



Dedicated technology for processing livestock slurry and Biogas



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

Thirty 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

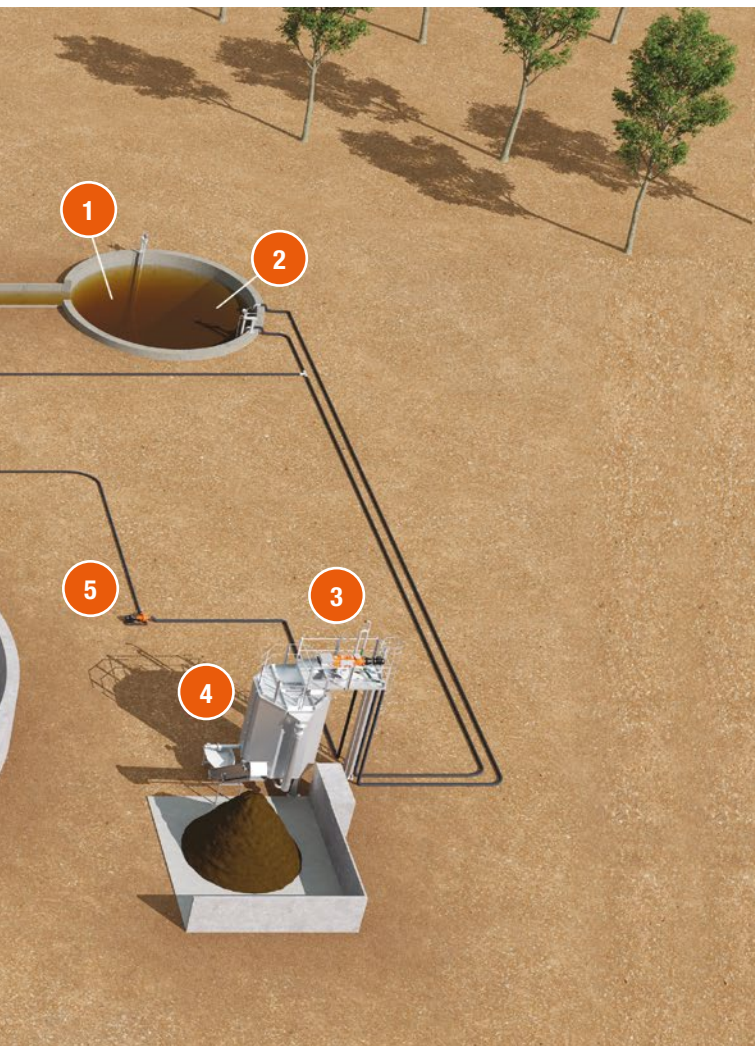


1. Pre-collection tank equipped with PTS submersible pump with double chopping system and its lifting system.
2. Pre-collection tank equipped with TBM submersible mixer and its lifting system.
3. SM separator to separate the liquid fraction of the farm manure from the solid one.
4. HBC hygienizing biocell to hygienize the separated solid fraction.
5. ETO relaunch pump with double chopping system to

- launch the separated liquid fraction in case of long distance from main collection pump and the lagoon storage.
6. Biocirc system equipped with pneumatic valves to flush collection channels.
7. First liquid fraction storing lagoon.
8. Second liquid fraction storing lagoon.
9. Separated liquid fraction picking up tank equipped with floating closure valve.
10. PTH irrigation pump with double chopping system.

CRI-MAN products

for Livestock manure management:



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.



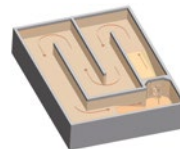
Pumps

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Separators

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HBC Biocell

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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.

Biogas

SUBSTRATE HANDLING IN BIOGAS PLANTS



CRI-MAN products

for Biogas plants:



1. Pre-collection 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, CS Service box and TBM mixer.
4. SM separator fed by ETO pump.
5. Tank for separated liquid with TBM mixer and SB Biogas brackets.



Pumps

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Mixers

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Separators

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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.

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.

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.

Pumps

Your best choice



01

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.

02

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.

03

DOUBLE MECHANICAL SEAL

Mechanical seals in silicon carbide and graphite-Ceramics.

04

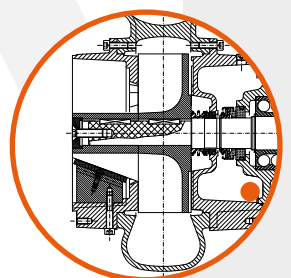
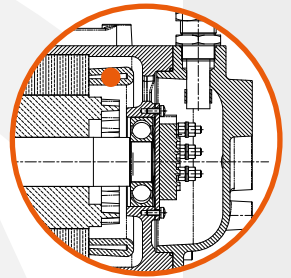
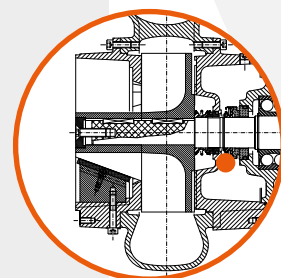
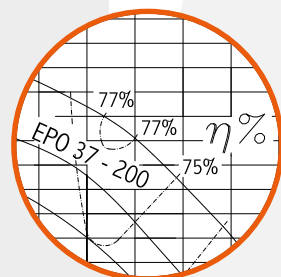
THERMAL PROBE SENSORS

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

05

HUMIDITY PROBE (ON REQUEST)

Humidity probe installed in the oil chamber to prevent damages in case of leakage.



Chopper Pumps

our complete range

PTS 40 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Chopping system		
Max capacity	26 m³/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

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Chopping system		
Max capacity	110 m³/h	84 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 PTSex 80 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

PTSex = ATEX Version

Double chopping system version		
Chopping system and anti-clogging screw version		
Max capacity	160 m³/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



Chopper Pumps

our complete range

PTS 100-150 SERIES PTSex 100-150 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

PTSex = ATEX Version

Double chopping system

Max capacity	460 m³/h	2025 US gpm
Head	21 m	69 ft
Motor power	4 - 22 kW	5,4 - 26 HP
Suction	150 - 200 mm	6 - 8 inches
Discharge	100 - 150 mm	4 - 6 inches



PTS 100K SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Double chopping system

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 SERIES

Submersible chopper pump

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Double chopping system

Max capacity	720 m³/h	3170 US gpm
Head	18 m	59 ft
Motor power	18 - 30 kW	20 - 40 HP
Suction	250 mm	10 inches
Discharge	200 mm	8 inches



PS 250 SERIES

Submersible pump for flushing

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

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



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 m³/h	2025 US gpm
Head	21 m	69 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



Chopper Pumps

our complete range

ETO/ETV SERIES

Horizontal 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: 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



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 - 6 inches
Discharge	65 - 150 mm	2 9/16 - 4 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 m³/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 m³/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	80 - 150 mm	3 1/8 - 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 m³/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	10 - 30 m³/h	44 - 132 US gpm
Head	80 m	262 ft
Piston stroke	900 mm	35,4 inches



Mixers

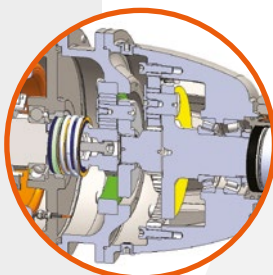
Your best choice



01

HIGH EFFICIENCY PROPELLER

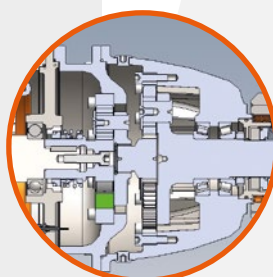
High efficiency propeller designed by CFD technology for the best performances in Non-Newtonian fluids.



02

DOUBLE MECHANICAL SEAL

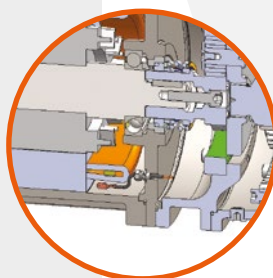
Double mechanical seal with the front one made of Vidia, the rear one made of SIC for a perfect water proofing.



03

HIGH EFFICIENCY GEARBOX

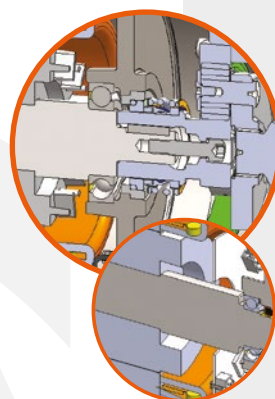
High efficiency gearbox with increased capacity of the oil chamber, to guarantee a higher reliability and durability even in hard operation conditions.



04

HUMIDITY SENSOR (ON REQUEST)

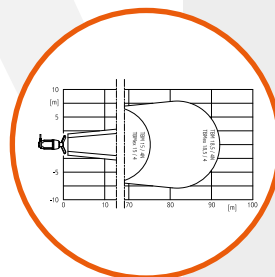
Humidity sensor to protect the electrical motor in case of effluent leakages.



05

DOUBLE THERMAL SENSOR

Double thermal sensor to avoid the electrical motor overheating, in case of anomalous electrical absorptions due to heavy operations.



06

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.



RANGE OF ACCESSORIES

Wide range of accessories for every type of mixer installation.

Mixers

our complete range

TBM SERIES

Submersible horizontal mixer

LIVESTOCK

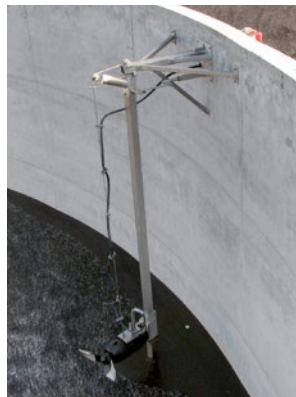
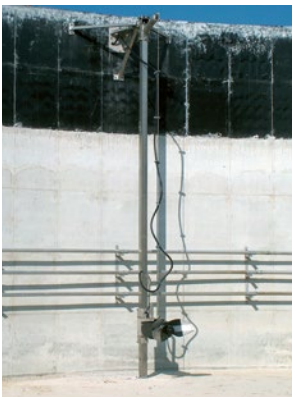
BIOGAS

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 H
Axial thrust	230 - 5369 N	52 - 1206 lb
Capacity	643 - 10138 m³/h	2831-44638 US gpm
Max working temp	40 °C	104 °F



TMS SERIES

Mid size submersible mixers

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Planetary gearbox

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

Rpm	120 (50Hz)	144 (60Hz)
Motor power	7.5 - 15 kW	10-20 HP
Axial thrust	3160 - 4610 N	710-1036 lb
Capacity	8825 - 12210 m³/h	38856-53759 US gpm
Max working temp	40 °C	104 °F



Mixers

our complete range

MXS SERIES

Adjustable external mixer

LIVESTOCK

BIOGAS

CARATTERISTICHE TECNICHE

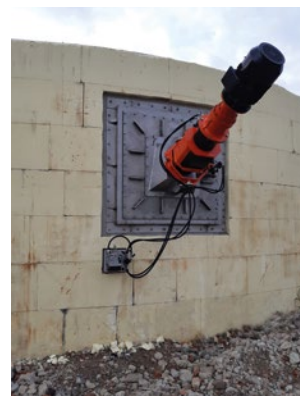
Planetary gearbox

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	5946 - 14273 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

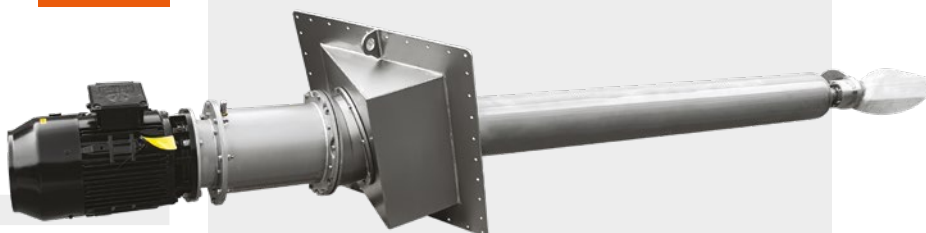
TECHNICAL SPECIFICATIONS

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)
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Motor power	7,5 - 11 kW	10 - 15 HP
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TBX/E SERIES

Stainless steel horizontal submersible mixer

LIVESTOCK

BIOGAS

TECHNICAL SPECIFICATIONS

Completely produced in stainless steel AISI316

IE3 like high efficiency electrical motor

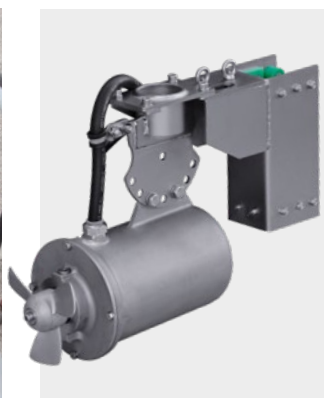
Rpm	950 - 1430 (50 Hz)	1140 - 1716 (60Hz)
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Motor power	0,75 - 4 kW	1 - 5 HP
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Axial thrust	137 - 794 N	31 - 179 lb
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Capacity	251 - 1448 m³/h	1105 - 6375 US gpm
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Max working temp	40°C	104 °F
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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.



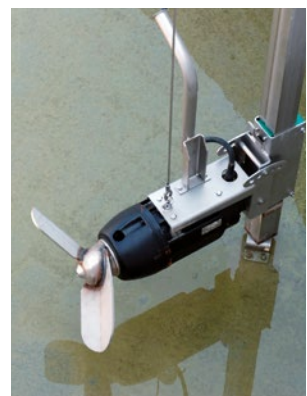
BIOGAS BRACKET

LIVESTOCK

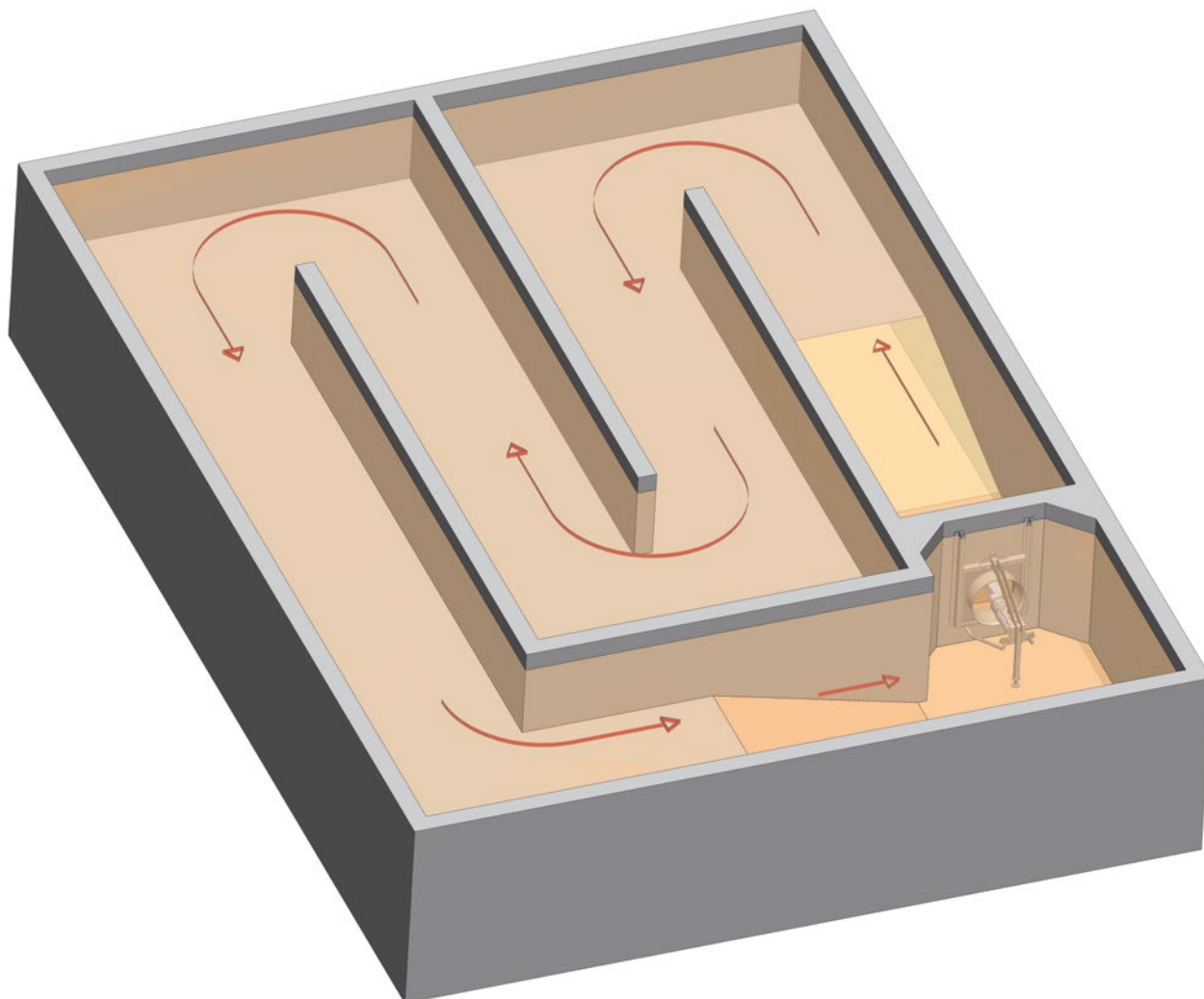
BIOGAS

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

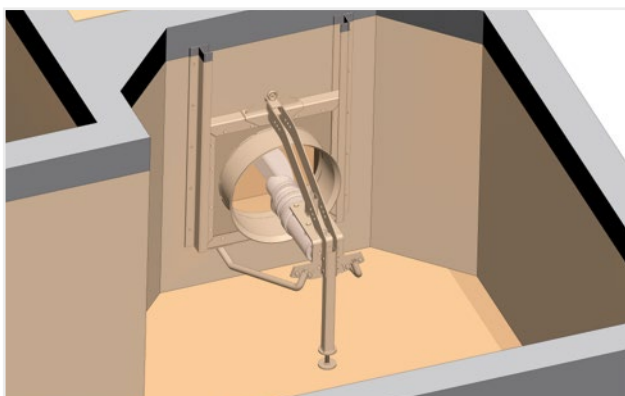


The Slalom system is a reasonable and economical way to store the slurry and use it when needed.

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.

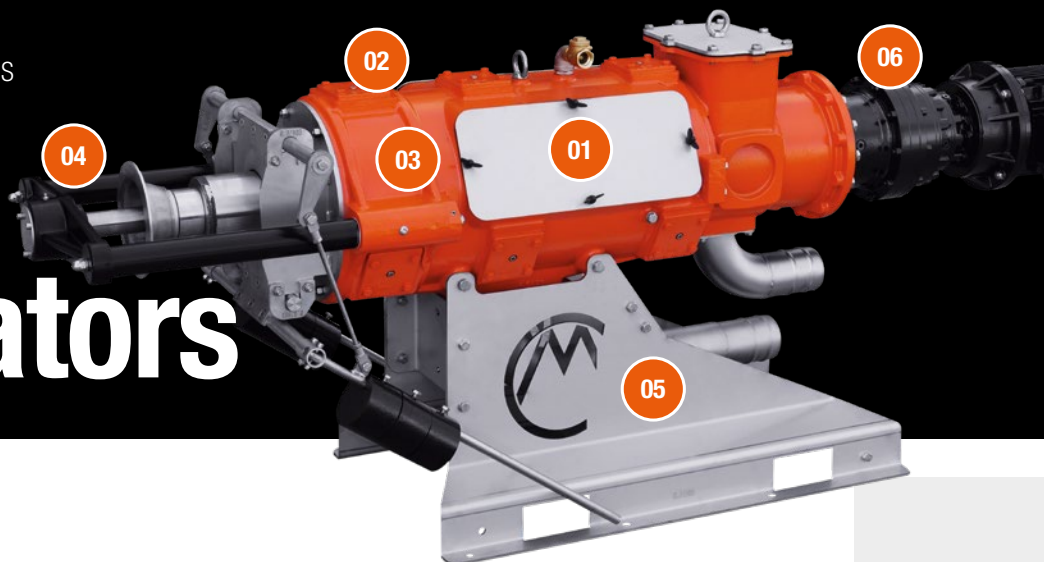
The sluice gate, available in either galvanized steel or stainless steel AISI 304, can accommodate TBM mixers from 5,5 to 18,5 kW.

LIVESTOCK
BIOGAS



Your best choice

Separators



01

NEW INSPECTION WINDOW

Double wide inspection window to facilitate the periodic check of the filter status and its cleaning.



02

NEW SCREEN SUPPORT

New internal screen support to guarantee a perfect distribution of the stresses along the filter.



03

NEW DESIGN

New design of the separator body.



04

NEW FRONT SUPPORT OF THE SCREW

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

05

NEW STAINLESS STEEL SUPPORT

New stainless steel support frame of the separator body with wider support and improved stability.



06

NEW PLANETARY GEARBOX

New planetary gearbox with higher efficiency and improved heavy efforts resistance.



NEW PRESSING SYSTEM WITH ACTUATOR (ON REQUEST)

Possibility to replace the weight pressing system with an actuator pressing system to guarantee a stable DM percentage in case of not homogeneous effluents to be separated (on request).



RANGE OF ACCESSORIES

Wide range of accessories for every type of separator installations.



Separators

our complete range

SM260 MINI SERIES

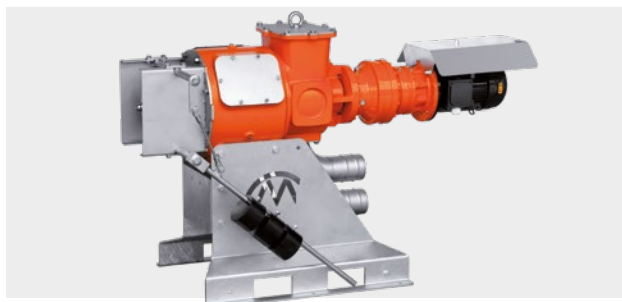
LIVESTOCK
BIOGAS

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 (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		

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 (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

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 (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

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 (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

our complete range

SM260 SERIES MINI DM DRY MATTER

LIVESTOCK

BIOGAS

Designed to get a drier separated solid:
suitable to HBC250 and farms up to 300 heads.

TECHNICAL SPECIFICATIONS

Standard screen in stainless steel

Screw in treated stainless steel

Planetary gear box

Sealing system with three lip seals (mechanical seal on request)

Capacity	5 - 18 m³/h	22 - 79 US gpm
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Rpm	20 (50Hz)	24 (60Hz)
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Motor power	5,5 kW (7,5 HP)	7,5 HP
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Screen mesh	0,50 - 1 mm	0,02 - 0,04 inches
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Up to 35% Dry Matter

For farms up to 300 cows



SM260 SERIES DM DRY MATTER

LIVESTOCK

BIOGAS

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 stainless steel

Planetary gear box

Sealing system with three lip seals (mechanical seal on request)

Capacity	6 - 22 m³/h	26 - 97 US gpm
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Rpm	14 (50Hz)	17 (60Hz)
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Motor power	5,5 kW	7,4 HP
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Screen mesh	0,50 - 1 mm	0,02 - 0,04 inches
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Up to 35% Dry Matter



SM260FA SERIES DM DRY MATTER

LIVESTOCK

BIOGAS

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

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 (mechanical seal on request)

Capacity	5 - 32 m³/h	22 - 140 US gpm
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Rpm	20 (50Hz)	24 (60Hz)
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Motor power	7,5 kW	10 HP
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Screen mesh	0,50 - 0,75 mm	0,02 - 0,03 inches
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Up to 35% Dry Matter



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)

Manure



Liquid fraction

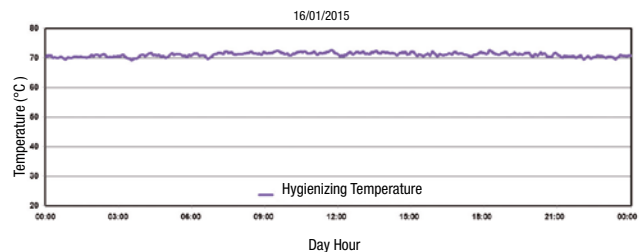


Hygienized solid



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.

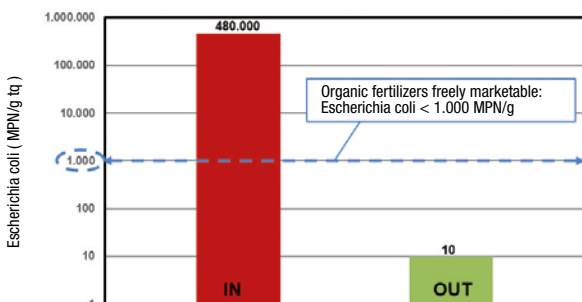


QUALITY OF HYGIENIZED SOLID ⁽¹⁾

Escherichia coli

Limit value 1.000 MPN/g according to:

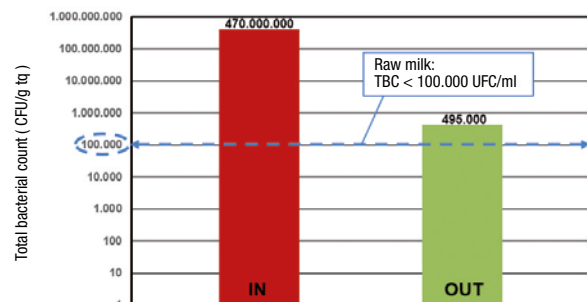
- Animal by-products after pasteurization (Legislative Decree n. 75/2010).
- Freely marketable organic fertilizers (Reg. UE 142/2011).



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

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TECHNICAL FEATURES

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



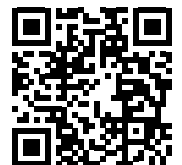
- 04 Mixer gear unit



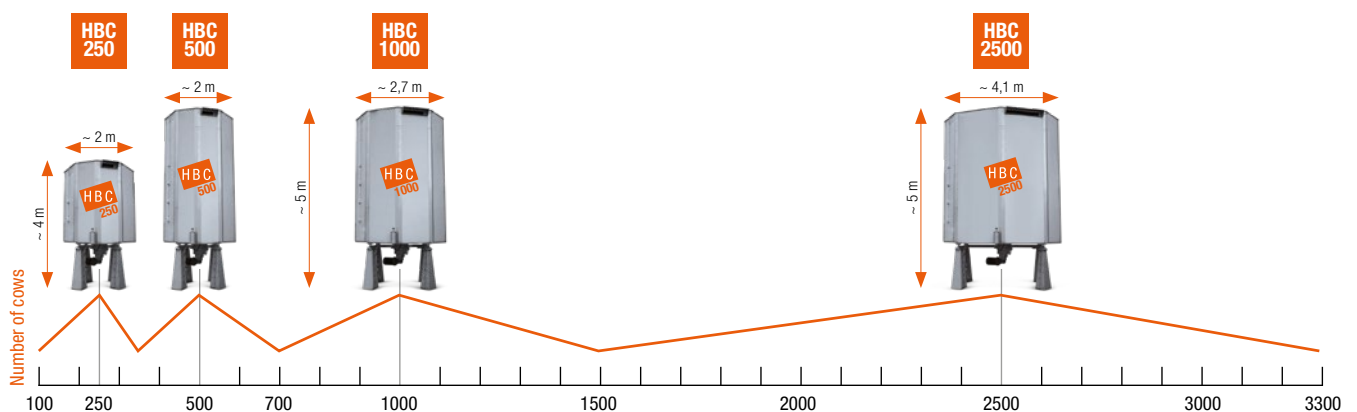
- 05 Vapors extractor
- 06 Insulation panels
- 07 Mixing paddles
- 08 Air blower
- 09 Loading cells



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.

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

