



egretier
UNE TRADITION DE QUALITÉ

FOOD INDUSTRY CATALOG

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EGRETIER

Since 1955 the EGRETIER company has been at the forefront of equipment manufacturing for the food industry. We have continually developed and improved our equipment over those 60+ years, particularly focusing on mixing, crumbling and the transferring of both delicate and difficult-to-handle products.

We specialize in the detailed design and manufacture of equipment and processes to our customer's needs and can offer high end and integrated automation solutions.

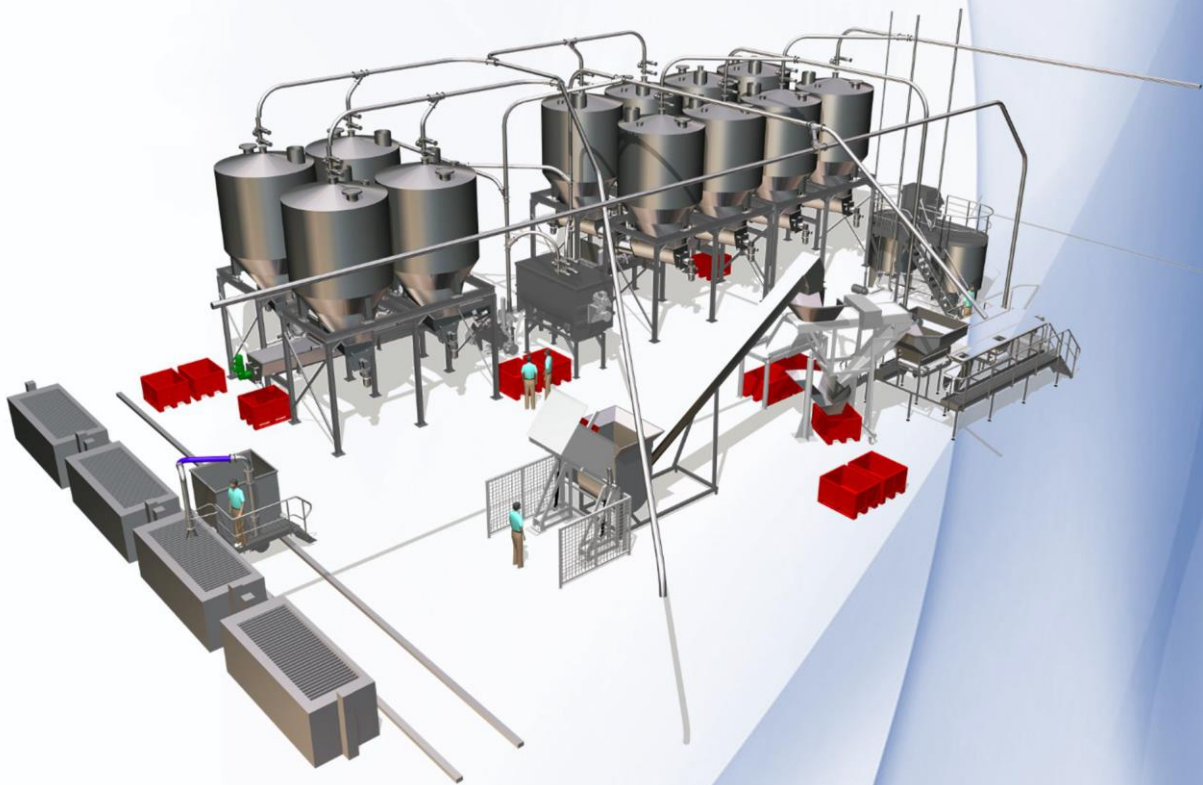


Figure 1 Turnkey factory (Parme, Italie)

INNOVATION 2018

SEPARATOR CRUMBLER



Figure 2 – EGRETIER separator crumbler

EGRETIER's continual innovation delivers improved productivity to the food industry.

The EGRETIER SEPARATOR CRUMBLER has evolved from years of R and D in the Wine Industry section of EGRETIER, with the design intent of gently separating grapes from the stems. These grapes would then be gently transferred to the maceration tanks from 10 > 25 T/hr.

Adapting this equipment for use within the Food Industry was relatively simple, and these machines are being used within IQF facilities for separating frozen vegetable products (eg pepper strips and zucchini slices) as well as a range of dried fruit products. These include raisins, diced mangoes, pineapple, sliced bananas, and more.

The EGRETIER SEPARATOR CRUMBLER can also be used for breaking down powders and granular products to smaller particle sizes, such as sugar, before bagging.

The desired outcome when using the SEPARATOR CRUMBLER is to preserve the integrity of the compacted foods, while separating them delicately with minimal to no damage.

Discuss with us your specific needs, and, if required, we can test your product in our facility to ensure you get the best result for your product.

Egretier's continual innovation delivers improved productivity to the food industry

Operating mode

The frozen and/or 'lumpy' product is transferred (manual or conveyor) into the receiving chute which then directs the product into the mesh drum. The gentle screw keeps the product moving and the 'hedgehog' (Stainless Steel fingers) teases and separates the frozen/sticky products into their individual parts. The unit has two independent variable speed drives so can be 'tuned' to the specific products being separated.

Along the mesh drum the selected screen sections allow for dispersion and product discharge with minimal damage. The equipment design has a particular focus on safe, quick and easy cleaning, plus accessible maintenance.



Figure 3 : Operation of the hedgehog and the cylindrical grid with fingers

Issues

IQF ingredients

IQF (Individual Quick Frozen) process allows each food piece to be deep frozen individually just after cutting/slicing.

In this way the quality of the product can be guaranteed due to taste preservation, maintaining the nutritional value and the texture of the food. After the IQF process various IQF foods can be mixed/blended, for example, mixed vegetables. The ice crystals that form in the tissue cells are very small, which avoids the fracture of the cell walls that can damage the product quality. So, when defrosting these IQF products there is no loss of liquids/fluids, and all the desirable properties are preserved.

The IQF technology applies not only to fruits and vegetables, but also to meat, seafood and cheese.

Productivity gains and respect for food

Combining the EGRETIER Crumbler Separator with an IQF process, will ensure a resultant high-quality food product with an improved productivity gain. Taste, nutrition and texture are preserved and food safety requirements are also delivered.

STORAGE

EGRETIER offers complete storage solutions with a wide size range of storage tanks and hoppers. These are generally equipped with screw augers for wet, fibrous and pasty products such as fruits, vegetables, fish, meat, but also abattoir by-products.

The stainless-steel tanks and hoppers can be equipped with jacketing for heating and cooling, insulation, washing heads, plus LIW or GIW weighing systems.

The filling is carried out by means of a low-speed volumetric pump which can be connected to the auger screw outlet for product transfer up to 60 m³/h (3. VOLUMETRIC BILOBE PUMP)

TANKS



Figure 4- Example of Factory Storage tanks

Technical data:

- Total capacity up to 50 m³.
- Auger screw 160 to 450 mm in diameter.
- Discharge valve sealing with pneumatic control.
- Support of tank/hopper with or without provision of weigh devices.

Optional equipment:

- 80mm insulation with stainless steel outer coating.
- Double jacket with heat transfer fluid passage.
- Cleaning head, weighing sensors.
- Thermometer, Lighting, Drain and Cleaning (CIP)

HOPPERS

Equipment in accordance with the Directive Machine 2006/42/EC.



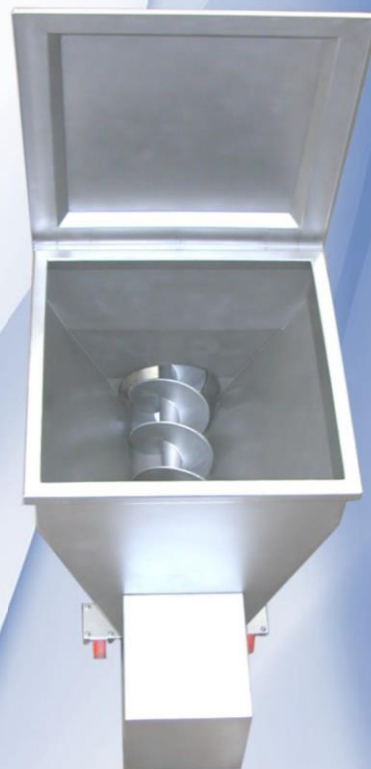
Figure 5 - Transfer hoppers

Technical data:

- Useful capacity: from 120 to 1500 liters as standard.
- On adjustable feet, or fixed / swivel wheels.
- 4-sided safety extension, openable with protection sensor.

Optional equipment:

- 80mm insulation with stainless steel outer coating.
- Double jacket with heat transfer fluid passage for cold water, hot water or steam.
- Cleaning head, weighing sensors.
- Thermometer, Lighting, Drain and Cleaning (CIP)
- Manual hood, or pneumatic control



TRANSFER

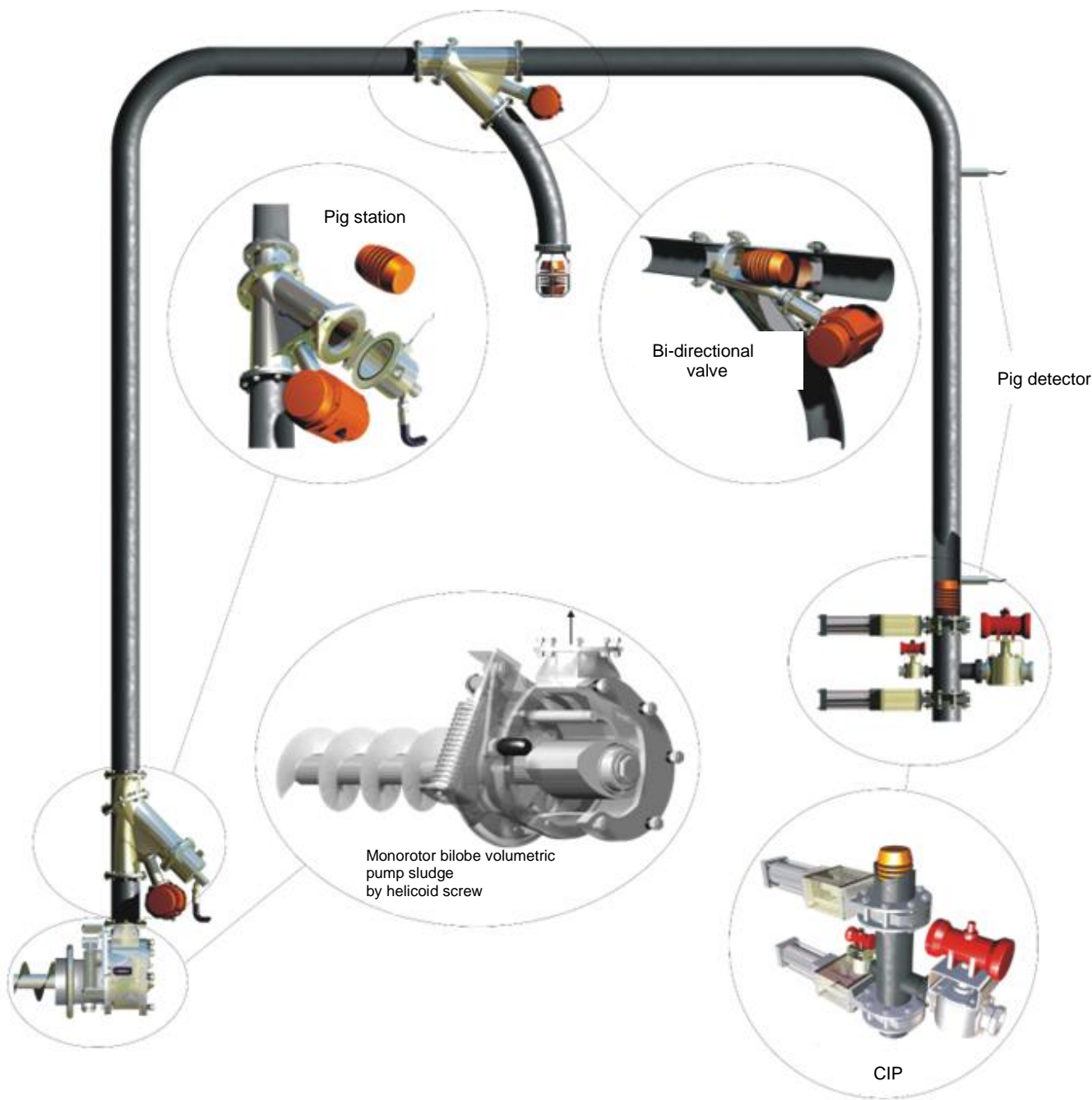


Figure 6 - EGRETIER Complete Transfer Line

DIVERTER VALVE

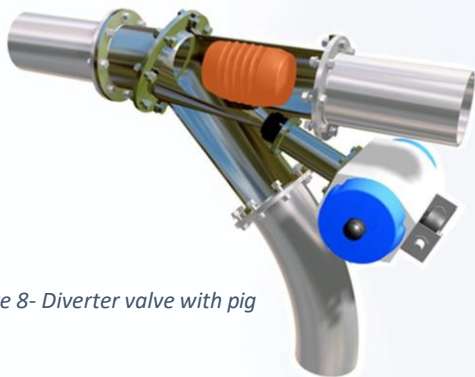


Figure 8- Diverter valve with pig



Figure 7- Diverter valve full in through going position

It is particularly suitable for powdery and thick slurry type products.

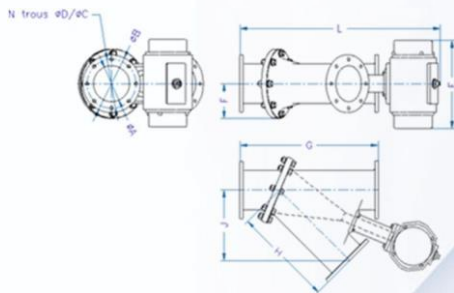
The change in valve position is achieved with a simple compact air actuator.

Made of 316L stainless steel with a DURINOX treated conical plug, it is designed to accept the passage of a shell (pig) and is designed to accommodate a cleaning in place (CIP) system



The sizes range from 2" up to 8" in pipe sizing and can be supplied in different material types depending on the customers requirements. Discuss with EGRETIER regarding your specific product and needs.

Type	ØA	ØB	ØC	ØD	N	E	F	G	H	J	L	Act
VCA2"D	48	92	76	8,5	6	161	55	260	185	131	485	ACT17
VCA50D	50	92	76	8,5	6	161	55	260	185	131	485	ACT17
VCA2"1/2D	60	110	90	8,5	6	161	60	300	215	152	485	ACT17
VCA3"D	73	135	115	9	6	325	80	340	250	177	570	ACT18
VCA80D	80	135	115	9	6	325	80	340	250	177	570	ACT18
VCA3"1/2D	85	150	125	9	6	417	90	355	275	194	615	ACT19
VCA4"D	100	170	140	11	6	417	100	380	300	212	630	ACT19
VCA4"1/2D	110	190	160	13	6	417	110	450	340	239	685	ACT19
VCA5"D	125	200	170	11	8	417	120	490	355	250	725	ACT19
VCA6"D	150	250	210	13	8	493	142	545	425	300	780	ACT20
VCA8"D	200	330	280	15	8	282	195	750	570	403	804	ACT21



PIG STATION / CLEANING IN PLACE (CIP)

Our food transfer lines can be equipped with pigging (scrapping) and cleaning-in-place (CIP) cleaning systems.

Pigging (scrapping) principle:

The entire pigging technology is controlled by a PLC that takes into account the detection and speed of the pig. The electro pneumatic valves are housed in a stainless-steel box. The method of pushing the pig through the transfer line can be achieved by compressed air or water under pressure.



Figure 9 – Pig Station showing the pig outside and the hinged housing where the pig is installed prior to line cleaning.

The DIVERTER VALVE (1.2 DIVERTER VALVE) is used because it is designed to receive a secure can have a PIG STATION attached allowing for full product flow generally through the straight section of the valve with the Pig Station mounted on the side port. This fully enclosed system keeps the operators and the product safe.

The entire pigging technology is controlled by a PLC that takes into account the detection and speed of the pig. The electro pneumatic valves are housed in a stainless-steel box. The method of pushing the pig through the transfer line can be achieved by compressed air or water under pressure.

The 'propellant' (regulated compressed air or water) In the case of shooting, a defined amount of compressed air ensures that the pig starts from its PIG STATION and travels to a designated position where it is stopped. This Pig Stop is a solidly supported pin that is driven pneumatically into the product stream, so it allows product past but stops the full diameter Pig.

After the Pig Stop there is a flap valve (gate valve) that seals off the process transfer line. This allows for 'propellant' (compressed air/water) to be delivered to the front of the pig and this pushes the pig back down the line to the pig Station from where it came from. This delivers line cleaning both ways and then CIP cleaning can be used for the final clean of the transfer system for a full hygienic/sanitary clean.

A number of EGRETIER DIVERTER VALVES can be used in a process line if there are multiple discharge points (eg, a number a mixers) and the automation can be programmed to deliver to the selected discharge point as required.



Figure 10 - Pig stop valve

Cleaning in Place (C.I.P.)

This automatic cleaning system can be integrated into our transfer lines or storage silos during their design and equipment or lines do not have to be opened to accommodate this function making for a safe design. The tanks, pipes or other equipped machines are washed using a parallel water circuit. The operator can program different cycles with washing and rinsing products, according to the specifications.

BILOBE VOLUMETRIC PUMP

This EGRETIER patented pump has been specially designed to handle a large range of different products from grapes to chicken frames/carcasses. The design allows for speedy access for full cleaning and inspection and uses USFDA materials in its construction. Essentially it is fully stainless steel to meet the demands of food manufacturing customers.

The pump is coupled to a screw auger (usually from a hopper above) that delivers the product into the pumping chambers as well as driving the pump. The housing is designed such that it accommodates the difference between the continuous feeding nature of the auger screw and the rotating rotor to 'smooth' out the resultant flow.

This pump is suitable for a large range of products from delicate fruits to thick meat offals plus fish and crustaceans and direct meat pumping to plate freezers. A very versatile robust pump that is easy to access for maintenance, cleaning and inspection.

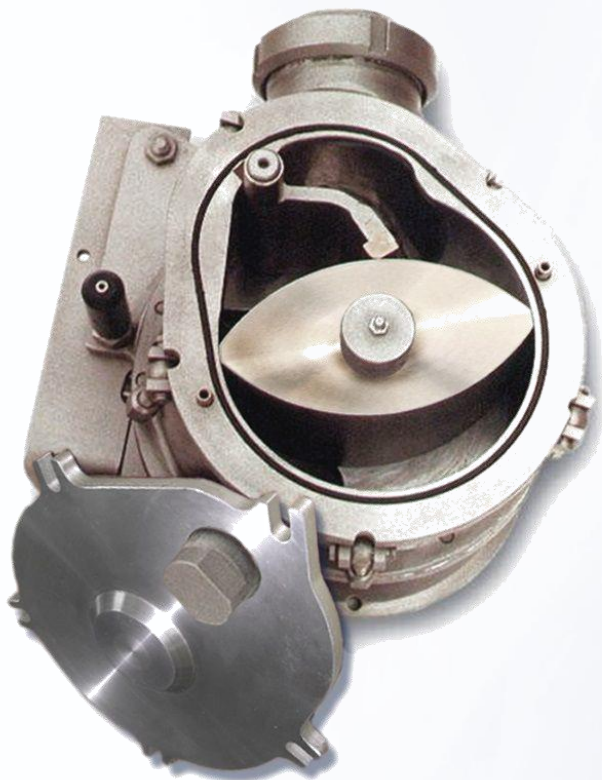
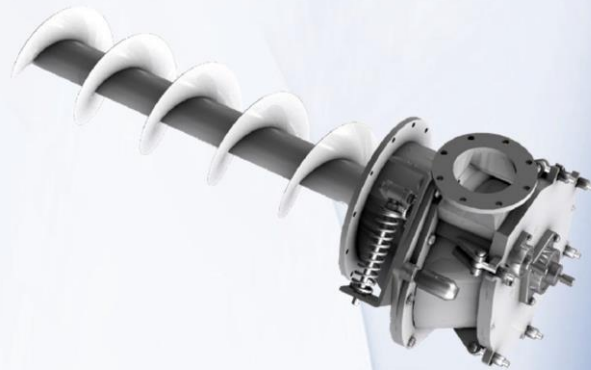


Figure 12- volumetric pump access cleaning



Figure 11 - volumetric pump outside view

Technical data:

- Removable flap
- External flange with quick disassembly
- Rolling bearing
- Treated (or not) stainless steel rotor
- Forced feeding by auger screw

Features:

- Volumetric at slow speed from 5 to 50 rpm, with internal pump housing capacity from 0.6 to 20 Liters
- Materials 304L or 316L
- Operating pressure 4/15 bar
- Output diameter from 63 to 200 mm
- Built-in 'booster screw' from Ø110 to 350 mm

Pompe Type	Dia. Vis Alimentation	Dia. Tuyauterie de sortie (utile)	Débit En m³/h	VOLUME (par tour)	PRESSION maxi.
62	110	50/63	0,3 à 1,8	0,62 L	10 bars
125	140	63/76	0,7 à 3,5	1,25 L	12 bars
251	200	100/110	1,5 à 7,5	2,50 L	15 bars
501	250	120/125	3,0 à 15	5,0 L	15 bars
661	250/300	120/125	4,0 à 20	6,6 L	15 bars
901	300	125/150	5,5 à 27	9 L	15 bars
1201	300	125/150	7,2 à 36	12 L	15 bars
2001	350	150/180	12 à 36	20 L	15 bars

Discuss with the EGRETIER engineers your specific product and the transfer issues you are currently experiencing and see what they can do for you.

SORTING TABLES

STANDARD model: Complies with C.E. specifications

Technical characteristics:

- Stainless steel frame and base
- Width 600
- Feet height 950
- Length 4 meters
- Geared motor unit with mechanical or electronic speed control
- Adjustable equalizer bar on the input side of products
- food grade belt
- Mobile design with 2 fixed wheels and 2 swivel wheels
- Perforated work mat on request



ELEVATORS -LIFTERS

EGRETIER offers and designs electric or hydraulic LIFTERS for trolleys or bins of all sizes up to 1000L

Electric or hydraulic tipper lifter

Technical characteristics:

- Max. Unloading height 1500 mm
- Lifting capacity: 1500 kg
- Angle of dumping about 50°

Also available in mobile version

Pall Box Pallet Lifter

Technical characteristics:

- Max. Unloading height 2600 mm
- Lifting capacity: 600 kg

Electric mobile lifter 200 l



Fixed or mobile electric tipper lift for standard 200 l European trucks

Technical datas :

- Unloading height max 2000 mm
- Lifting capacity: 340 kg
- High stability
- Mobility by 2 fixed and 2 mobile wheels

Figure 13-Electric mobile lifter

MIXING, KNEADING, CRUMBLING

MIXER

Double concentric ribbon mixer

This DOUBLE CONCENTRIC DOUBLE RIBBON horizontal mixer is specially designed to improve the mixing of fragile and heterogeneous ingredients by their structure, their density and their difference of volume.

It combines the work of a double coil, that is to say that the inner ribbon ensures the intimate mixing of the ingredients in one direction, while the entire bottom of the mixer is scraped by the outer ribbon.

This double concentric tape also makes it possible to very quickly empty the entire product simply by reversing the rotation side.

In addition, this mixer offers the possibility of integrating a positive displacement pump, which ensures the transfer of the preparation to the dosing unit and casing.

This type of mixer is particularly suitable for preparations of components with sauces or emulsions, for example:

- raw or cooked meat,
- Ragouts, rice,
- Vegetables such as celery mayonnaise or ratatouille,
- Fish like soup or rillettes from the sea,
- Pates such as corned beef, pork sausages meat, etc...

The benefits are reduced time and mixing efficiency, while preserving the integrity of the blended products.

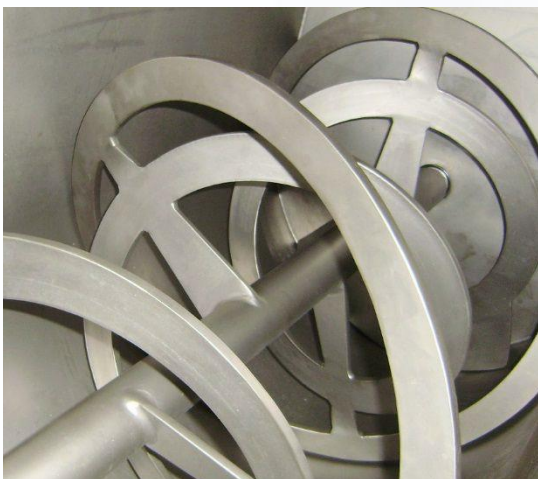


Figure 15 – Double Concentric Tape



Figure 14- Horizontal Mixer with Double Concentric Tape

Optional equipment:



- 316L stainless steel
- Double jacketed
- Waterproof hood
- Vacuum
- CO2 or steam injection
- Weighing system
- Cleaning in place
- Cleaning balls
- European bins guide device and safety grid
- Fixed and swivel wheels
- PLC control
- Level and temperature probe
- Self-emptying by external connection, by screw, or by incorporated volumetric pump.

Figure 16 - Double concentric ribbon horizontal mixer

Technical characteristics:

- Capacity from 100 to 6000 liters
- 304 or 316L stainless steel construction



Figure 17 - Inside view of a double concentric tape horizontal mixer.

Dual mixer

This HORIZONTAL DUAL MONO ROTOR MIXER is specially designed in order to mix many kinds of very different sensitive products according to their density, structure and size.

It associates PADDLES directly fitted on the SPIRAL RIBBON periphery, for better distribution of mixed ingredients.

This Dual MIXER offers many advantages as an effective reduced time of mix with a better efficiency, and also preserves mixed products integrity.

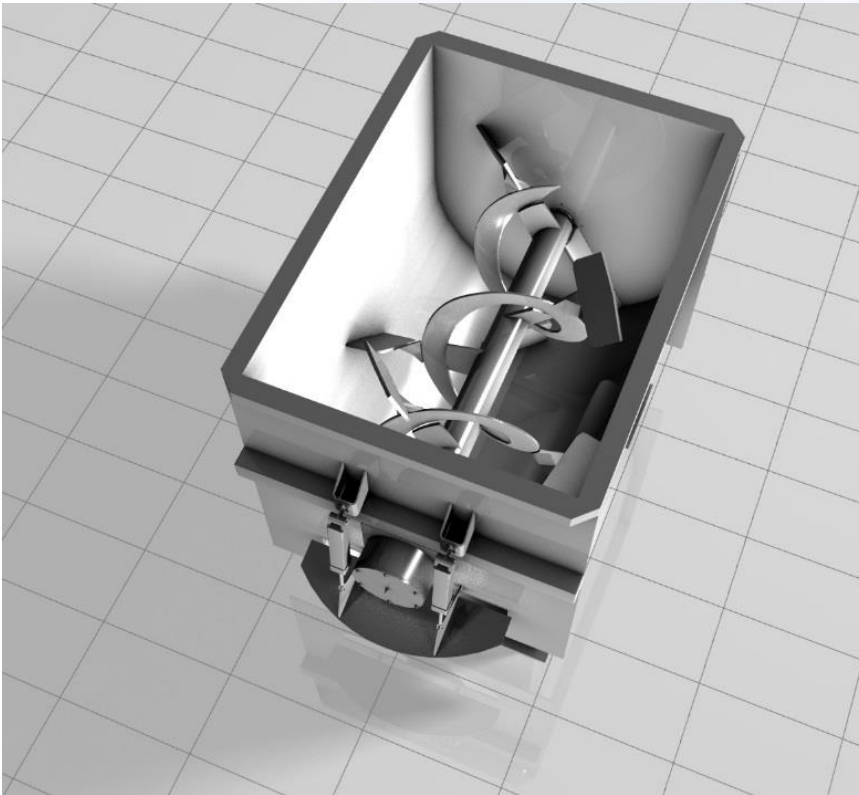


Figure 18- Horizontal dual mono rotor Mixer


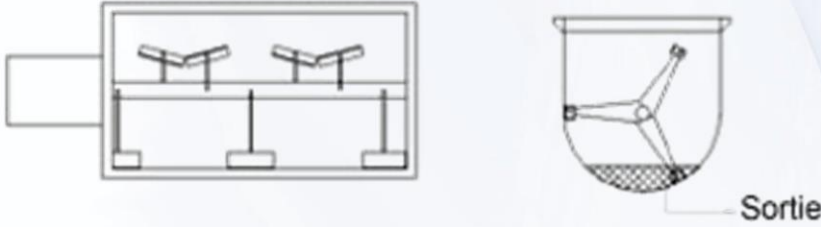
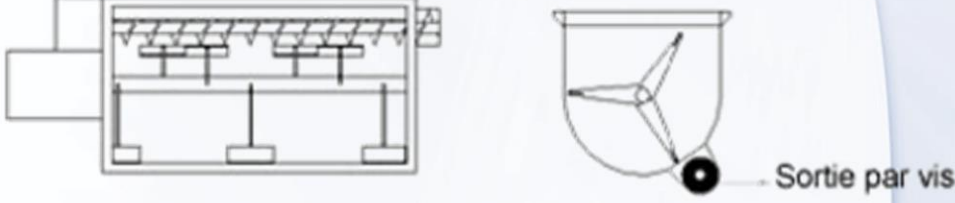
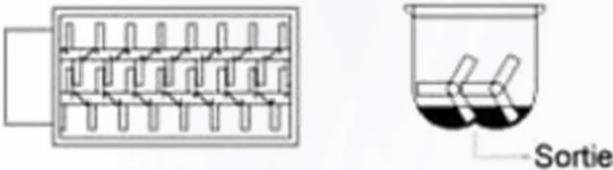



Technical data:

- Useful capacity from 100 to 6000 liters
- All 304 or 316L stainless steel construction

Optional equipment

- Double jacketed
- Co2 or steam injection
- Dumping containers feeding system
- Automatic discharge by pneumatic flap door or EGRETIER pump extraction
- Slide tight proof cover
- Weighting system
- PLC running device

Types of mixers

- (A) Mélangeur mono-rotor à double ruban concentrique.
- 
- (B) Mélangeur mono-rotor à pales orientées.
- 
- (C) Mélangeur homogénéisateur mono-rotor à pales.
- 
- (D) Mélangeur malaxeur bi-rotor à pales orientées et imbriquées
- 
- (E) Mélangeur malaxeur bi-rotor décalés à pales orientées et imbriquées
- 
- (F) Mélangeur malaxeur bi-rotor à pales imbriquées
- 
- (G) Mélangeur bi-rotor à ruban
- 

SHREDDER

EGRETIER have developed this crumbler SHREDDER for producing chips from frozen, semi frozen or simply stale or damaged products. This unit allows for product 're-use' without significantly changing the structure and by shredding it generally reduces product into 'chip' form and reduces storage volumes.

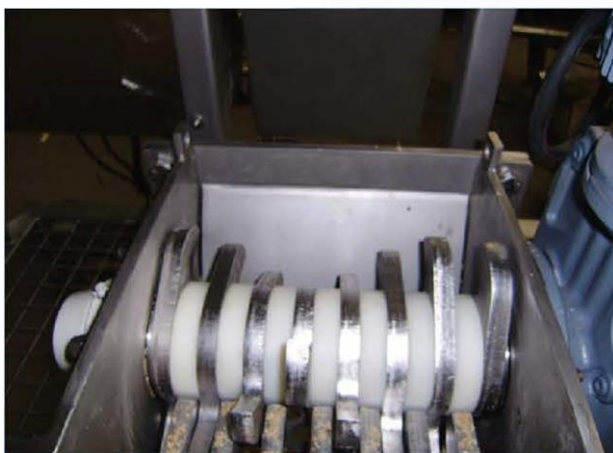
It is made from STAINLESS STEEL, CE approved, and meets the standards 2006/42 / EC

Many products can be made into chips including:

- frozen bread,
- Dry cheese,
- Chocolates,
- ...

Technical data

- Compact multidisc adjustable rotor
- Variator and brake motor, variable power depending on the products
- Absolute operator safety
- Easy maintenance and cleaning



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