 m
- Three-point-frame with hydraulic cylinder for vertical adjustment, max. 45°
- Agitator completely modular designed
- Lubrication through oil bath in the agitator tube, intermediate bearing and balanced propellers guarantee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

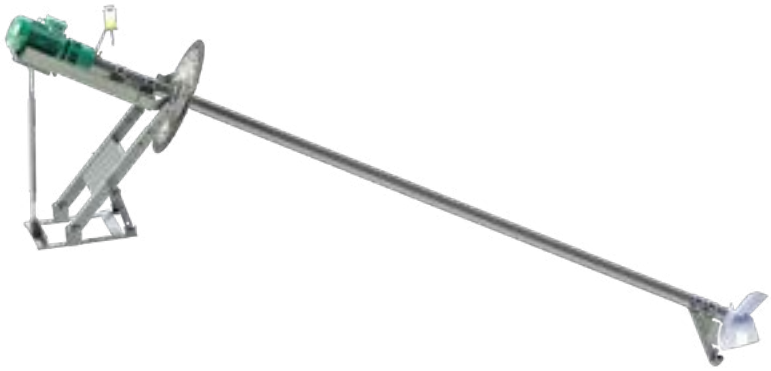
Type	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
B1	4.0 kW	320 mm	950 rpm	3.75 | 4.25 m	Ø 70 x 3 mm

- 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	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
BG2	10.0 kW	560 | 750 mm	380 | 280 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	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
MZR	Motor 11.0 - 18.5 kW	580 mm	400 rpm	4.0 - 6.0 m	Ø 100 x 3 mm
Z3	Tractor 44 - 88 kW	480 - 580 mm	1,000 rpm	4.0 - 6.0 m	Ø 100 x 3 mm
Z4	Tractor 72 - 130 kW	560 - 660 mm	1,000 rpm	7.0 m	Ø 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	Rated power	Ø Propeller	Speed	Tube length	Ø Tube
MZR Lagoon	15.0 | 18.5 kW	620 | 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
- 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 mobil

OPTIMIX stationary

OPTIMIX adjustable

Suspension mounting frame EV

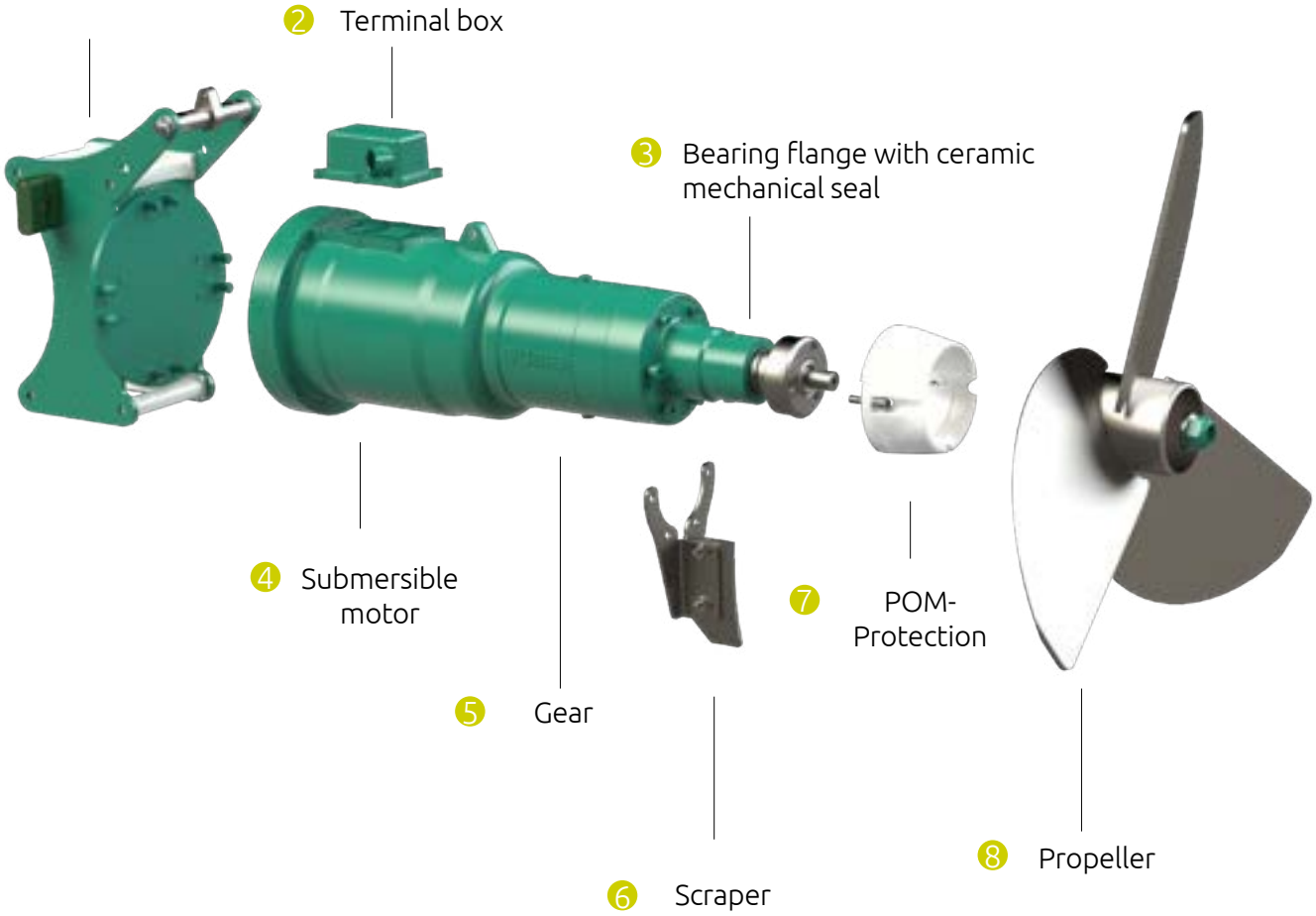
Submersible agitator OPTIMIX

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	15.0 kW	660 mm	380 rpm
2A	15.0 kW	850 | 660 mm	280 | 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
- Optional in ss316 for pH values 4.5-8.2

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 (970 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 mobile	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 (970 mm) or narrow (570 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 adjustable

PVC-plate 2 m

PVC-plate 1 m

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	Rated 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 decending 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

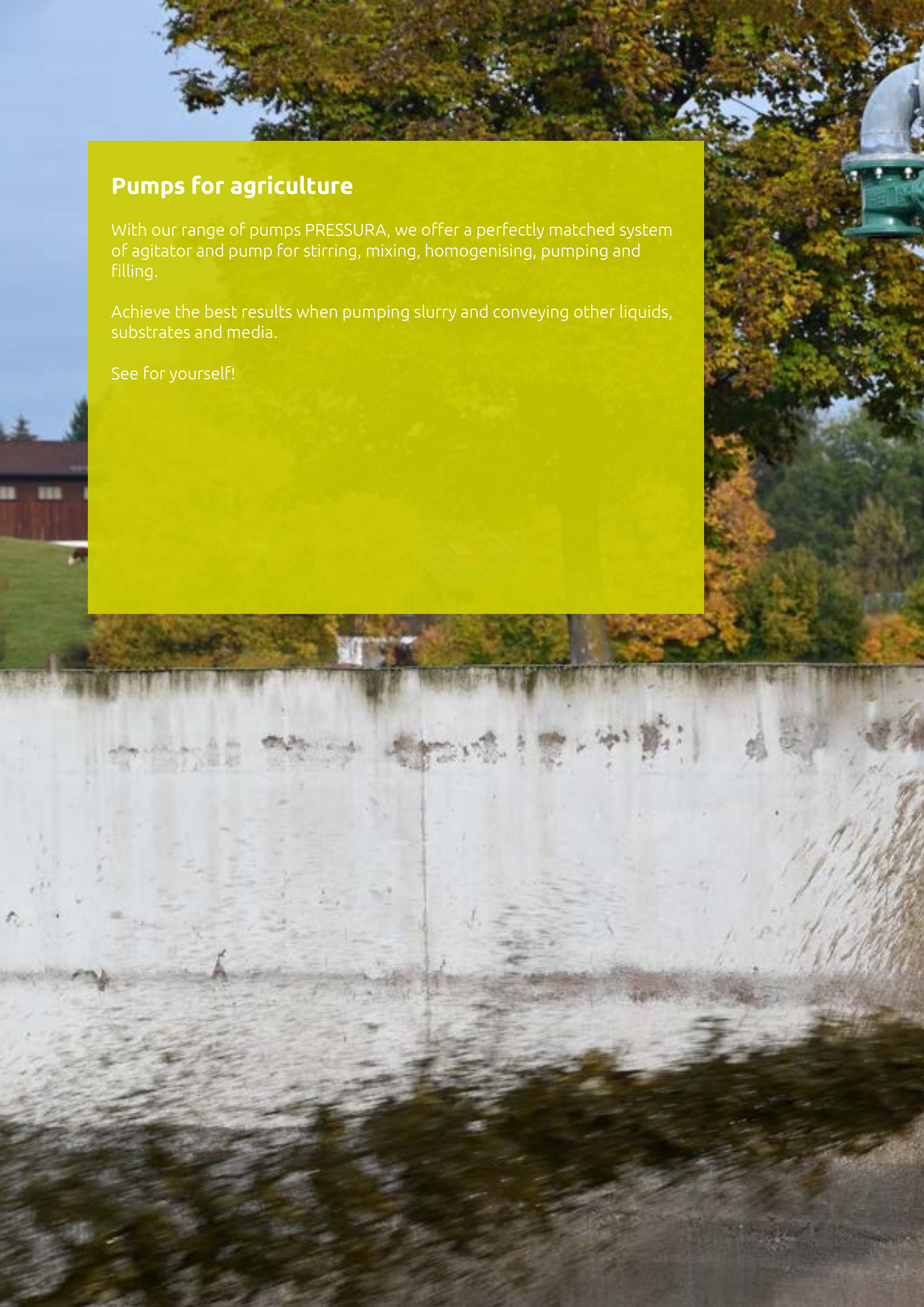
GIANTMIX / OPTIMIX

Star-delta switch

Soft start

POM-protection

GIANTMIX MZR with guide rail	√	√	
OPTIMIX stationary	√	√	√
OPTIMIX stationary	√	√	√
OPTIMIX 2G / 2A	√	√	√
OPTIMIX 3G / 3A		√	√
GIANTMIX MZR Lagoon	√	√	



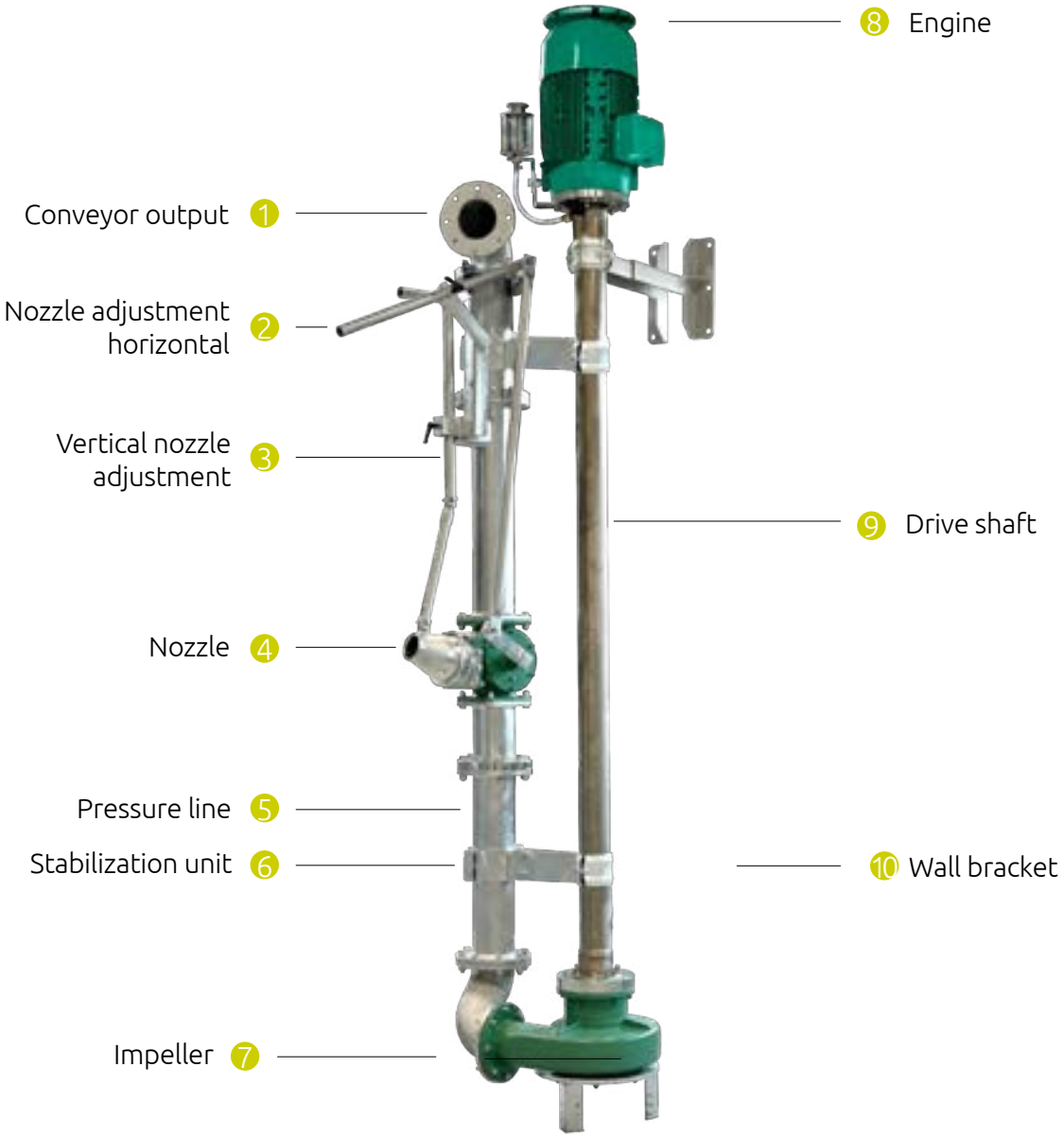
Pumps for agriculture

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

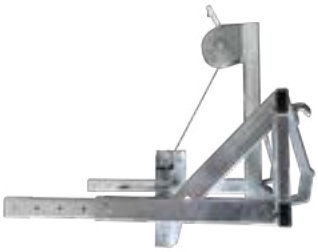


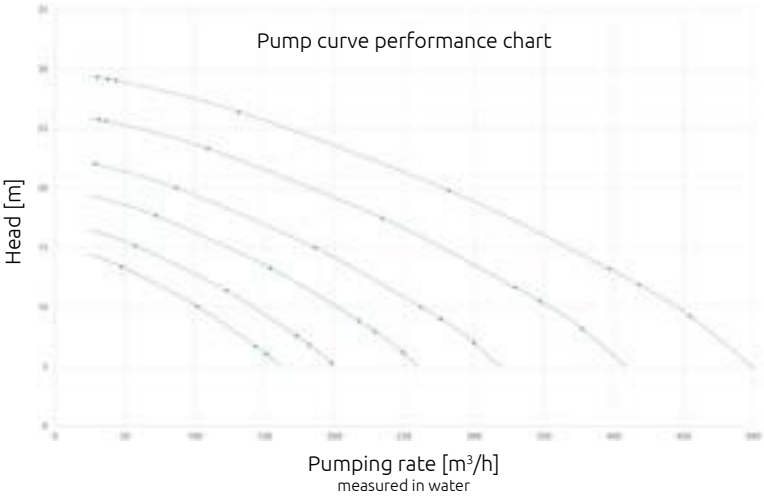
PRESSURA LW - Concrete tank

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^3/h
- Available with or without nozzle
- Vertically ± 25° and horizontally 260° 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^3/h	15 m	200 mm	100 DN
LW 75	7.5 kW	1,458 rpm	231 m^3/h	17 m	211 mm	100 DN
LW 110	11.0 kW	1,458 rpm	291 m^3/h	20 m	235 mm	125 DN
LW 150	15.0 kW	1,458 rpm	350 m^3/h	22 m	250 mm	125 DN
LW 220	22.0 kW	1,458 rpm	440 m^3/h	26 m	270 mm	150 DN
LW 300	30.0 kW	1,458 rpm	531 m^3/h	30 m	287 mm	150 DN

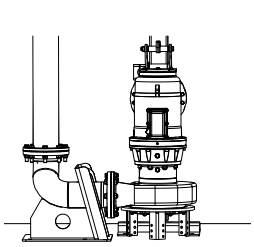
Submersible pump

PRESSURA TP - Concrete Tank

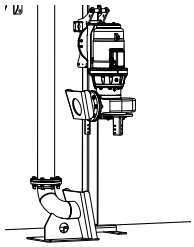
PRESSURA TP - Concrete Tank

PRESSURA TP

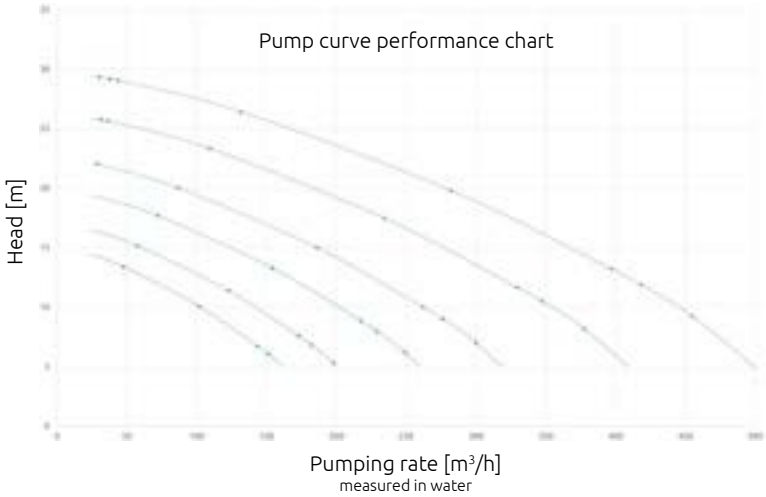
- Submersible pump
- Stirring, mixing, homogenising, pumping, filling
- For pit depths from 1.5 - 8.0 m
- Max. head 15 - 30 m
- Max. pumping rate 192 - 531 m³/h
- Guidance system: Suspension mounting frame EV3
- Vertical adjustment with rope winch
- Horizontal adjustment up to ± 60°
- Optional: Completely made of stainless steel



Stirring adjustment



Pumping adjustment



Typ	Rated power	Rotation speed	Max. pumping rate	Max. head	Ø Impeller	Flange connection
TP 55	5.5 kW	1,458 rpm	192 m³/h	15 m	200 mm	100 DN
TP 75	7.5 kW	1,458 rpm	231 m³/h	17 m	211 mm	100 DN
TP 110	11.0 kW	1,458 rpm	291 m³/h	20 m	235 mm	125 DN
TP 150	15.0 kW	1,458 rpm	350 m³/h	22 m	250 mm	125 DN
TP 220	22.0 kW	1,458 rpm	440 m³/h	26 m	270 mm	150 DN
TP 300	30.0 kW	1,458 rpm	531 m³/h	30 m	287 mm	150 DN

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