



## Energy-efficient stirring and agitating technology



# Who we are

Since its foundation in 1988, PTM mechatronics GmbH develops, produces and distributes internationally its own products within the product fields energy-efficient agitators, high-performance compressed air motors, electric gripping systems and space-saving drive technology. We always tailor our work to our company values: reliability, professionalism, partnership and openness to new ideas.



# PTM worldwide

Over the years, PTM mechatronics GmbH has evolved into a global player. This development is based on a network of professional and well-established sales partners all around the globe. Our products go through all necessary certifications of different countries to meet the requirements of regional provisions.

PTM  
mechatronics

National Electrical  
Code 505

2014 / 34 / EU

The EurAsian  
Conformity mark

**PTM is your reliable partner – worldwide**

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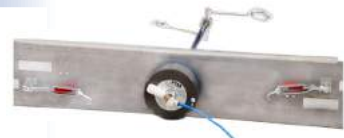
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## The *eco-Series* at a glance

### Energy-saving - functionally safe - perfect agitating results

Our eco-Series comprises products in the field of functionally safe stirring and agitation. This product range was developed to ease the sensitive handling of stirring and agitating technology in hazardous environments and make it worry-free. Our products are **ATEX certified by TÜV SÜD**. They are suitable for all sensitive environments including laboratory environments.

## Your benefits at a glance

- Up to 90% less energy consumption
- Up to 90% less energy costs
- Speed control with scale
- Low noise emission 75db
- Stable speeds from 10 to 600 rpm
- High torque even at low speeds 4 to 288Nm
- Resilient to standstill
- Transmission optional
- Oil-free and silicone-free
- Connection block for overload protection
- IP67 waterproof

### Advantages compared to electric motor

- Less expensive compared to acquire
- Waterproof
- Resilient to standstill
- Easy frequent load change
- Lower weight and smaller installation dimensions
- Easy change of rotation direction
- Lower heat development
- Higher efficiency
- Lower susceptibility to heat, vibration and blows
- Higher operational safety due to its robust completely mechanical design
- Electromagnetically interference-free

### Advantages compared to vane motor

- Higher torques
- Up to 90% lower air consumption
- Low rotational speed without transmission possible
- Lower noise emission
- Higher efficiency
- Compact design





## Energy-efficient

Our agitators convince by their extreme low consumption of compressed air. We achieve this by means of our PTM drive technology on the basis of the radial piston principle, which has already proven itself over decades. Compared to simple agitators, which are often driven with ordinary vane motors, they reduce the consumption of compressed air by up to 90% on the average.



**Savings of operating costs compared to vane motor:**  
**up to €2 600 / per motor**  
**Amortisation of purchase:**  
**after approx. 4 months**



Test environment: 75 motors, 200 liters container, 24h operation

## Functionally safe

Our products of the eco-Series ensure functional safety in hazardous environments – without any compromises. Certified by TÜV Süd, your agitating process in ATEX zone 1 or 0 is safe and carefree from now on. Our eco-Series provides a silicone-free and oil-free drive as standard.

### Highlights

- Zone separation between zone 1 and zone 0
- Hard-coated aluminium housing with grounding
- Oil-free drive
- Silicone-free and acetone-resistant sealings



### ATEX Zone 0:

- ATEX certification II 1/2 G Ex h IIC T6 Ga/Gb X
- ATEX certification II 1/2 D IIIC T85°C Da/Db X

### ATEX Zone 1:

- ATEX certificate II 2 G/D c T5 100

## Precision made in Germany

We know that for a perfect agitating result it needs not only a reliable and safe drive technology. The relation between motor, agitator unit and stirring container has to be adjusted thoroughly. Therefore, we analyse the interaction between the components in our own tests and refine the results continuously. We gladly will advise you which components fit together and how you can economically and safely achieve the perfect agitating result with tried and tested quality made in Germany.



## ATEX agitator motor

Our ATEX agitator motors provide a functionally safe application in all ATEX environments all over the world. You can trust in an economical and homogeneous work process. The integrated connection block combines overpressure valve, throttle check valve, and high-performance silencer in one compact part. This ensures a safe and error-free connection and the longevity of our motors. Noise emissions are reduced to a minimum for an optimal noise protection. All products of the eco-Series include the connection block as standard.



### Highlights

- Connection block with silencer, overpressure valve and throttle check valve
- Redundant overload protection
- ATEX certificate II 2 G/D c T5 100
- Hard-coated aluminium housing with grounding
- IP67 waterproof
- Oil-free and silicone-free
- Clockwise rotation
- 12 step regulator for exact rotational speed
- Memory function through anti-twist protection

### Options

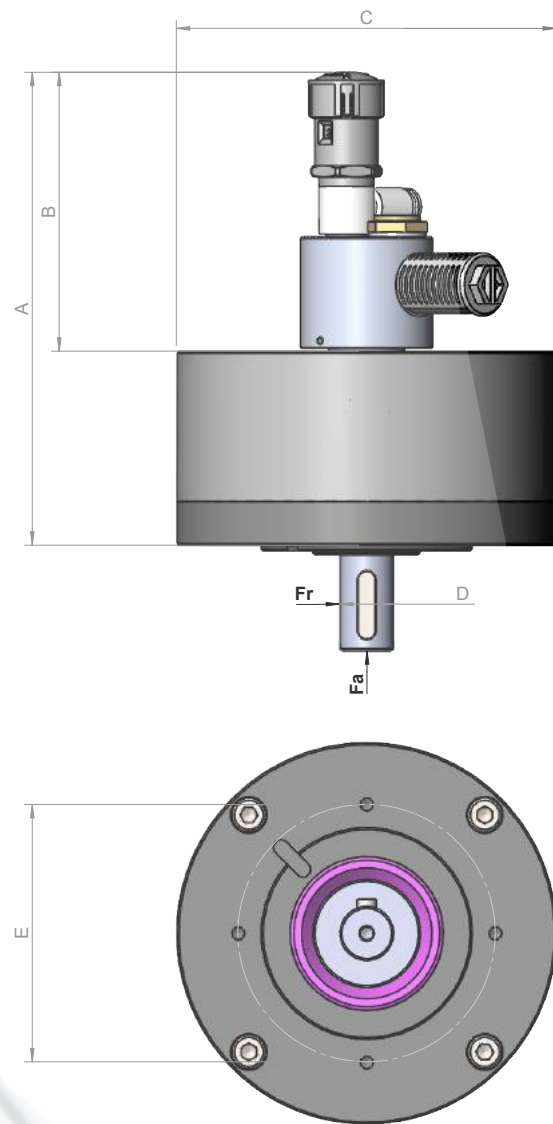
- Mounting angle
- Mounted speed-sensor
- Anticlockwise rotation

### Exemplary applications

- Agitators
- Coating technology
- Chemical plant engineering
- Mills and milling plants
- Chemical process vessels
- Processing of paints, varnishes, adhesives, fillers and sealants
- Food production



Motor with mounting angle



#### Technical data

	PMO450EX	PMO900EX	PMO1800EX	PMO3600EX
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm
A	124mm	138,5mm	142mm	164mm
B	73mm	73mm	74mm	74mm
C	Ø99mm	Ø99mm	Ø159mm	Ø159mm
D	Ø14h6	Ø14h6	Ø19h6	Ø19h6
E	Ø67mm	Ø67mm	Ø115mm	Ø115mm
Fr (radial force)	400N	400N	800N	800N
Fa (axial force)	100N	100N	200N	200N

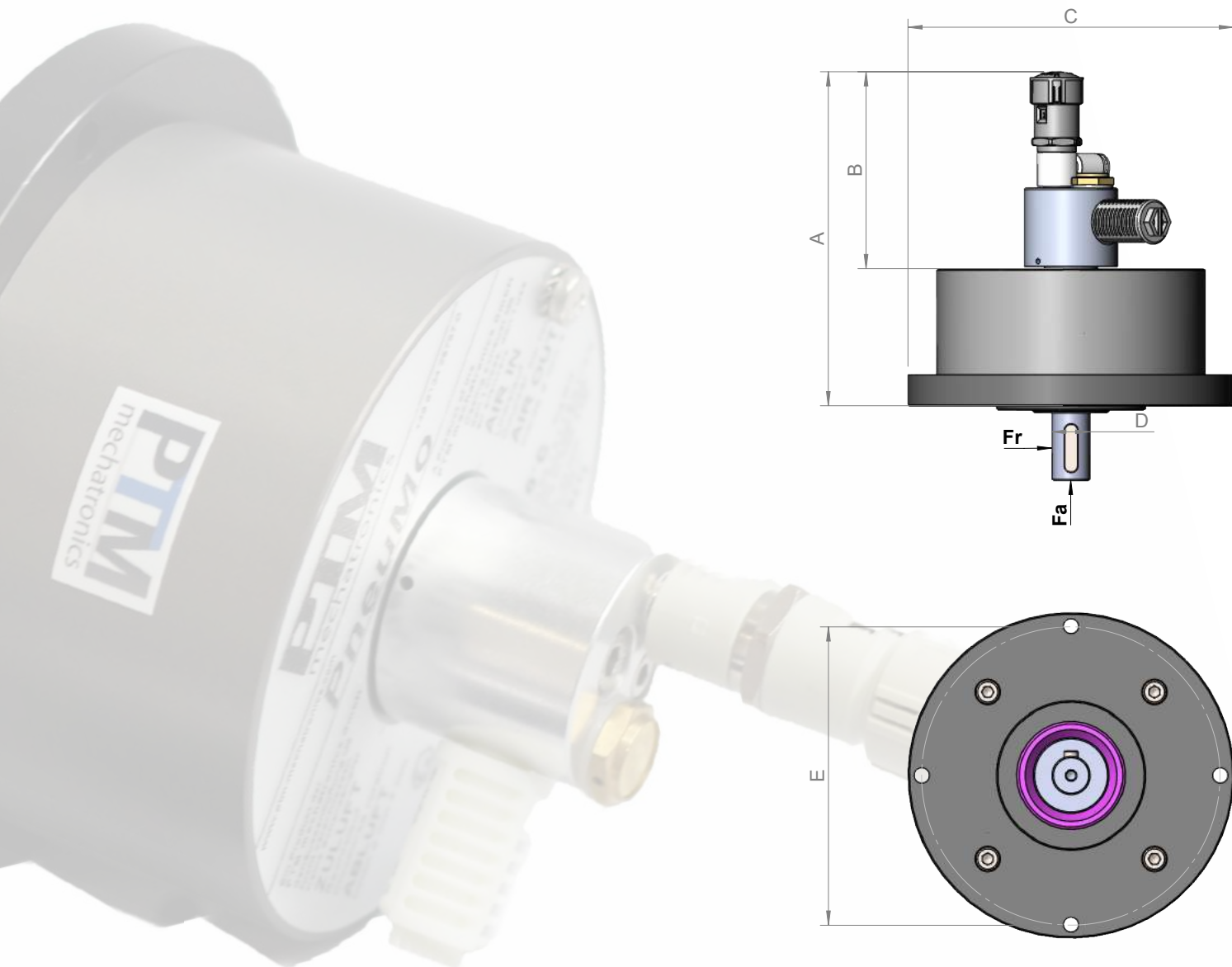


# ATEX agitator motor - with mounting flange

Our ATEX agitator motor with integrated mounting flange provides an easy and quick mounting on your container.







#### Technical data

	PMO450EX-B1	PMO900EX-B1	PMO1800EX-B1	PMO3600EX-B1
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm
A	124mm	138,5mm	142mm	164mm
B	73mm	73mm	74mm	74mm
C	Ø120mm	Ø120mm	Ø199mm	Ø199mm
D	Ø14h6	Ø14h6	Ø19h6	Ø19h6
E	Ø110mm	Ø110mm	Ø180mm	Ø180mm
Fr (radial force)	400N	400N	800N	800N
Fa (axial force)	100N	100N	200N	200N

## ATEX agitator drive – with bearing flange for ATEX zone 1

### Functional safety in ATEX zone 1

You get a complete product comprising drive with integrated connection block and bearing flange. The ATEX agitator drive with bearing flange is certified with ATEX certificate II 2G/D c T5 100 for ATEX zone 1 and additionally provides stability even with extreme radial load. Thus, it is possible to agitate safely in large containers and viscous fluids.

As the drive is IP67 waterproof, it can come into contact with fluids worry-free. This is important with regard to the fluids inside the containers as well as an easy cleaning.

*For extreme  
radial load*



### Highlights

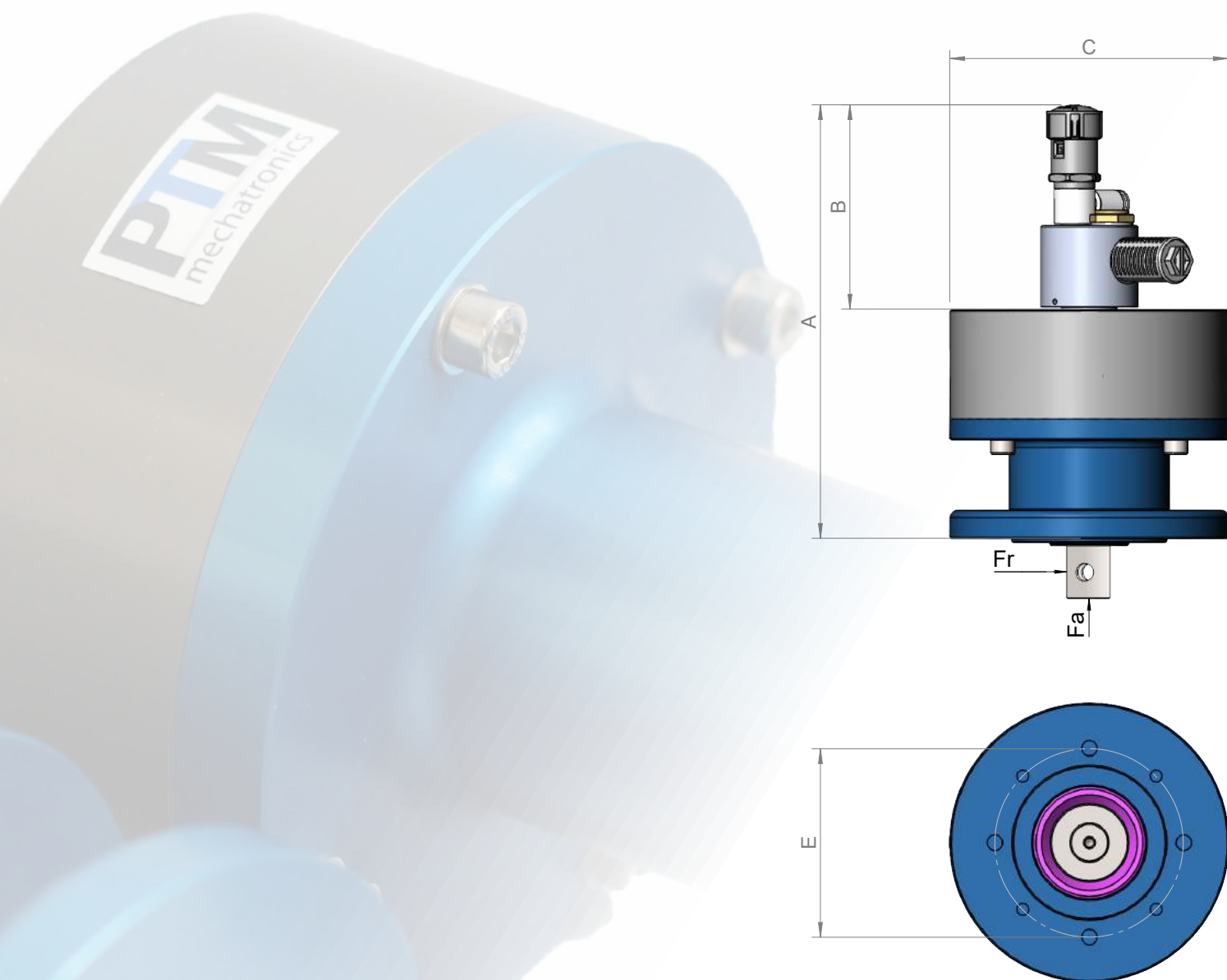
- ATEX certificate II 2 G/D c T5 100
- Bearing flange allows extreme radial load
- Application in IBC containers up to 1000 liters
- IP67 waterproof

### Options

- Mounted speed-sensor
- Anticlockwise rotation
- eco-Traversal for fast and easy mounting on container
- eco-Disc and eco-Cup stirrer elements
- Shafts available in various lengths

**Our recommendation: Agitator system – eco-Mix Zone I**  
**See page 14**





**Technical data**

	PMO 450 EX A7 B3 D3	PMO 900 EX A7 B3 D3	PMO 1800 EX A7 B3 D3	PMO 3600 EX A7 B3 D3
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm
A	155mm	169.5mm	180mm	202mm
B	73mm	73mm	74mm	74mm
C	Ø99mm	Ø99mm	Ø159mm	Ø159mm
E	Ø67mm	Ø67mm	Ø115mm	Ø115mm
Fr (radial force)	2000N	2000N	3000N	3000N
Fa (axial force)	100N	100N	200N	200N



## ATEX agitator drive – with zone separation flange for ATEX zone 0

### Functional safety in ATEX zone 0

You get a complete product comprising drive with integrated connection block and zone separation flange. The zone separation flange enables the worry-free agitating process in ATEX zone 0 (Ex II 1/2 G Ex h IIC T6 Ga/Gb X, Ex II 1/2 D Ex h IIIC T85°C Da/Db X). Additionally, it provides stability even with extreme radial load. Thus, it is possible to agitate safely in large containers and viscid fluids.

As the drive is IP67 waterproof, it can come into contact with fluids worry-free. This is important with regard to the fluids inside the containers as well as an easy cleaning.

### Highlights

- Ex II 1/2 G Ex h IIC T6 Ga/Gb X
- Ex II 1/2 D Ex h IIIC T85°C Da/Db X
- Zone separation flange allows extreme radial load
- Application in IBC containers up to 1000 liters
- Pluggable drive shafts
- Oil-free and silicone-free

### Direct mounting on container – zone 0

**We recommend our agitator system eco-Topmix Zone 0**

**See page 18**



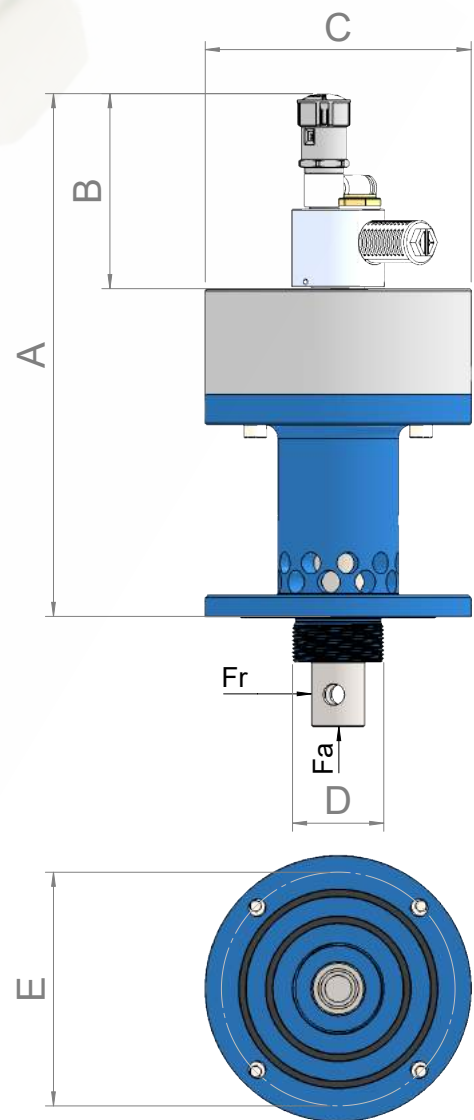
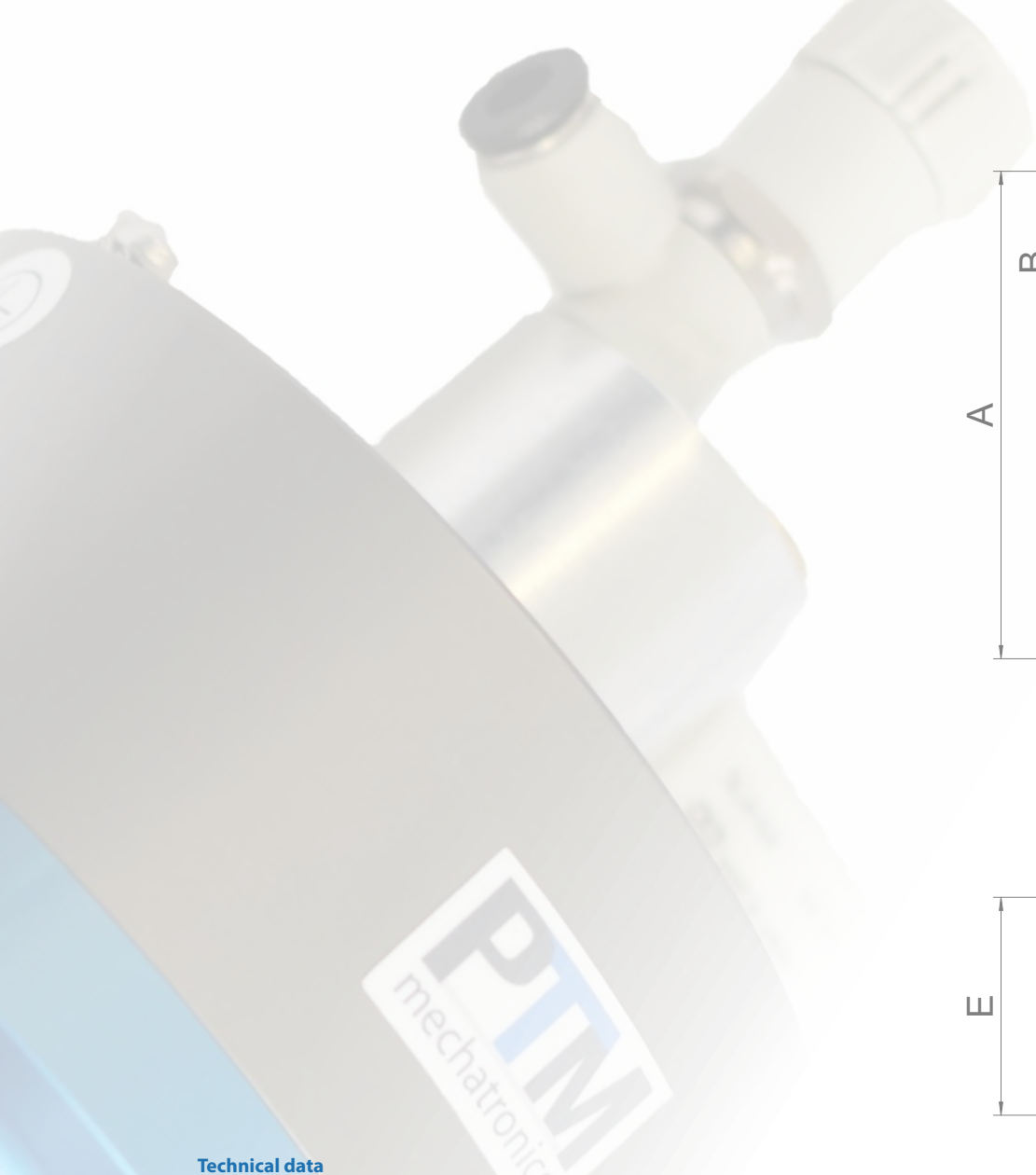
**Flexible eco-Traverse  
for quick mounting  
See page 24**



### Options

- Mounted speed-sensor
- Anticlockwise rotation
- eco-Traverse for fast and easy mounting on container
- eco-Disc and eco-Cup stirrer elements
- Shafts available in various lengths





#### Technical data

	eco 450	eco 900	eco 1800	eco 3600
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm
A	195mm	210mm	219mm	241mm
B	73mm	73mm	74mm	74mm
C	Ø99mm	Ø99mm	Ø159mm	Ø159mm
D	M34x1.5	M34x1.5	M44x1.5	M44x1.5
E	4x90°; Ø6.5mm LK: Ø85mm	4x90°; Ø6.5mm LK: Ø85mm	4x90°; Ø8.5mm LK: Ø125mm	4x90°; Ø8.5mm LK: Ø125mm
Fr (radial force)	700N	700N	1000N	1000N
Fa (axial force)	100N	100N	200N	200N

## Agitator system *eco-Mix Zone 1*

### Functional safety in ATEX zone 1

You get a complete product comprising ATEX agitator motor with integrated connection block, bearing flange, drive shaft and stirrer element. Our complete agitator systems eco-Mix are perfectly matched to the common standard container sizes (please see table Technical data p. 17). With our optional eco-Traverse, the eco-Mix can easily be fixed to your open or closed container.

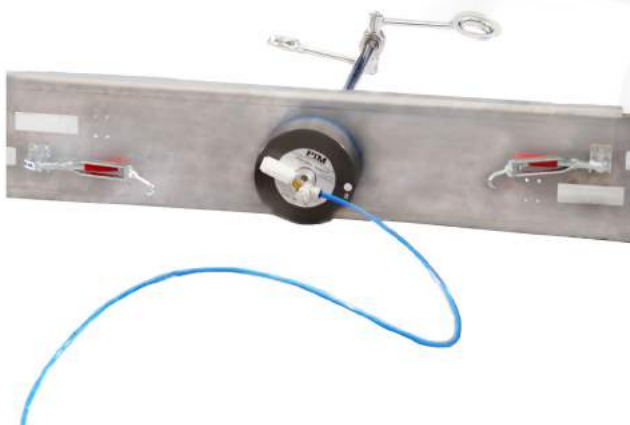
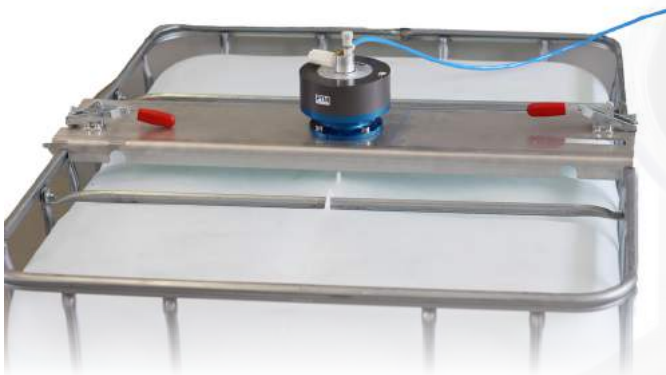
### Highlights

- ATEX-approved II 2 G/D c T5 100
- Bearing flange allows extreme radial load
- Application in IBC containers up to 1000 liters
- IP67 waterproof
- Pluggable drive shafts
- Oil-free and silicone-free

### Options

- eco-Traverse (see page 24)
- Stirrer element eco-Disc

*Clamp, connect → that's it.  
Total weight less than 5 kg*





- 12 step regulator for exact rotational speed
- Memory function through anti-twist protection

## Container sizes



**IBC container  
600-1000 liters**

**220 liters**

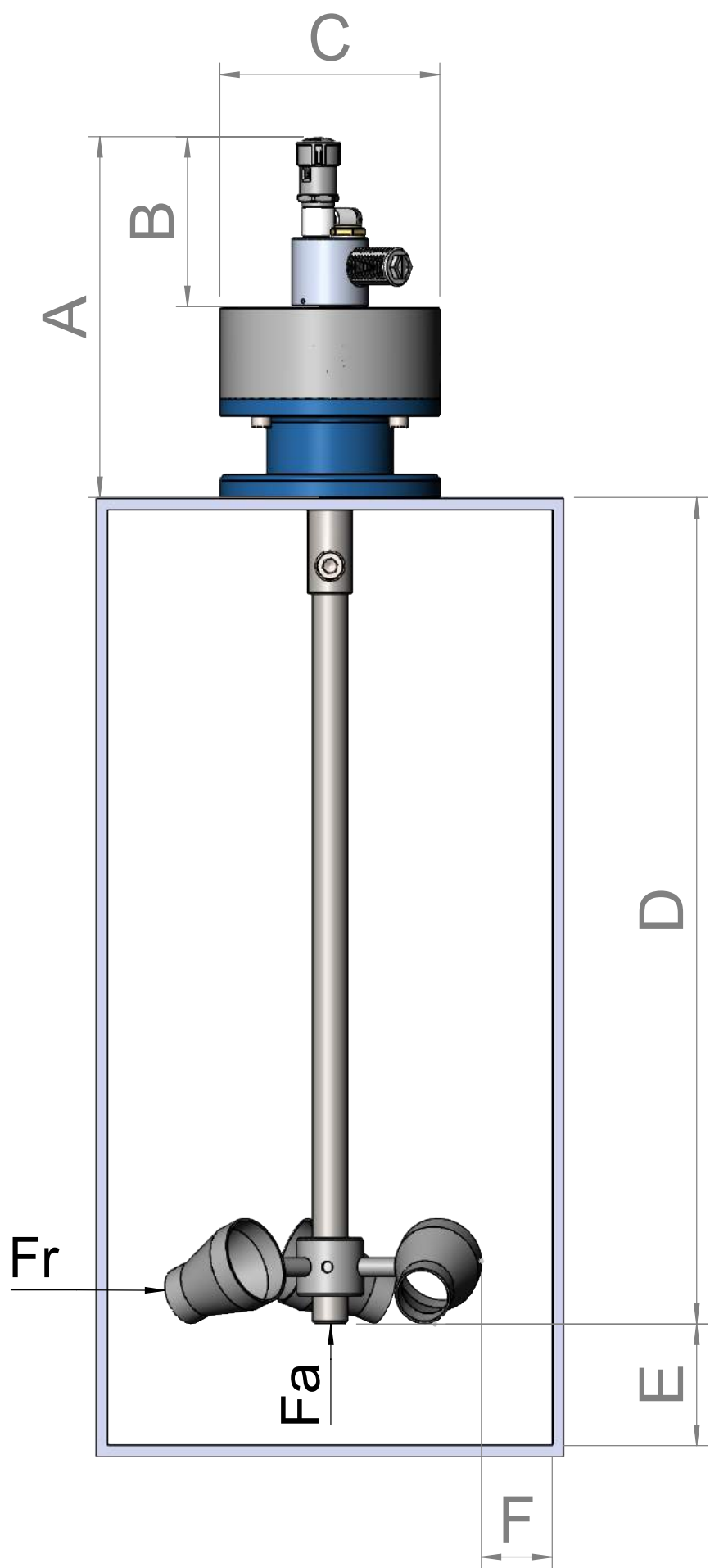
**110 liters**

**60 liters**

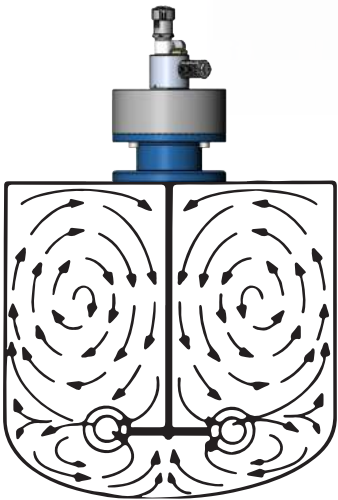
**30 liters**



Agitator system *eco-Mix Zone 1*



Due to the high momentum of the stirrer element *eco-Cup*, the whole container content is homogenized within a short period of time.







#### Technical data

	eco MIX 30L	eco MIX 60L	eco MIX 110L	eco MIX 220L	eco MIX 600L	eco MIX 1000L
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm	3.3 rpm – 33 rpm 288 Nm
A	155 mm	155mm	169.5mm	180mm	180mm	202mm
B	73mm	73mm	74mm	74mm	74mm	74mm
C	Ø99mm	Ø99mm	Ø99mm	Ø159mm	Ø159mm	Ø159mm
D	359mm	534mm	739mm	777mm	593mm	793mm
E (minimum distance axial)	25mm	25mm	25mm	25mm	25mm	25mm
F (minimum distance radial)	25mm	25mm	25mm	25mm	25mm	25mm
Fr (radial force)	350N	220N	150N	300N	250N	250N
Fa (axial force)	100N	100N	100N	200N	200N	200N
Stirrer element	170mm	210mm	260mm	320mm	500mm foldable	500mm foldable
Drive shaft	346mm	521mm	726mm	764mm	580mm	780mm
Container hole diameter	55mm	55mm	55mm	95mm	95mm	95mm
Drilling pattern	4x90°; Ø5.5mm LK: Ø67mm	4x90°; Ø5.5mm LK: Ø67mm	4x90°; Ø8.5mm LK: Ø67mm	4x90°; Ø8.5mm LK: Ø115mm	4x90°; Ø8.5mm LK: Ø115mm	4x90°; Ø8.5mm LK: Ø115mm

## Agitator system *eco-Topmix Zone 0*

### Functional safety in ATEX zone 0/1

You get a complete product comprising ATEX agitator motor with integrated connection block, zone separation flange, drive shaft and stirrer element. Our agitator systems *eco-Topmix* are perfectly matched to the common standard container sizes (please see table Technical data p. 21). Finally, you just need to fix your *eco-Topmix* to your open or closed container with our *eco-Transpose* with just two clicks– ready and functionally safe without compromises.

### Highlights

- Ex II 1/2 G Ex h IIC T6 Ga/Gb X
- Ex II 1/2 D Ex h IIIC T85°C Da/Db X
- Zone separation flange allows extreme radial load
- Application in IBC containers up to 1000 liters
- IP67 waterproof
- Pluggable drive shafts

### Options

- *eco-Transpose*
- Stainless-steel counter nut with PTFE seal
- Overpressure protected sealing
- Stirrer element *eco-Disc*

*Clamp, connect → that's it.  
Total weight less than 5 kg*

### Stainless-steel counter nut with PTFE seal





- 12 step regulator for exact rotational speed
- Memory function through anti-twist protection

## Container sizes



**IBC container  
600-1000 liters**

**220 liters**

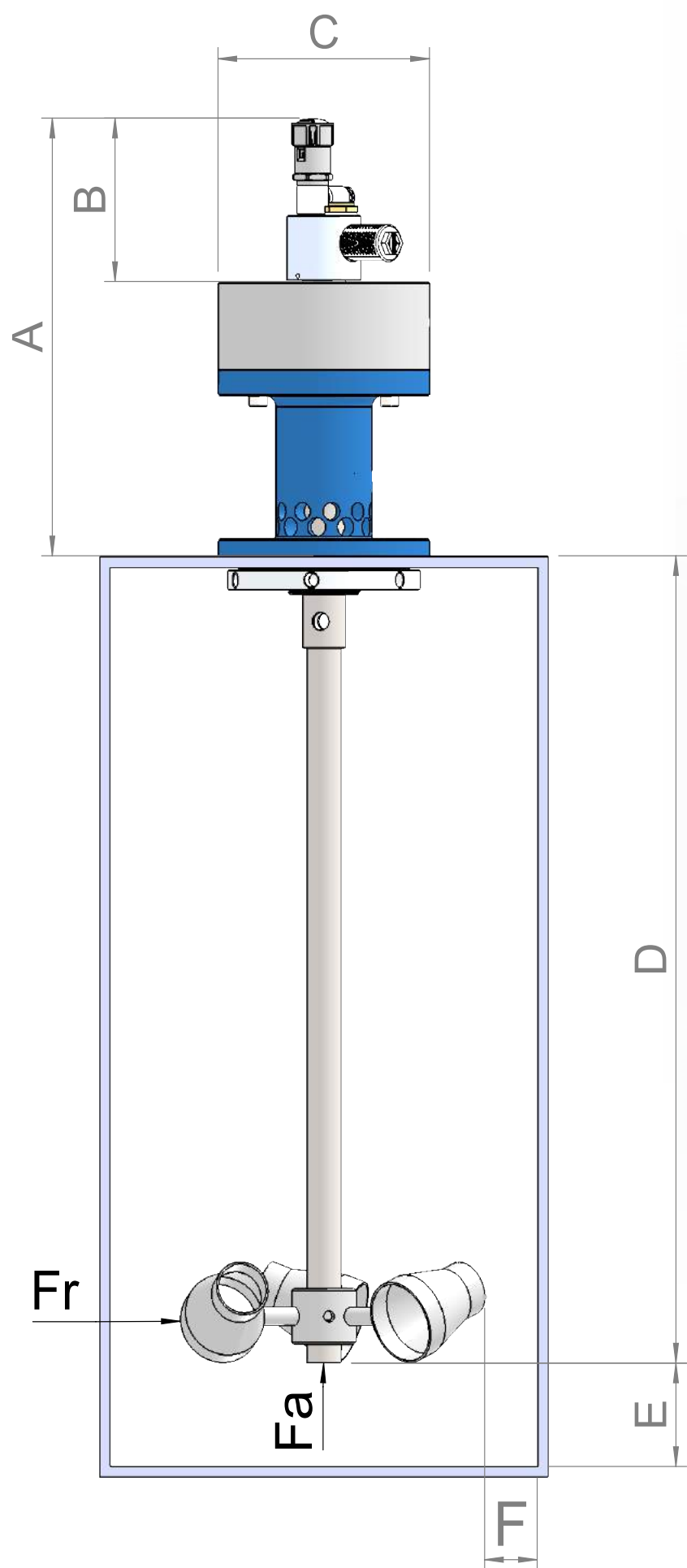
**110 liters**

**60 liters**

**30 liters**



Agitator system *eco-Topmix Zone 0*



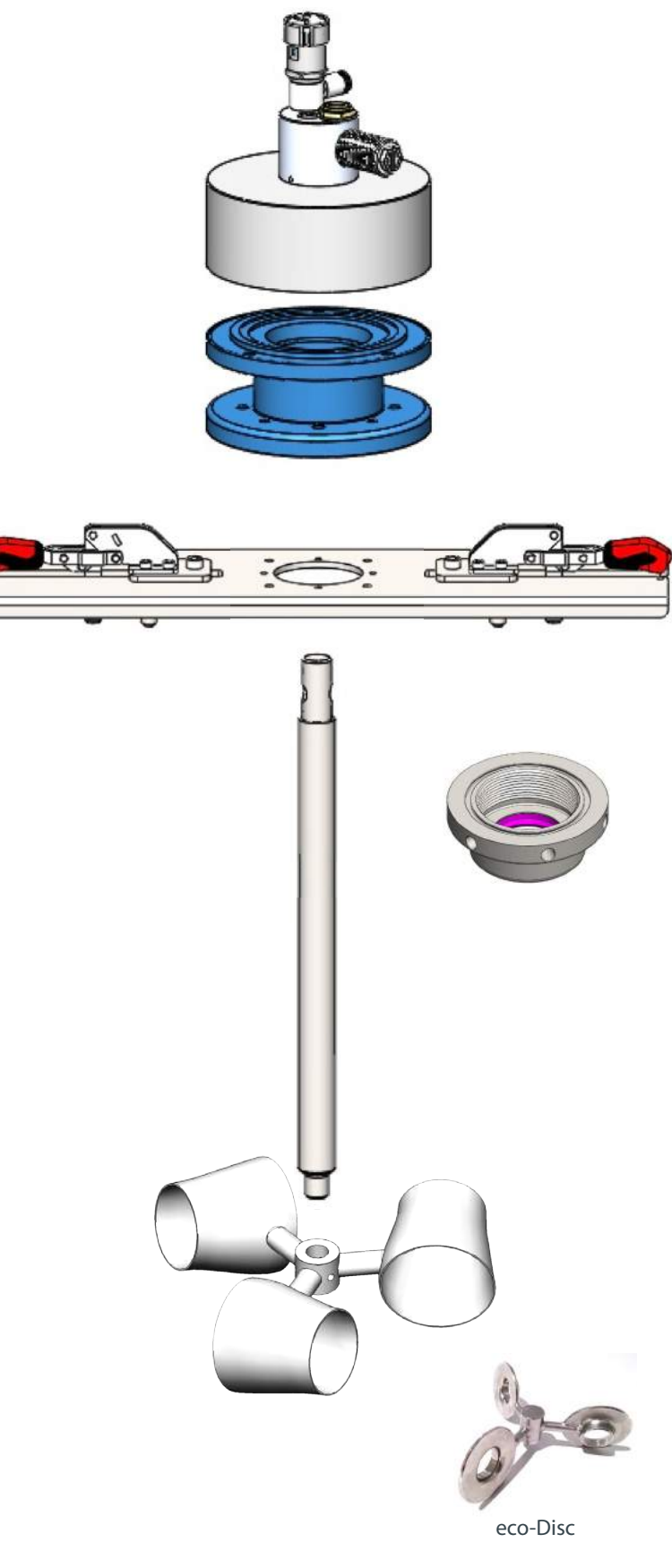
Due to the high momentum of the stirrer element *eco-Cup*, the whole container content is homogenized within a short period of time.





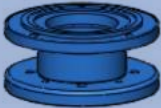
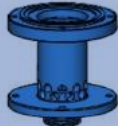
## Technical data

	eco TOPMIX 30L	eco TOPMIX 60L	eco TOPMIX 110L	eco TOPMIX 220L	eco TOPMIX 600L	eco TOPMIX 1000L
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 4 Nm	30 rpm – 300 rpm 8 Nm	30 rpm – 300 rpm 16 Nm	30 rpm – 300 rpm 32 Nm	30 rpm – 300 rpm 32 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm	60 rpm – 600 rpm 8 Nm	60 rpm – 600 rpm 16 Nm	60 rpm – 600 rpm 16 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm	10 rpm – 100 rpm 48 Nm	10 rpm – 100 rpm 96 Nm	10 rpm – 100 rpm 96 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm	3.3 rpm – 33 rpm 144 Nm	3.3 rpm – 33 rpm 288 Nm	3.3 rpm – 33 rpm 288 Nm
A	195mm	195mm	210mm	219mm	219mm	241mm
B	73mm	73mm	73mm	74mm	74mm	74mm
C	Ø99mm	Ø99mm	Ø99mm	Ø159mm	Ø159mm	Ø159mm
D	359mm	534mm	739mm	777mm	593mm	793mm
E (minimum distance axial)	25mm	25mm	25mm	25mm	25mm	25mm
F (minimum distance radial)	25mm	25mm	25mm	25mm	25mm	25mm
Fr (radial force)	75N	50N	50N	50N	40N	40N
Fa (axial force)	100N	100N	100N	200N	200N	200N
Stirrer element	170mm	210mm	260mm	320mm	500mm foldable	500mm foldable
Drive shaft	346mm	521mm	726mm	764mm	580mm	780mm
Container hole diameter	35mm	35mm	35mm	45mm	45mm	45mm
Drilling pattern	4x90°; Ø5.5mm LK: Ø87mm	4x90°; Ø5.5mm LK: Ø87mm	4x90°; Ø8.5mm LK: Ø125mm	4x90°; Ø8.5mm LK: Ø125mm	4x90°; Ø8.5mm LK: Ø125mm	4x90°; Ø8.5mm LK: Ø125mm



Drive selection	Nm
my-eco 450	4
my-eco 900	8
my-eco 1800	16
my-eco 3600	32

Drive selection  
my-eco 450 to 3600

Zone 1	Zone 0
Z1 	Z0 

eco-Traverse
eco-Traverse for 30 to 110 liters hobbock
eco-Traverse for 220 liters containers
eco-Traverse for 600 to 1000 liters IBC containers

Counternut
Stainless-steel counter nut with PTFE seal

Drive shaft
AW (0-800mm)

Element	Diameter / Options
eco-Disc	60-700mm thread, sliding hub, foldable
eco-Cup	
eco-Blade	



## my-eco - my agitator

With my-eco, we offer you our whole eco-Series product range for the individual configuration of your agitator. You can select all components necessary for your application. Should you need any assistance, we are happy to advice you, even on site.

**Step 1** Please select the drive for your agitator by means of the torque.

**Step 2** Do you need the agitator for ATEX zone 0 with zone separation flange Z0 or for zone 1 with bearing flange Z1?

Zone	ATEX certificate
Z1	Ex II 2 G/D c T5 100
Z0	Ex II 1/2 G Ex h IIC T6 Ga/Gb X Ex II 1/2 D Ex h IIIC T85°C Da/Db X

**Step 3** Add our flexible eco- Traverse to your agitator for the easy and quick mounting on all open or closed containers with just two clicks.

**Step 4** When selecting ATEX zone 0 in step 2, you can additionally select a stainless-steel nut with PTFE sealing for a pressure-tight connection. In case of overpressure or vacuum inside the container, for example when liquids are pumped into the container or exhausted, your agitator remains sealed.

**Step 5** Please select the length of your drive shaft.

**Step 6** Please select your stirrer element.

**Now it is ready - your my-eco.**

## eco- Traverse

### Highlights

- Stainless-steel traverse
- 3 traverses with different adjustable spans



Quick-action clamp

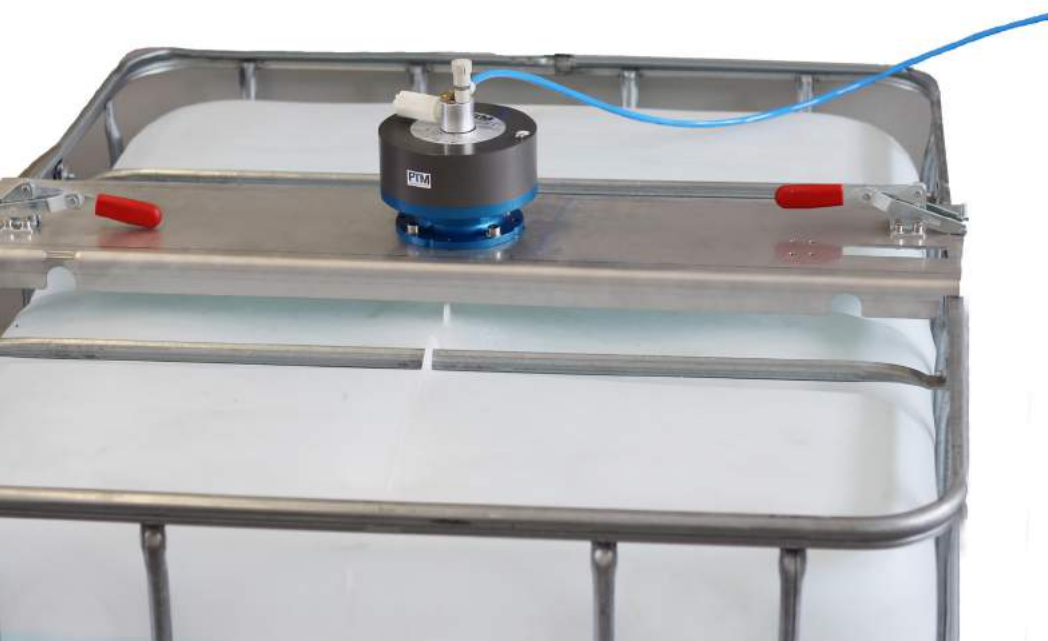


### 3 sizes available

eco-Traverse for 30 to 110 liters hobbock

eco-Traverse for 220 liters containers

eco-Traverse for 600 to 1000 liters IBC containers

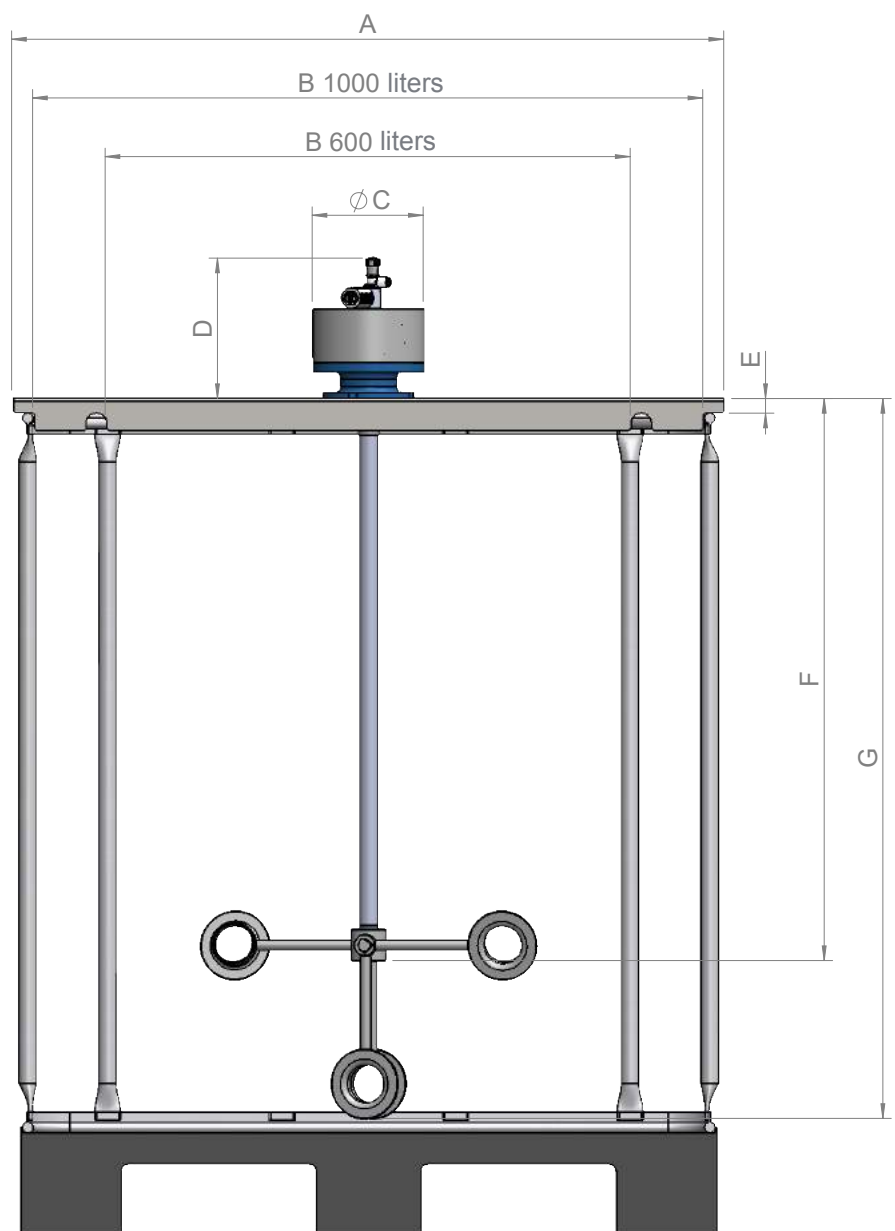


Pressure-tight connection to IBC container



# Exemplary application

with eco-Transpose



## Technical data

	eco MIX 600L	eco MIX 1000L
A (width eco-Transpose)	1020mm	1020mm
B (inner dimension frame)	752mm	960mm
C (diameter drive)	Ø159mm	Ø159mm
D (height drive)	205mm	205mm
E (height bearing surfaces)	21mm	21mm
F (length agitator shaft)	605mm	805mm
G (length agitator during standstill)	831mm	1031mm
Stirrer element	500mm foldable	500mm foldable

# Laboratory agitator *eco-Lab*

ATEX certificate II 2 G/D c T5 100

Especially in laboratory environments, perfect agitating results are highly important. For these applications, we have developed our ATEX laboratory agitator eco-Lab for all applications on tripod.

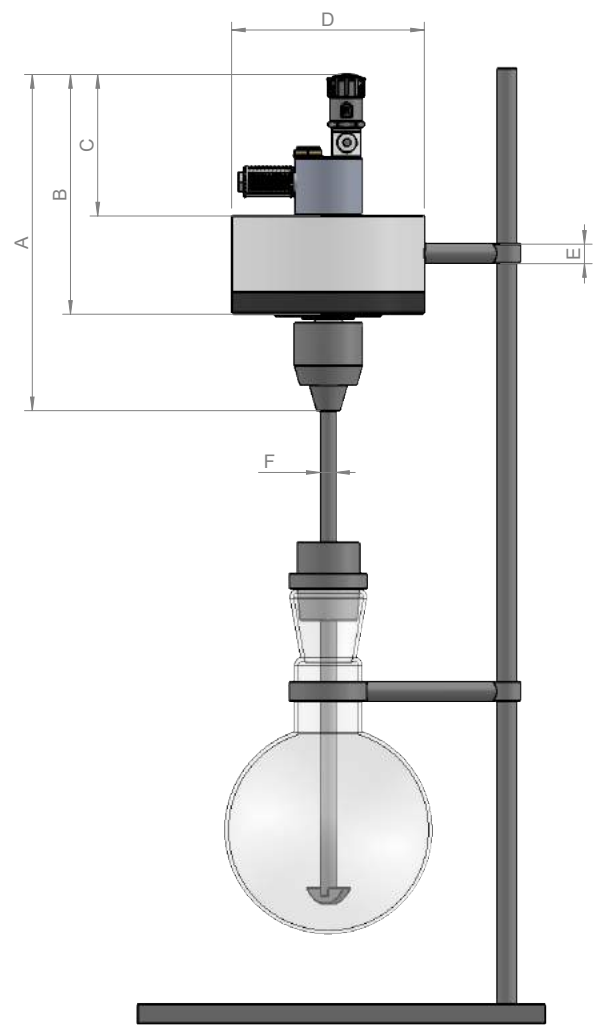
You get a complete product comprising drive and integrated connection block, quick action chuck and mounting pin, and an easy and carefree handling with absolute functional safety.

### Highlights

- ATEX certificate II 2 G/D c T5 100
- Hard-coated aluminium housing with grounding
- Oil-free drive
- Several sealing concepts (silicone-free, Viton, acetone-resistant)
- IP67 waterproof

### Exemplary application

- Agitators on tripod
- Chemical vessels
- Processing of paints, varnishes, adhesives, fillers and sealants
- Food production



### Technical data

	eco-Lab 450	eco-Lab 900
Rotation speed Max. torque (without transmission)	30 rpm – 300 rpm 4 Nm	30 rpm – 300U/min 8 Nm
Rotation speed Max. torque (with transmission 1:2)	60 rpm – 600 rpm 2 Nm	60 rpm – 600 rpm 4 Nm
Rotation speed Max. torque (with transmission 3:1)	10 rpm – 100 rpm 12 Nm	10 rpm – 100 rpm 24 Nm
Rotation speed Max. torque (with transmission 9:1)	3.3 rpm – 33 rpm 36 Nm	3.3 rpm – 33 rpm 72 Nm
A (total height)	191mm	306mm
B (drive height)	124mm	138,5mm
C (connector block height)	73mm	73mm
D (drive diameter)	Ø99mm	Ø99mm
E (bar diameter)	10mm	10mm
F (clamping range)	0-13mm	0-13mm

# Laboratory accessories

## EX tripod

### Technical details

- Laboratory stand with 74 cm laboratory rod
- 2 cross clamps



## EX stirrer feedthrough

Material: PTFE EX  
Temperature resistance: -15°C to +200°C  
Chemical resistance: ++ very good  
Conductivity: 1.000 kOh

### Product description

Ground joint cone made of static dissipative PTFE-EX with sealing rings on the outside to prevent sticking of the connection and to reduce the danger of breaking glass. A special gasket made of PTFE-EX and an FKM o-ring which is compressed by GL screw cap provide a good sealing of the stirrer shaft. Bore with female thread M5 on the knurl for earth connection.

### Applications

Perfect bearing for stainless steel, glass and stirrer shafts EX



For ground joint NS	For shafts Ømm	Total length mm ca.	Cap thead GL
29/32	8	71	18
29/32	10	72	25

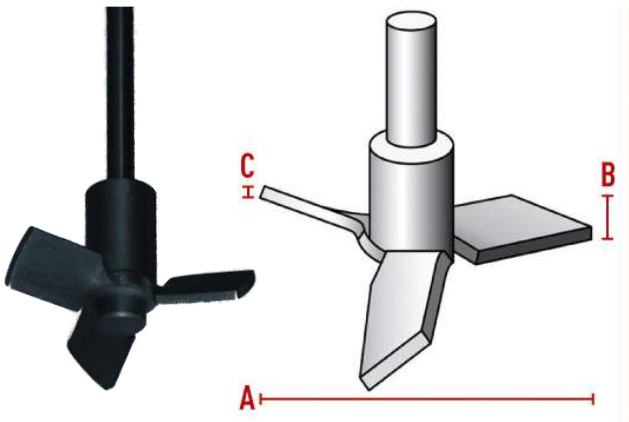
## EX stirrer

Material: PTFE EX  
Temperature resistance: -200°C to +250°C  
Chemical resistance: ++ very good  
Conductivity: 1.000 kOhm

### Product description

PTFE-EX jacketed stainless-steel shaft, propeller completely made of PTFE-EX with three 45° angled round or angular blades, good chemical resistance. The mix only comes into contact with PTFE-EX.

The mix is sucked bottom-up, good axial flow with low shear force. Earthing is made for example via a stirrer seal made of PTFE-EX.



Length mm	Shaft Ømm	Chucking diameter Ømm	Dimensions according to drawing A - B - C mm
350	8	6.5	75 -18 - 3.0

Your on-site contact:

### Our service for you:

- advice on functionally safe stirring and agitating technology
- visit on site to evaluate your requirements

Please do not hesitate to contact us:

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