



Dedicated technology for processing livestock slurry and Biogas



We design and construct machines for the processing of livestock slurry and Biogas

Twenty year's experience, first in the processing of **livestock slurry**, and then extending with time into the **Biogas**, 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).



COMPANY VIDEO





Sustainability

We invest in research to protect the environment

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 the following operative realities:

- Product innovation
- On-time delivery
- Technical assistance
- Extended product durability
- Technical know-how

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 9001:2015 and
UNI EN ISO 14001:2015

which emphasise the two aspects that we hold most dear:

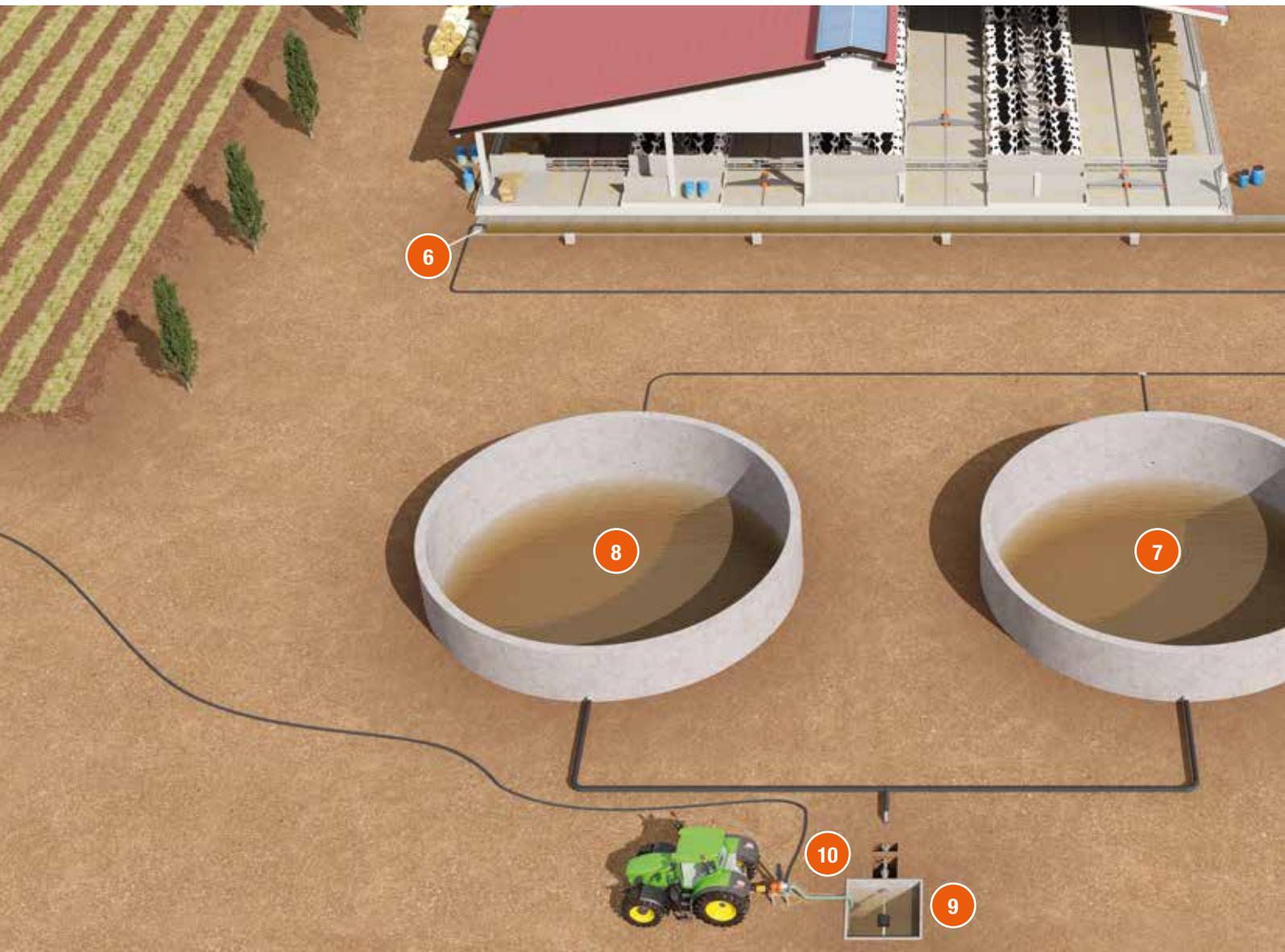
- **Customer Satisfaction;**
- **Guaranteeing Environmental Sustainability.**

It is worth underlining our strong points in performance and environmental impact of the machines:

- our comprehensive range makes it possible to offer total solutions;
- high efficiency, which translates into low energy consumption;
- environment protection, with over 95% recyclability percentages of the components.

Livestock

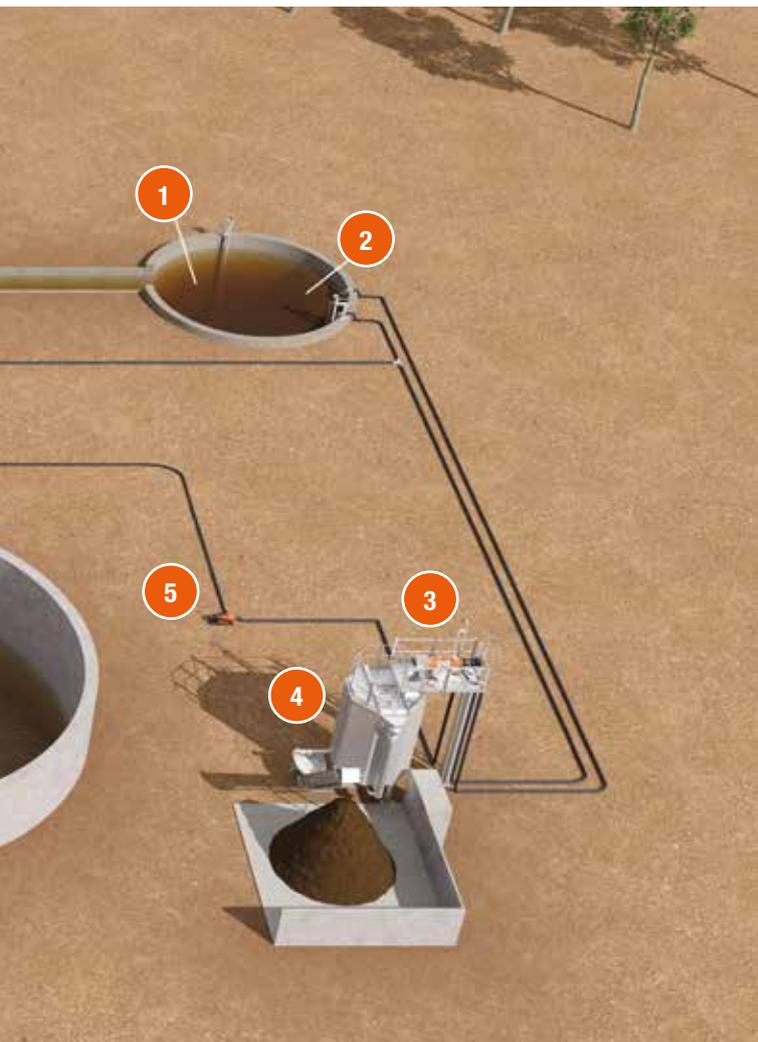
LIVESTOCK MANURE MANAGEMENT



1. Pre-storage tank equipped with PTS submersible pump with double chopping system and lifting system.
2. Pre-storage tank equipped with TBM submersible pump and lifting system
3. SM separator for separating the liquid fraction from the solid fraction of the liquid manure.
4. HBC biocell to hygienize the separated solid fraction.
5. ETO chopper pump to boost the separated liquid fraction when separation zone and storage lagoons are far apart.
6. Biocirc system with pneumatic valves for flushing the storage channels.
7. First storage tank for the liquid fraction.
8. Second storage tank for the liquid fraction.
9. Separate tank for drawing off liquid with shut-off float valve.
10. PTH irrigation pump with double chopping system.

CRI-MAN products

for Livestock manure management:



Pumps

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Mixers

PAGE 18



Slalom systems

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Separators

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HBC Biocell

PAGE 27

Why separate the liquid manure into two fractions, solid and liquid?

Benefits from the solid fraction

- Use as compost in greenhouses, orchards, etc.
- Use in the fields prior to sowing since the Nitrogen, present in organic form in the solid fraction, is slowly absorbed by the soil.
- Reduced methane and odour emissions thanks to aerobic stabilization of the solid fraction.
- Use as livestock bedding.
- Easy and economical to transport.

Benefits from the liquid fraction

- Use for flushing out waterways and canals.
- Use for fertigation in the fields.
- Reduced volume of the lagoon used for storing the liquid fraction thanks to the absence of the solid fraction.
- Use in the fields during plant growth since the Nitrogen, present in ammoniacal form in the liquid fraction, is rapidly absorbed by the soil.
- Reduced Ammonia NH₃ emissions since the liquid fraction penetrates rapidly into the soil.
- Use in nitrogen removal plants.

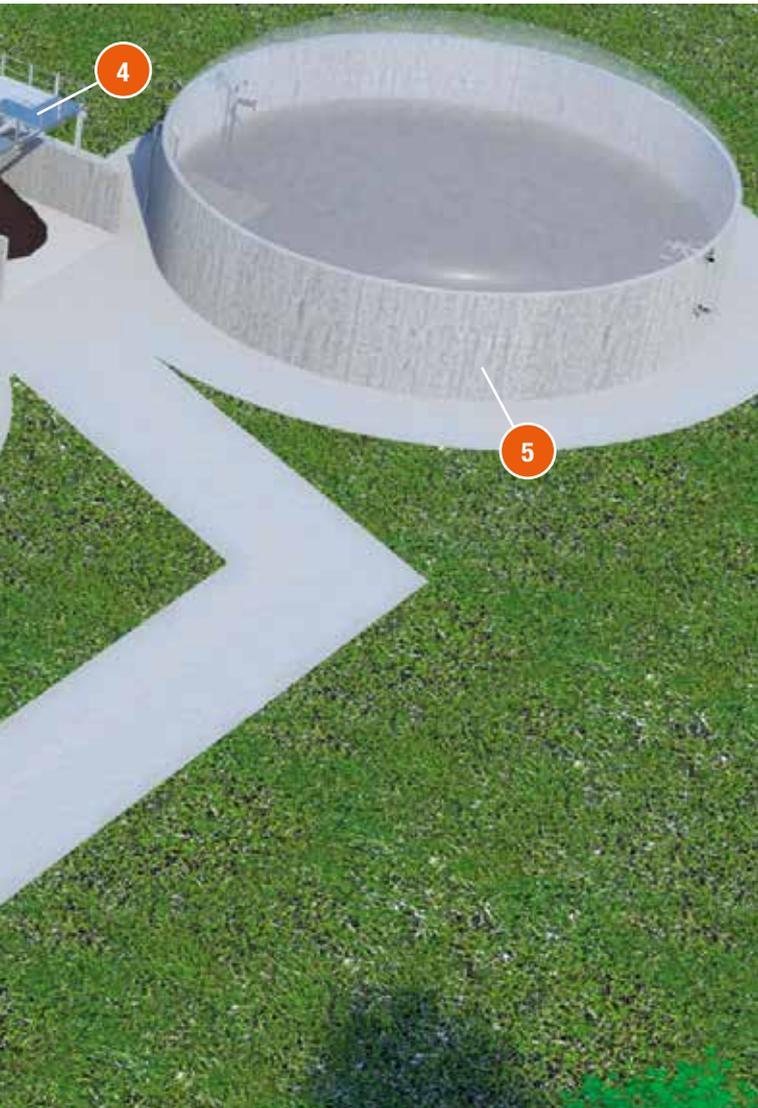
Biogas

MOVING THE SUBSTRATE IN THE PLANTS



CRI-MAN products

for Biogas plants:



1. Pre-storage tank with TBM mixer, MXP mixer and PTS pump.
2. Primary digester with TBM mixer, SB Biogas bracket, MXS mixer and ETO pump.
3. Secondary digester with MXB mixer and CS Service boxes with TBM mixer.
4. SM separator fed by ETO pump.
5. Tank for separated liquid with TBM mixer and SB Biogas brackets.



Pumps

PAGE 10



Mixers

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Separators

PAGE 24

PUMPS

Electric motor-driven pumps, both submersible and external, are used to feed the primary digester, transferring the substrate between digesters and for mixing inside the digester by means of nozzles. The chopping system provided in all CRI-MAN pumps facilitates the anaerobic fermentation process, thereby improving plant efficiency.

MIXERS

Submersible mixers are used in digesters to mix and homogenize the substrate, thus increasing the output of the plant and prevent solids settling down and the formation of crusts, that in the long run might reduce the efficiency of the plant.

SEPARATORS

Separators are used at the end of the anaerobic fermentation process to separate the solids from the liquid fraction. The liquid fraction can be used for fertigation. The solid fraction can be used as a soil improver, bedding for animals, etc. Use of separators is also recommended as a pre-treatment for nitrogen removal systems.

Pumps

Your best choice



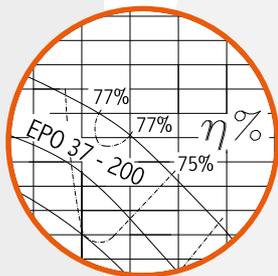
01

DOUBLE CHOPPING SYSTEM

The first chopping system is formed by two chrome steel blades fixed to the suction part that skim over a conveyor plate in special cast iron fixed to the rotating shaft. Both materials are subjected to a specific hardening treatment. In a 1450 rpm pump, the first chopping system alone operates at a rate of 140 cuts/second!



The second chopping system features a toothed plate in special cast iron which skims over an impeller, also in special cast iron, with sharp-edged blades. Both materials are subjected to a specific hardening treatment.



02

HIGH EFFICIENCY HYDRAULICS

Hydraulics designed to combine high efficiency (up to 77% efficiency rating) and strong chopping power without clogging.

Data in accordance with UNI EN ISO 9906 standards.



03

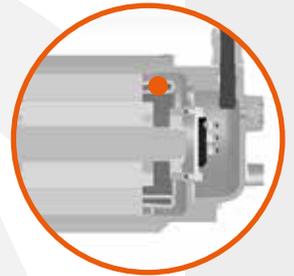
DOUBLE MECHANICAL SEAL*

Mechanical seals in Silicon Carbide and Carbon-Ceramic

04

TEMPERATURE SENSORS

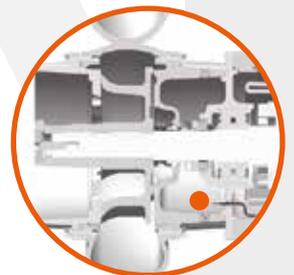
Double temperature sensors embedded in the stator to prevent the motor from overheating and ensure it continues to function correctly over time.



05

HUMIDITY SENSOR (IF REQUESTED)*

The humidity sensor is installed in the oil chamber to prevent damage should fluid leak out.



ACCESSORIES

Broad range of accessories for every type of pump installation.

* Double mechanical seal and Humidity sensor not available for all pump versions.

Chopper Pumps

our complete range



PTS 40 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

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 |
| Discharge | 40 mm | 1 9/16 inches |



PTS 65 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

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 |
| Discharge | 65 mm | 2 9/16 inches |



PTS 80/80N SERIES

PTSex 80/80N SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

PTSex = ATEX Version

| | | |
|-------------------------------------------------|-----------------------|--------------|
| Double chopping system version | | |
| Chopping system and anti-clogging screw version | | |
| Max capacity | 140 m ³ /h | 616 US gpm |
| Head | 46 m | 151 ft |
| Motor power | 2,2 - 18,5 kW | 3 - 26 HP |
| Discharge | 80 mm | 3 1/8 inches |



Chopper Pumps

our complete range

PTS 100-150N SERIES PTSex 100-150N SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

PTSex = ATEX Version

Double chopping system

| | | |
|--------------|-----------------------|--------------|
| Max capacity | 460 m ³ /h | 2025 US gpm |
| Head | 21 m | 69 ft |
| Motor power | 4 - 22 kW | 5,4 - 29 HP |
| Discharge | 100 - 150 mm | 4 - 6 inches |



PTS 100K SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Double chopping system

| | | |
|--------------|-----------------------|-------------|
| Max capacity | 260 m ³ /h | 1145 US gpm |
| Head | 51 m | 167 ft |
| Motor power | 15 - 45 kW | 20 - 60 HP |
| Discharge | 100 mm | 4 inches |



PTS 200 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Double chopping system

| | | |
|--------------|-----------------------|-------------|
| Max capacity | 720 m ³ /h | 3170 US gpm |
| Head | 18 m | 59 ft |
| Motor power | 15 - 30 kW | 20 - 40 HP |
| Discharge | 200 mm | 8 inches |



PS 250 SERIES

Submersible pump for flushing

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|--------------|------------------------|-------------|
| Max capacity | 1400 m ³ /h | 6164 US gpm |
| Head | 24 m | 79 ft |
| Motor power | 11 - 45 kW | 15 - 60 HP |
| Discharge | 250 mm | 10 inches |



PTE/PTEM SERIES

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

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------|-----------------------|--------------|
| Double chopping system | | |
| Max capacity | 460 m ³ /h | 2025 US gpm |
| Head | 21 m | 69 ft |
| Motor power | 4 - 22 kW | 5,4 - 30 HP |
| Discharge | 100 - 150 mm | 4 - 6 inches |



Chopper Pumps

our complete range

ETO/ETV SERIES

Horizontal electric chopper pump
Vertical electric chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------|-----------------------|-------------------|
| Double chopping system | | |
| Max capacity | 460 m ³ /h | 2025 US gpm |
| Head | 112 m | 367 ft |
| Motor power | 0,75 - 75 kW | 1 - 100 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

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|--------------------------------------|-----------------------|-------------|
| ETO version: double chopping system | | |
| EPO version: without 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 |



PTE 250 SERIES

Vertical pump with external electric motor for Flushing

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|--------------|------------------------|-------------|
| Max capacity | 1080 m ³ /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 |



PTH SERIES

Horizontal chopper pump with overgear for tractors

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------|-----------------------|-------------------|
| Double chopping system | | |
| Max capacity | 460 m ³ /h | 2026 US gpm |
| Head | 131 m | 430 ft |
| Tractor rated power | 50 - 180 kW | 68 - 240 HP |
| Suction | 100 - 200 mm | 4 - 8 inches |
| Discharge | 65 - 150 mm | 2 9/16 - 6 inches |



Chopper Pumps

our complete range

PTD SERIES

Horizontal chopper pump with overgear for Diesel engine

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------|-----------------------|-------------------|
| Double chopping system | | |
| Max capacity | 460 m ³ /h | 2026 US gpm |
| Head | 131 m | 430 ft |
| Diesel engine power | 50 - 150 kW | 67 - 200 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

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------|-----------------------|--------------|
| Double chopping system | | |
| Max capacity | 460 m ³ /h | 2026 US gpm |
| Head | 118 m | 387 ft |
| Motor power | 30 - 120 kW | 40 - 160 HP |
| Suction | 150 - 200 mm | 6 - 8 inches |
| Discharge | 100 - 150 mm | 4 - 6 inches |



CFS SERIES

Shredder for solids

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

External planetary gearbox

Double shaft with opposing blades pack

Blades profile to shred solids contained in the liquid

Inlet-outlet flanges DN200 PN10

| | | |
|--------------|----------------------|------------|
| Motor power | 11 - 22 kW | 15-30 HP |
| Max capacity | 50 m ³ /h | 220 US gpm |



PLD SERIES

Hydraulic piston pump

LIVESTOCK

BIOGAS

Suitable to viscous liquids with high percentage of dry matter. It consists of a pair of parallel pistons controlled by an hydraulic power unit and an automatic valve system that permits alternating loading and unloading of the pistons.

TECHNICAL SPECIFICATIONS

| | | |
|-----------------------|----------------------|-------------|
| Hydraulic motor power | 9,2 kW | 12,3 HP |
| Capacity | 50 m ³ /h | 220 US gpm |
| Head | 80 m | 262 ft |
| Piston stroke | 900 mm | 35,4 inches |



Mixers

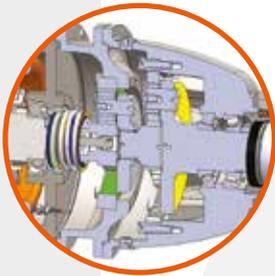
Your best choice



01

HIGH EFFICIENCY PROPELLER

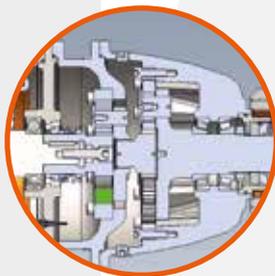
High efficiency propeller designed according to CFD technology for improved performance in non-Newtonian fluids.



02

DOUBLE MECHANICAL SEAL*

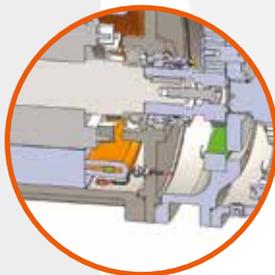
Double mechanical seal at the front in cemented carbide (Widia) and at the rear in SIC for perfect impermeability.



03

HIGH EFFICIENCY PLANETARY GEARBOX

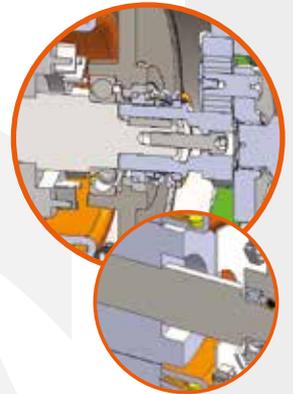
High efficiency planetary gearbox with oversized oil chamber for longer life even under load.



04

HUMIDITY SENSOR (IF REQUESTED)*

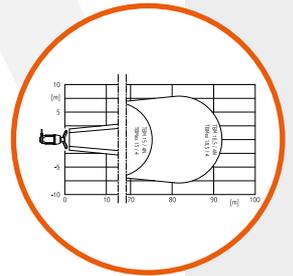
Humidity sensor to protect the motor in the event of infiltrations.



05

DOUBLE TEMPERATURE SENSOR

Double temperature sensor to prevent the motor from overheating due to abnormal power consumption in heavy duty work.



06

HIGH THRUST EFFICIENCY

The motor, machine mechanics and vane profile have been designed to achieve high efficiency in terms of axial thrust and low energy consumption. Data in accordance with ISO 21630 standards.



ACCESSORIES

Broad range of accessories for every type of mixer installation.

* Double mechanical seal and Humidity sensor not available for all mixer versions.

Mixers

our complete range



TBM SERIES TBMex SERIES

Submersible horizontal mixer

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

TBMex = ATEX Version

Planetary gearbox

Blades in stainless steel with self-cleaning profile

| | | |
|------------------|-------------------------------|-------------------|
| Rpm | 275 - 925 (50 Hz) | 388 - 1110 (60Hz) |
| Motor power | 1,5 - 25 kW | 2 - 34 HP |
| Axial thrust | 230 - 5369 N | 52 - 1206 lb |
| Capacity | 643 - 10138 m ³ /h | 2831-44638 US gpm |
| Max working temp | 40 °C | 104 °F |



TMS SERIES TMSex SERIES

Mid size submersible mixers

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

TMSex = ATEX Version

Planetary gearbox

Blades in stainless steel with self-cleaning profile IE3 high efficiency electrical motor

| | | |
|------------------|--------------------------------|--------------------|
| Rpm | 116 (50 Hz) | 140 (60Hz) |
| Motor power | 7.5 - 15 kW | 10-20 HP |
| Axial thrust | 3265 - 4695 N | 734 - 1055 lb |
| Capacity | 9300 - 11930 m ³ /h | 40946-52526 US gpm |
| Max working temp | 40 °C | 104 °F |



MXS SERIES

Adjustable external mixer

LIVESTOCK

BIOGAS

CARATTERISTICHE TECNICHE

Planetary gearbox

Propeller in stainless steel with two (400rpm) or three (60rpm) blades

Atex Motor II 2G Ex d T4 (on request)

Adjustable Inclination high-low and right-left

| | | |
|---------------------|-------------------|--------------------|
| Rpm | 60 - 400 (50 Hz) | 72 -480 (60Hz) |
| Motor power | 11 - 22 kW | 15 - 29 HP |
| Axial thrust | 2697 - 6474 N | 606 - 1455 lb |
| Capacity | 5335 - 20165 m³/h | 23489-88784 US gpm |
| Max length of shaft | 4,5 m | 15 ft |
| Max working temp. | 60°C | 140 °F |



MXL SERIES

Lateral external mixer

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Planetary gearbox

Blades in stainless steel with self-cleaning profile

Atex II 2G Ex d T4 (on request)

| | | |
|---------------------|------------------|--------------------|
| Rpm | 350 (50 Hz) | 420 (60 Hz) |
| Motor power | 11 - 18,5 kW | 15 - 25 HP |
| Axial thrust | 2158 - 3826 N | 485 - 860 lb |
| Capacity | 3977 - 6884 m³/h | 17510-30309 US gpm |
| Max length of shaft | 5,5 m | 18 ft |
| Max working temp. | 60 °C | 140°F |



MXP SERIES

Vertical internal mixer

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------------------------------------------------------------|-----------------|----------------|
| Planetary gearbox | | |
| 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 (on request) | | |
| Rpm | 10 - 15 (50 Hz) | 12 - 18 (60Hz) |
| Motor power | 7,5 - 18,5 kW | 10 - 25 HP |



TBX/E SERIES

Stainless steel horizontal submersible mixer

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

| | | |
|------------------------------------------------|--------------------|--------------------|
| Completely produced in stainless steel AISI316 | | |
| IE3 high efficiency electrical motor | | |
| Rpm | 950 - 1430 (50 Hz) | 1140 - 1716 (60Hz) |
| Motor power | 0,75 - 4 kW | 1 - 5 HP |
| Axial thrust | 137 - 794 N | 31 - 179 lb |
| Capacity | 251 - 1448 m³/h | 1105 - 6375 US gpm |
| Max working temp | 40°C | 104 °F |



IE3
PREMIUM
EFFICIENCY
MOTOR

SERVICE BOX

LIVESTOCK

BIOGAS

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

LIVESTOCK

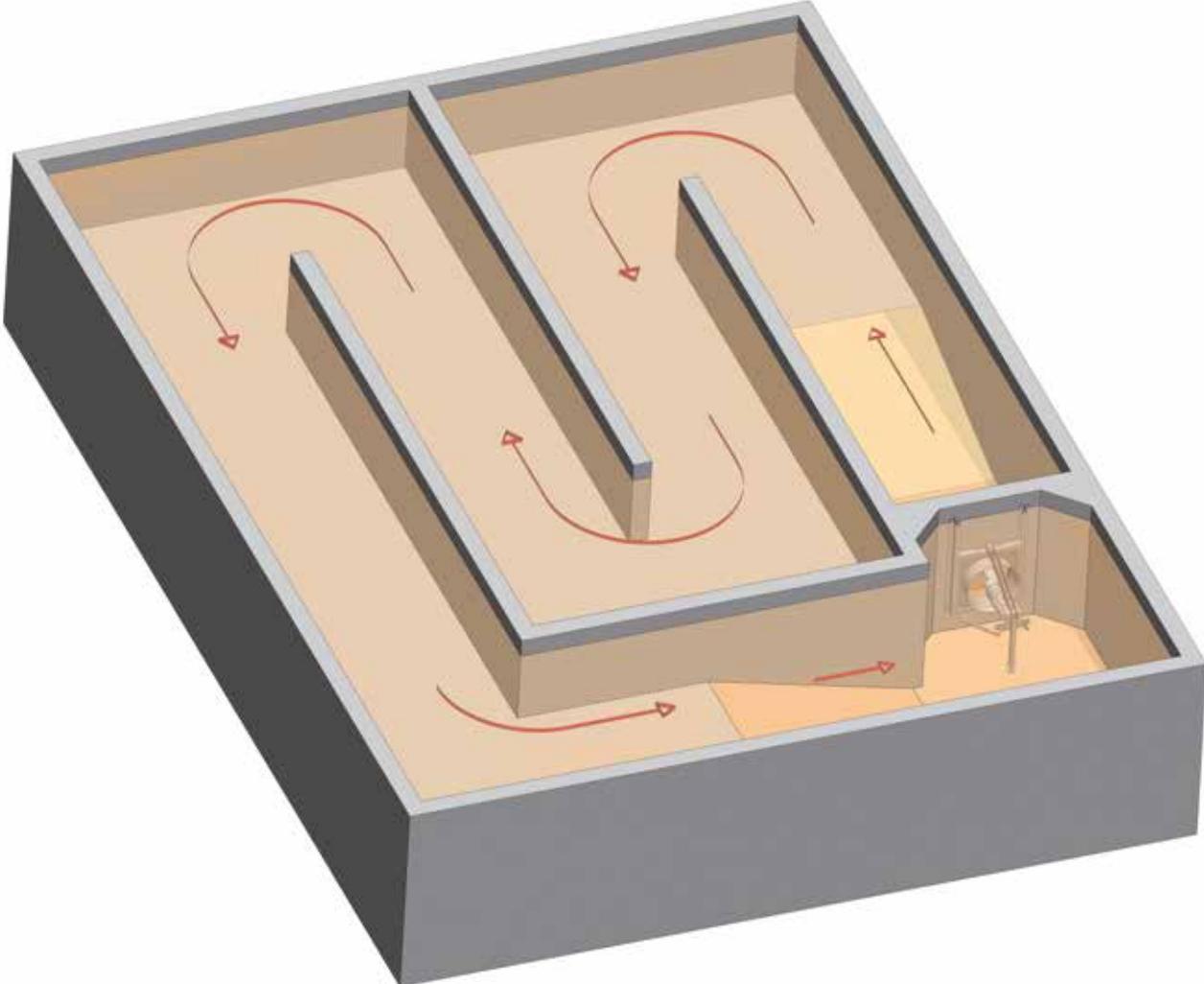
BIOGAS

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.



Slalom systems

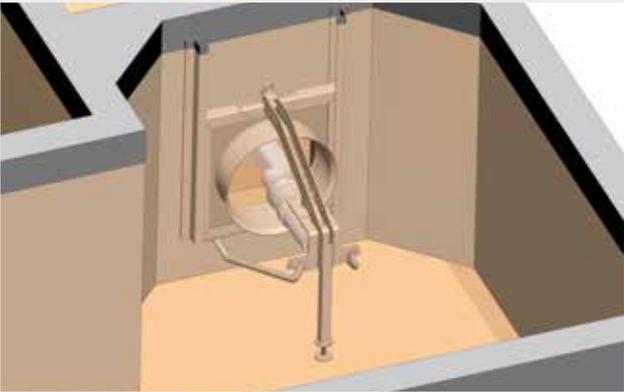


The Slalom system is a reasonable and economical way to store the slurry and use it when needed.

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.

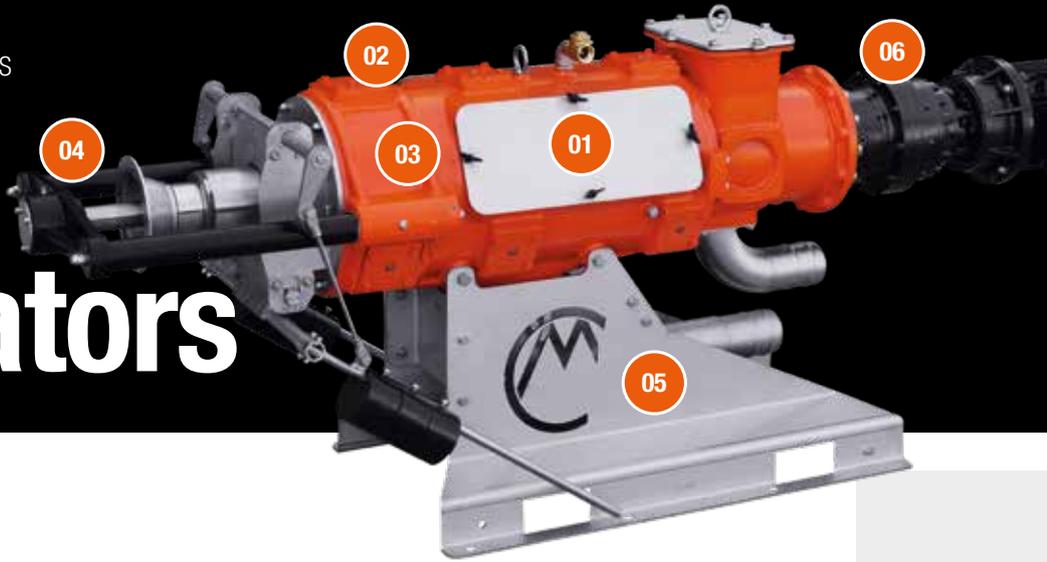
The sluice gate, available in either galvanized steel or stainless steel AISI 304, can accommodate TBM mixers from 5,5 to 18,5 kW.

LIVESTOCK
BIOGAS



Your best choice

Separators



01

NEW INSPECTION WINDOW

Double, generously sized inspection window that makes checking the filter and its state of cleanliness much easier.



02

NEW FILTER SUPPORT

New support inside the filter to improve stress distribution over the entire length of the filter itself.



03

NEW DESIGN

New design for separator body.



04

NEW SCREW PRESS SUPPORT

New, sturdily built front screw press support for the Professional, DM and FADM versions.



05

STAINLESS STEEL FRAME

New frame to support the separator completely made of stainless steel, with wider bearing base for improved stability.



06

NEW GEARBOX

New high-efficiency gearbox with improved resistance to severe stress.



PRESSING SYSTEM WITH ACTUATOR (ON REQUEST)

Instead of the pressing system with weights we can supply an electric actuator to guarantee stability of the dry percentage when non-homogeneous effluents are separated (on request).



ACCESSORIES

Broad range of accessories for every type of separator installations.



Separators

our complete range



SM260 MINI SERIES

LIVESTOCK
BIOGAS

For farms up to 300 cows

TECHNICAL SPECIFICATIONS

| | | |
|-------------------------------------------|----------------------------|--------------------|
| Screw in AISI 304 treated stainless steel | | |
| Standard Screen in stainless steel | | |
| Planetary gear box | | |
| Sealing system with three lip seals | | |
| Capacity | 4,5 - 18 m ³ /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 | | |

Available in mono-phase version



SM260 BASIC SERIES

LIVESTOCK
BIOGAS

For farms from 300 - 800 cows

TECHNICAL SPECIFICATIONS

| | | |
|-------------------------------------------|--------------------------|--------------------|
| Screw in AISI 304 treated stainless steel | | |
| Standard Screen in stainless steel | | |
| Planetary gear box | | |
| Sealing system with three lip seals | | |
| Capacity | 4 - 50 m ³ /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

LIVESTOCK
BIOGAS

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 stainless steel (Heavy Duty screen on request) | | |
| Planetary gear box | | |
| Sealing system with three lip seals | | |
| Capacity | 4 - 50 m ³ /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

LIVESTOCK
BIOGAS

For farms over 1000 cows and Biogas plant

TECHNICAL SPECIFICATIONS

| | | |
|-------------------------------------------------------------------|--------------------------|--------------------|
| Screw in AISI 304 treated stainless steel | | |
| Front side supported screw | | |
| Standard Screen in stainless steel (Heavy Duty screen on request) | | |
| Planetary gear box | | |
| Sealing system with three lip seals | | |
| Capacity | 6 - 72 m ³ /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 SERIES MINI DM DRY MATTER

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Standard screen in stainless steel

Screw in treated stainless steel

Planetary gear box

Sealing system with three lip seals

| | | |
|-------------|--------------------------|--------------------|
| Capacity | 4 - 16 m ³ /h | 17 - 70 US gpm |
| Rpm | 15 (50 Hz) | 17 (60Hz) |
| Motor power | 5,5 kW (7,5 HP) | 7,5 HP |
| Screen mesh | 0,50 - 1 mm | 0,02 - 0,04 inches |

Up to 35% Dry Matter

Suitable to obtain a drier solid fraction.
For farms up to 300 cows



SM260 SERIES DM DRY MATTER

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Screw in AISI 304 treated stainless steel

Front side supported screw

Heavy Duty Screen in stainless steel

Planetary gear box

Sealing system with three lip seals

| | | |
|-------------|--------------------------|--------------------|
| Capacity | 6 - 22 m ³ /h | 26 - 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

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



SM260FA SERIES DM DRY MATTER

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Screw in AISI 304 treated stainless steel

Front side supported screw

Heavy Duty main Screen in stainless steel

Heavy Heavy Duty Auxiliary Screen in stainless steel

Planetary gear box

Sealing system with three lip seals

| | | |
|-------------|--------------------------|--------------------|
| Capacity | 5 - 32 m ³ /h | 22 - 140 US gpm |
| Rpm | 20 (50Hz) | 24 (60Hz) |
| Motor power | 7,5 kW | 10 HP |
| Screen mesh | 0,50 - 1 mm | 0.02 - 0,04 inches |

Up to 35% Dry Matter

Indicata per ottenere un solido separato più secco.
Per stalle di medie dimensioni (300 - 800 capi)



HBC Biocell

Your best choice



ANIMAL WELFARE AND COWS HEALTH

The pasteurized solid at the outlet of the HBC is a **safe and healthy product** with a great impact on reduction of infection spreading through animal bedding and rest areas.

Healthy and unstressed animals have a longer production life in full respect of the animal welfare canons.



HEALTHY AND COMFORTABLE BEDDING

The on-board software allows the **full control of the hygienizing process**, stopping the material discharge in case the pasteurization temperature level is not reached.

The internal mixing and fresh air blowing grant more fluffiness to the solid, thus increasing the **animal comfort**.



QUALITY CONTROL



EASY TO USE AND REMOTE CONTROL

The **user friendly software** allows a quick and efficient viewing of the "HBC" data and the remote control by PC or smartphone.



SUSTAINABILITY, RECYCLING AND COST SAVINGS

With hygienized separated solid it is possible to fully **respect the sustainability canons**, transforming the dejections in a highly safe and comfortable product for animal bedding.

The only **savings** of the traditional bedding material grant a quick return of the investment.

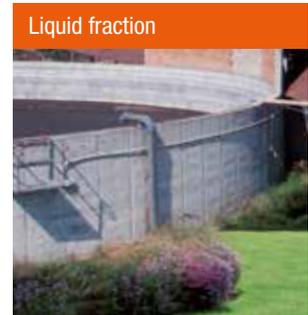


OPERATING PERFORMANCE

Production: up to 20 t/day of hygienized solids.

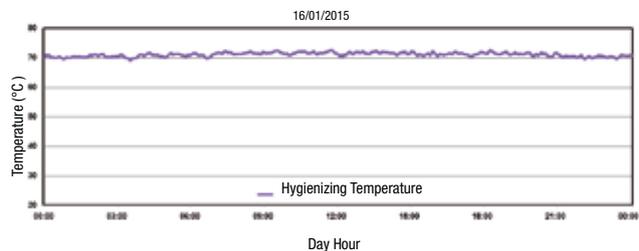
Hygienisation: guaranteed pasteurization system (1 hour at 70°C).

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.

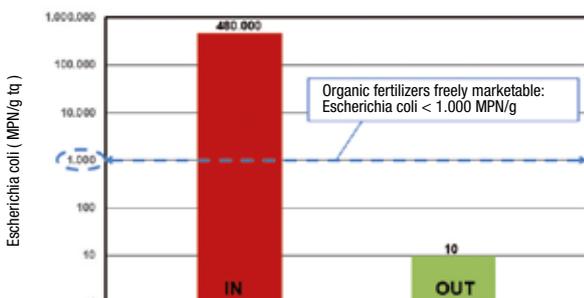


QUALITY OF HYGIENIZED SOLID ⁽¹⁾

Escherichia coli

Limit value 1.000 MPN/g according to:

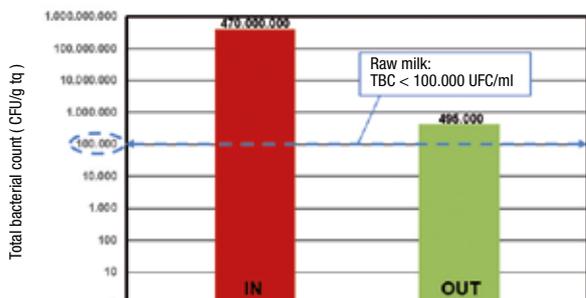
- Animal by-products after pasteurization (Legislative Decree n. 75/2010).
- Freely marketable organic fertilizers (Reg. UE 142/2011).



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.

TECHNICAL FEATURES

- 01 Level gauge
- 02 Temperature sensors
- 03 Material extraction screw conveyor



- 04 Mixer gear unit



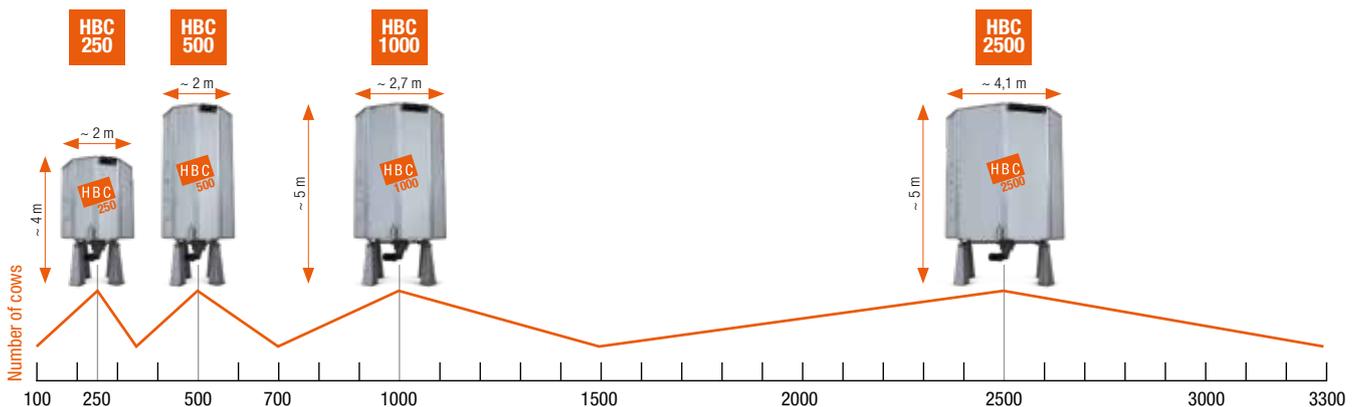
- 05 Vapors extractor
- 06 Insulation panels
- 07 Mixing paddles
- 08 Air blower
- 09 Loading cells



Electric control panel



HBC VIDEO





ITALY



ITALY



AUSTRALIA



SPAIN



ITALY



FINLAND



ARGENTINA



MALTA



ITALY



RUSSIA



ITALY



SWITZERLAND



ESTONIA



MALTA



SPAIN

Biogas

Plants installed



ITALY



ITALY



FRANCE



GREECE



ITALY



ITALY



ITALY



ITALY



ITALY



JAPAN



ARGENTINA



FRANCE



ITALY



GERMANY



ITALY



CRI-MAN S.p.A. a socio unico

Via del Lavoro, 9/A
42015 Correggio (RE) Italy
Ph. +39 0522 732204
Fax +39 0522 746363
E-mail: info@cri-man.com

www.cri-man.com

