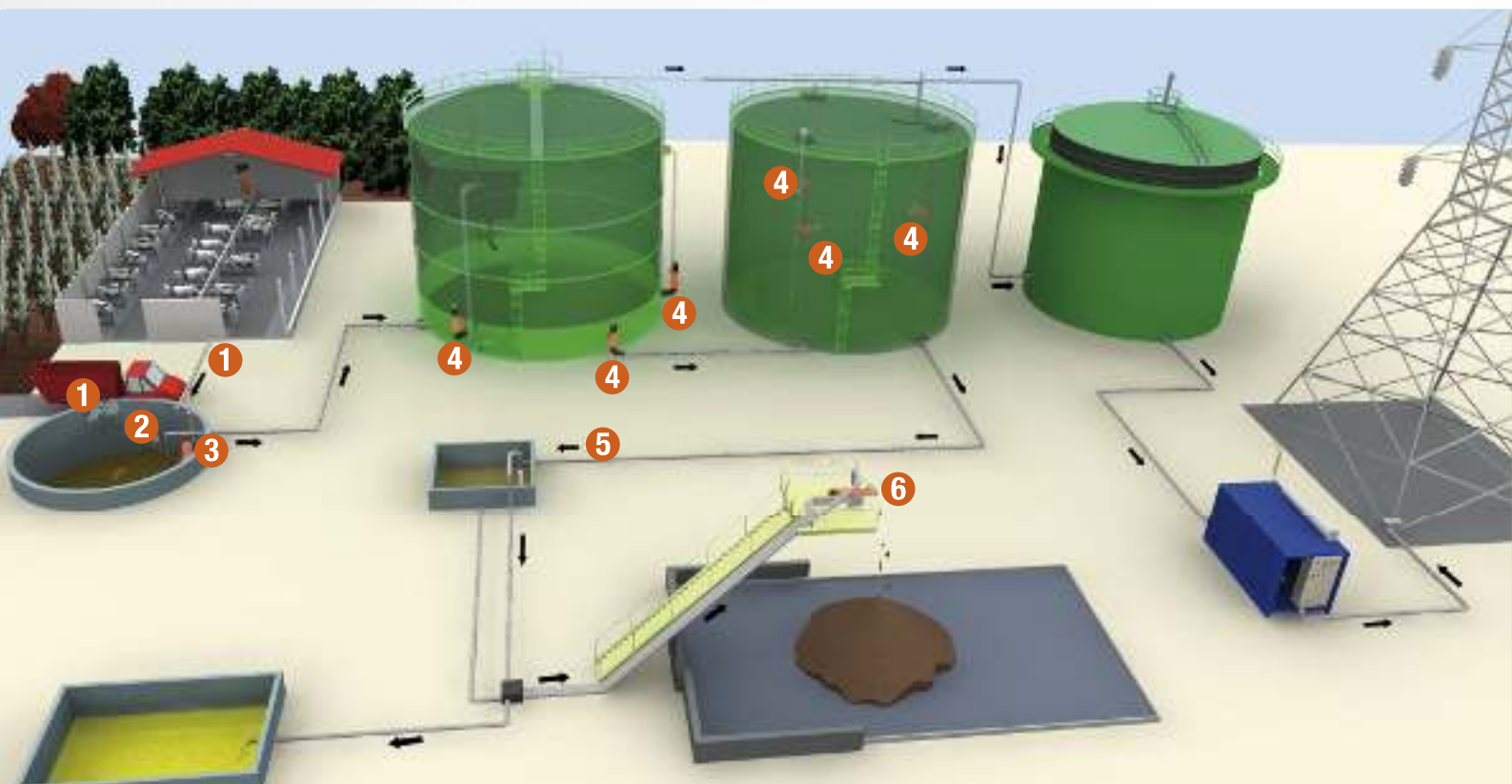






# Biogas plant



## Application of CRI-MAN products in a typical Biogas plant:

1. Filling feed tank with slurry and/or agricultural waste
2. Mixing feed tank with TBM series submersible mixer
3. Feeding digester with
  - PTS series chopper submersible pump
  - BMC series macerator and PLD series double piston pump
  - CFS series shredder and PLD series double piston pump
4. Mixing digester with
  - TBM series submersible mixer
  - MXB and/or MXL series vertical and/or lateral mixer
  - AF series submersible flow accelerator
  - Nozzle and ETO/ETV series chopper electric pump
5. Transferring substrate into separator feed tank
6. Liquid-solid separation

## Mixers



Submersible mixers are used in digesters to mix and homogenise the substrate, thus increasing the output of the plant and prevent solids settling down which in the long run might reduce the efficiency of the plant, for instance by clogging its pipes.

## Pumps



Motor-driven pumps, both submersible and external, are used to feed the primary digester and/or handle the substrate between digesters and/or for mixing through the nozzles inside the digester. The chopping system provided on all CRI-MAN pumps aids the anaerobic fermentation process, thus improving the efficiency of the plant.

## Separators



Separators are used to separate the solid fraction from the liquid in the anaerobic fermentation process. The liquid fraction can be used as a fertiliser and for irrigation. The solid fraction may be used as an amender, as cattle beds, etc.. Use of separators is also recommended as a pre-treatment in nitrogen-reducing plants.





Check on video

**BIOGAS**





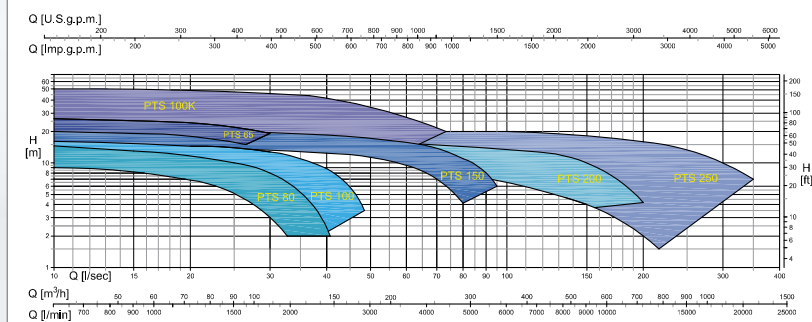
# Pumps

## PTS SERIES

### Submersible chopper pump

#### Technical specifications:

- Double chopping system
- Max capacity: 1400 m<sup>3</sup>/h 6164 US gpm
- Head: 51 m 167 ft
- Motor power: 0,75 - 45 kW 1 - 61 HP
- Suction: 65 - 250 mm 2 9/16 - 10 inches
- Discharge: 40 - 250 mm 1 9/16 - 10 inches



## PLD SERIES

### Hydraulic piston pump

Combined with a BMC Macerator it can form a system for maceration, homogenization, and loading for a biogas digester.

It comprises a materials loading tank supplying the double pump pistons and an automatic valve system that permits alternating loading and unloading of the pistons.

#### Technical specifications:

- Hydraulic motor power: 5,5 kW 7,4 HP
- Capacity: 10 - 30 m<sup>3</sup>/h 44 - 132 US gpm
- Head: 80 m 262 ft
- Piston stroke: 900 mm 35,4 inches



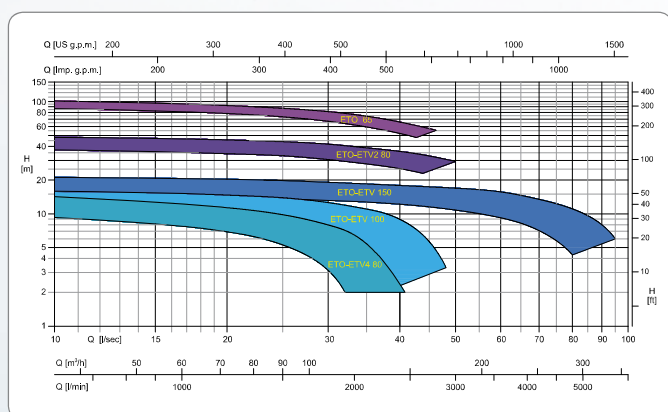


## ETO/ETV SERIES

### Horizontal electric chopper pump

#### Technical specifications:

- Double chopping system
- Max capacity: 340 m<sup>3</sup>/h 1497 US gpm
- Head: 106 m 348 ft
- Motor power: 0,75 - 45 kW 1 - 60 HP
- Suction: 65 - 200 mm 2 9/16 - 8 inches
- Discharge: 40- 150 mm 1 9/16 - 6 inches

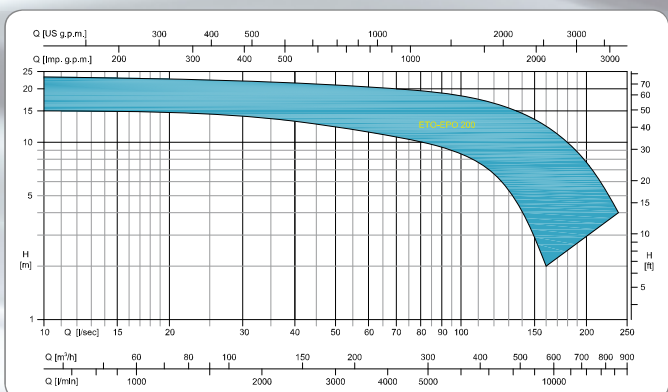


## ETO 200 / EPO 200 SERIES

### Horizontal electric chopper pump

#### Technical specifications:

- ETO version: double chopping system
- EPO version: single chopping system
- Max capacity: 720 m<sup>3</sup>/h 3170 US gpm
- Head: 22 m 72 ft
- Motor power: 22 - 65 kW 29 - 87 HP
- Suction: 250 mm 10 inches
- Discharge: 200 mm 8 inches





# Mixers

## BMC SERIES

### *Macerator*

Machine for maceration and homogenization of the biomass before entering into the digester. It can be provided with a loading system, which may be a hopper or a conveyor belt, and a discharge system, which may be another conveyor belt or directly to the PLD pump. Available with electric motor or PTO for tractor.

#### Technical specifications:

- Transmission with pulleys and trapezoidal belts
- Hydraulic adjustment system for the holding time of materials inside the macerator
- Level sensors for monitoring the load of solid and/or liquid materials
- Electric motor power: 37 - 55 kW 50 - 74 HP
- Capacity: rpm 2400 (50 Hz) 2400 (60 Hz)
- Blades in wearproof steel: 10 m³/h 44 US gpm



## MXP SERIES

### *Vertical internal mixer*

#### Technical specifications:

- Planetary gearbox
- Inspection porthole with window wiper
- Open tank version: parts in contact with liquid in painted steel
- Digester version (water tight): parts in contact with gas in stainless steel
- Shaft in various lengths
- N. 4 adjustable blades
- Atex II 2G Ex d T4
- Rpm: 10 - 15 (50 Hz) 15 - 18 (60 Hz)
- Motor power: 7,5 - 11 kW 10 - 15 HP



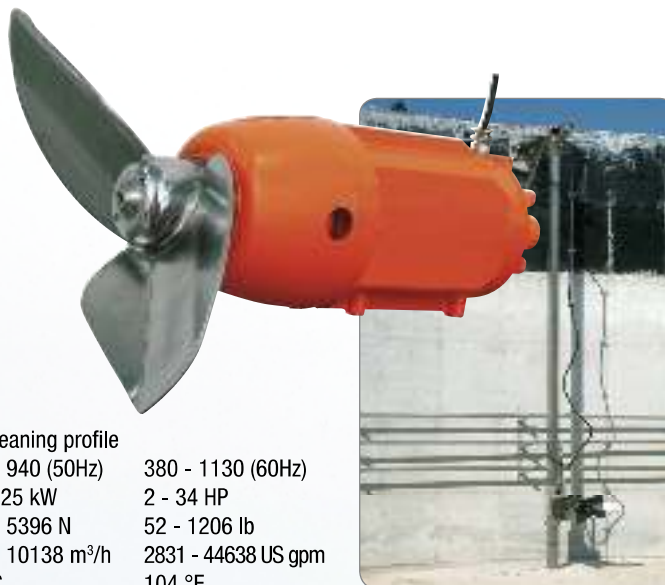


## TBM SERIES

### *Submersible horizontal mixer*

#### **Technical specifications:**

- Planetary gearbox
  - Blades in stainless steel with self-cleaning profile
- |                     |                               |                     |
|---------------------|-------------------------------|---------------------|
| • Rpm:              | 320 - 940 (50Hz)              | 380 - 1130 (60Hz)   |
| • Motor power:      | 1,5 - 25 kW                   | 2 - 34 HP           |
| • Axial thrust:     | 230 - 5396 N                  | 52 - 1206 lb        |
| • Capacity:         | 643 - 10138 m <sup>3</sup> /h | 2831 - 44638 US gpm |
| • Max working temp: | 40 °C                         | 104 °F              |

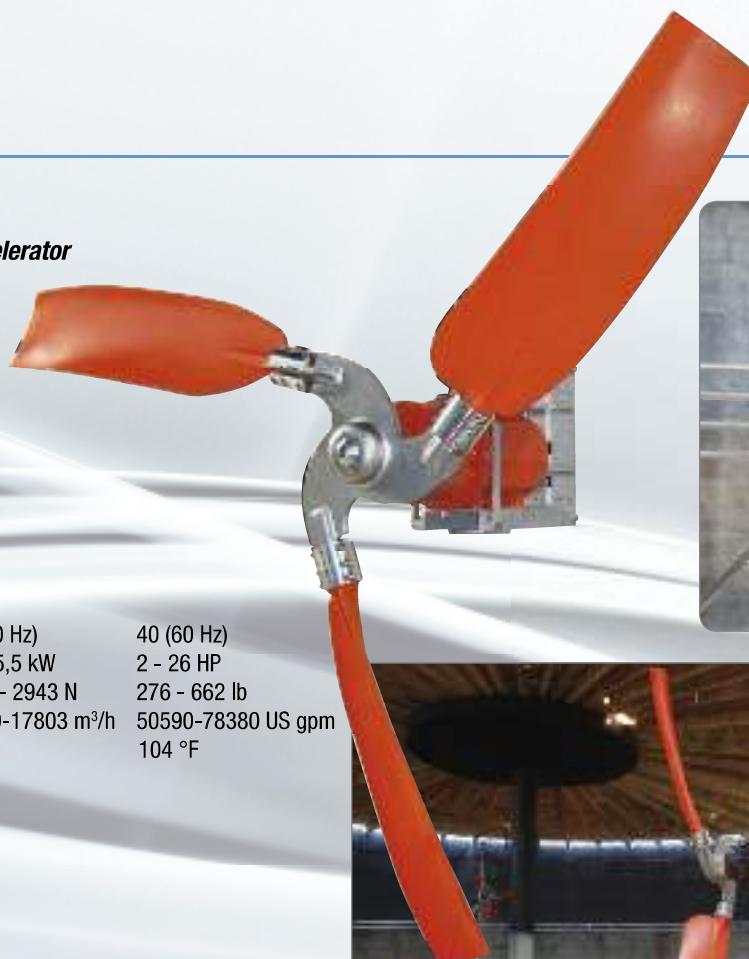


## AF SERIES

### *Submersible horizontal flow accelerator*

#### **Technical specifications:**

- Two-stage planetary gearbox
  - Adjustable blades
  - Blades in polyamide and fibreglass
  - Blades hub in stainless steel
- |                     |                               |                    |
|---------------------|-------------------------------|--------------------|
| • Rpm :             | 53 (50 Hz)                    | 40 (60 Hz)         |
| • Motor power:      | 1,5 - 5,5 kW                  | 2 - 26 HP          |
| • Axial thrust:     | 1226 - 2943 N                 | 276 - 662 lb       |
| • Capacity:         | 11490-17803 m <sup>3</sup> /h | 50590-78380 US gpm |
| • Max working temp: | 40 °C                         | 104 °F             |





# Mixers

## MXB SERIES

### *Vertical external mixer*

#### Technical specifications:

- Planetary gearbox
- 3 vibration dampers
- Automatic lubricator
- Can be adjusted 360°
- Inspection porthole complete with window wiper
- Parts in contact with gas in stainless steel
- Adjustable blades
- Atex II 2G Ex d T4
- High efficiency (tests compliant with International Standard ISO21630)
- Motor power: 5,5 - 18,5 kW      7,4 - 25 HP
- Rpm: 33 - 45 (50 Hz)      40 - 54 (60 Hz)



## MXL SERIES

### *Lateral external mixer*

#### Technical specifications:

- Planetary gearbox
- Blades in stainless steel with self-cleaning profile
- Rpm: 350 (50 Hz)      420 (60 Hz)
- Atex II 2G Ex d T4
- Motor power: 11 - 18,5 kW      15 - 25 HP
- Capacity: 3977 - 6884 m³/h      17510 - 30309 US gpm
- Axial thrust: 2158 - 3826 N      485 - 860 lb
- Max length of shaft: 5,5 m      18 ft
- Max working temp.: 60°C      140°F



**Patent pending**



# Mixer accessories

## Service box

The service box is used to mount the mixers on the concrete covers of digesters. This solution is perfectly waterproof and can be used to move and rotate the mixer 120° while it works. In the event of unscheduled maintenance, it allows to take the mixer out of the digester while minimising gas leaks. In addition, it is provided with an inspection porthole to check the mixer at regular intervals.

Entirely made of AISI 304 stainless steel.



## BioGas bracket

The bracket is used to mount the mixers on the wall and features a system that enables it to move up and down and rotate around the vertical axle. So the location of the mixers and the direction of the flow may be adjusted at any time.

Entirely made of AISI 304 stainless steel.





# Separators

## SM260 MINI SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                            |                    |
|------------------------|----------------------------|--------------------|
| • Capacity:            | 4,5 - 18 m <sup>3</sup> /h | 20 - 79 US gpm     |
| • Rpm:                 | 20 (50Hz)                  | 24 (60Hz)          |
| • Motor power:         | 3 kW                       | 4 HP               |
| • Screen mesh:         | 0,25 - 1 mm                | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                            |                    |



## SM260 BASIC SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 50 m <sup>3</sup> /h | 18 - 220 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 4 kW                     | 5,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |



## SM260 PROFESSIONAL SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 50 m <sup>3</sup> /h | 18 - 220 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 4 kW                     | 5,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |



## SM300 PROFESSIONAL SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Standard Screen in AISI 316 stainless steel (Heavy Duty screen on request)
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 6 - 72 m <sup>3</sup> /h | 26 - 317 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 5,5 kW                   | 7,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |





## SM260 DM DRY MATTER SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Heavy Duty Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 22 m <sup>3</sup> /h | 18 - 97 US gpm     |
| • Rpm:                 | 14 (50Hz)                | 17 (60Hz)          |
| • Motor power:         | 5,5 kW                   | 7,4 HP             |
| • Screen mesh:         | 0,50 - 1 mm              | 0,02 - 0,04 inches |
| • Up to 35% Dry Matter |                          |                    |



## SM260FA DM DRY MATTER SERIES

### Technical specifications:

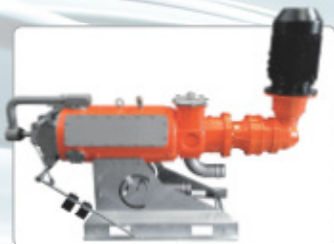
- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Heavy Duty main Screen in AISI 316 stainless steel
  - Heavy Heavy Duty Auxiliary Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 42 m <sup>3</sup> /h | 18 - 185 US gpm    |
| • Rpm:                 | 20 (50Hz)                | 24 (60Hz)          |
| • Motor power:         | 7,5 kW                   | 10 HP              |
| • Screen mesh:         | 0,50 - 0,75 mm           | 0,02 - 0,03 inches |
| • Up to 35% Dry Matter |                          |                    |



## SM260FA HDM HIGH DRY MATTER SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - New front side supported screw
  - Heavy Duty main Screen in AISI 316 stainless steel
  - Reinforced Heavy Heavy Duty Auxiliary Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                            |                 |
|------------------------|----------------------------|-----------------|
| • Capacity             | up to 12 m <sup>3</sup> /h | up to 50 US gpm |
| • Rpm                  | 11 (50Hz)                  | 14 (60Hz)       |
| • Motor power          | max 11 kW                  | max 15 HP       |
| • Screen mesh          | 1,00 mm                    |                 |
| • Up to 38% Dry Matter |                            |                 |





# Plants installed

## Italy



5 MW - Italy



1998 kW - Italy



700 kW - Italy



250 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



1999 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



999 kW - Italy



## Abroad



300 kW - Austria



300 kW - Germany



1000 kW - Germany



300 kW - Japan



100 kW - UK



500 kW - Thailand



999 kW - Sweden



500 kW - Germany



500 kW - Germany



500 kW - Germany



500 kW - Holland



5000 kW - Germany



1000 kW - Germany



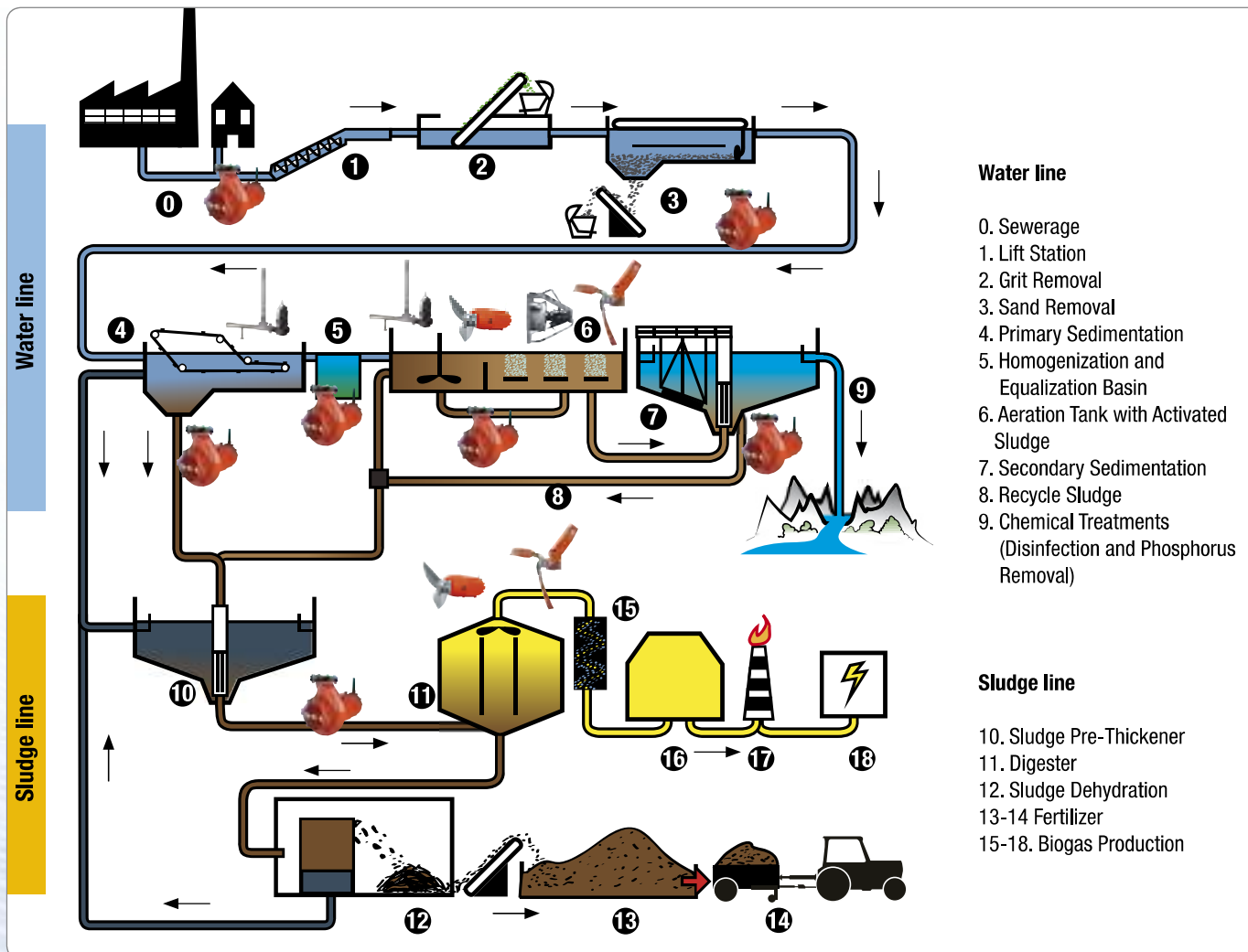
700 kW - Germany



1000 kW - Germany



# Waste water treatment



## Waste water treatment process

Cri-Man machines can be used for the following applications in the WWTP.

### PTS, ETO, and ETV Series Pumps

- Drain cleaning hatches. The drainage system can accumulate sediments of considerable bulk which are carried into drain cleaning hatches during rainy periods. The elimination of these is usually achieved using submersible chopper pumps that reduce them into more easily transported elements.
- Tanks for the wheeled removal of industrial effluents. The removal of industrial effluents is achieved using vacuum pumps that extract solid bodies of over 100 mm diameter. Extraction from the collection tank is conducted with chopper pumps.
- Hatches for removal of waste leachate.
- Full biological treatment, in which the transport of the "effluent" is obstructed by the formation of fibrous materials that block the pipes and wind around mixer blades making them unbalanced.

In sections of the plant where effluent transport is required, including:

- Circulation of sludge sediments for denitrification.

- Evacuation of primary and secondary sludge from a decantation tank to a sludge thickener.
- Circulation in anaerobic digesters.
- Transfer to dehydration section.

### ER Series Pumps

- Transfer of liquids between tanks with high capacity and very low pumping head (circulation from nitrification tank to denitrification tank).

### TBM, AF, and TBX Series Mixers

- TBM: small tanks with coarse suspended solids (emptying hatches of various types), small balancing and denitrification tanks, anaerobic digesters (also ATEX version).
- AF: in "Carousel" tanks, sludge digesters.
- TBX: mixers for small tanks including "aggressive" effluents.

### SMO and OXIGET Series Oxygenators

- Oxygenation tanks in small scale plants when it is a priority to avoid plant management problems.





0 3 4



5 6 11



5 6 11



5 6



3



6



5 6 11



Check on video



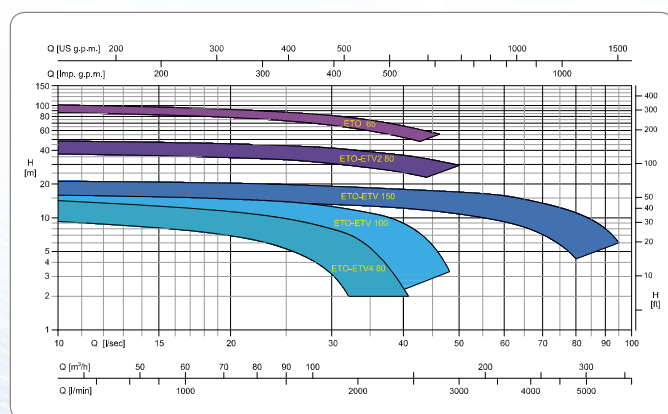
# Pumps

## ETO/ETV SERIES

### Horizontal electric chopper pump

#### Technical specifications:

- Double chopping system
- Max capacity: 340 m<sup>3</sup>/h 1497 US gpm
- Head: 106 m 348 ft
- Motor power: 0,75 - 45 kW 1 - 60 HP
- Suction: 65 - 200 mm 2 9/16 - 8 inches
- Discharge: 40- 150 mm 1 9/16 - 6 inches

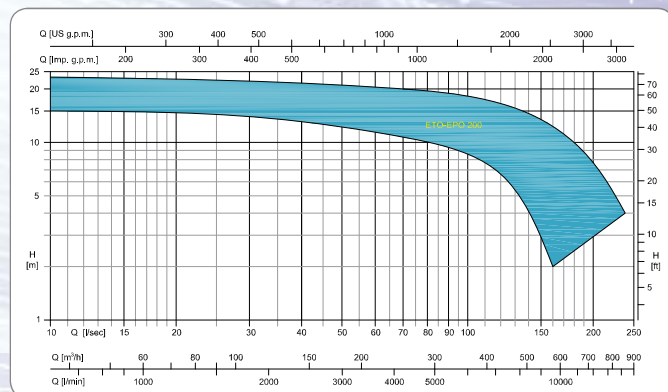


## ETO 200 / EPO 200 SERIES

### Horizontal electric chopper pump

#### Technical specifications:

- ETO version: double chopping system
- EPO version: single chopping system
- Max capacity: 720 m<sup>3</sup>/h 3170 US gpm
- Head: 22 m 72 ft
- Motor power: 22 - 65 kW 29 - 87 HP
- Suction: 250 mm 10 inches
- Discharge: 200 mm 8 inches



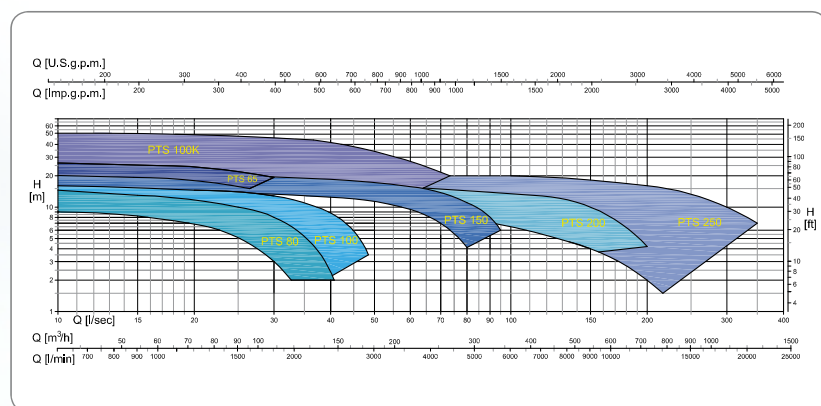


## PTS SERIES

### Submersible chopper pump

#### Technical specifications:

- Double chopping system
- Max capacity: 1400 m<sup>3</sup>/h 6164 US gpm
- Head: 51 m 167 ft
- Motor power: 0,75 - 45 kW 1 - 61 HP
- Suction: 65 - 250 mm 2 9/16 - 10 inches
- Discharge: 40 - 250 mm 1 9/16 - 10 inches

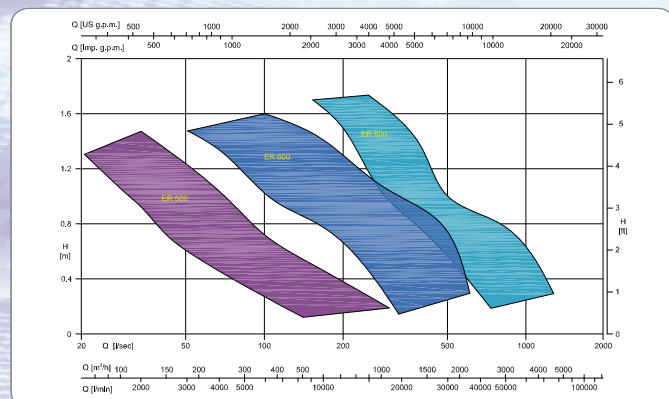
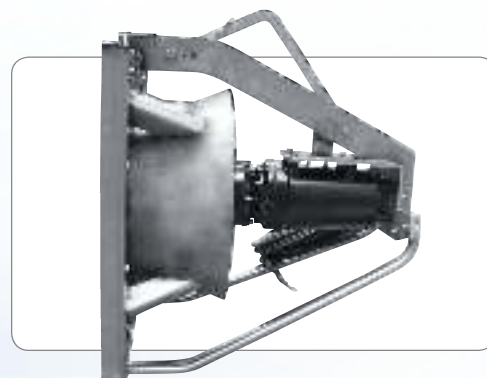


## ER SERIES

### Horizontal axis propeller pump

#### Technical specifications:

- Horizontal axis blades pump with fast delivery coupling system
- Circulation of large volumes of water with excellent hydraulic yield
- Cast iron motor and gearbox, blades and frame in stainless steel
- Capacity: 450 m<sup>3</sup>/h 19800 US gpm
- Head: 1,8 m 5,9 ft
- Motor power: 2,2 - 18,5 kW 3 - 26 HP
- Suction: 500 - 800 mm 19 11/16 - 31 1/2 inches
- Discharge: 500 - 800 mm 19 11/16 - 31 1/2 inches



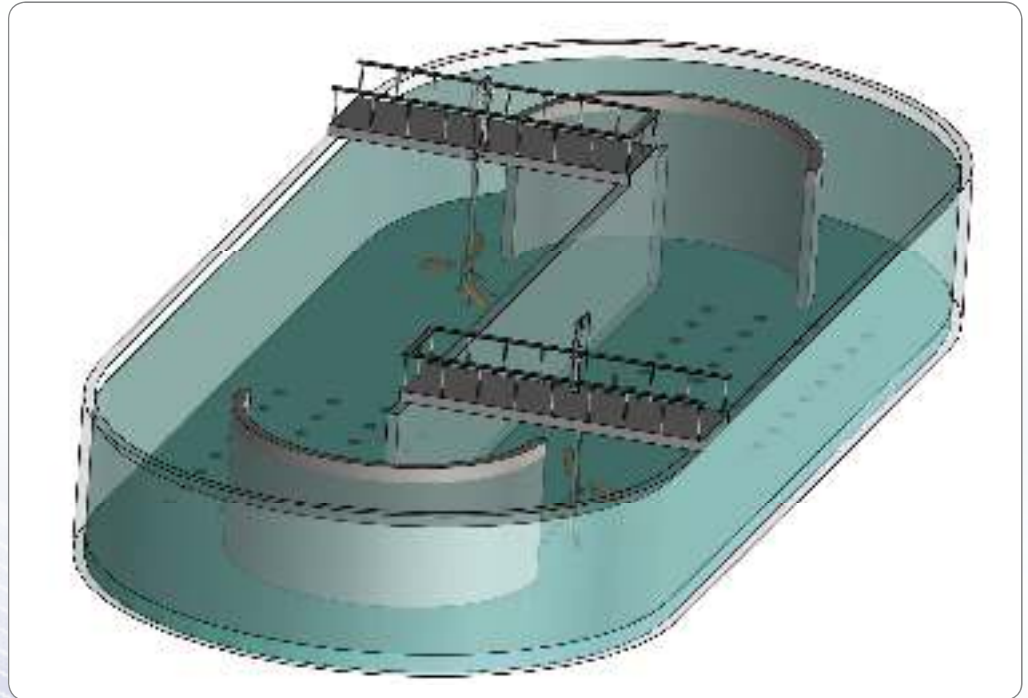


# Mixing tank solutions

## Large volume tanks:

500 ÷ 4000 m<sup>3</sup> and above

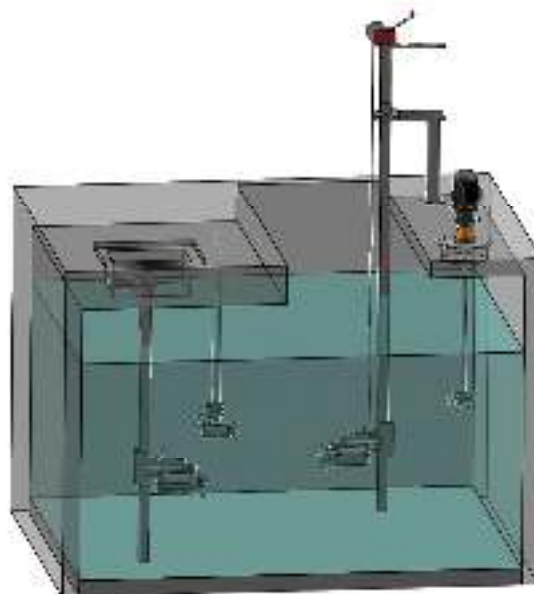
- Wide range of solutions for the
- correct positioning of mixers in relation to the geometry, volume, and type of fluids to be mixed
- Trestle and tripod options for installation without tank side support
- Option of submersed rail guide pipe for regulating the flow height and angle
- Option of combining flow accelerators and traditional mixers in order to optimize mixing and energy consumption



## Small volume tanks:

up to 500 m<sup>3</sup>

- Installation of mixers on submersed rail guide pipe with tank edge or floor hatch fixture
- Installation with suspended pole and the possibility of tilting the flow upwards or downwards
- Fixing structure made entirely in stainless steel
- Equipped with fixtures for crane and winch hoisting





# Mixers

## TBM SERIES

### *Submersible horizontal mixer*

#### *Technical specifications:*

- Planetary gearbox
- Blades in stainless steel with self-cleaning profile
- Rpm: 320 - 940 (50Hz) 380 - 1130 (60Hz)
- Motor power: 1,5 - 25 kW 2 - 34 HP
- Axial thrust: 230 - 5396 N 52 - 1206 lb
- Capacity: 643 - 10138 m³/h 2831 - 44638 US gpm
- Max working temp: 40 °C 104 °F



## AF SERIES

### *Submersible horizontal flow accelerator*

#### *Technical specifications:*

- Two-stage planetary gearbox
- Adjustable blades
- Blades in polyamide and fibreglass
- Blades hub in stainless steel
- Rpm : 53 (50 Hz) 40 (60 Hz)
- Motor power: 1,5 - 5,5 kW 2 - 26 HP
- Axial thrust: 1226 - 2943 N 276 - 662 lb
- Capacity: 11490-17803 m³/h 50590-78380 US gpm
- Max working temp: 40 °C 104 °F





# Mixers

## TBX SERIES

*Stainless steel submersible horizontal mixer*

### Technical specifications:

- Made entirely in stainless steel
- Blades in stainless steel with self-cleaning profile
- Rpm: 925 - 1400 (50Hz) 1110 - 1680 (60Hz)
- Motor power: 0,75 - 3 kW 1 - 4 HP
- Axial thrust: 117 - 373 N 25 - 84 lb
- Capacity: 279 - 1061 m<sup>3</sup>/h 1229 - 4672 US gpm
- Max working temp: 40 °C 104 °F



## MXV SERIES

*Vertical mixer with external electric motor*

### Technical specifications:

- Blades in stainless steel with self-cleaning profile
- Rpm : 925 - 1400 1110 - 1680
- Motor power: 0,75 - 3 kW 1 - 4 HP
- Axial thrust: 153 - 429 N 26 - 84 lb
- Capacity: 318 - 1138 m<sup>3</sup>/h 1128 - 4671 US gpm
- Max working temp: 40 °C 104 °F





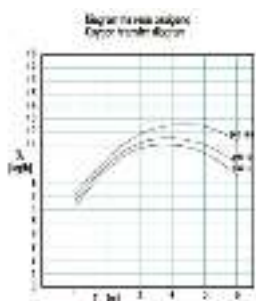
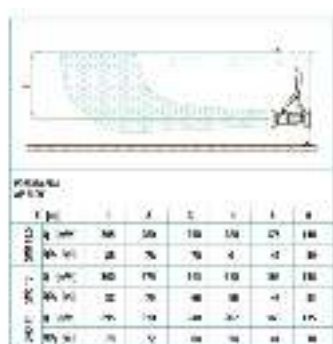
# Aerators

## SMO SERIES

### Submersible mixer with external blower

#### Technical specifications:

- Submersible mixer with external blower complete with flow lifting and orienting system
- Submersible mixer power: 11 - 18,5 kW 15 - 25 HP
- External blower motor power: 5,5 kW 7,4 HP
- Liquid mixing capacity: 3900 - 6800 m<sup>3</sup>/h 17170 - 29940 US gpm
- Blown in air capacity: up to 280 m<sup>3</sup>/h up to 1230 US gpm
- Delivered oxygen capacity: up to 10,5 kg/h up to 24 lb/h



Q = Flow rate - Capacity (m<sup>3</sup>/h)  
P = Power - Power (kW)  
Q<sub>air</sub> = Blown air capacity - Blown air capacity (m<sup>3</sup>/h)  
Q<sub>o</sub> = Delivered oxygen - Delivered oxygen (kg/h)

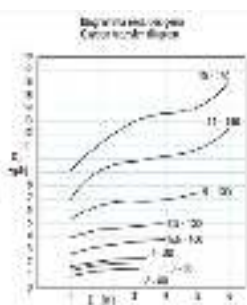
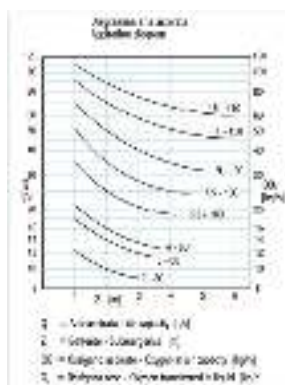
Curve per liquid mixing capacity - Capacity (m<sup>3</sup>/h) - alla temperatura di 20°C  
Curve per blown air capacity - Capacity (m<sup>3</sup>/h) - alla temperatura di 20°C

## OXIGET SERIES

### Jet aerator

#### Technical specifications:

- Combined chopping, mixing, and aeration
- Motor power: 2,2 - 15 kW 3 - 20 HP
- Air suction pipe diameter: 80 - 150 mm 3 1/8 - 6 inches
- Air suction capacity: up to 400 m<sup>3</sup>/h up to 1760 US gpm
- Delivered oxygen capacity: up to 16,5 kg/h up to 37 lb/h



Q = Flow rate - Capacity (m<sup>3</sup>/h)  
P = Power - Power (kW)  
Q<sub>air</sub> = Blown air capacity - Blown air capacity (m<sup>3</sup>/h)  
Q<sub>o</sub> = Delivered oxygen - Delivered oxygen (kg/h)

Curve per liquid mixing capacity - Capacity (m<sup>3</sup>/h) - alla temperatura di 20°C  
Curve per blown air capacity - Capacity (m<sup>3</sup>/h) - alla temperatura di 20°C





# Separators

## SM260 MINI SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                            |                    |
|------------------------|----------------------------|--------------------|
| • Capacity:            | 4,5 - 18 m <sup>3</sup> /h | 20 - 79 US gpm     |
| • Rpm:                 | 20 (50Hz)                  | 24 (60Hz)          |
| • Motor power:         | 3 kW                       | 4 HP               |
| • Screen mesh:         | 0,25 - 1 mm                | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                            |                    |



## SM260 BASIC SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 50 m <sup>3</sup> /h | 18 - 220 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 4 kW                     | 5,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |



## SM260 PROFESSIONAL SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Standard Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 4 - 50 m <sup>3</sup> /h | 18 - 220 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 4 kW                     | 5,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |



## SM300 PROFESSIONAL SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Standard Screen in AISI 316 stainless steel (Heavy Duty screen on request)
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                        |                          |                    |
|------------------------|--------------------------|--------------------|
| • Capacity:            | 6 - 72 m <sup>3</sup> /h | 26 - 317 US gpm    |
| • Rpm:                 | 33 (50Hz)                | 40 (60Hz)          |
| • Motor power:         | 5,5 kW                   | 7,4 HP             |
| • Screen mesh:         | 0,25 - 1 mm              | 0,01 - 0,04 inches |
| • Up to 30% Dry Matter |                          |                    |





## SM260 DM DRY MATTER SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Heavy Duty Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                |                          |                    |
|----------------|--------------------------|--------------------|
| • Capacity:    | 4 - 22 m <sup>3</sup> /h | 18 - 97 US gpm     |
| • Rpm:         | 14 (50Hz)                | 17 (60Hz)          |
| • Motor power: | 5,5 kW                   | 7,4 HP             |
| • Screen mesh: | 0,50 - 1 mm              | 0,02 - 0,04 inches |
- Up to 35% Dry Matter



## SM260FA DM DRY MATTER SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - Front side supported screw
  - Heavy Duty main Screen in AISI 316 stainless steel
  - Heavy Heavy Duty Auxiliary Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |                |                          |                    |
|----------------|--------------------------|--------------------|
| • Capacity:    | 4 - 42 m <sup>3</sup> /h | 18 - 185 US gpm    |
| • Rpm:         | 20 (50Hz)                | 24 (60Hz)          |
| • Motor power: | 7,5 kW                   | 10 HP              |
| • Screen mesh: | 0,50 - 0,75 mm           | 0,02 - 0,03 inches |
- Up to 35% Dry Matter



## SM260FA HDM HIGH DRY MATTER SERIES

### Technical specifications:

- Screw in AISI 304 treated stainless steel
  - New front side supported screw
  - Heavy Duty main Screen in AISI 316 stainless steel
  - Reinforced Heavy Heavy Duty Auxiliary Screen in AISI 316 stainless steel
  - Planetary gear box
  - Sealing system with three lip seals (mechanical seal on request)
- |               |                            |                 |
|---------------|----------------------------|-----------------|
| • Capacity    | up to 12 m <sup>3</sup> /h | up to 50 US gpm |
| • Rpm         | 11 (50Hz)                  | 14 (60Hz)       |
| • Motor power | max 11 kW                  | max 15 HP       |
| • Screen mesh | 1,00 mm                    |                 |
- Up to 38% Dry Matter





## Other applications

### PTSH SERIES

*Submersible chopper pump with hydraulic motor control*

#### Technical specifications:

- Multi channel impeller
- Double chopping system
- Fixed installation with hydraulic unit, or on self-moving arm controlled with a hydraulic circuit
- Capacity: 380 m<sup>3</sup>/h 1670 US gpm
- Head: 26 m 85 ft
- Hydraulic oil capacity: max 48 l/min max 13 l/gpm
- Hydraulic oil pressure: max 316 bar max 4598 psi



### TBHM SERIES

*Submersible mixer with hydraulic motor control*

#### Technical specifications:

- Propeller: stainless steel with self cleaning profile
- Fixed installation with hydraulic unit, or on self-moving arm controlled with a hydraulic circuit
- Axial thrust: 3800 N 854 lb
- Hydraulic oil capacity: max 90 l/min 24 US gpm
- Hydraulic oil pressure: max 160 bar 2318 psi



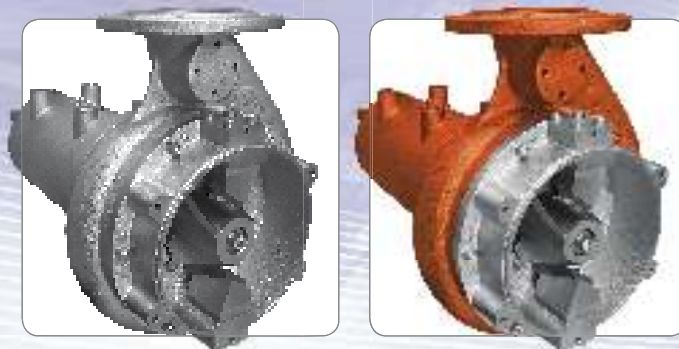
### PTS SERIES

*Anticorrosion Submersible chopper pump*

The treatment consists of a special chemical Nickel coating that protects the surfaces in contact with acid liquids. Applications are for the liquids that have an acid pH, such as, for example, the leachate coming from silage stored in biogas plants or organic fraction of municipal solid waste, etc.

#### Technical Specifications:

- Thickness 50 µm
- Hardness 48 HRC
- Perfect adhesion to the basic material



Treatment to the complete pump

Treatment to the cutting system



# Plants installed



WWTP - Italy



WWTP - Italy



WWTP - Sweden



Abattoir - Italy



WWTP - Italy



Ofmsw - Italy



WWTP - France



WWTP - Germany



WWTP - Spain



Abattoir - Italy



Salad - Italy



Coffee - Germany



Corn - Russia



Pulp and paper - Sweden



Brewery - Russia





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