PROFESSIONALS AT WORK

CRI-MAN®







EN

GENERAL CATALOGUE

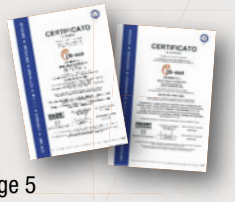
PROFESSIONALS AT WORK
CRI-MAN®

The company



page 4

Philosophy



page 5

Research & Development



page 6

LIVESTOCK

Livestock slurry management



page 13-14

Pumps



PTS
page 15-16



PTE
PTC
page 17



ETO/ETV
ETO/EPO
page 18



PTH
page 19

BIOGAS

Biogas plants

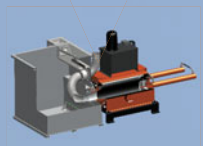


page 28-29

Pumps



PTS
page 30



PLD
page 30



ETO/ETV
ETO/EPO
page 31

Mixers





BMC
MXP
page 32

INDUSTRY

Waste water treatment



page 40-41

Pumps



ETO/ETV
ETO/EPO
page 42

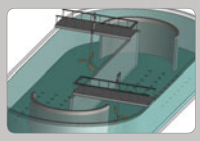


PTS
page 43



ER
page 43

Mixers



Mixing tanks
page 44

INDEX

Field of use



page 7

Sales organization



page 8

Main strengths



Pumps page 9



Mixers page 10



Separators page 11



Hygienizing Biocell page 12

CRI-MAN

LIVESTOCK



PTD
PTO/PTF
page 20

Mixers



TBM
TBX
page 21



Slalom
systems
page 22

Separators



SM
page 23-24

Hygienizing Biocell



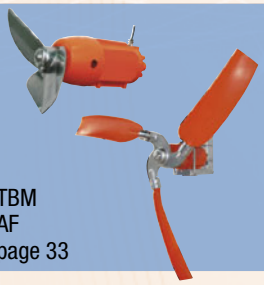
HBC
page 25-26

Plants installed



page 27

BIOGAS



TBM
AF
page 33



MXB
MXL
page 34



Mixer
accessories
page 35

Separators



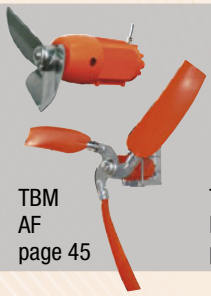
SM
page 36-37

Plants installed



page 38-39

INDUSTRY



TBM
AF
page 45



TBX
MXV
page 46

Aerators



SMO
OXIGET
page 47

Separators



SM
page 48-49

Other applications



page 50

Plants installed

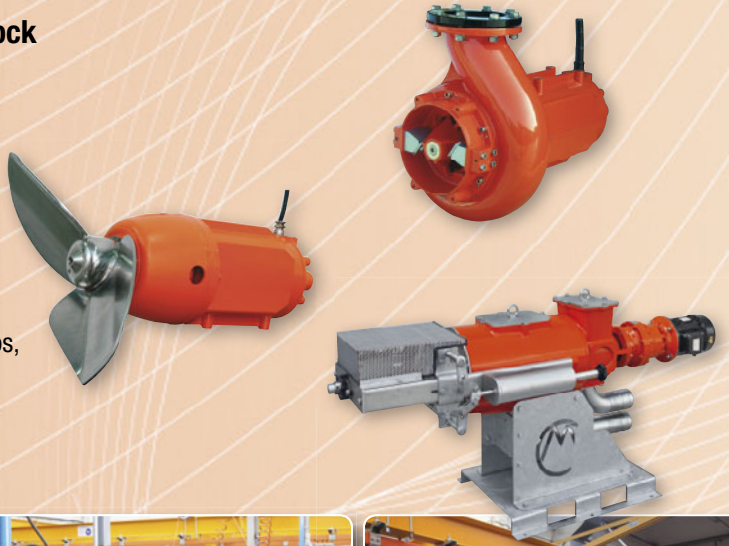


page 51

The company

Dedicated technology for processing livestock slurry, biogas, and civil/industrial effluents

We design and construct machines for the processing of livestock slurry, biogas, and civil/industrial effluents. Thirty year's experience, first in the processing of livestock slurry, and then extending with time into the biogas and industrial sectors, enables us to provide our customers with an extremely Reliable and Professional Service.
Our flagship products are our separators, chopper pumps, mixers and Biocells.
Our products are manufactured entirely at our sites in Correggio (Reggio Emilia, Italy).











Philosophy

Based on our extended experience and detailed studies of our customers in the effluent treatment sector in general, we strive to fully comprehend our customers' needs, using this as the starting point and guiding principal for the operating methods that permeate all our company activities.
Our Vision is for Professionalism and Reliability in all relations with our customers.
Our Mission is to transform this commitment into operative reality.

The CRI-MAN organization exists in order to fulfil these aims, which are achieved by close attention to the surrounding environment.
This approach is certified by the Quality Management Systems UNI EN ISO 9001:2008 and UNI EN ISO 14001:2004, which emphasise the two aspects that we hold most dear:
- Customer Satisfaction
- Guaranteeing Environmental Sustainability.



Vision

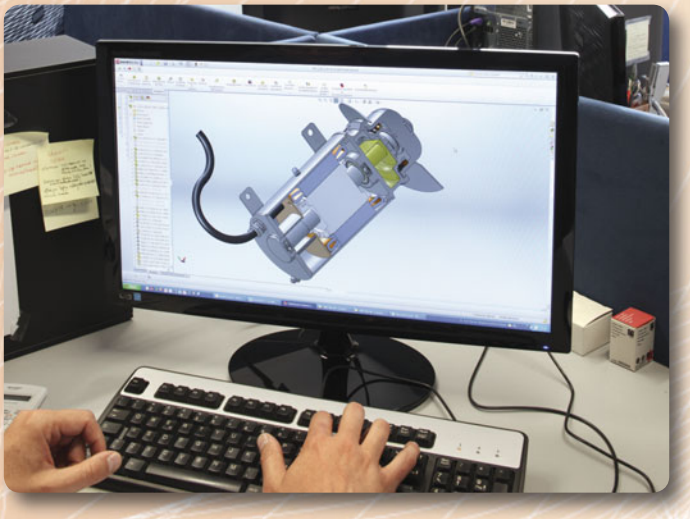
Professionalism and Reliability... through time



Research & Development

Professionalism and Reliability underlying every project

In our projects we place our customers in the leading role, or more specifically, their individual needs. We start by listening very carefully to their real requirements, which become the guiding principles for each project.
In the resulting dialogue there is a convergence of ideas, experience, and know-how allowing the creation of products made-to-measure for each customer, with particular care dedicated to minimizing the consumption of energy and water resources, in full compliance with environmental regulations.
CRI-MAN make available their experience and technological know-how for the development of products that satisfy all the requirements of reliability, flexibility, strength, and durability.
To round off our Vision/Mission, it is worth underlining our strong points in machine performance:
- our comprehensive range makes it possible to offer total solutions, in particular as regards processing livestock slurry
- high efficiency, which translates into low energy consumption

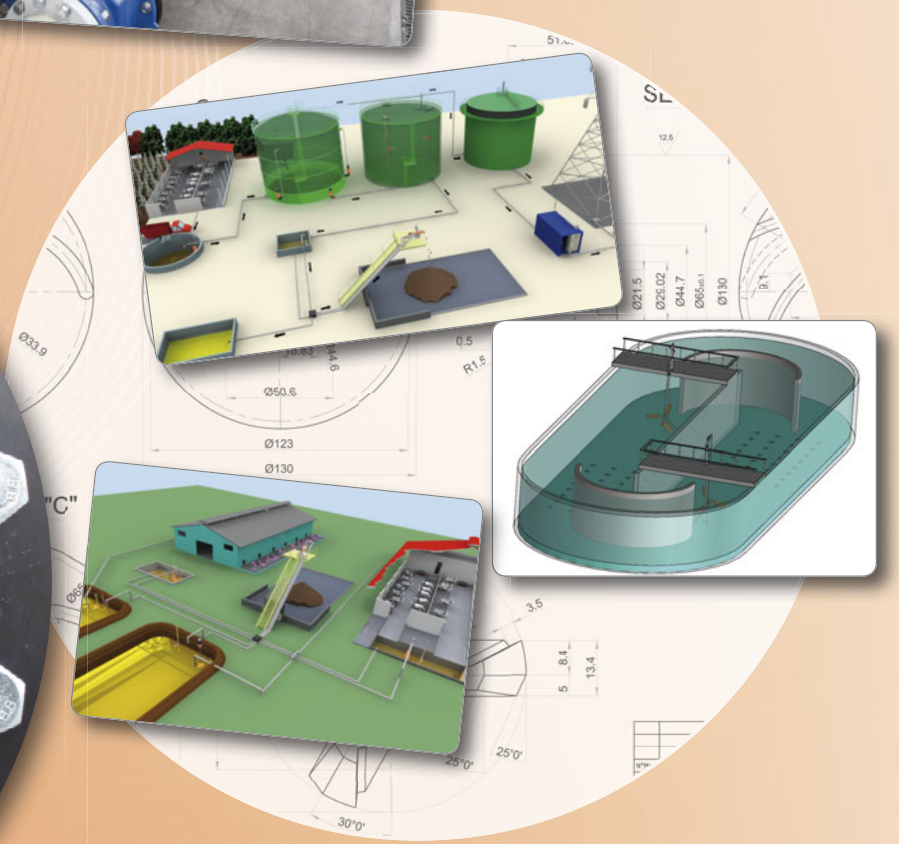












PROFESSIONALS AT WORK
CRI-MAN®

Fields of use

Our experience in **the livestock sector** dates back to the end of the 1970s, when the founders of the company CRI-MAN, subsequently established in 2001, worked in the livestock barn equipment sector.
This in-depth knowledge of the real needs of customers was later invaluable for the development of solutions that reduce the work of livestock farmers in the processing of slurry.
Over the years the technology constantly improved, with an emphasis on the reliability of the developed designs.
Today CRI-MAN are able to offer, in the livestock slurry processing sector, extremely reliable turnkey solutions. This is on the strength of our vast range of equipment, with hundreds of machine and accessory models available.



From its earliest years of operation, CRI-MAN have always dedicated attention to the world of **biogas**, designing and constructing machines and accessories for substrate handling in biogas plants.
Today CRI-MAN are well known among operators in the biogas sector as professional partners who offer a full and reliable range of products.
Thousands of CRI-MAN machines are installed in biogas plants throughout the world.



In the civil and **industrial effluent treatment sector** we are well aware of competing alongside multinationals armed with a considerable “firepower” both in terms of resources and available products.
However, perhaps precisely this difference in scale enables us to offer highly competitive and versatile solutions which at the same time do not cut corners on quality and reliability of products, all of which are designed to handle extremely demanding conditions.
Like the biogas sector, again CRI-MAN have thousands of machines installed in waste water treatment plants worldwide.



Sales Organization

The technical capability to adapt our products to the needs of various different markets, combined with an efficient organization, allows us to be competitive in the international scenario.

CRI-MAN export up to 80% abroad through a network of selected distributors who guarantee an excellent Customer Service.



Customer Service

Original Cri-Man spare parts
Choosing original parts means protecting the efficiency of your plants and extending their useful life.
All original CRI-MAN spares are totally compatible because they are made to integrate perfectly into our machines.

www.cri-man.com
A website designed to provide a complete instrument for communicating with users and retailers, always up to date with the latest news and providing all the necessary technical information, available directly or for downloading if confidential in nature.





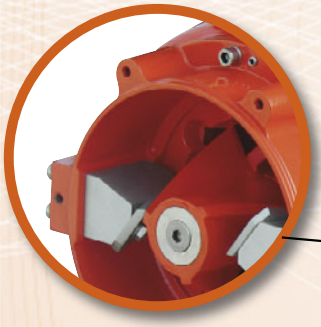
Main strengths: Pumps

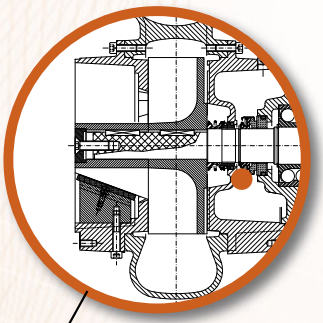
PROFESSIONALS AT WORK
CRI-MAN®

Double Chopping System
The first chopping system is composed of two blades made of chrome steel, fixed on the body inlet, that work against a spiral conveyor made from high grade cast iron and is fitted to the motor shaft.
Both materials have undergone a specific treatment for hardening.
In a pump with a speed of 1750 rpm, the only first chopping system operates at over 170 cuts per second!

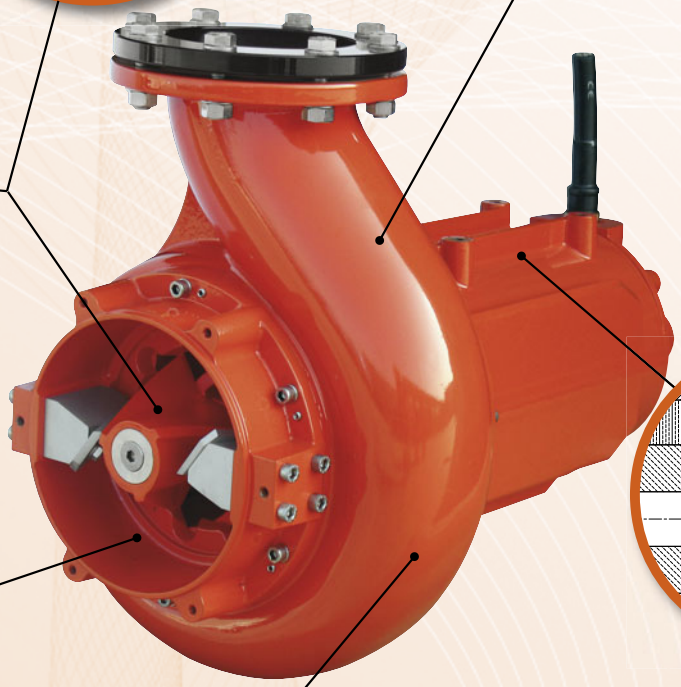
The second chopping system is composed of a shear cutting plate of special high grade cast iron that works against the impeller, also in high grade cast iron, blades with sharp profile.
Both materials have undergone a specific treatment for hardening.



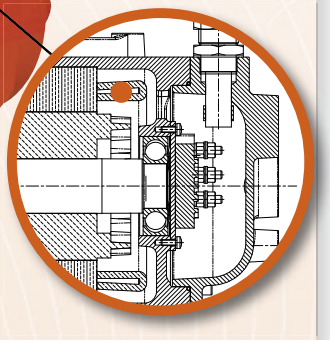




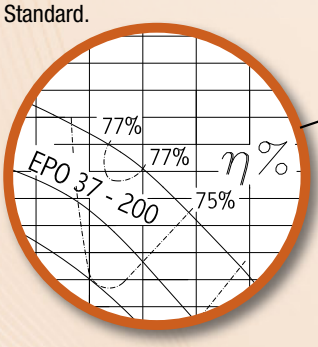
Double mechanical seal
Mechanical seals in silicon carbide and graphite-Ceramics.



Thermal probe sensors
Double thermal probes, immersed in the stator, to prevent overheating of the electric motor and to preserve the operational life span of the motor.

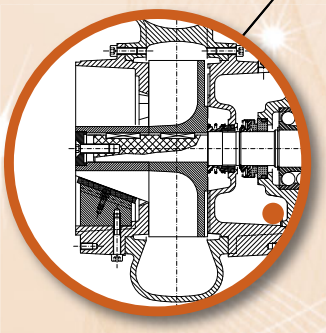


High hydraulic efficiency
Hydraulics designed to correlate high Efficiency (up to 77%) with high chopping and anti-clogging performances.
Data according to UNI EN ISO 9906 Standard.



Range of accessories
Wide range of accessories for every type of pump installation.

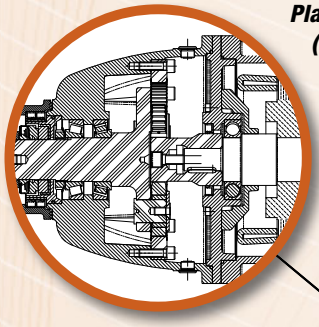




Humidity probe (on request)
Humidity probe installed in the oil chamber to prevent damages in case of leakage.

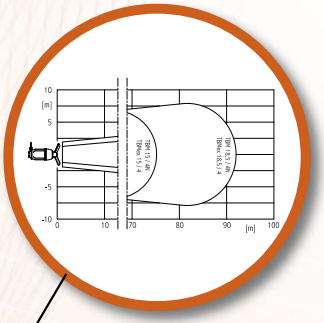


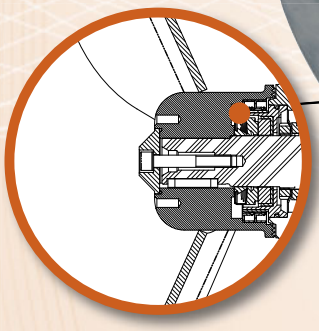
Main strengths: Mixers



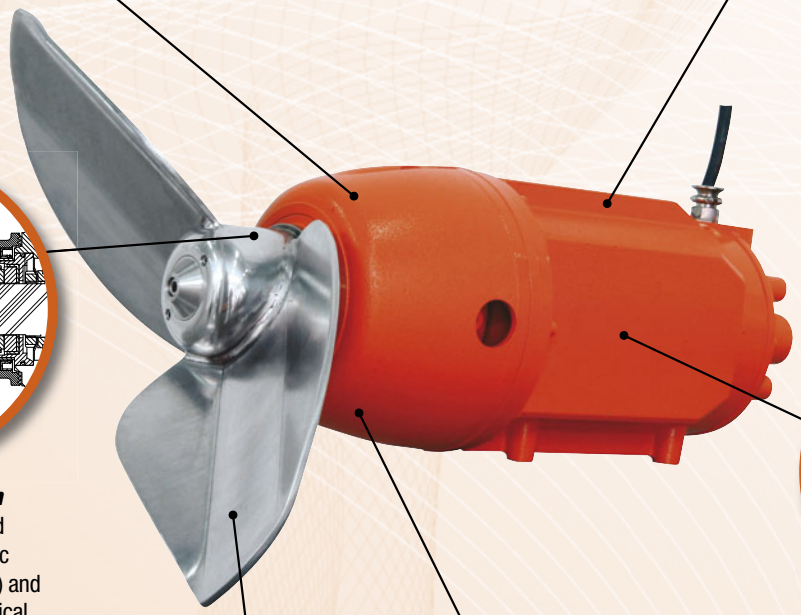
Planetary gearbox (TBM Series only)
Reduced energy consumption and longer gear life.

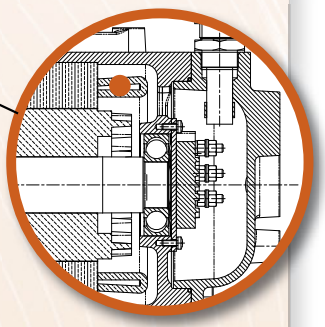
High axial thrust efficiency
Electric motor, mechanical components and propeller profile designed to achieve high efficiency in terms of axial thrust and low energy consumption.
Data according to ISO 21630 Standard.





Double sealing system
Sealing system composed of two lip seals on ceramic bushing (TBM Series only) and tungsten carbide mechanical seal.

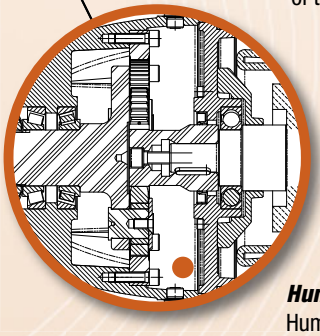




Thermal probe sensors
Double thermal probes, immersed in the stator, to prevent overheating of the electric motor and to preserve the operational life span of the motor.

Self-cleaning propeller
Propeller in stainless steel with self-cleaning profile.

Range of accessories
Wide range of accessories for every type of mixer installation.



Humidity probe (on request)
Humidity probe installed in the gear box to prevent damages in case of leakage.





Main strengths: Separators

PROFESSIONALS AT WORK
CRI-MAN®



Screw treatment
Innovative coating treatment with mixtures of tungsten carbide and metallic matrix which ensures very high hardness and low brittleness.



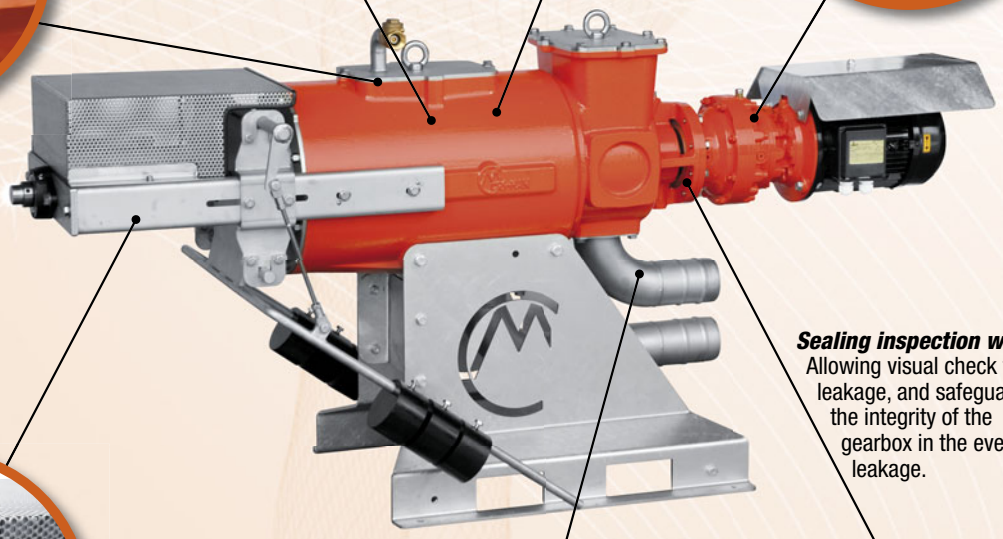
Screens
Stainless steel screens with geometrical structure, strength and material chemical composition specifically designed for each application.



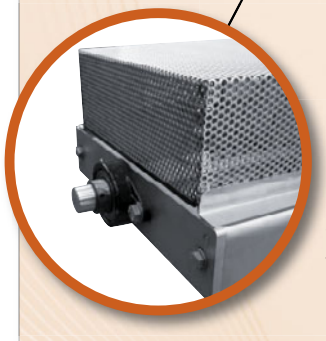
Screen inspection window
Top inspection window for easy and quick check of screen cleaning.



Planetary gearbox
Reduced energy consumption and longer gear life.

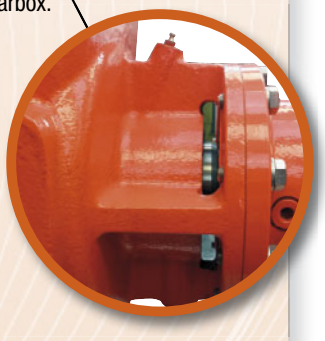


Sealing inspection window
Allowing visual check for leakage, and safeguarding the integrity of the gearbox in the event of leakage.



Front side supported screw
Front bearing structure for a perfect guide of the screw which reduces the wearing on the screen.

Sealing system
System of three lip seals with grease for a secure sealing between the separator and the gearbox.





Smart Piping input
Inlet piping designed to leave them empty, and avoid the possible freezing, during the inactivity of the machine.



Main strengths: Hygienizing Biocell

Consistent quality
The machine's electronic control system ensures hygienisation of the material through a pasteurization process.



Financial savings
By balancing the savings obtained from using hygienized solids in the place of traditional bedding (straw, sand, sawdust, etc.) it can easily be verified that returns on the investment are achieved within a few years.





Improved and more economic management of manure
The quantity of manure to be managed is reduced since traditional bedding materials are not present.

Easy to use
The machine is simple to assemble (install) and easy to use thanks to its "user friendly" control system.



Low energy consumption
Maximum power consumption 6,5 kW.

Additional storage is not required
The hygienized solid material is produced daily and so additional storage is not required (in barns) as is the case with traditional bedding materials.





Option of remote control
It is possible to control the operation of the machine from an office PC (temperature, weight, unloaded material, alarms history, etc.).

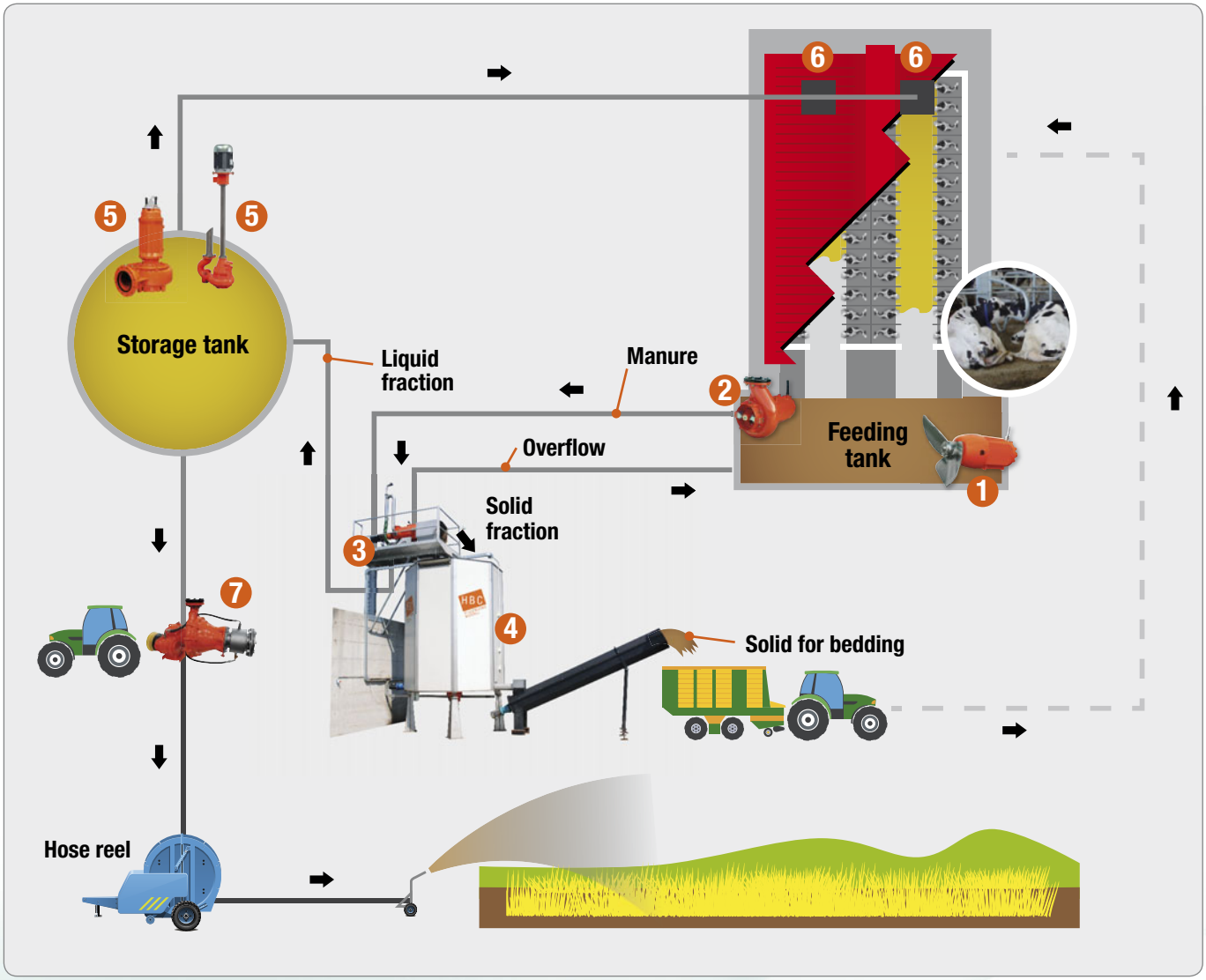




Very compact size
The overall dimensions of the machine are very small compared to competing systems.

Easy to transport
The machine is modular and so a 20 foot container is sufficient for transport.

Livestock manure management



Application of CRI-MAN products in a typical Livestock

1. TBM mixer to homogenize the manure
2. PTS submersible pump to feed the separator
3. SM separator to divide solid fraction from liquid fraction
4. HBC hygienized biocell for bedding recovery
5. PTE vertical pump or PTS submersible pump for flushing
6. VF flushing valve for flushing
7. PTH pump for tractor

Why to divide solid fraction from liquid fraction?

Benefits of Solid Fraction

- To use as Compost in Greenhouses, Fruit crops, etc.
- To use in the field before seeding because the Nitrogen, present in Organic form in the solid fraction, is slowly absorbed by the ground
- Reduction of methane and odour emissions, due to aerobic stabilization of Solid Fraction
- To use as bedding in the barn (instead of straw)
- Easy and cheap to transport

Benefits of Liquid Fraction

- Can be used for Flushing of barns, channels, etc.
- Can be used for Fertigation in the field
- Volume reduction of the Lagoon for Liquid Fraction recovery (due to the absence of Solid Fraction volume)
- In the Liquid Fraction the Nitrogen is in Ammoniac form, that means fast absorption by the ground. Therefore, it can be used in the field after seeding, during crop growth.
- Reduction of Ammoniac NH3 emission because the Liquid Fraction penetrates in the ground faster
- Can be used in the Nitrogen Removing Plant

Livestock manure management

















Check on video

Pumps

PROFESSIONALS AT WORK
CRI-MAN®

PTS 40 SERIES

Submersible chopper pump

Technical specifications:

• Chopping system		
• Max capacity:	26 m^3/h	114 US gpm
• Head:	17 m	56 ft
• Motor power:	0,75 - 1,1 kW	1 - 1,5 HP
• Suction:	65 mm	2 9/16 inches
• Discharge:	40 mm	1 9/16 inches

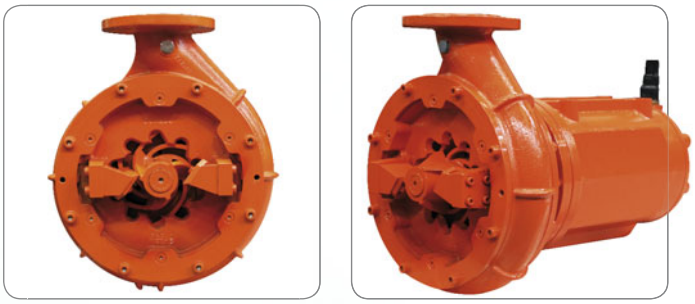


PTS 65 SERIES

Submersible chopper pump

Technical specifications:

• Chopping system		
• Max capacity:	110 m^3/h	484 US gpm
• Head:	29 m	95 ft
• Motor power:	7,5 - 11 kW	10 - 15 HP
• Suction:	100 mm	4 inches
• Discharge:	65 mm	2 9/16 inches

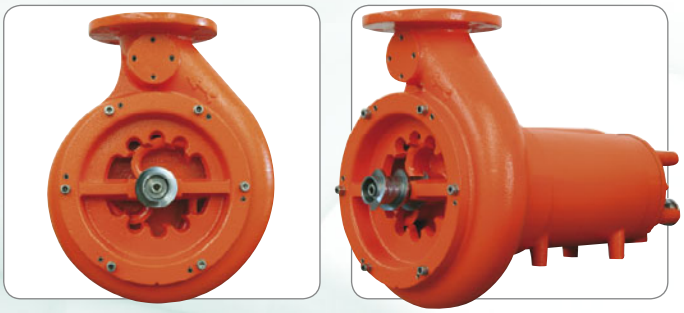


PTS 80 SERIES

Submersible chopper pump

Technical specifications:

• Chopping system and anti-clogging screw		
• Max capacity:	160 m^3/h	705 US gpm
• Head:	46 m	151 ft
• Motor power:	2,2 - 18,5 kW	3 - 26 HP
• Suction:	100 mm	4 inches
• Discharge:	80 mm	3 1/8 inches

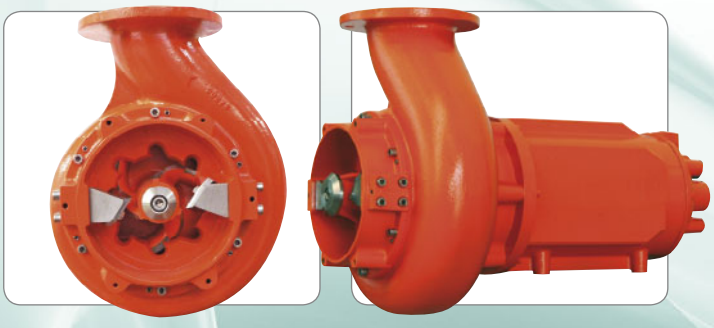


PTS 100-150 SERIES

Submersible chopper pump

Technical specifications:

• Double chopping system		
• Max capacity:	340 m^3/h	1497 US gpm
• Head:	21 m	69 ft
• Motor power:	4 - 18,5 kW	5,4 - 26 HP
• Suction:	150 - 200 mm	6 - 8 inches
• Discharge:	100 - 150 mm	4 - 6 inches



Pumps

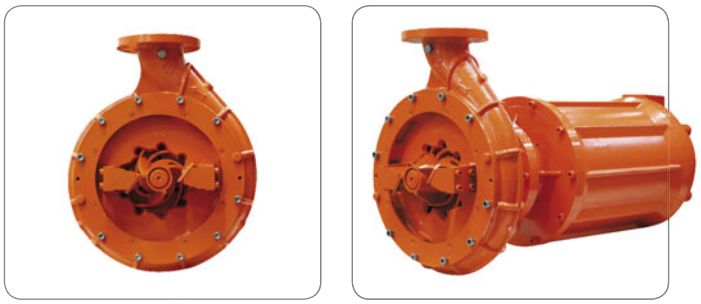
PTS 100K SERIES

Submersible chopper pump

Technical specifications:

- Double chopping system
- PTR version: with cooling jacket for dry installation

• Max capacity:	260 m³/h	1145 US gpm
• Head:	51 m	167 ft
• Motor power:	15 - 45 kW	20 - 60 HP
• Suction:	150 mm	6 inches
• Discharge:	100 mm	4 inches



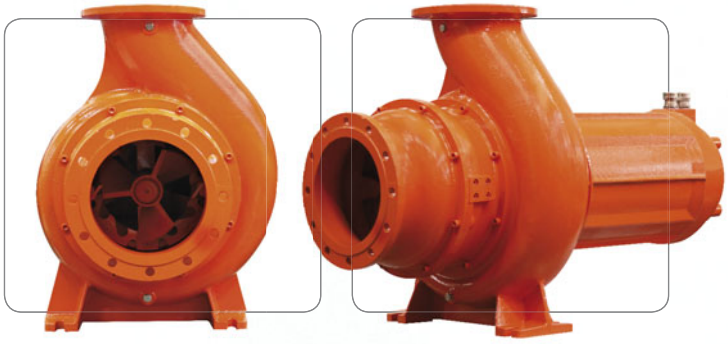
PTS 200 / PS 200 SERIES

Submersible chopper pump

Technical specifications:

- PTS version: double chopping system
- PS version: without chopping system
- PTR version: with cooling jacket for dry installation

• Max capacity:	720 m³/h	3170 US gpm
• Head:	22 m	72 ft
• Motor power:	15 - 30 kW	20 - 40 HP
• Suction:	250 mm	10 inches
• Discharge:	200 mm	8 inches



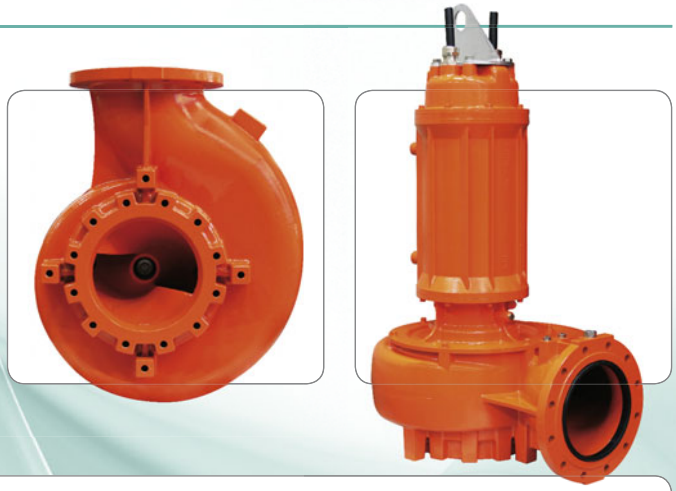
PS 250 SERIES

Submersible pump for flushing

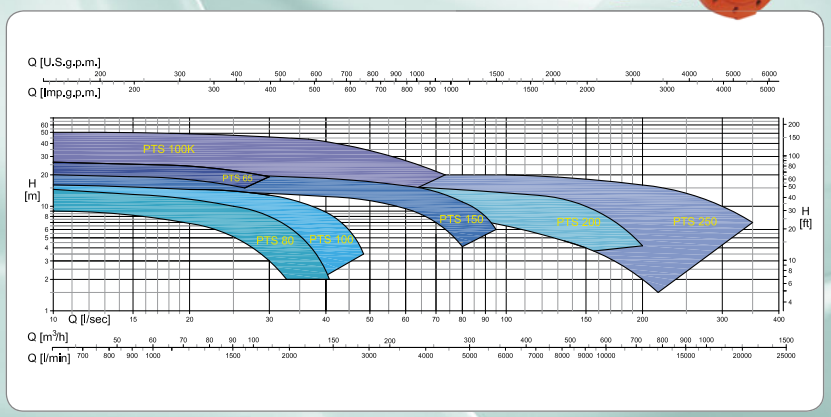
Technical specifications:

- PTR version: with cooling jacket for dry installation

• Max capacity:	1400 m³/h	6164 US gpm
• Head:	24 m	79 ft
• Motor power:	11 - 45 kW	15 - 60 HP
• Suction:	250 mm	10 inches
• Discharge:	250 mm	10 inches







PROFESSIONALS AT WORK
CRI-MAN®

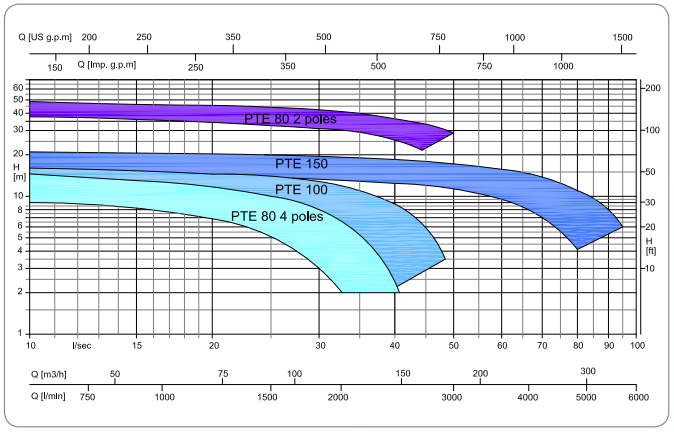
PTE / PTEM SERIES

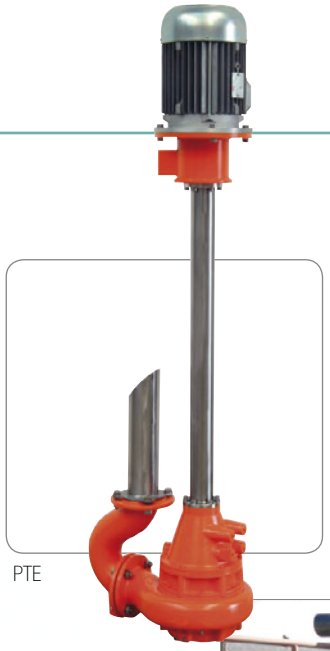
PTE vertical chopper pump with electric motor
PTEM version with adjustable mixing nozzle

Technical specifications:

- Double chopping system

• Max capacity:	340 m³/h	1497 US gpm
• Head:	53 m	174 ft
• Motor power:	4 - 22 kW	5,4 - 30 HP
• Suction:	150 - 200 mm	6 - 8 inches
• Discharge:	100 - 150 mm	4 - 6 inches





PTE



PTEM



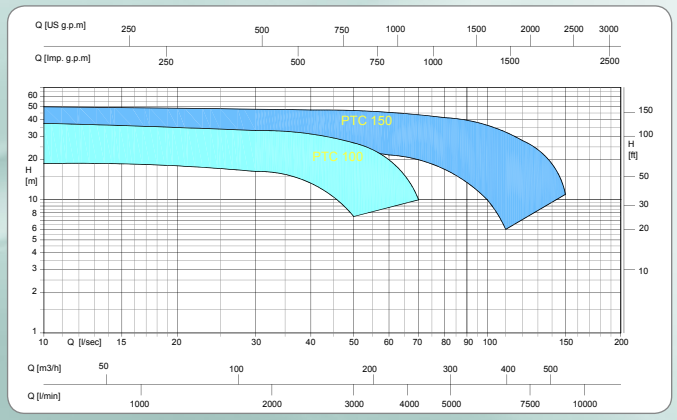
PTC / PTCM SERIES

PTC vertical chopper pump with overgear for tractors
PTCM version with adjustable mixing nozzle

Technical specifications:

- Double chopping system

• Max capacity:	550 m³/h	2422 US gpm
• Head:	51 m	167 ft
• Tractor rated power:	40 - 95 kW	54 - 127 HP
• Suction:	150 - 200 mm	6 - 8 inches
• Discharge:	100 - 150 mm	4 - 6 inches





PTC



PTCM



LIVESTOCK

Pumps

ETO/ETV SERIES

Horizontal electric chopper pump

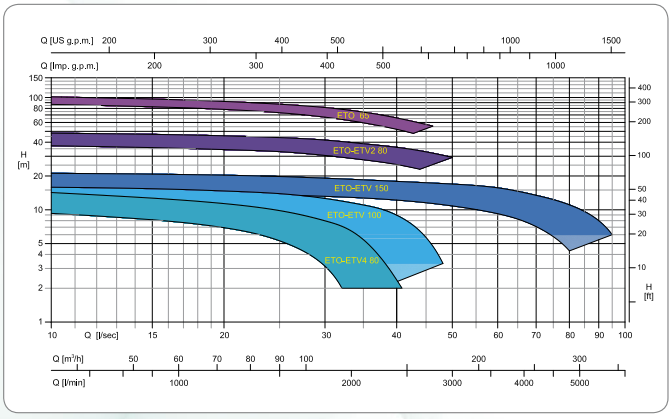
Technical specifications:

- Double chopping system

• Max capacity:	340 m^3/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

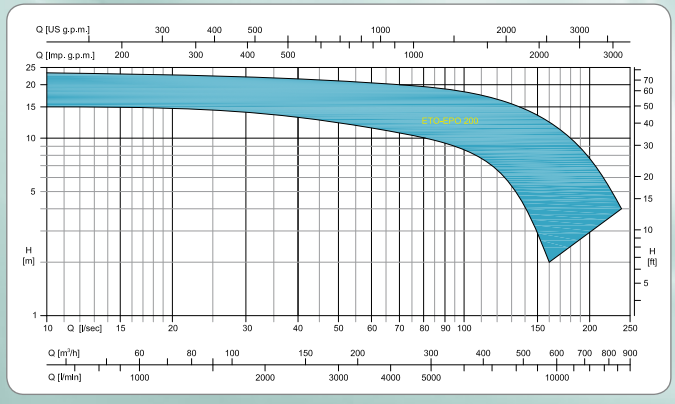
Horizontal electric chopper pump

Technical specifications:

- ETO version: double chopping system
- EPO version: single chopping system

• Max capacity:	720 m^3/h	3170 US gpm
• Head:	22 m	72 ft
• Motor power:	22 - 45 kW	29 - 61 HP
• Suction:	250 mm	10 inches
• Discharge:	200 mm	8 inches







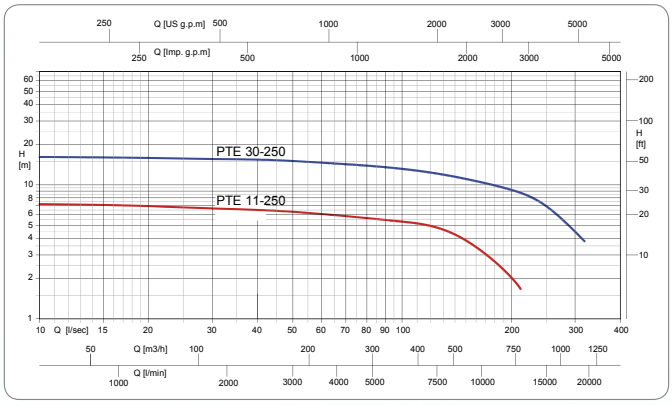
PROFESSIONALS AT WORK
CRI-MAN®

PTE 250 SERIES

Vertical pump with external electric motor for Flushing

Technical specifications:

• Max capacity:	1080 m³/h	4756 US gpm
• Head:	16 m	52 ft
• Motor power:	11 - 30 kW	15 - 40 HP
• Suction:	250 mm	10 inches
• Discharge:	250 mm	10 inches





PTE 250

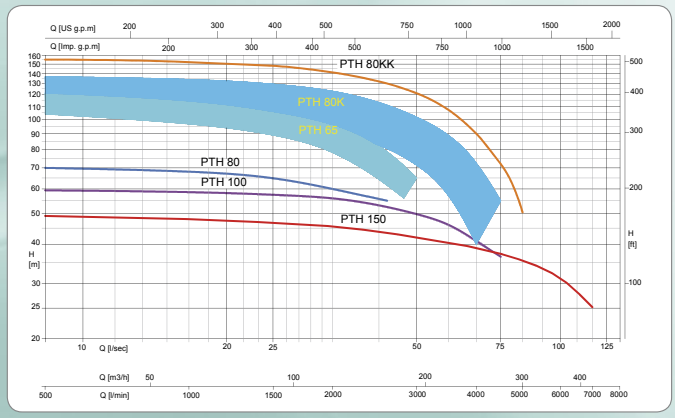


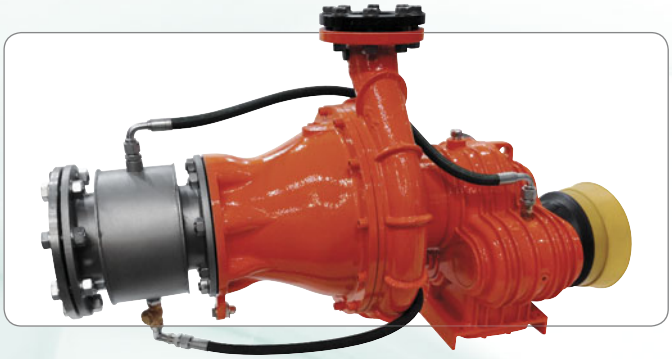
PTH SERIES

Horizontal chopper pump with overgear for tractors

Technical specifications:

• Double chopping system		
• Max capacity:	460 m³/h	2026 US gpm
• Head:	155 m	508 ft
• Tractor rated power:	50 - 140 kW	68 - 188 HP
• Suction:	100 - 150 mm	4 - 6 inches
• Discharge:	65 - 100 mm	2 9/16 - 4 inches







Pumps

PTD SERIES

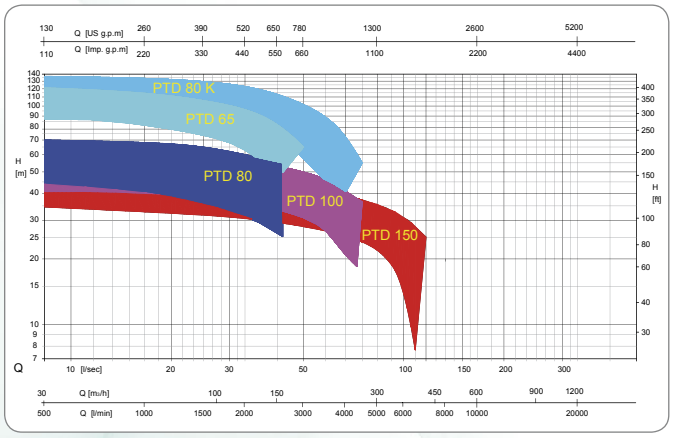
Horizontal chopper pump with overgear for Diesel engine



Technical specifications:

- Double chopping system

• Max capacity:	460 m³/h	2026 US gpm
• Head:	137 m	449 ft
• Diesel engine power:	30 - 87 kW	40 - 117 HP
• Suction:	100 - 200 mm	4 - 8 inches
• Discharge:	65 - 150 mm	2 9/16 - 6 inches





PTO/PTF SERIES

PTO Horizontal chopper pump with coupling for Diesel engines and electric motors

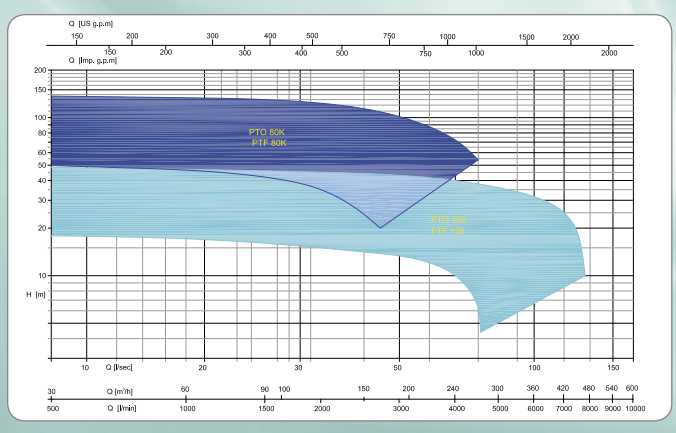
PTF Horizontal chopper pump with standard SAE housing

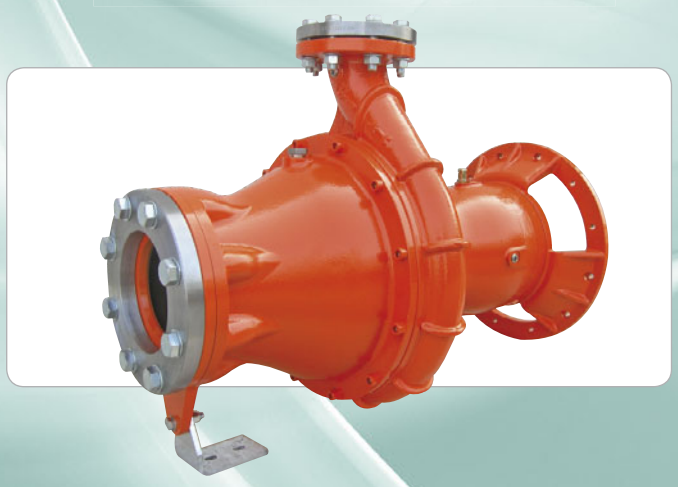


Technical specifications:

- Double chopping system

• Max capacity:	460 m³/h	2026 US gpm
• Head:	137 m	449 ft
• Motor power:	20 - 90 kW	27 - 121 HP
• Suction:	150 - 200 mm	6 - 8 inches
• Discharge:	80 - 150 mm	3 1/8 - 6 inches





Mixer

PROFESSIONALS AT WORK
CRI-MAN®

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







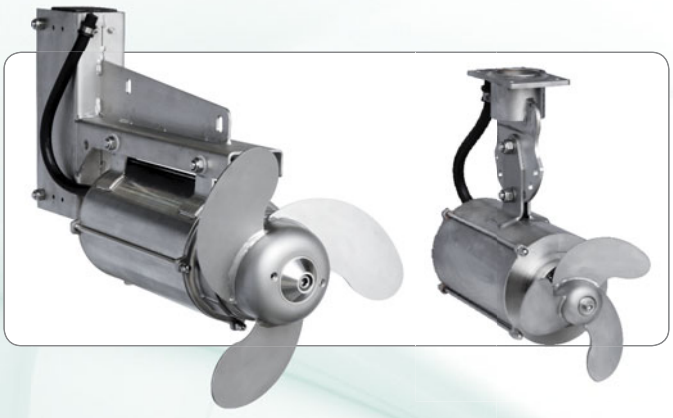
TBX SERIES

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 m³/h	1229 - 4672 US gpm
• Max working temp:	40 °C	104 °F

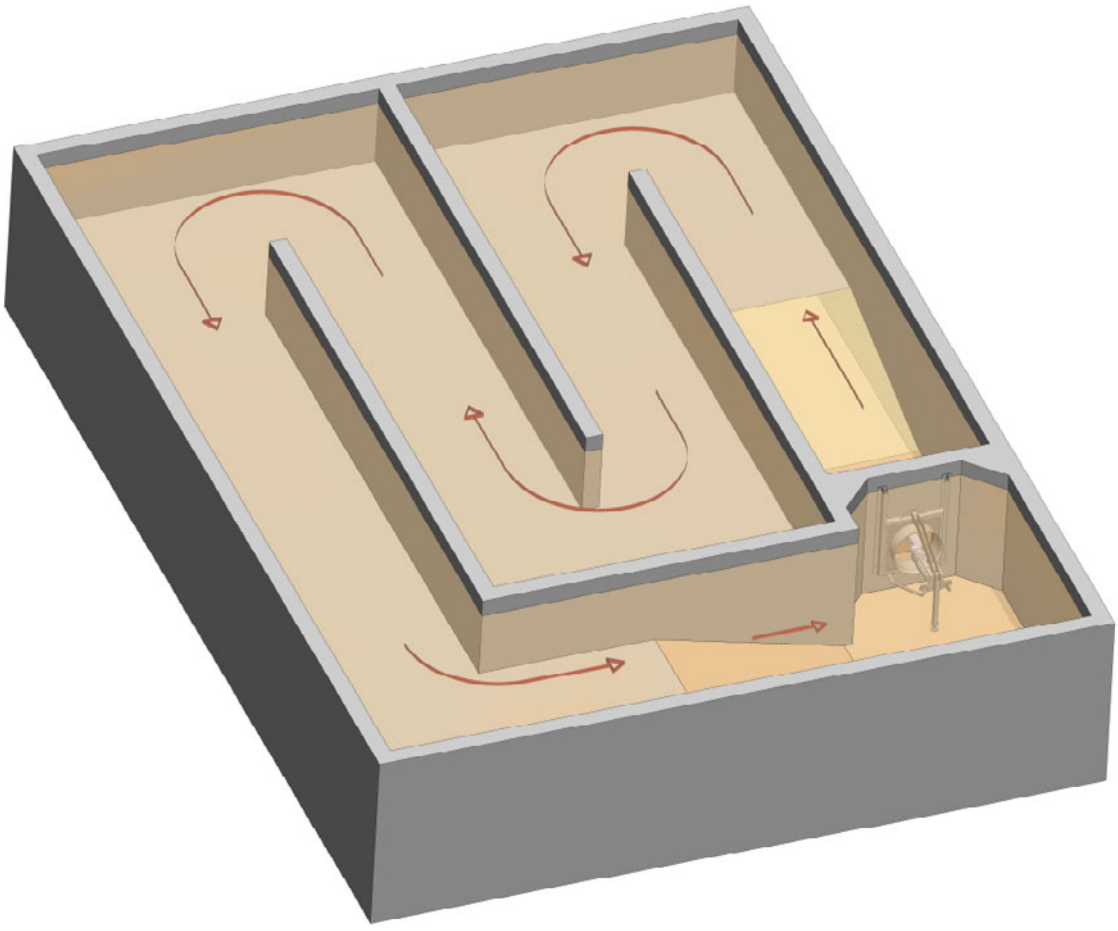


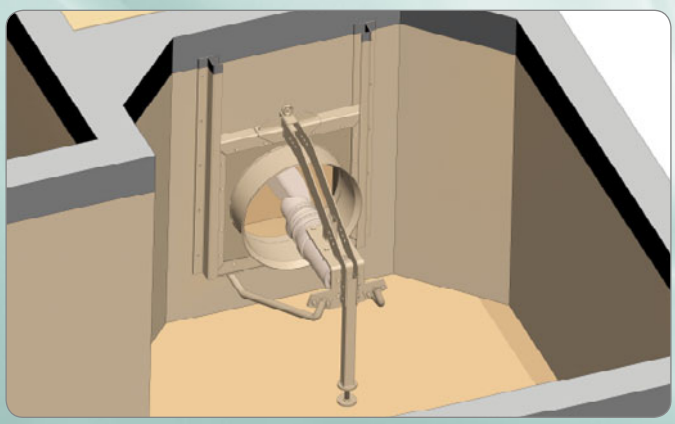
Slalom systems

The Slalom system is a reasonable and economical way to store the slurry and use it when needed.

Thanks to the system, consisting of sluice gate and TBM mixer, is possible to keep the slurry in circulation while avoiding the formation of crusts.

The sluice gate, available in either galvanized steel or stainless steel AISI 304, can accommodate TBM mixers from 5,5 to 18,5 kW.







Separators

PROFESSIONALS AT WORK
CRI-MAN®

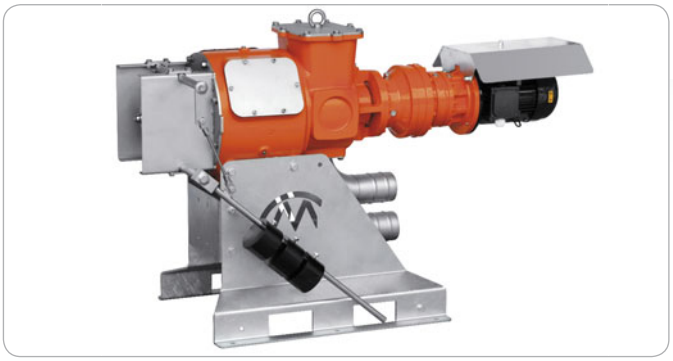
SM260 MINI SERIES

For farms up to 300 cows

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 m³/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

For farms from 300 - 800 cows

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 m³/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		



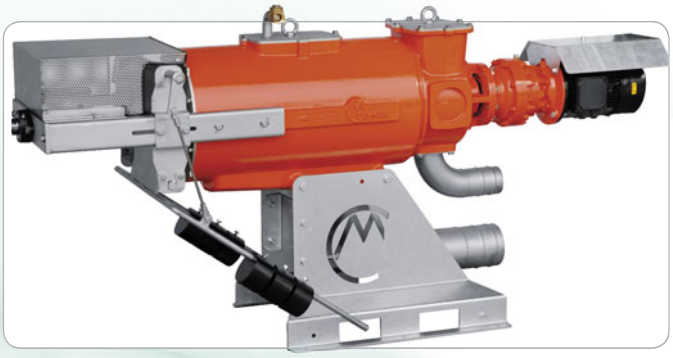
SM260 PROFESSIONAL SERIES

For farms from 700 - 1200 cows and Biogas Plant.

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 m³/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		



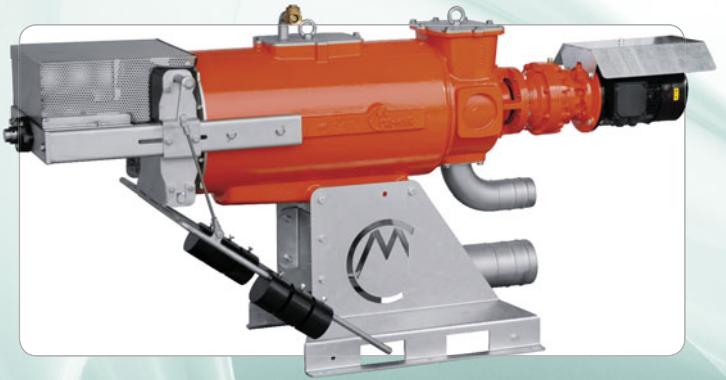
SM300 PROFESSIONAL SERIES

For farms over 1000 cows and Biogas Plant

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 m³/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		



Separators

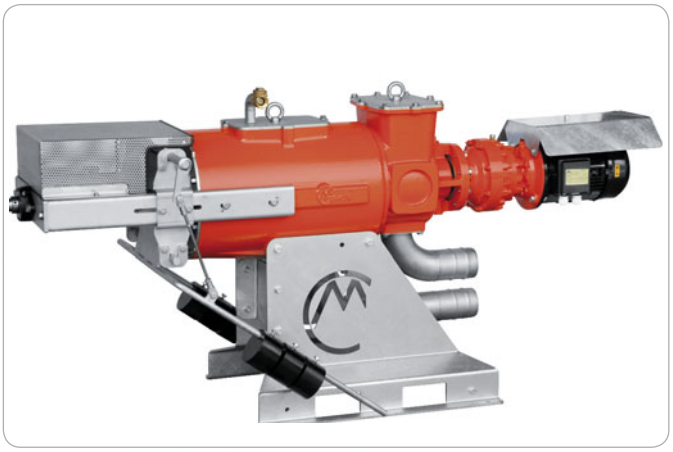
SM260 DM DRY MATTER SERIES

Suitable to obtain a drier solid fraction.
For farms up to 400 cows

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^3/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		



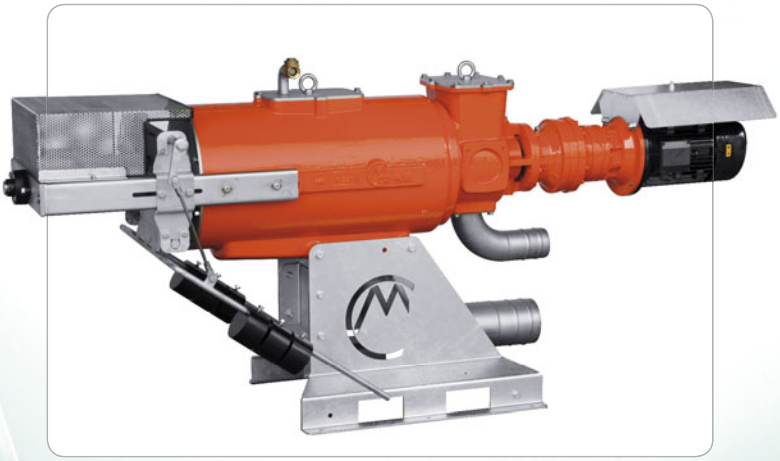
SM260FA DM DRY MATTER SERIES

Suitable to obtain a drier solid fraction.
For farms from 300 - 800 cows

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^3/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

Suitable to obtain a drier solid fraction.
For farms up to 400 cows

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^3/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		



Hygienizing Biocell



Manure





Liquid fraction

Hygienized solid



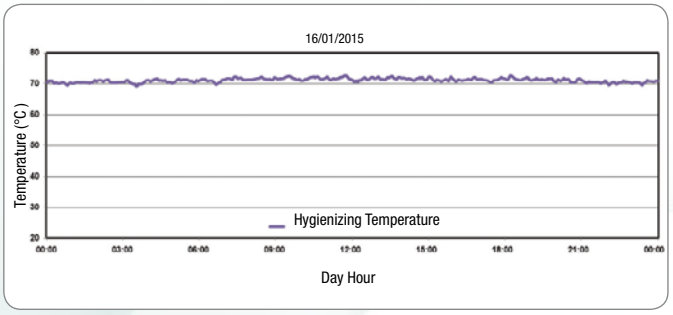


Operating performance:

- Production: up to 20 t/day of hygienized solids.
- Hygienisation: guaranteed pasteurization system (1 hour at 70°C).
- Drying: up to 55% of dry material (by adjustment of the HRT).

Process:

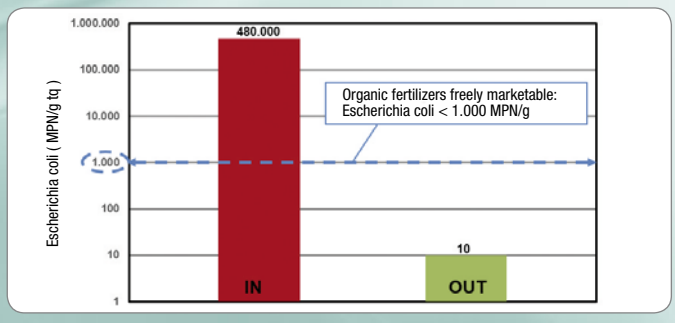
The process of biodrying or biostabilization occurs inside the HBC biocell:
the presence of oxygen (air) supports an aerobic process of biological degradation of the organic substances present in cow manure.
The process is highly exothermic and the resulting heat production is used to ensure the hygienisation of the product and to evaporate the water content.
The exothermic biological process means that the material remains at a temperature of 70°C for at least 60 minutes, ensuring pasteurization.

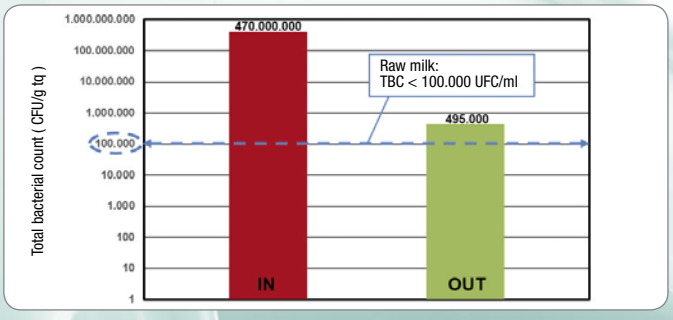


Quality of hygienized solid(1):

Escherichia coli
Limit value 1.000 MPN/g according to
- Animal by-products after pasteurization (Legislative Decree n. 75/2010).
- Freely marketable organic fertilizers (Reg. UE 142/2011).

Total Bacterial Count TBC
In Europe there are not official limits for TBC.
As only indicative information, the limit value for raw milk is 100.000 UFC/ml.





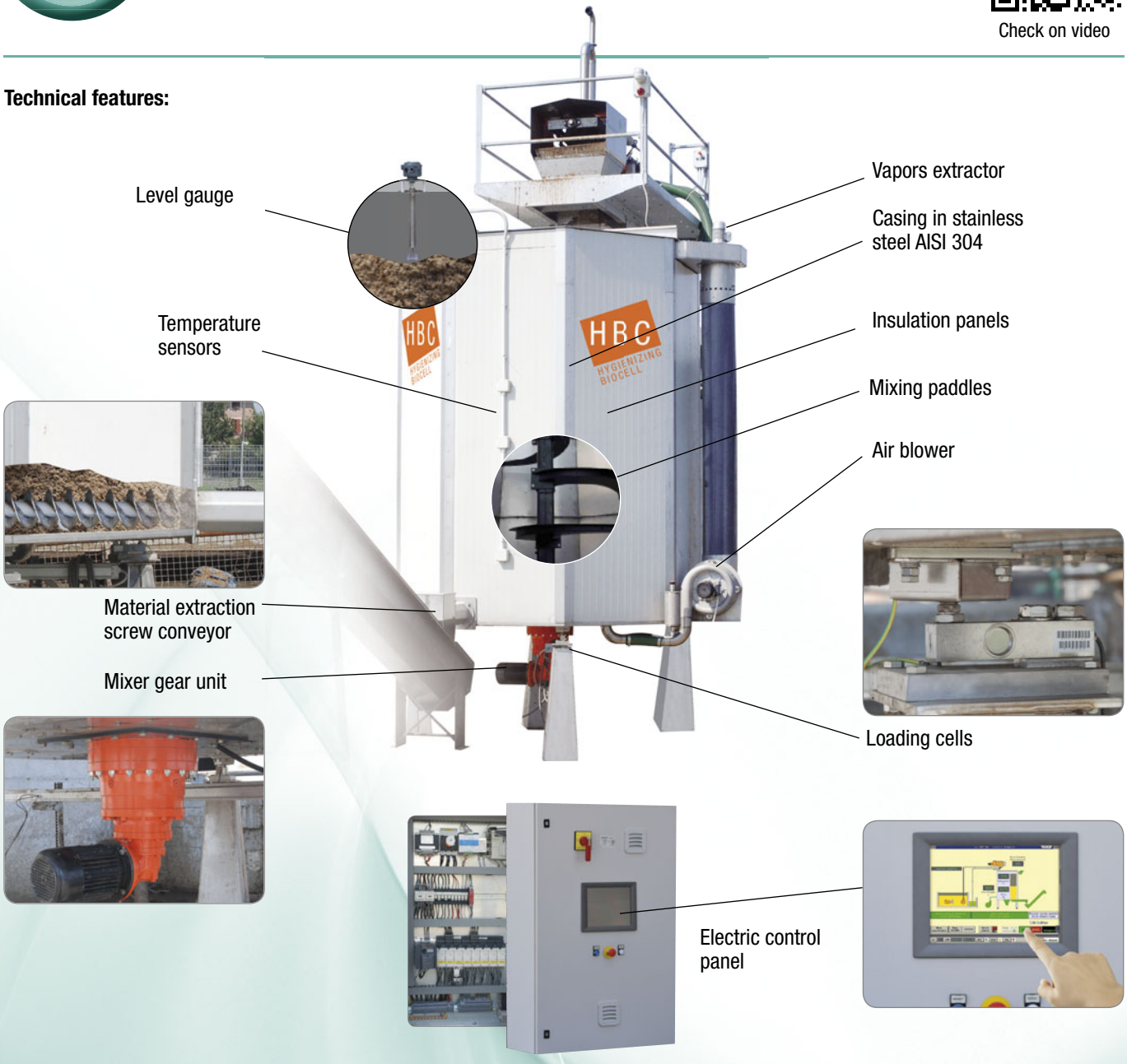
(1) Analyses relating to Laboratory tests. Absence of salmonella.

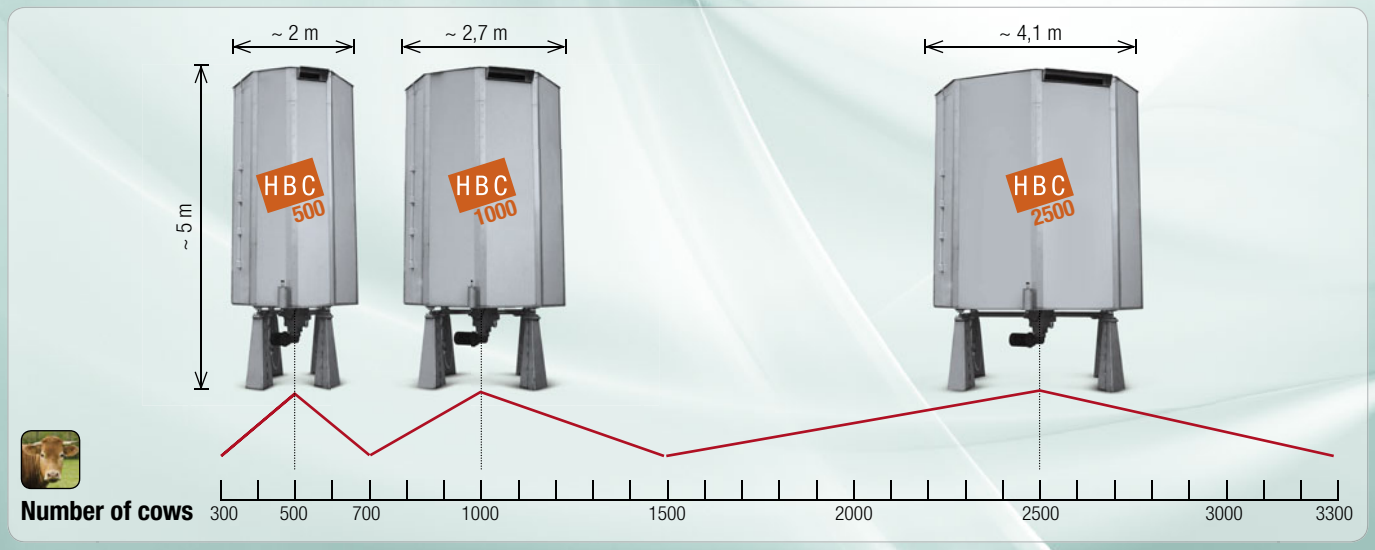
LIVESTOCK

Hygienizing Biocell

Check on video

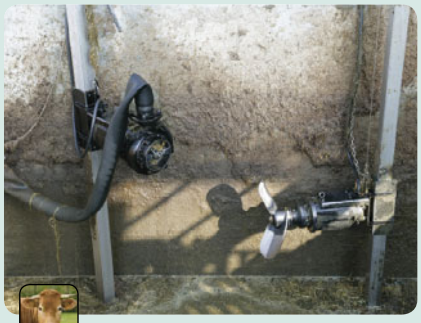
Technical features:





Plants installed

PROFESSIONALS AT WORK
CRI-MAN®


150 - Italy


50.000 - Russia


500 - Australia


850 - Italy


5.000 - China


150 - Finland


300 - Romania


1000 - Italy


6.000 - China


10.000 - Russia


108.000 - Russia

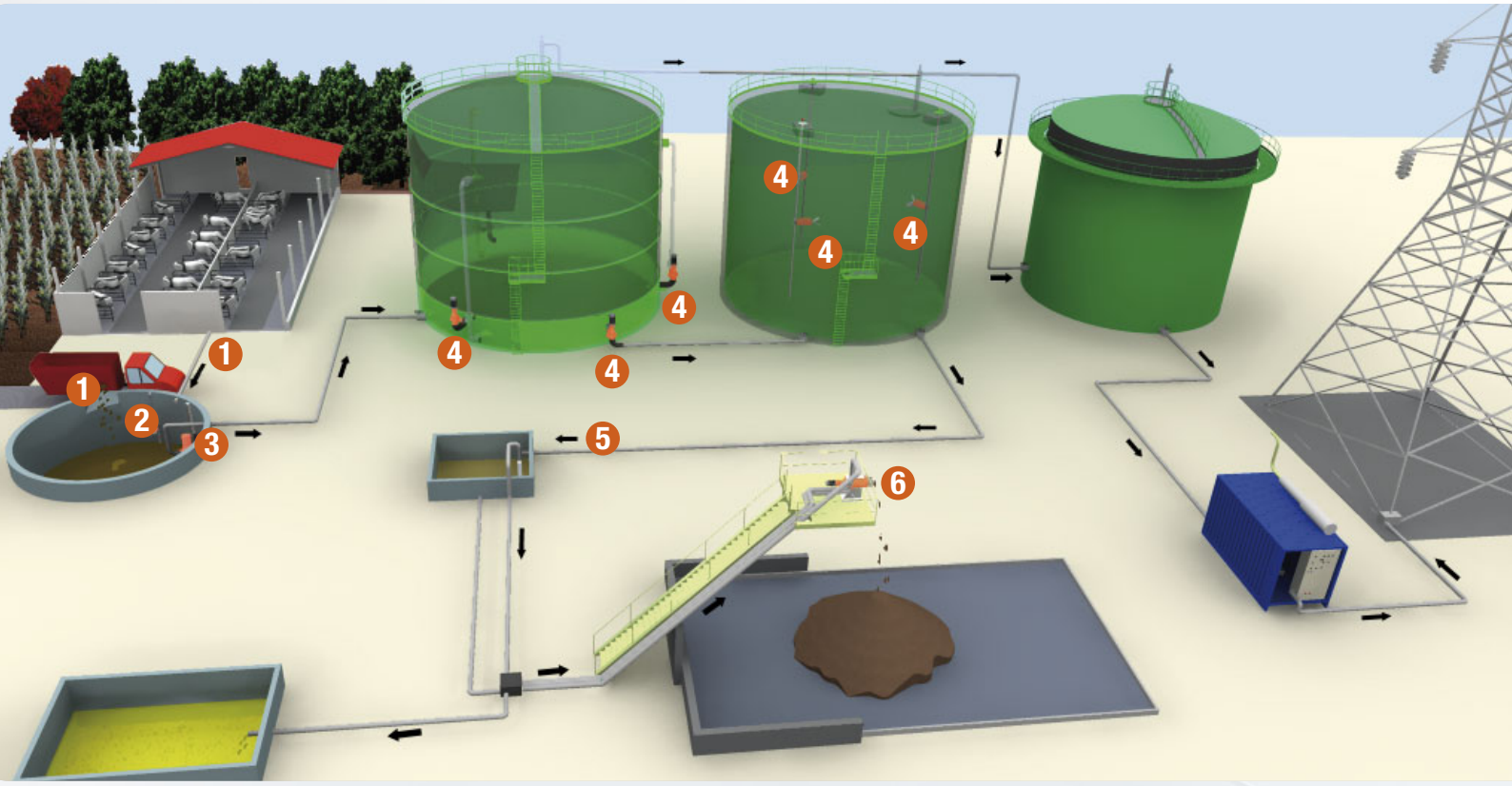

50 - Switzerland


3.000 - Estonia


3.000 - Iran


8.000 - North Korea

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.

PROFESSIONALS AT WORK
CRI-MAN®





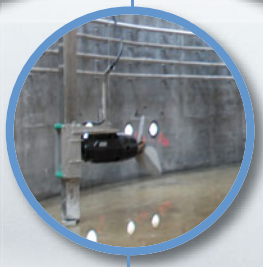












Check on video

BIOGAS



Pumps

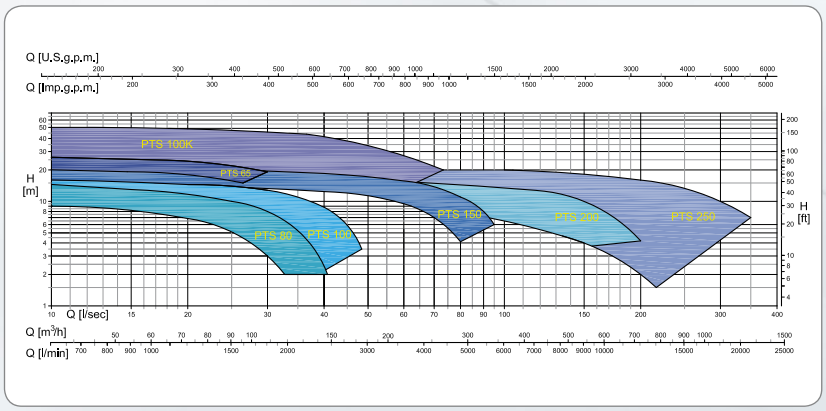
PTS SERIES
Submersible chopper pump

Technical specifications:

- Double chopping system
- Max capacity: 1400 m³/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 m³/h 44 - 132 US gpm
- Head: 80 m 262 ft
- Piston stroke: 900 mm 35,4 inches





PROFESSIONALS AT WORK
CRI-MAN®

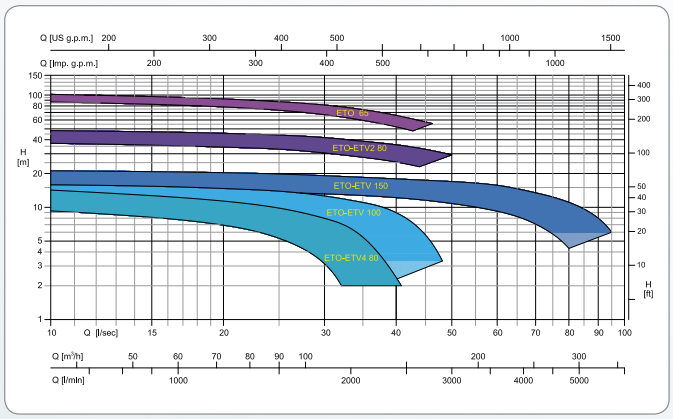
ETO/ETV SERIES
Horizontal electric chopper pump

Technical specifications:

- Double chopping system
- Max capacity: 340 m³/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









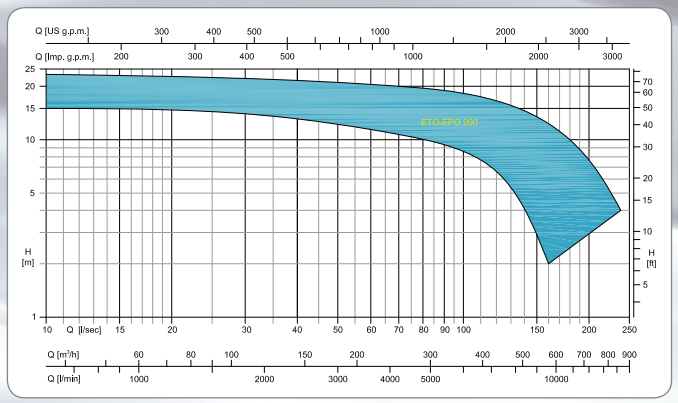


ETO 200 / EPO 200 SERIES
Horizontal electric chopper pump

Technical specifications:

- ETO version: double chopping system
- EPO version: single chopping system
- Max capacity: 720 m³/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







BIOGAS

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 m^3/h 44 US gpm





MXP SERIES
Vertical internal mixer

Technical specifications:

- Planetary gearbox
- Inspection porthole with window wiper
- Open tank version: parts in content 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







PROFESSIONALS AT WORK
CRI-MAN®

TBM SERIES

Submersible horizontalmixer





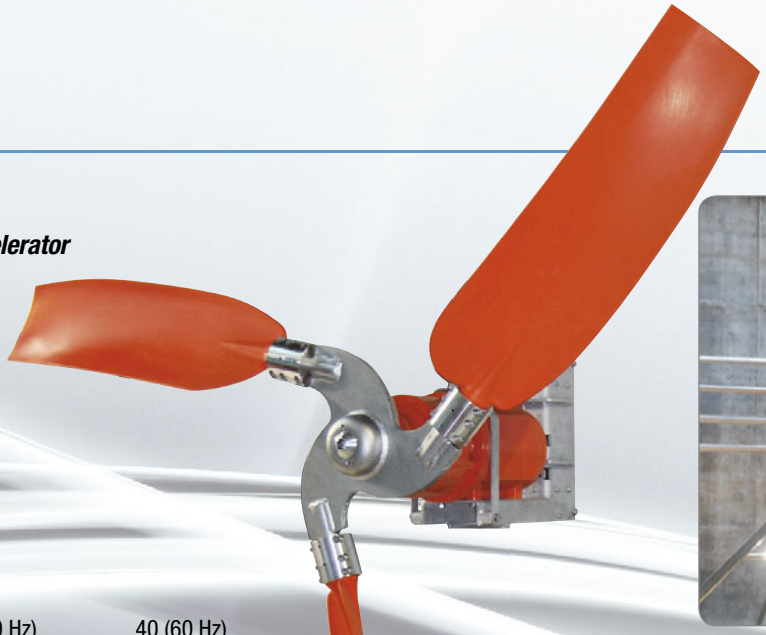
Technical specifications:

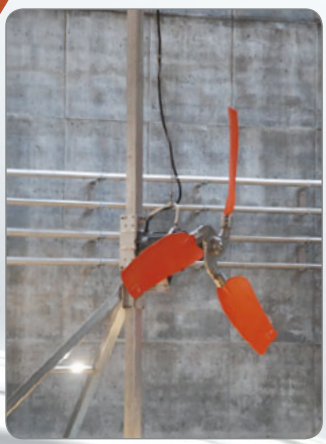
- Planetary gearbox
- Blades in stainless steel with self-cleaning profile

• 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^3/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^3/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)







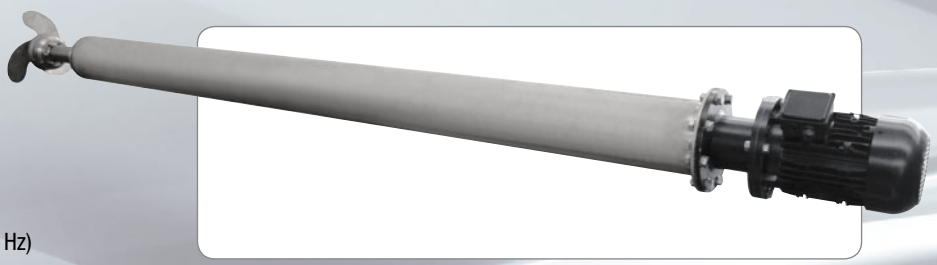
MXL SERIES

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 m^3/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 m³/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 m³/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		

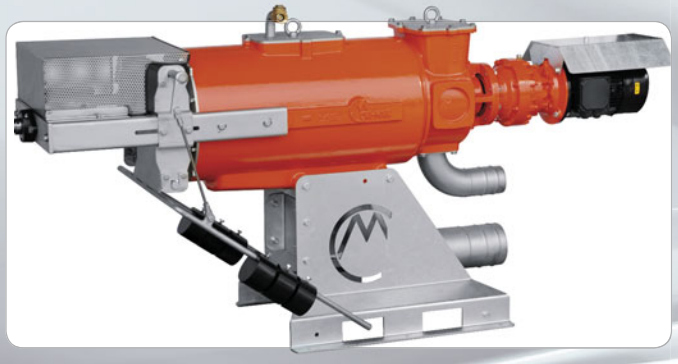


SM260 PROFESSIONAL SERIES

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 m³/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		

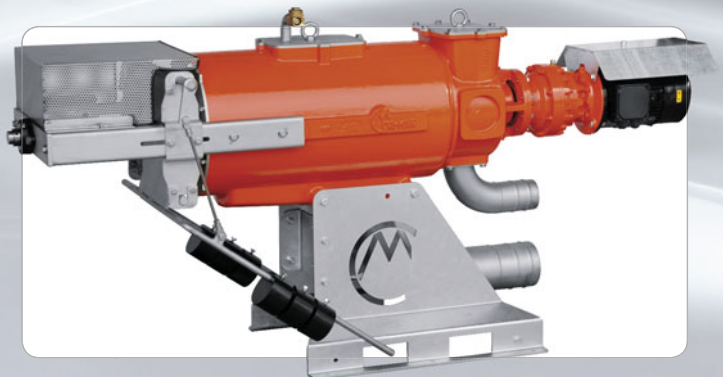


SM300 PROFESSIONAL SERIES

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 m³/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		



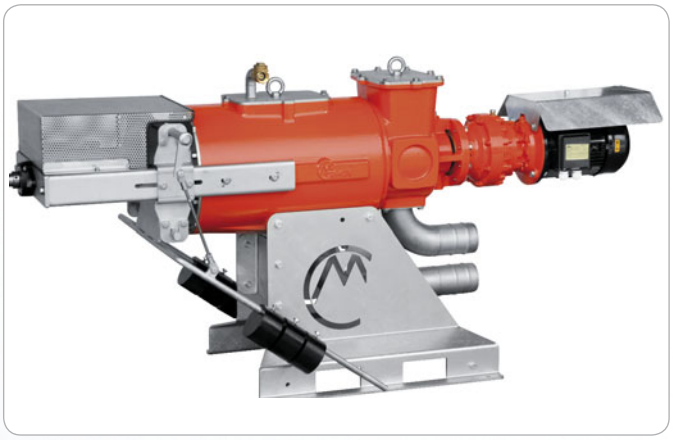
PROFESSIONALS AT WORK
CRI-MAN®

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 m³/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 m³/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		

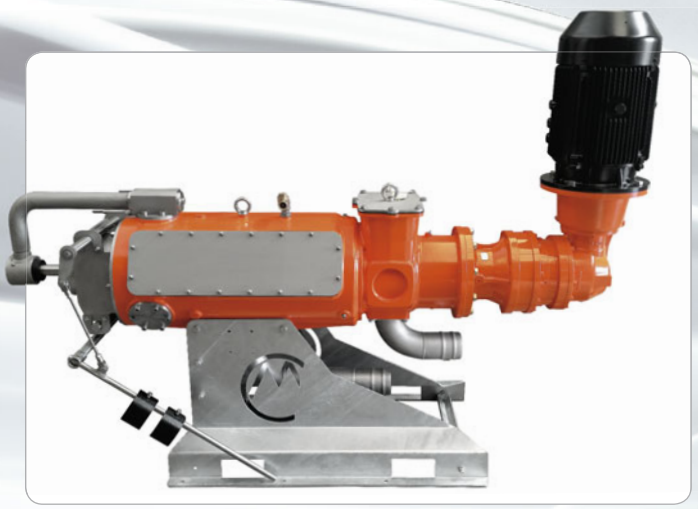


SM260FA HDM HIGH DRY MATTER SERIES

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 m³/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

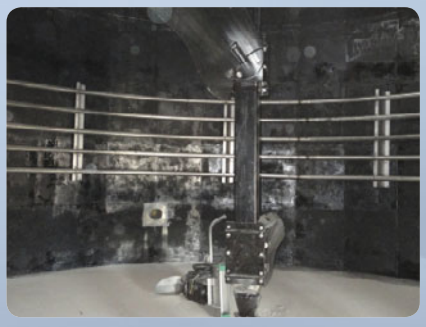

999 kW - Italy


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

PROFESSIONALS AT WORK
CRI-MAN®

Abroad


300 kW - Austria


300 kW - Germany


1000 kW - Germany


300 kW - Japan


100 kW - UK

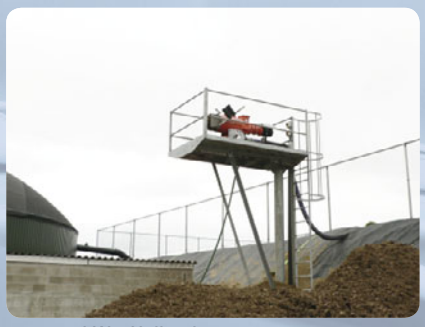

500 kW - Thailand


999 kW - Sweden


500 kW - Germany


500 kW - Germany


500 kW - Germany


500 kW - Holland

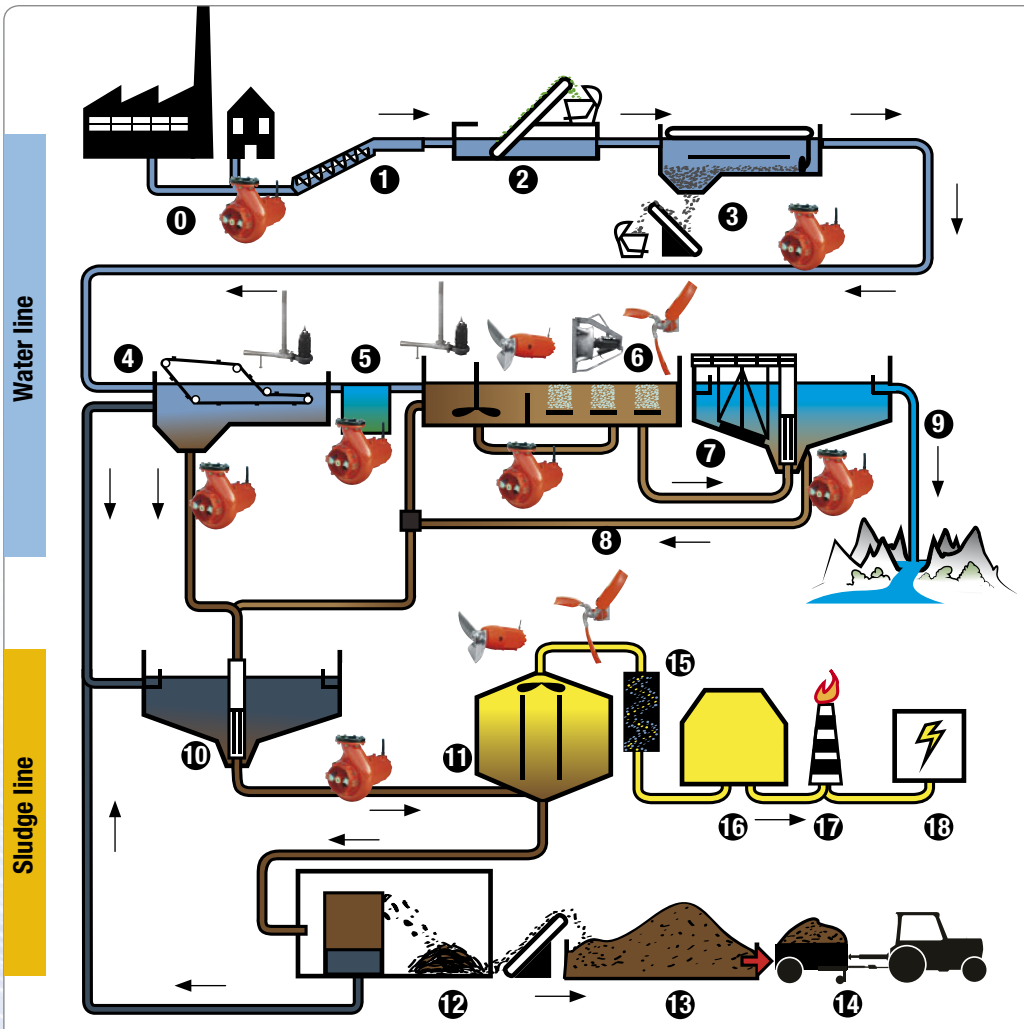

5000 kW - Germany


1000 kW - Germany


700 kW - Germany


1000 kW - Germany

Waste water treatment



Water line

0. Sewerage
1. Lift Station
2. Grit Removal
3. Sand Removal
4. Primary Sedimentation
5. Homogenization and Equalization Basin
6. Aeration Tank with Activated Sludge
7. Secondary Sedimentation
8. Recycle Sludge
9. Chemical Treatments (Disinfection and Phosphorus Removal)

Sludge line

10. Sludge Pre-Thickener
11. Digester
12. Sludge Dehydration
13-14 Fertilizer
15-18. Biogas Production

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.

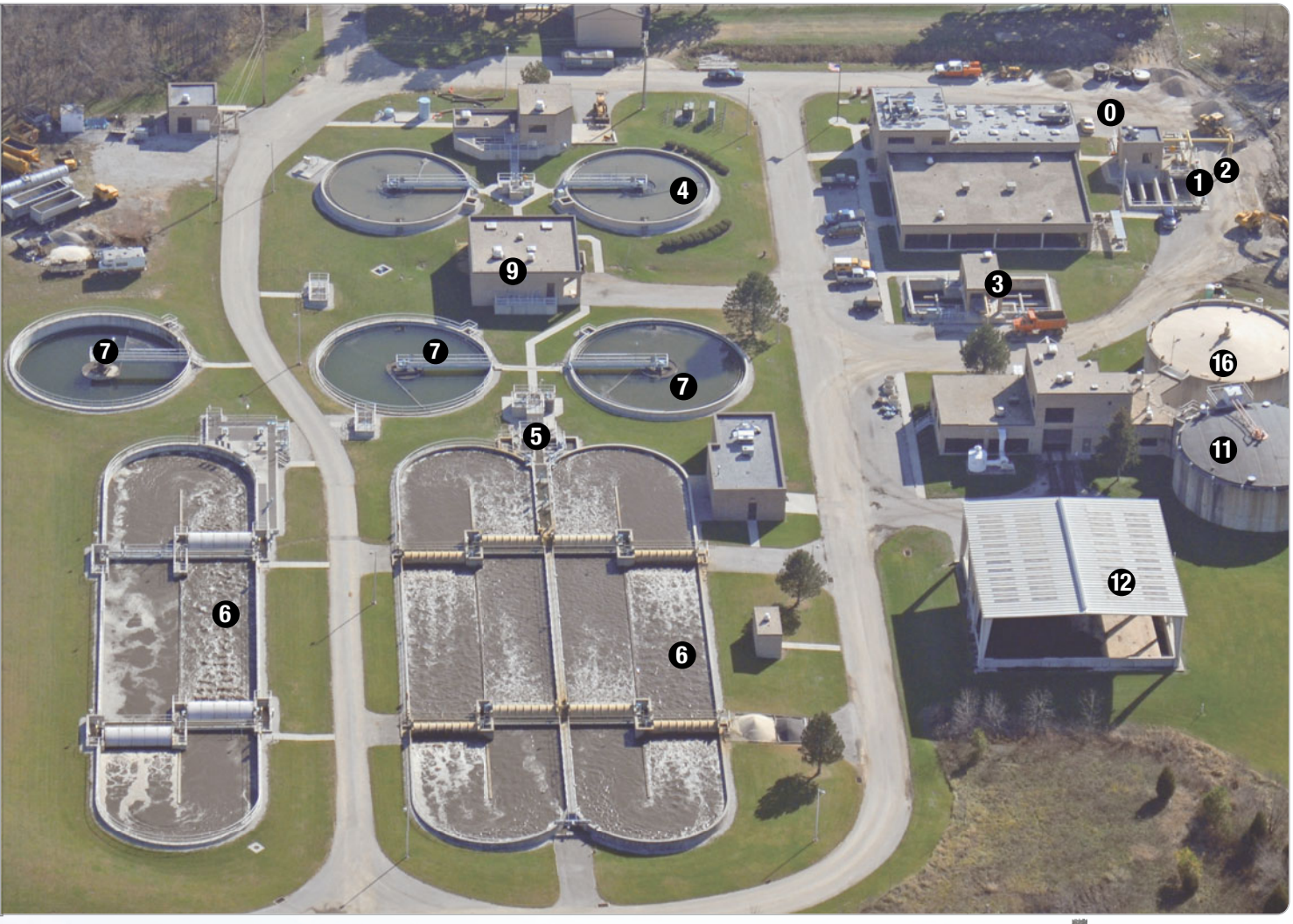
In sections of the plant where effluent transport is required, including:
- Circulation of sludge sediments for denitrification.
- Evacuation of primary and secondary sludge from a decantation tank to a sludge thickener.
- Circulation in anaerobic digesters.
- Transfer to dehydration section.

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.

PROFESSIONALS AT WORK
CRI-MAN®





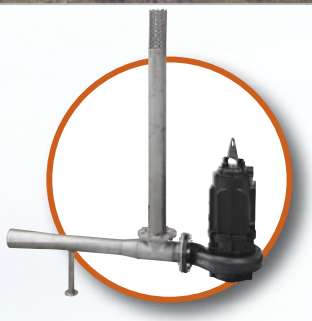
0 3 4



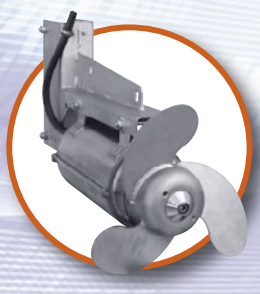
5 6 11



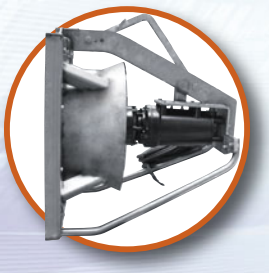
5 6 11



5 6



3



6



5 6 11

Check on video

INDUSTRY

Pumps

ETO/ETV SERIES

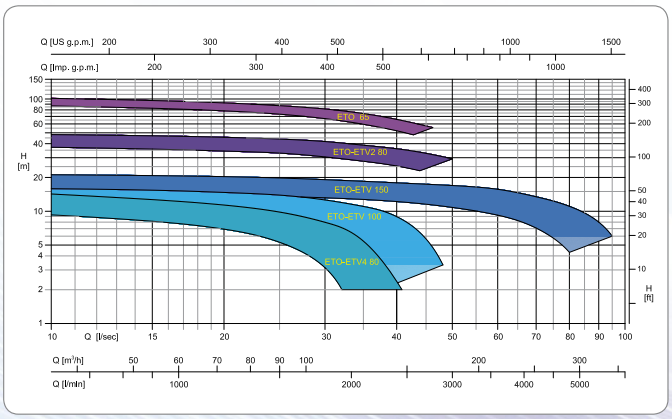
Horizontal electric chopper pump

Technical specifications:

• Double chopping system		
• Max capacity:	340 m^3/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











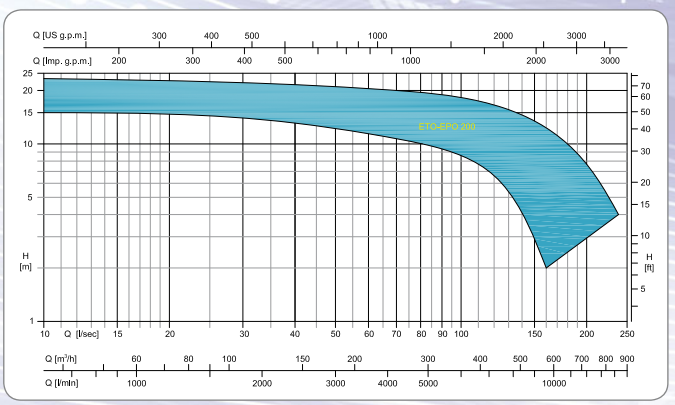
ETO 200 / EPO 200 SERIES

Horizontal electric chopper pump

Technical specifications:

• ETO version: double chopping system		
• EPO version: single chopping system		
• Max capacity:	720 m^3/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







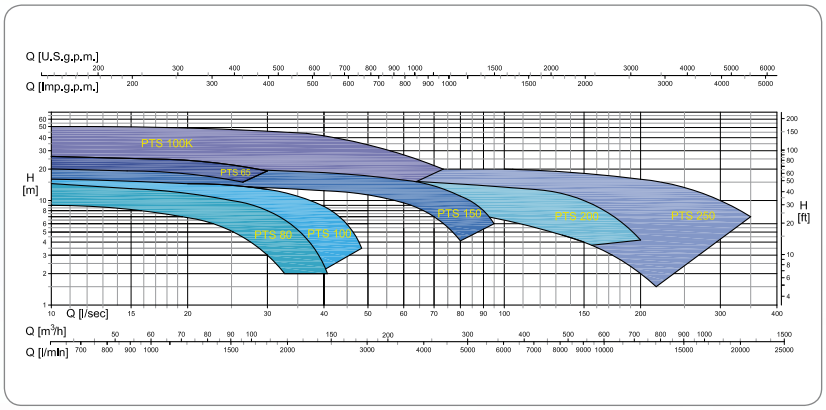
PROFESSIONALS AT WORK
CRI-MAN®

PTS SERIES
Submersible chopper pump

Technical specifications:

- Double chopping system
- Max capacity: 1400 m³/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



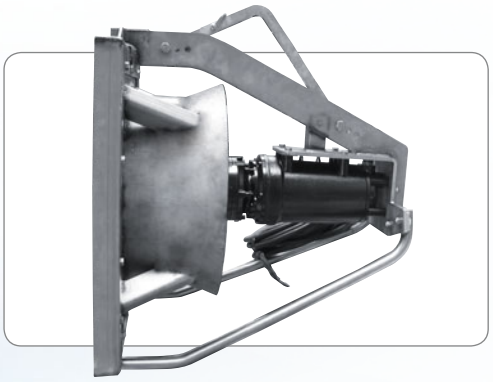


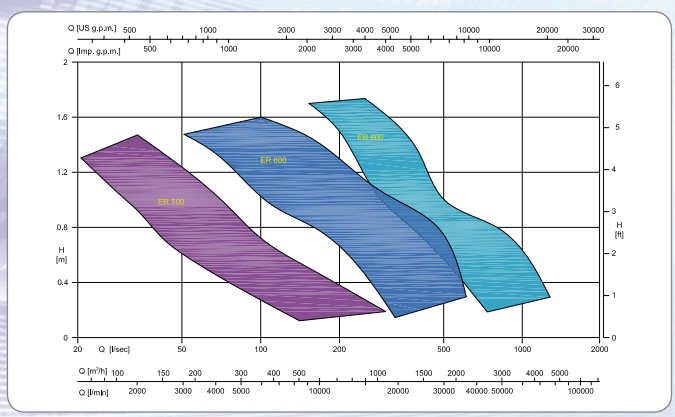


ER SERIES
Horizontal axis propeller pump

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 m³/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





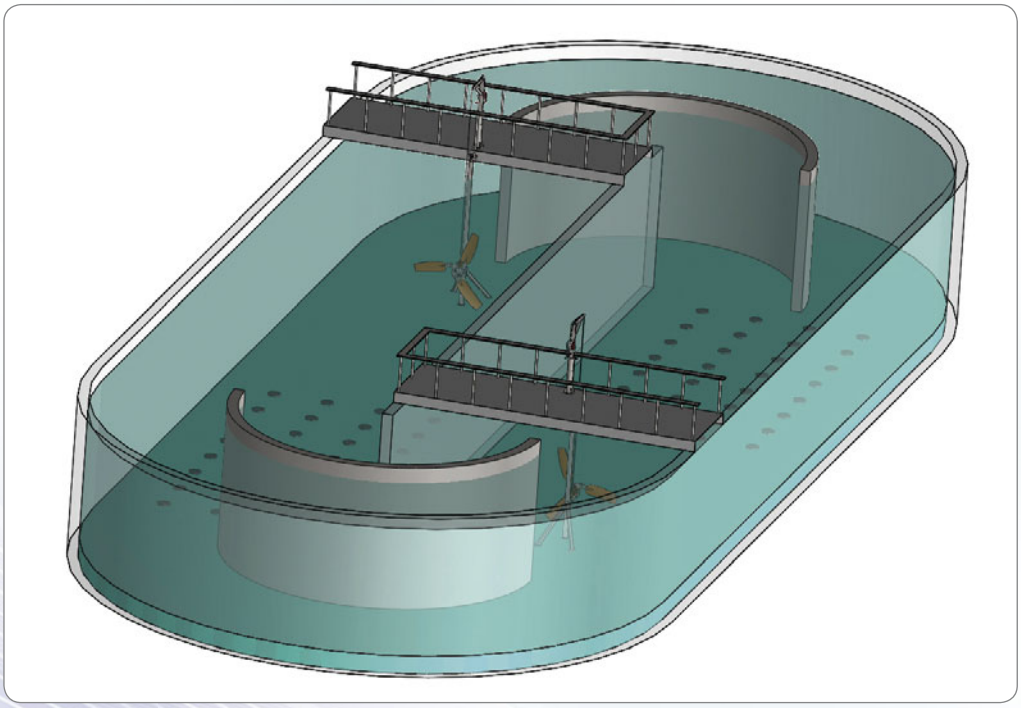


INDUSTRY

Mixing tank solutions

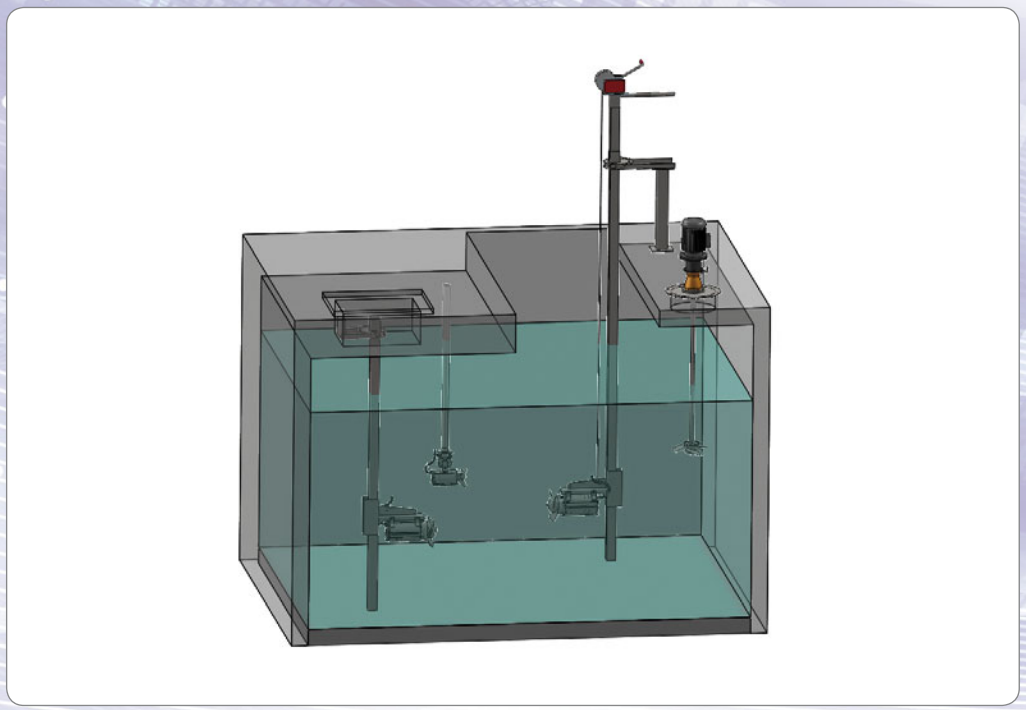
Large volume tanks:
500 ÷ 4000 m³ and above

- 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 m³

- 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

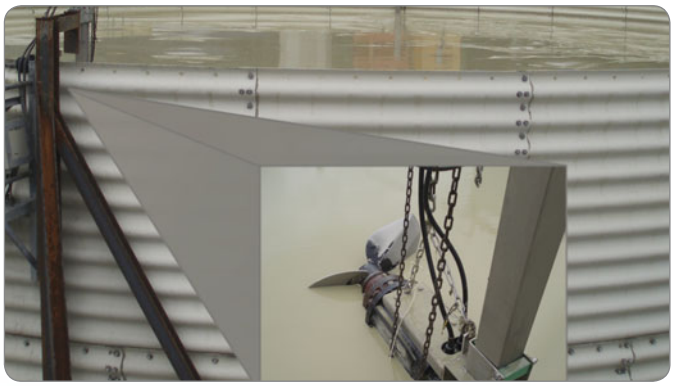
Technical specifications:

- 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

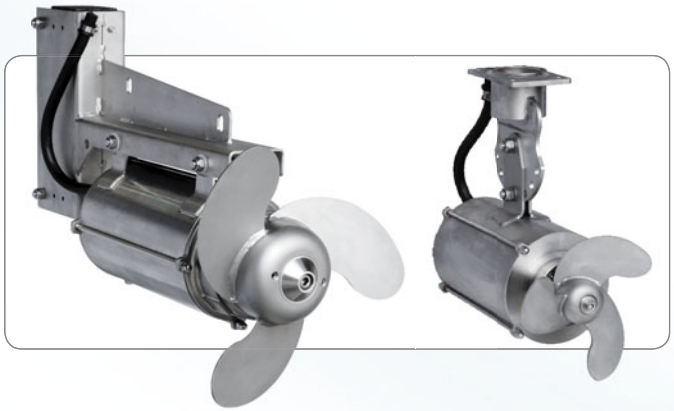
TBX SERIES

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^3/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 wit 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^3/h	1128 - 4671 US gpm
• Max working temp:	40 °C	104 °F





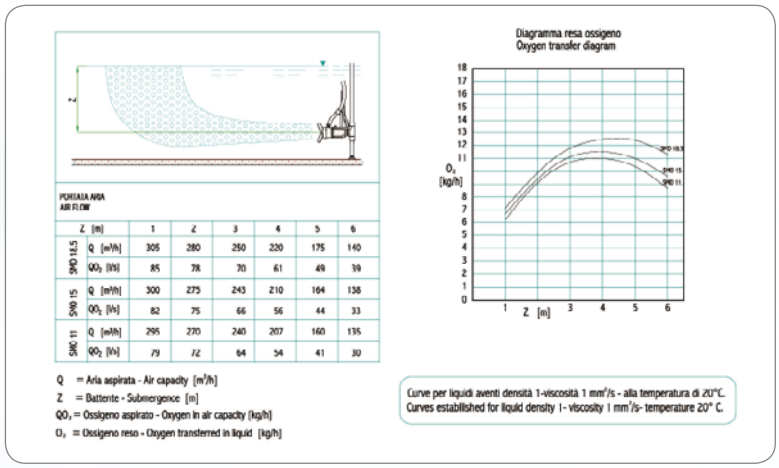
Aerators

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 m³/h 17170 - 29940 US gpm
- Blown in air capacity: up to 280 m³/h up to 1230 US gpm
- Delivered oxygen capacity: up to 10,5 kg/h up to 24 lb/h



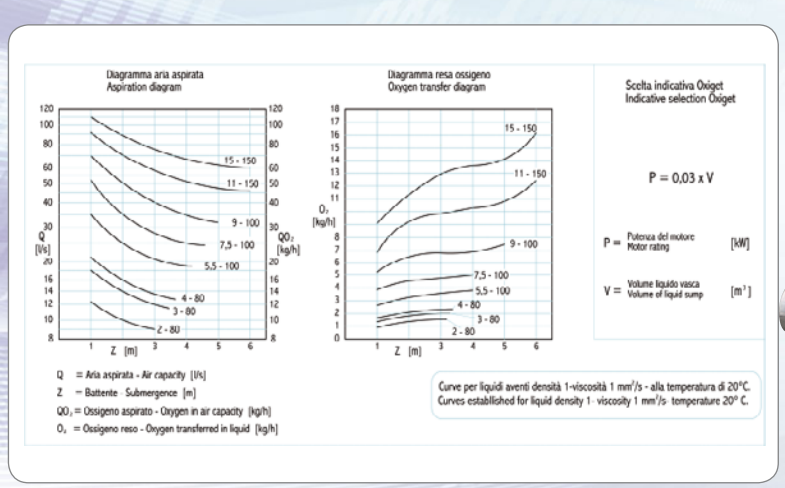


OXIGET SERIES

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 m³/h up to 1760 US gpm
- Delivered oxygen capacity: up to 16,5 kg/h up to 37 lb/h





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 m³/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 m³/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		

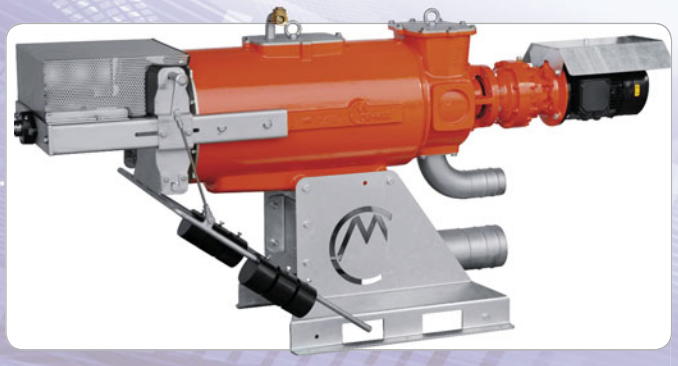


SM260 PROFESSIONAL SERIES

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 m³/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		

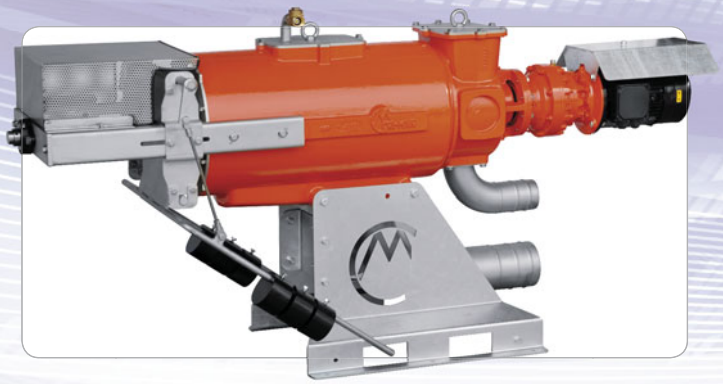


SM300 PROFESSIONAL SERIES

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 m³/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		



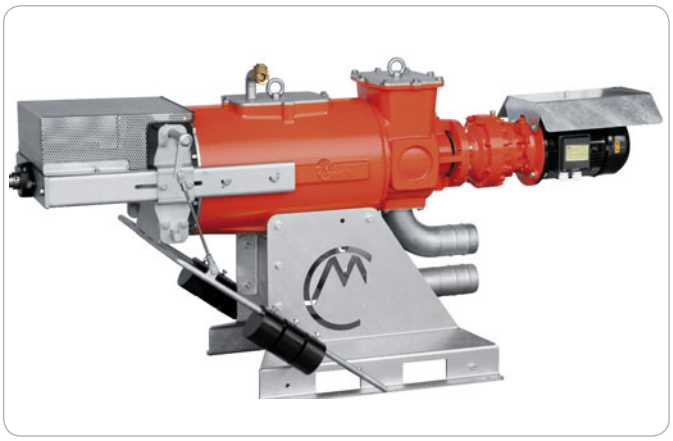
PROFESSIONALS AT WORK
CRI-MAN®

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 m³/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		

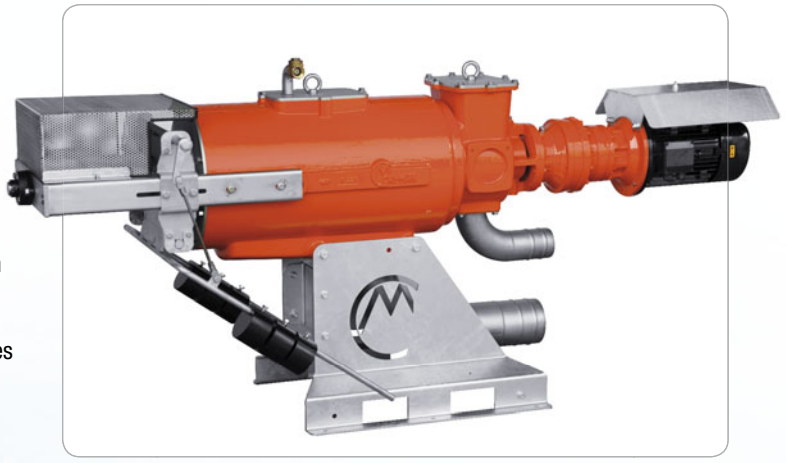


SM260FA DM DRY MATTER SERIES

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 m³/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		

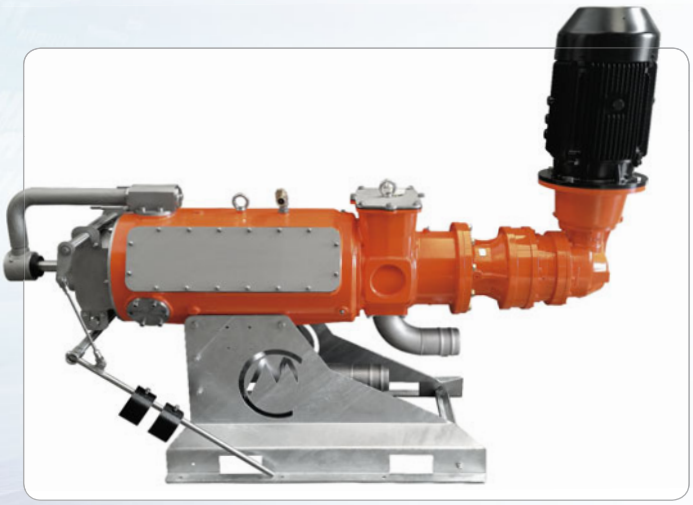


SM260FA HDM HIGH DRY MATTER SERIES

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 m³/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^3/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



www.cri-man.com

LIVESTOCK

BIOGAS

INDUSTRY

PROFESSIONALS AT WORK
CRI-MAN®

CRI-MAN SpA - via Costituzione, 50F
42015 CORREGGIO (RE) Italy
Tel. +39 0522 732204 - Fax +39 0522 746363
email: info@cri-man.com - **www.cri-man.com**



campbelladv.com 50917

CRI-MAN - general catalogue - 10/16

RegioneEmilia-Romagna