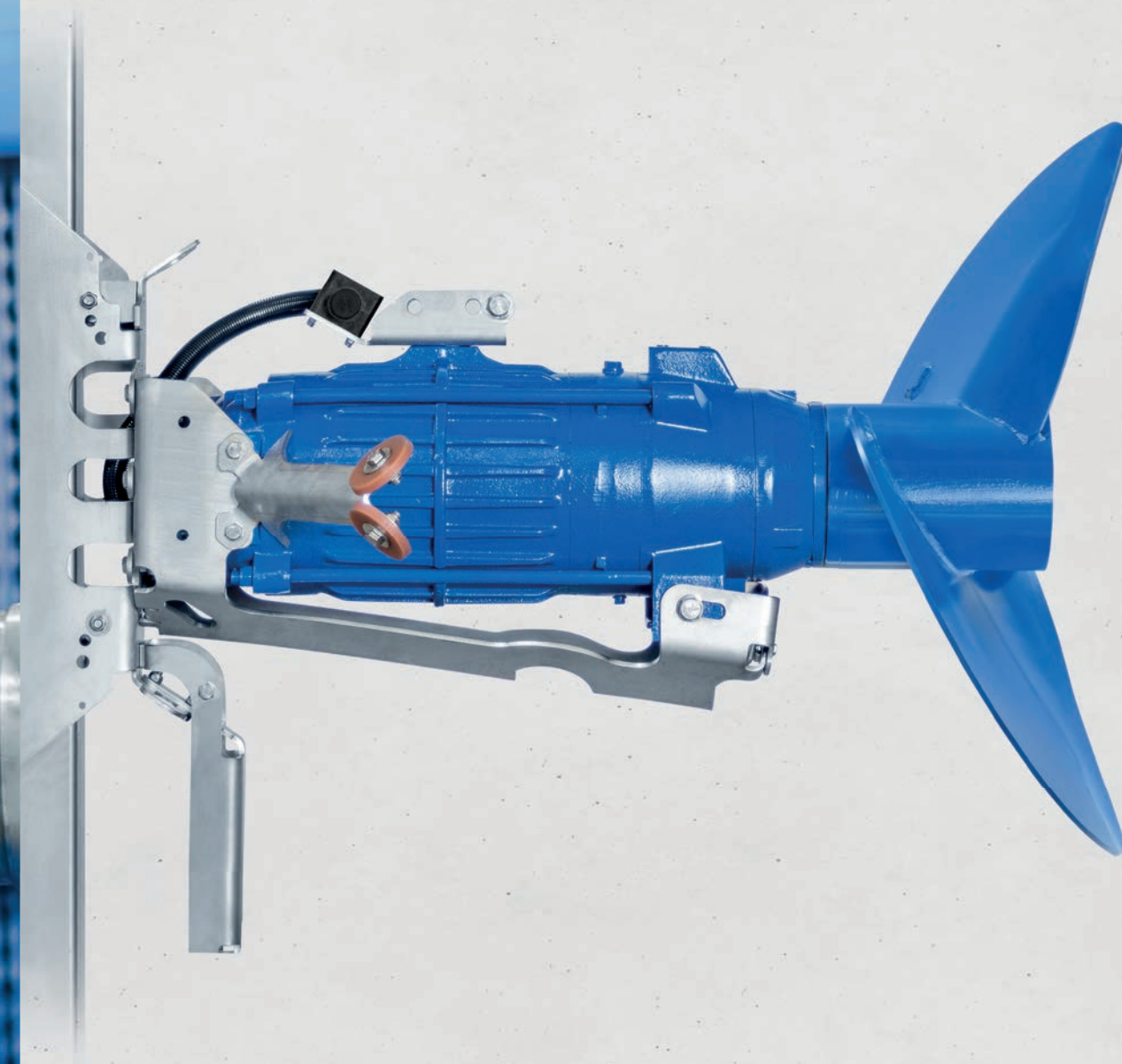




**EISELE**



Agriculture



Biogas

# Mixers

& accessories



**Dominik Eisele**  
Managing Director



# Knowledge in motion

Driven by the expertise accumulated over decades, we develop innovative solutions for the agricultural and biogas sector. We have attained a global reputation as one of the best in the industry.

Franz Eisele und Söhne GmbH & Co. KG is a family-owned company that draws on a 130-year company history. With first-class machines and services, we occupy a pole position in the agriculture and biogas sector, and we are proud to be one of Germany's market leaders.

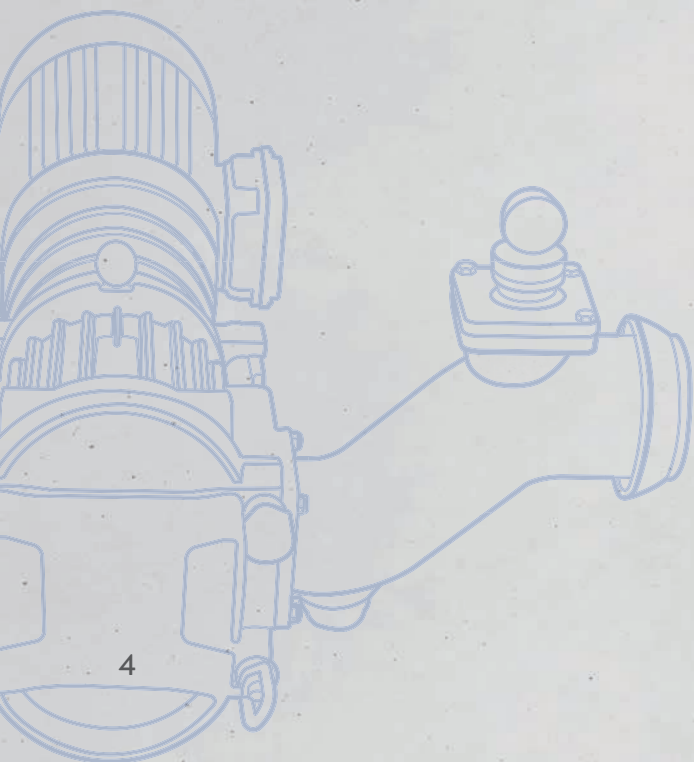
We continuously develop our products in response to constantly changing market conditions.

## **Knowledge in motion**





# Eisele – perfect compatibility





**Submersible mixers** 6 - 17

Submersible mixers for tanks

Submersible mixers for channels

**Long axis agitators** 18 - 19

**Hydraulic mixers** 20 - 21

**PTO mixers** 22 - 25

PTO mixers for tanks

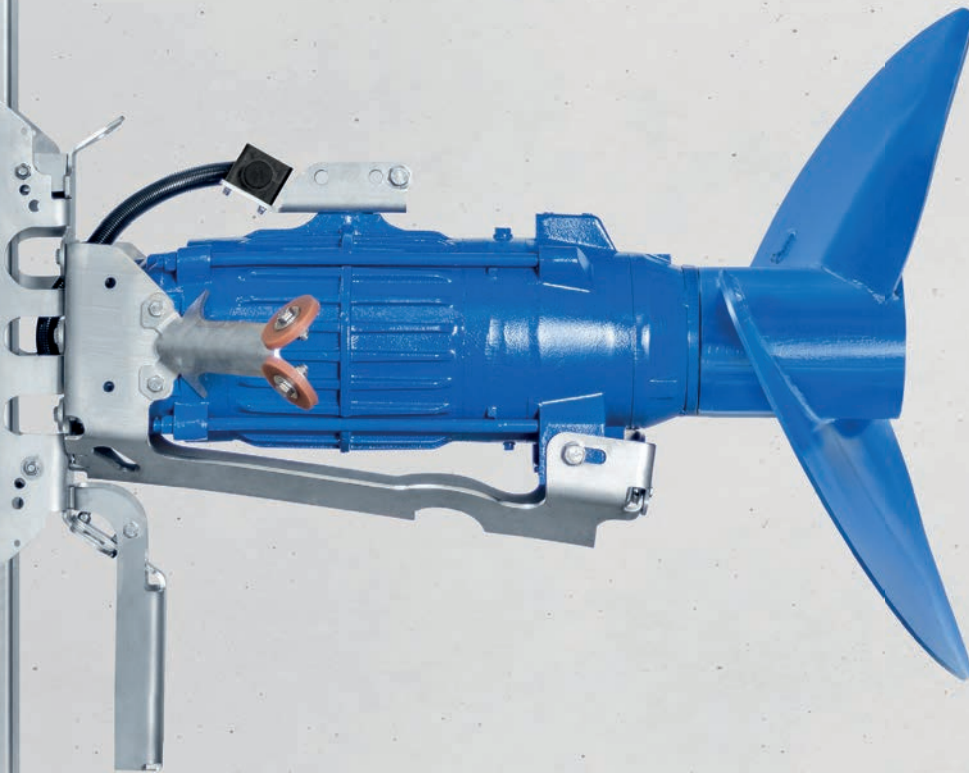
PTO mixers for channels



## Submersible mixers

# GTWS / GTWF / GTWFT / GTWSB / GTWSI-EX

for tanks



**With their flow optimised two-vane wide-blade propellers, the water pressure-tight submersible mixers from Eisele guarantee maximum efficiency and cost-effectiveness.**

The numerous accessory components enable a variety of installation and deployment options. With compact design, the GTWS programme covers a wide range of applications.



**2.2 kW to 22.0 kW**

### Benefits

- Extensive accessory range
- Approved up to an immersion depth of 40 m / substrate temperature of 65°C
- Overloadable motors manufactured by Eisele
- Solid cast iron housing with efficient heat dissipation
- Large performance range
- Long maintenance intervals
- High effectiveness
- Explosion protection zones 1 & 2 (GTWSI-EX)
- Subsidies from the BAFA programme available (GTWSB 206-E)

## Features

- Three-phase motor with integrated thermal contacts
- Sealing sensor in oil chamber, indicator lamp on switch / control system
- Stainless steel carriage
- Propeller in different variants
- 8 m electric cable (optionally 10 m, 14 m, 18 m)

## Accessories

- Various installation sets
- Various switches / control systems
- Aeration injector



Agriculture



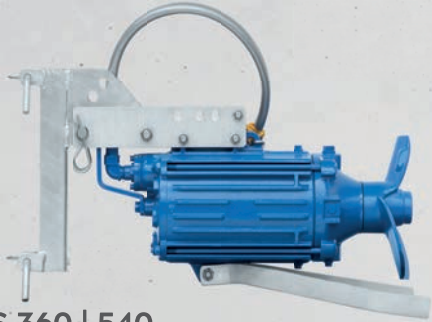
Biogas

## Technical Data

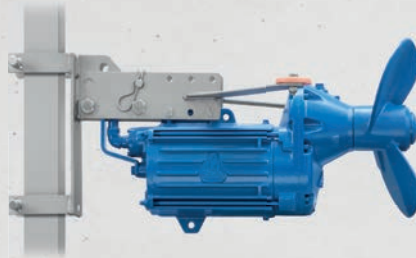
Type	PROPELLER DATA			MOTOR DATA			
	Propeller Ø	Speed	Thrust	Rated power		Speed	Rated current
GTWS	mm	rpm	N	kW	hp	rpm	A
360	290	945	450	2.2	3.0	945	5.3
540	250	1,426	700	4.9	5.5	1,426	7.8
36G	410	400	550	2.2	3.0	945	5.3
54G	370	600	800	4.0	5.5	1,426	7.8
740	460	470	1,100	5.5	7.5	1,450	10.9
1040	490	470	1,500	7.5	10.0	1,450	15.2
1540	710	240	2,500	11.0	15.0	1,460	21.2
204	820	240	3,500	15.0	20.0	1,460	28.9
GTWF	mm	rpm	N	kW	hp	rpm	A
360	290	945	450	2.2	3.0	945	5.3
54G	370	600	800	4.0	5.5	1,426	7.8
1040	490	470	1500	7.5	10.0	1,450	15.2
GTWFT	mm	rpm	N	kW	hp	rpm	A
1040	490	470	1500	7.5	10.0	1,450	15.2

Performance data are related to water. Specifications and illustrations are non-binding.

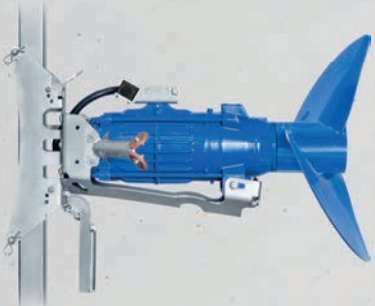
# Submersible mixers GTWS, GTWF, GTWFT for tanks



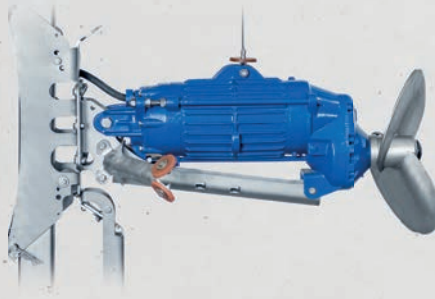
GTWS 360 | 540



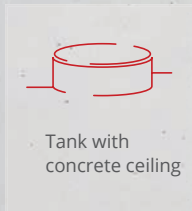
GTWS 36G | GTWS 54G



GTWS 1540 | 204



GTWS 740 | 1040



GTWF 54G



GTWFT 1040



# Submersible mixers

## Installation set EGR for GTWS / GTWSB / GTWSI-EX



The Eisele installation sets EGR come in stainless steel as a standard and can be combined with all submersible mixers.

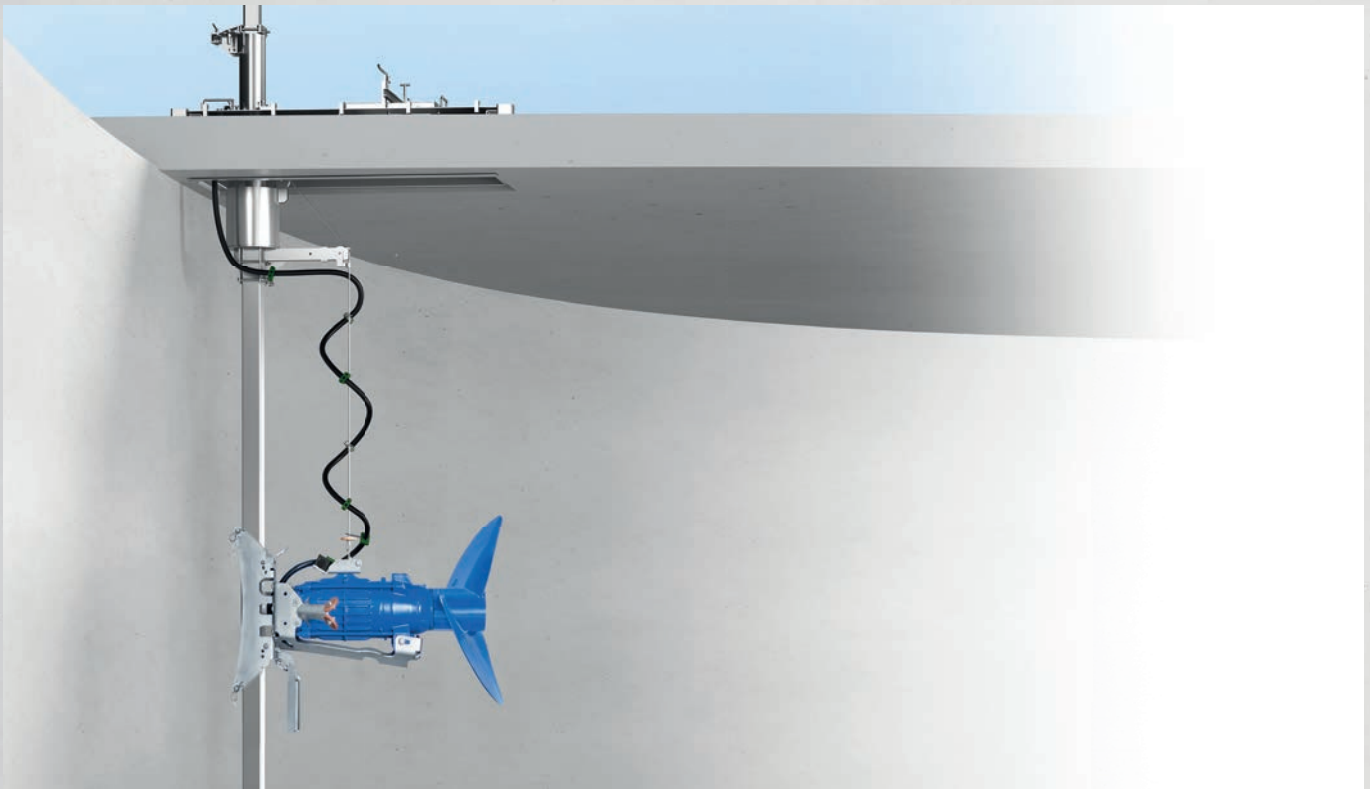
A service opening is optionally available for the EGR 3 (for tanks with foil roofs). Loss of gas due to laborious opening of the complete roof is avoided. Due to the built-in sight glass, the fermentation processes in the tank can be checked at any time with a brief glance.

*Illustration: Installation sets EGR 1 and 2 with GTWS 204*

Type	Description	Devices	Tank material	Features
EGR 1	Installation set for open tanks	all	Concrete, steel, wood	Floor support, guide rail, fixing components, boom with winch, wire or plastic cable, cable clamps
EGR 2	Installation set for tanks with concrete ceiling	all	Concrete	Floor support, guide rail, fixing components, boom with winch, wire or plastic cable, cable clamps
EGR 3	Gastight installation set for tanks with foil roof	all GTWSB, all GTWSI-EX	Concrete, steel	Floor support, guide rail, actuation from the side, protective guard (optional) Wall-mounted holder with winch, cable bushing, cable clamps, service opening (optional)
EGR 4	Gastight installation set for tanks with concrete ceiling	all	Concrete	Floor support, guide rail, service cover, mounting frame, immersion cup, holder with winch, cable bushing, cable clamps
EGR 5	Installation set with chain for open and closed tanks	all	Concrete	Floor support, guide rail, fixing components, boom with all-purpose transmission, holder for chain locking device, chain, cable clamps
EGR 6	Installation set for service purposes	all	Concrete	Boom for service purposes, holder for boom, extension

# Submersible mixers GTWSB

for tanks



**The submersible mixers GTWSB impressively demonstrate their strength in continuous operation in biogas plants. Even viscous media are powerfully agitated by the dynamic two-wing wide-blade propeller, ensuring thorough homogeneous mixing of the substrate.**

*Illustration EGR 4  
(service cover) with GTWSB 204*

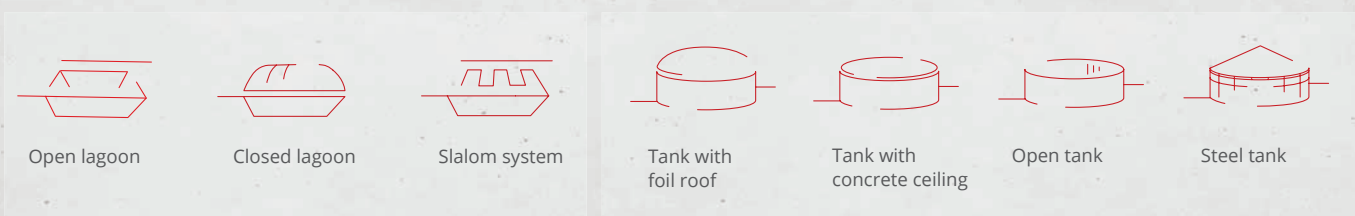
Service cover:

The service cover is used on tanks with a concrete ceiling. This means the mixer can be maintained simply and easily from the outside.



**7.5 kW to 22.0 kW**





## Features

- Three-phase motor with integrated thermal contacts
- Sealing sensor in oil chamber, indicator lamp on switch, control system
- Stainless steel carriage, optionally with locking pin or bolt guide
- Stainless steel propeller
- Electric cable with protective hose
- GTWSB 206-E with drive that complies with energy efficiency class IE5 (BAFA funding available)

## Accessories

- Various installation sets
- Various switches / control systems



Agriculture



Biogas

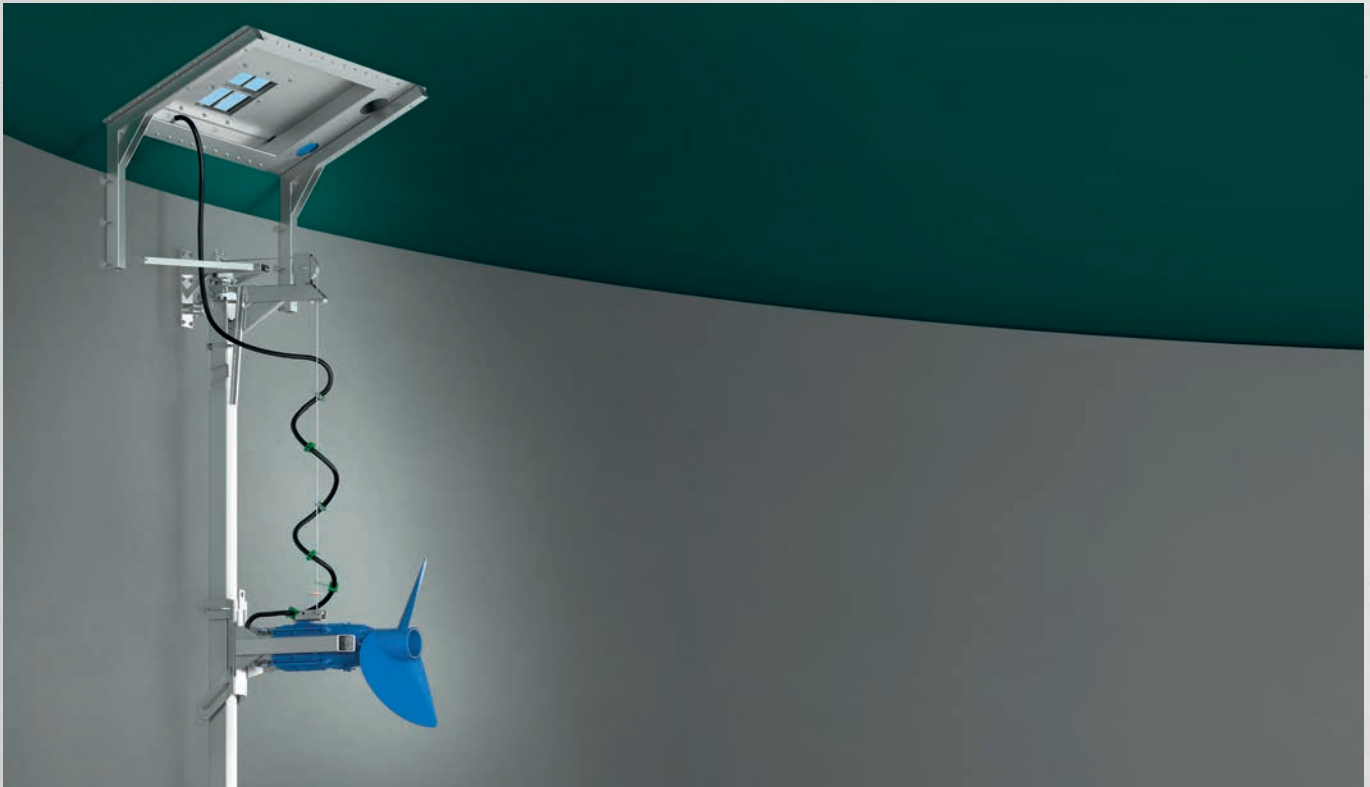
## Technical Data

Type	PROPELLER DATA			MOTOR DATA			
	Propeller Ø	Speed	Thrust	Rated power	Speed	Rated current	
GTWSB	mm	rpm	N	kW	hp	rpm	A
1040	490	470	1,500	7.5	10.0	1,450	15.2
1540	710	240	2,500	11.0	15.0	1,460	21.2
204	820	240	3,500	15.0	20.0	1,460	28.9
206-E	820	240	3,500	15.0	20.0	1,460	26.2
254	920	210	4,200	18.5	25.0	1,474	38.0
304	1000	210	5,100	22.0	30.0	1,468	43.0

Performance data are related to water. Specifications and illustrations are non-binding.

# Submersible mixers GTWSI-EX

for tanks



With the safety systems on the GTWSI-EX mixer, Eisele guarantees protection from explosions in the vicinity of flammable gases in heightened danger zones such as fermenters and tanks with varying filling levels.

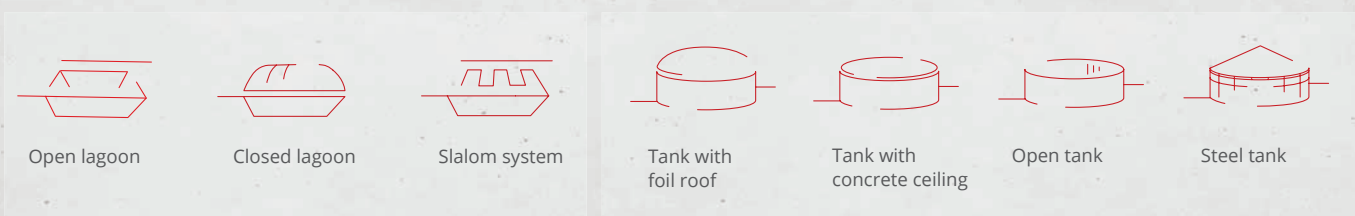
*Illustration: EGR 3 with GTWSI-EX 204*

 7.5 kW to 15.0 kW



*Illustration: EGR 3 (with service opening, external view of tank)*





## Features

- Approved for explosion protection zones 1 & 2
- Three-phase motor with integrated thermal contacts
- Sealing sensor in oil chamber, indicator lamp on switch, control system
- Stainless steel carriage, optionally with locking pin or bolt guide
- Stainless steel propeller
- Electric cable with protective hose

## Accessories

- Various installation sets
- Various switches / control systems



Agriculture



Biogas



Biogas Ex

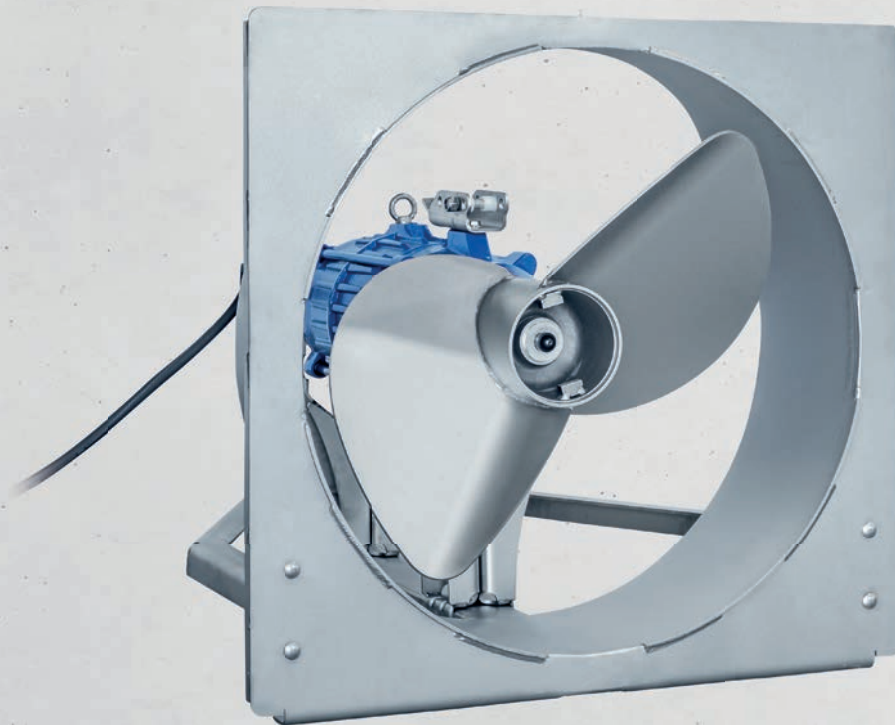
## Technical Data

Type	PROPELLER DATA			MOTOR DATA			
	Propeller Ø	Speed	Thrust	Rated power		Speed	Rated current
GTWSI-EX	mm	rpm	N	kW	hp	rpm	A
1040	490	470	1,500	7.5	10.0	1,475	15.4
1540	710	240	2,500	11.0	15.0	1,460	21.2
204	820	240	3,500	15.0	20.0	1,460	28.9

Performance data are related to water. Specifications and illustrations are non-binding.

# Submersible mixers GTWSU

for channels



**The GTWSU series is perfectly designed for circulation in a slurry channel.**

With constant output, the Eisele high-performance mixer ensures even intermixing, even with viscous substrates.



**7.5 kW to 15.0 kW**

## Benefits

- No struts at the top which could impede the substrate flow
- Large, two-vane wide-blade propellers enable large nozzle opening
- Enormous thrust performance / circulation rate
- Corrosion-free stainless steel construction





Slalom system

## Features

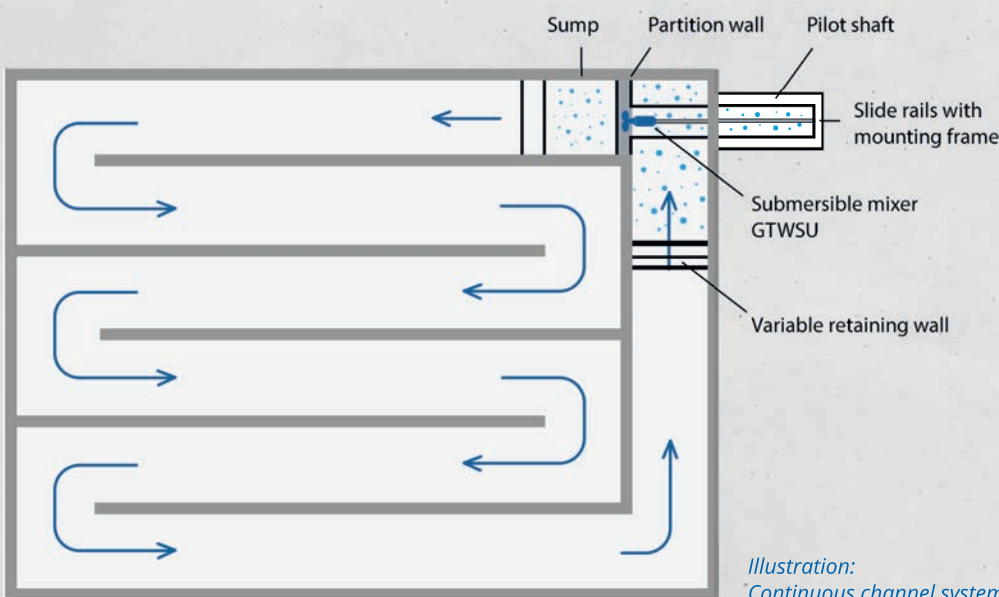
- Optionally available with slide rails (GTWSU 1040) or angled guide rails (all GTWSU)
- Carriage and nozzle (galvanized / stainless steel)
- Propeller in different variants

## Accessories

- Various switches / control systems



Agriculture



## Technical Data

Type	PROPELLER DATA			MOTOR DATA			
	Propeller Ø	Speed	Thrust	Rated power		Speed	Rated current
GTWSU	mm	rpm	N	kW	hp	rpm	A
1040	490	470	1,500	7.5	10.0	1,450	15.2
1540	710	240	2,500	11.0	15.0	1,460	21.2
204	820	240	3,500	15.0	20.0	1,460	28.9

Performance data are related to water. Specifications and illustrations are non-binding.

# Submersible mixers GTWSH

for channels



**With the height-adjustable sewage mixer GTWSH 204, slurry channels and slalom systems with a depth of up to 6.0 m can be effectively homogenised.**

A winch can be used to adjust the height of the mixer so that it operates at the required position. A tear-resistant and slurry-resistant fabric tarpaulin closes the opening above and below the mixer. The specially designed nozzle has no struts at the top, ensuring obstruction-free, even intake of floating layers.



**15.0 kW**

## Benefits

- No struts at the top which could impede the substrate flow
- Large, two-vane wide-blade propellers enable large nozzle opening
- Openings in the nozzle mantle effectively draw floating layers in
- Enormous thrust performance / circulation rate
- Corrosion-free stainless steel construction



Slalom system

## Features

- Stainless steel carriage and nozzle
- Stainless steel propeller
- Stainless steel guide rails
- Traverse for lifting the mixer
- Tear-resistant, slurry-resistant fabric tarpaulin

## Accessories

- Various switches / control systems



Agriculture

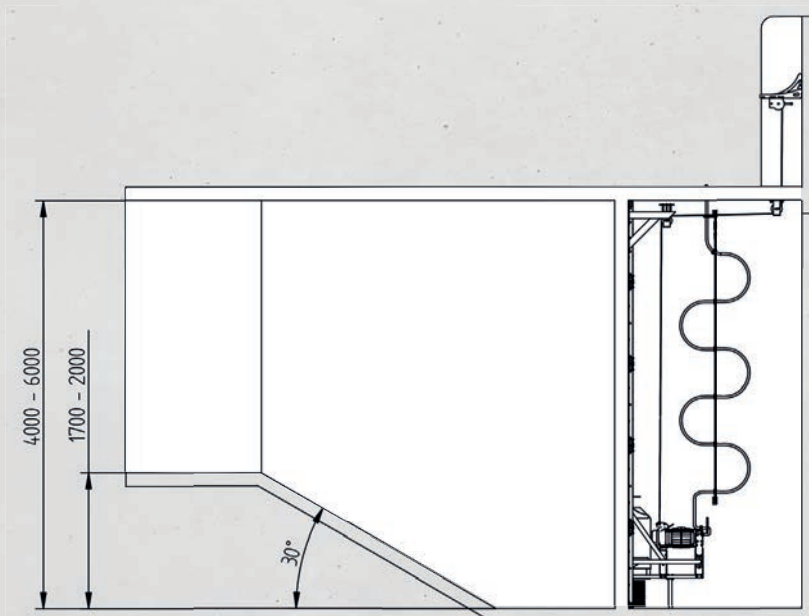


Illustration: Installation measurements

## Technical Data

Type	PROPELLER DATA			MOTOR DATA			
	Propeller Ø	Speed	Thrust	Rated power		Speed	Rated current
GTWSH	mm	rpm	N	kW	hp	rpm	A
204	820	240	3,500	15.0	20.0	1,460	28.9

Performance data are related to water. Specifications and illustrations are non-binding.



# Long axis agitators ESR



**The long axis agitator ESR 204 features a 15 kW electric motor (authorised for explosion protection zone 2), and with its maximum speed of 100 rpm and a propeller diameter of 140 cm, it provides top thrust and optimal mixing results in biogas plants.**

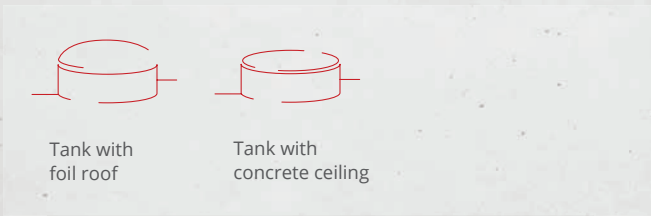
With a shaft length of 450 cm, it can be adjusted to different tank sizes. The angle is adjusted either mechanically or hydraulically.



**15.0 kW**

## Benefits

- High mixing performance with optimised propeller
- Low maintenance
- Long service life
- Base plate and mounting frame in acid-resistant stainless steel as a standard
- Fast, easy assembly



## Features

- Base plate and mounting frame in acid-resistant stainless steel
- Spur gear motor
- Three-blade propeller
- Mechanical seal on motor and medium side
- Approved for explosion protection zone 2

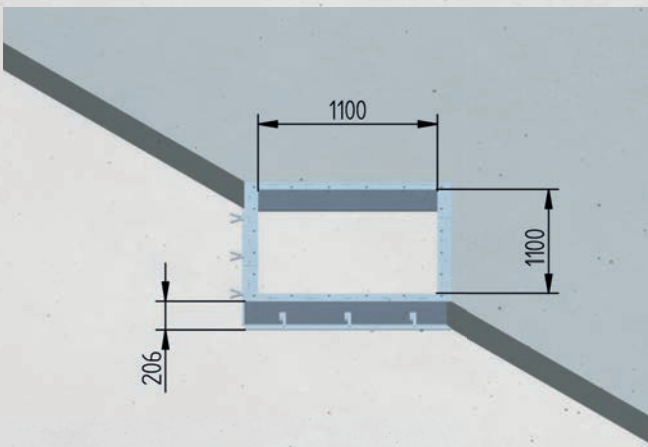


Illustration: Measurements of mounting frame for ceiling installation



Biogas



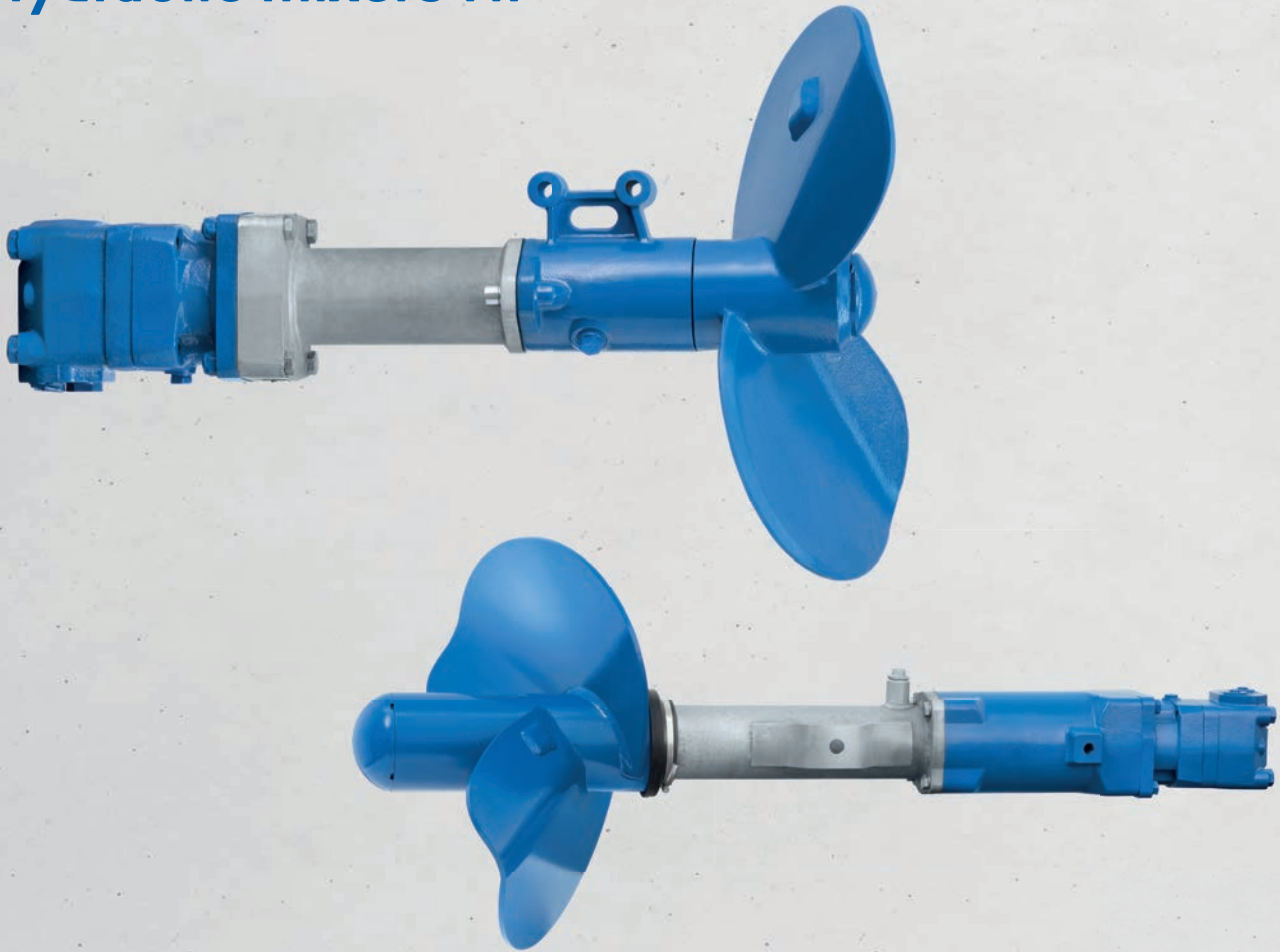
Biogas Ex

## Technical Data

Type	PROPELLER DATA			MOTOR DATA			
	Propeller ∅	Speed	Thrust	Rated power	Speed	Rated current	
ESR	mm	rpm	N	kW	hp	rpm	A
204	1,400	100	5,200	15.0	20.0	1,460	29.4

Performance data are related to water. Specifications and illustrations are non-binding.

## Hydraulic mixers HP



**The hydraulically driven Eisele HP mixers operate independently of electricity, and their flow-optimised thrust propellers achieve very high mixing performance.**

Their rugged design with highly wear-resistant mechanical seal guarantees a long service life at low acquisition cost.



**7.5 kW to 33.5 kW**

### **Benefits**

- No power supply necessary
- Flow-optimised thrust propeller
- Highly wear-resistant mechanical seal
- Rugged design
- For stationary or mobile use

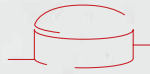




Open lagoon



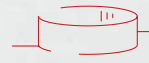
Slalom system



Tank with foil roof



Tank with concrete ceiling



Open tank



Steel tank

## Features

- Various hydraulic drives
- Wide-blade thrust propeller
- For mobile purposes, e.g. attachment to crane or telescopic loader

## Accessories

- Carriage for installation set EGR (HP 10)
- Suitable hydraulic hoses



Agriculture

## Technical Data

Type	Propeller Ø	Total length	TECHNICAL DATA OF HYDRAULIC MOTOR				
			Speed	Performance		Pressure drop	Oil flow
HP	mm	mm	rpm	kW	hp	bar	L / min
10 - 100	485	437	470	7.5	10.0	120	50
10 - 200	490	437	625	15.0	20.0	80	125
45 - 160	500	1,278	590	26.5	35.0	200	100
45 - 200	500	1,283	590	33.5	44.5	200	125
45 - 250	500	1,289	470	33.5	44.5	200	125
65 - 250	600	1,289	470	33.5	44.5	200	125

Performance data are related to water. Specifications and illustrations are non-binding.

# PTO mixers ZP

for tanks



**The Eisele PTO mixers ZP are the ideal flexible and mobile solution for large reaches and immersion depths in open and closed tanks.**

The outstanding product positioning of Eisele PTO mixers results from the highest production standards combined with extensive practical experience.

Overall length: from 3.5 m to 8.0 m



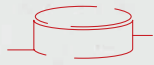
**33.0 kW to 88.0 kW**

## Benefits

- Stainless steel mixing shaft
- Wide-blade thrust propeller with powerful thrust action (ZP 454 / 654)
- 2-blade stainless steel propeller
- Drive shaft in oil bath (ZP 454 / 654)
- Maintenance-free bearing in the mixing shaft
- Solid design
- Modular design (ZP 120)



Open lagoon



Tank with concrete ceiling



Open tank



Steel tank

## Features

- Three-point linkage for tractor hitch (ZP 454 / 654)
- Optionally with mechanical or hydraulic adjustment (ZP 454 / 654)
- Category-3 rear hydraulics
- Wide-blade thrust propeller
- Stainless steel mixing shaft and protective guard
- Various wide-blade thrust propellers
- Various 2-blade stainless steel propellers
- Mixing shaft and propeller guard

## Accessories

- Reversing transmission for forward and return flow (ZP 454 / 654)
- Chopping system (ZP 454 / 654)
- Various power-take-off shafts
- Chassis
- Set of transport rollers



Agriculture



ZP 120

## Technical Data

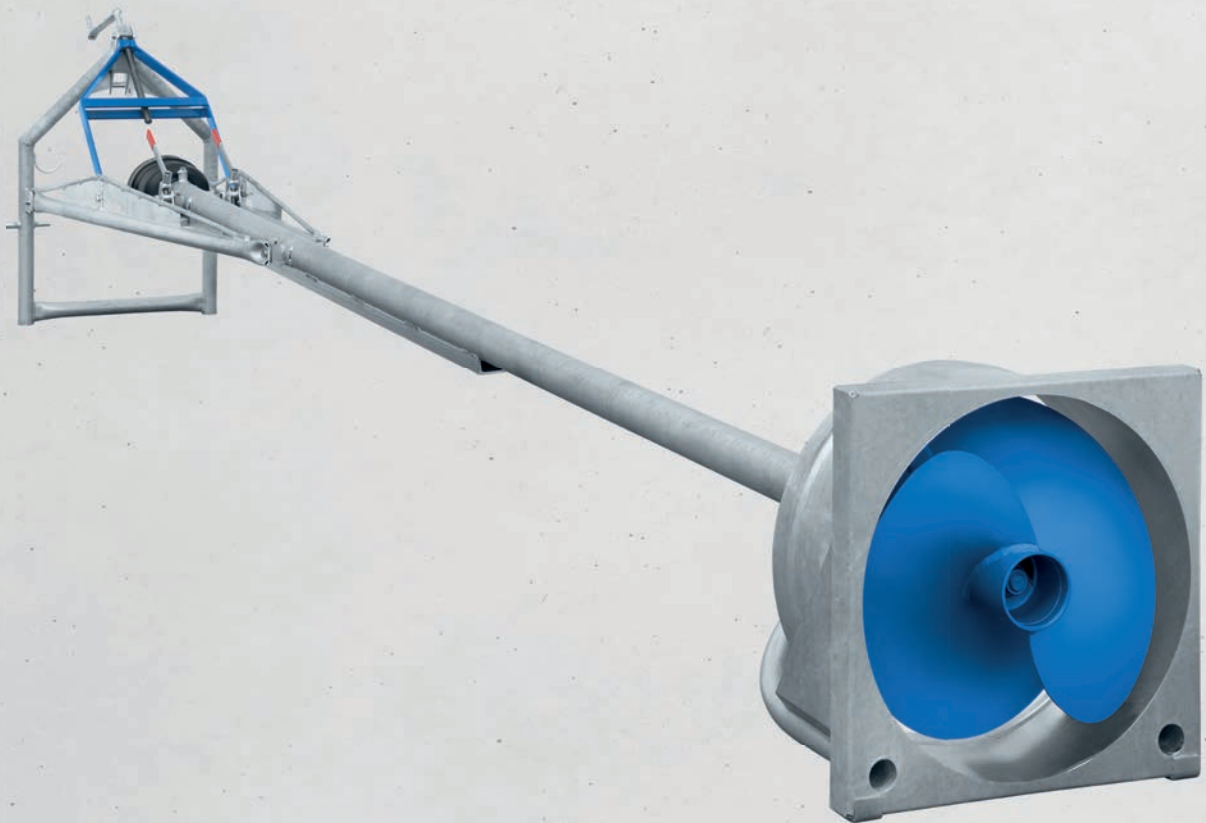
Type	Overall length	Power requirement at 540 rpm		Speed	Minimum pit opening at 0.25 m ceiling thickness
		kW	hp		
Drive power-take-off shaft tractor drive ZP	m	kW	hp	rpm	m
454	3.5 - 6.0	33	45	540	0.50
654	3.5 - 6.0	48	65	540	0.60
120	6.0 - 8.0	88	120	540	For open lagoon only

Performance data are related to water. Specifications and illustrations are non-binding.



# PTO mixers ZQU, ZQUE

for channels



**The Eisele PTO mixer ZQU is ideal for slurry channel circulation systems, also known as slalom systems. The double-action screw achieves a high circulation rate.**

An attachable electric drive (ZQUE) also makes stationary use possible.

Overall length: from 3.5 m to 6.0 m



**11.0 kW to 48.0 kW**

## Benefits

- Stainless steel mixing shaft
- Double-action screw draws in or pushes
- Drive shaft in oil bath
- Solid design



Slalom system

## Features

- Three-point linkage optionally with mechanical or hydraulic adjustment
- Optional: mounting block for stationary installation
- Double-action screw (galvanized / stainless steel)
- Stainless steel mixing shaft and protective guard
- Nozzle with protective ring
- Slide rail with mounting frame (galvanized / stainless steel)
- Optionally with attachable electric drive up to 15 kW

## Accessories

- Reversing transmission for forward and return flow
- Various power-take-off shafts



Agriculture

## Technical Data

Type	Overall length	Power requirement at 540 rpm		Speed	Nozzle diameter
		kW	hp		
<b>Drive power-take-off shaft tractor drive ZQU</b>	<b>m</b>	<b>kW</b>	<b>hp</b>	<b>rpm</b>	<b>mm</b>
<b>403</b>	3.5 - 6.0	30	40	540	570
<b>653</b>	3.5 - 6.0	48	65	540	670
<b>Drive power-take-off shaft &amp; electric drive ZQUE</b>	<b>m</b>	<b>kW</b>	<b>hp</b>	<b>rpm</b>	<b>mm</b>
<b>403-154</b>	3.5 - 6.0	11	15	400	570
<b>403-204</b>	3.5 - 6.0	15	20	450	570
<b>653-204</b>	3.5 - 6.0	15	20	400	670

Performance data are related to water. Specifications and illustrations are non-binding.





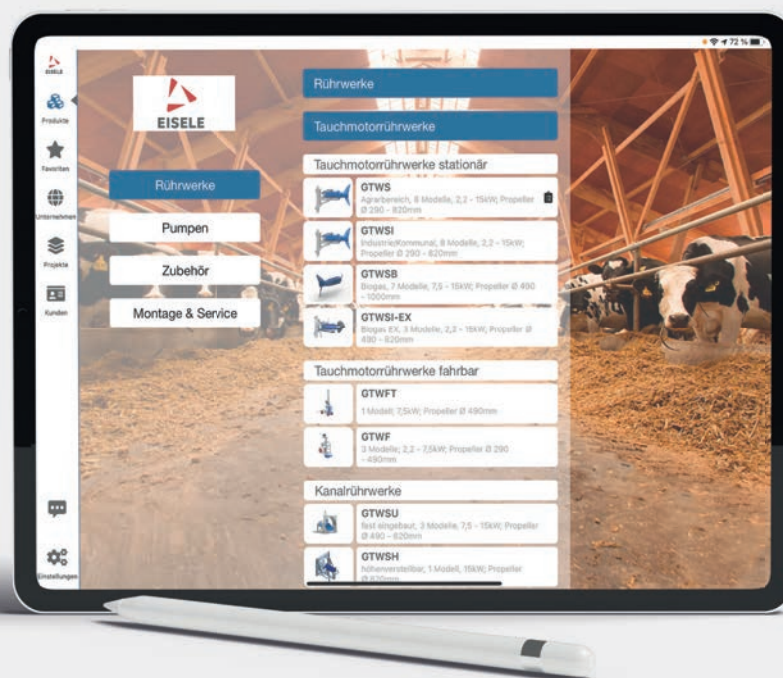
# Global success driven by pioneering spirit

We develop and produce mixers and pumps for agricultural and biogas applications which are outstanding in the industry in terms of reliability, durability and cost-effectiveness. Our premium products ensure you can work effectively and profitably – because your success is our success.

All our passion and skill goes into achieving market leadership in the fields of agriculture and biogas – in Germany, Europe and worldwide.







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- Company facts and figures
- Most of this content is also available offline





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