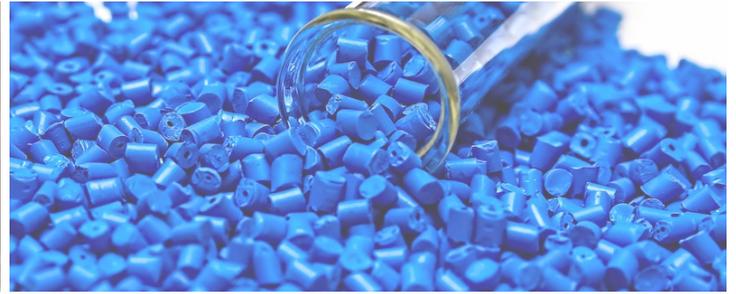




CLIVIO SOLUTIONS
INDUSTRIAL SERVICES & ENGINEERING

YOUR PROJECTS ADVISOR

OUR WORK



PROJECTS

Focused mainly on manufactures of Extruded Pet Food, Aqua Feed and Animal Feed, Agroindustry, Plastic Industry, and others. We develop complete or partial plant projects.

SOLUTIONS

We offer Engineering and Consulting work, we provide Quality and Technology Services and Solutions, with the objective of Optimizing Industrial Processes.

REPRESENTATIONS

We only work with Associated Companies (Partners) that can offer the Highest Quality of Products and Services for our Customers.

[More info](#)



CLIVIO SOLUTIONS
INDUSTRIAL SERVICES & ENGINEERING

WEIGHING & DOSING

To achieve high quality levels in the final product, it is very important to dose the exact amount of ingredients according to the formulation. For example, in the case of pet food or animal feed, a poor dosage can cause serious health problems for pets and others animals.

Jesma works with the design, development, production and sale of industrial scales and solutions for static, dynamic and continuous weighing. Weighing and dosing techniques are his specialty, with more than 100 years of experience, all equipment are designed and manufactured to offer reliability and ease of use.

The scales are designed to handle weighing capacities ranging from 1 Kg/h to more than 2000 t/h.

A Jesma Micro, Midi or Macro dosing system will allow you to dose ingredients with different consistencies and densities with very high levels of precision. Especially the nano and micro dosing system work with a very high precision of up to +/- 0.5 grams.

The LIW is a loss-in-weight weighing system, specially designed for the continuous dosing of powders and dry products with high dynamic precision. The LIW is installed before the extrusion process in order to know exactly the mass flow of the mixture of the ingredients that enter the preconditioner and extruder and thus dose them the precise amount of components that depend on the mass flow.



The main advantages of Jesma equipment are:

- High precision (+/- 0.5 gr)
- Reliability
- Long useful life



[More info](#)



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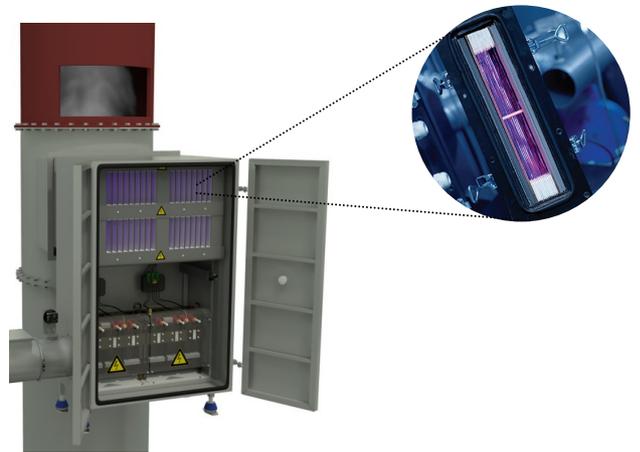
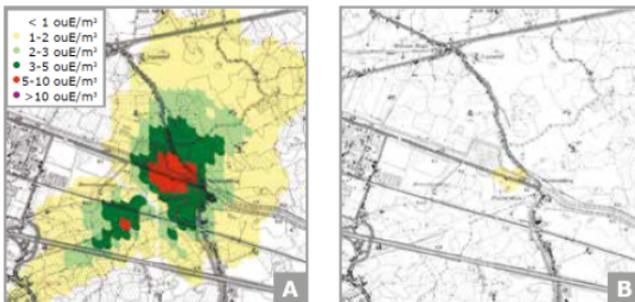
ODOR CONTROL

Currently the countries, with different measures, are being more rigorous with the care of the environment, a clear example is the regulation of the emission of odors into the atmosphere that industries generate. Not only governments are the ones that demand compliance with the standards for the elimination of industrial odors, but also society, today they have an important opinion when it comes to Planet Earth and its pollution.

Aerox is the manufacturer of the Aerox Injector that eliminates bad odors produced in industrial processes and is recognized worldwide as "The Best Available Technology".

The Aerox Injector is a non-thermal plasma (NTP) unit located outside the process air outlet duct. Clean ambient air is used to generate oxygen radicals, which are injected into the exhaust air flow, rapidly oxidizing the bad odor molecules present and therefore making them odorless and harmless to neighbors and the environment. It can treat large amounts of air up to 200,000 cubic meters per hour.

Before and after the Aerox Injector:



Equipment highlights:

- Eliminates up to 95% of odors
- Acts in 0.5 seconds
- Consumes a minimum of electrical energy
- It has a compact size
- Does not use fuels or chemicals
- Does not generate waste
- It is easy to install and simple to maintain

[More info](#)



CLIVIO SOLUTIONS
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RECEPTION OF RAW MATERIALS

In most cases, opening bags or big bags manually is usually a job that in the future can bring health problems to the operators in charge of doing it.

When seeking to help operators in their ergonomics and safety, and also when seeking to achieve efficient and fast processes in the reception of raw materials, depalletizers are undoubtedly the right equipment for this process.

Together with **Comav** we offer different models of depalletizers, according to the needs and layout of the customer: SVR COMPACT, SVR DEPA, SVR NT, SVR EL and more.

How do these equipment work?

The depalletizers are automatic or semi-automatic equipment that take the bags with the product and proceed to open them with their blades, the material falls freely to continue with the process and the bags are compacted in a press for correct recycling.

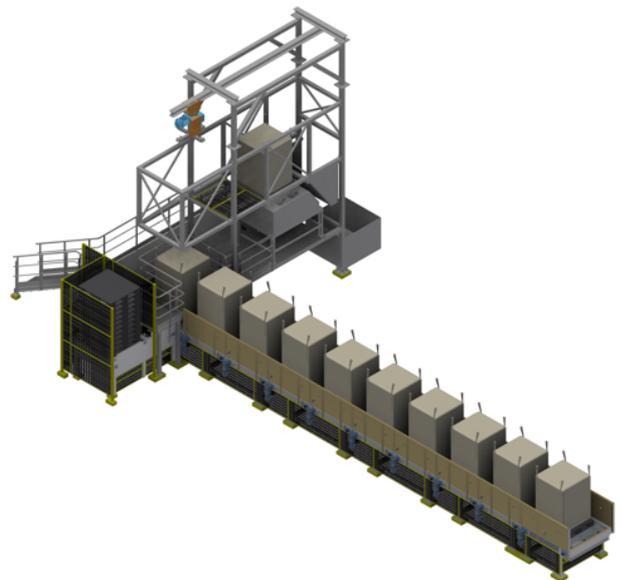
Manufacturers currently receive their raw materials in various ways, for example, in bags, big bags or bulk, this is one of the reasons why the client must evaluate which is the most optimal way to carry out the process of reception of raw materials.

Together with Comav, in addition to providing the depalletizers for opening bags, we offer a semi-automatic big bags discharger. There are different models depending on the customer's needs and their plant layout.



The main advantages are:

- High efficiency and automation in the bag opening process
- Emptying and use of 99.9% of the materials
- Excellent ergonomic and safety benefits for operators



[More info](#)



CLIVIO SOLUTIONS
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TUBULAR TRANSPORT

Together with **Cablevey** we offer equipment for the transport of products using teflon discs joined by a resistant steel cable, the whole set is contained in a continuous tubular system. The equipment stands out for its high quality and performance.

There are four models of tubes, which vary according to their diameter:

- 8 inches - moves over 30 tons per hour.
- 6 inches - moves over 20 tons per hour.
- 4 inches - moves up to 10 tons per hour.
- 2 inches - moves 1.5 tons per hour.

How is its operation?

The cables and disks are connected at set intervals, in this way the materials are handled between the disks smoothly from inlet to discharge, the whole system is covered by a closed tube. It is very important to note that the materials are not blown or forced but are transported smoothly without stress, shock, tension or friction.

If you have especially fragile materials or you need them to remain intact with their shape, geometry and size, without a doubt the solution is the Cablevey Tubular Conveyors. Breakage of materials and products will be kept to a minimum, safe handling often means the difference between profitability and loss.



The advantages are:

- Food safe
- Highly efficient
- Protect the materials
- Requires little energy for its operation
- It's clean and profitable.
- Low maintenance
- Adaptable to the customer's layout, thanks to its horizontal and vertical layouts, and its flexibility



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SOLIDS RECOVERY SYSTEM

According to studies in the processes of extruding, screening, cooling and drying, around 1.5 to 3% of subproducts are generated, reaching in some cases up to 5%. Some manufacturers decide to dispose of them and others reprocess them early in the process, which is time-consuming and associated costly.

The solution to this problem is with **Sati** SRS Solids Recovery System. With the installation of the SRS it is possible to save time, energy and money.

How? Efficiently taking advantage of waste during the extrusion process.

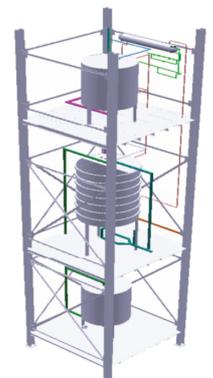
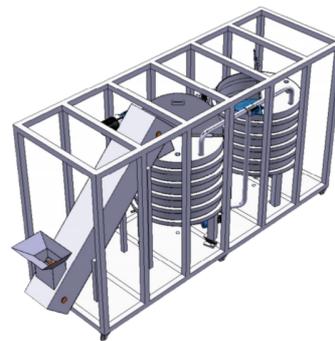
With the SRS, the solids generated are recovered, thus making the most of the products and the production time. It is important to clarify that this recovery of subproducts is done quickly, not giving time for the decomposition of the material, mainly when it comes to wet subproducts from extruder starts and stops.

Together with Sati we offer three models SRS 150, SRS 300 and SRS 600. The number refers to the kilograms of solids that the system recovers per hour. The manufacturing is very versatile, since the layout can be both vertical and horizontal, which makes it an adaptable equipment to the plant space.



The most positive aspects are:

- Save costs and time
- Recovers wet and dry products
- Improve traceability
- Achieve homogeneity



[More info](#)



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PACKAGING

Together with **Cetec** we offer packaging machines and complete packaging lines. They are equipment of the highest quality and technology, being automatic or semi-automatic, adaptable to customer needs. They are installed at the end of the production process to package products such as powders, granules or pieces, in pre-made bags of paper, plastic, polypropylene or plasticized raffia. In addition to bag filling, they carry out the sealing and palletizing process.



The flexibility of the packaging machines allows to vary bagging sizes with automatic changes, different sectors of activities (from pieces to powders), with or without partial vacuum in the bag. It is very important to note that the equipment has ATEX certifications, CE and UL standards, for the food, pharmaceutical and other sectors.

The acquisition of a Cetec packaging machine will have a direct impact on productivity, achieving a highly efficient and effective process, ensuring excellent results in the filling and sealing of bags with finished product. The packaging solution of choice for the world's leading manufacturers.

[More info](#)



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INLINE SAMPLING & ANALYSIS

Source Technology specializes in the design, development and production of equipment for sampling and measurement of products parameters inline: AQA, BDS, SPS and GAS.

The AQA (Automated Quality Analysis) gets directly samples from the production line from our inline samples SPS to ensure the right amount of product to the AQA. That is done fully automatic with high safety. The equipment can be configured to measure numerous parameters such as bulk density, moisture, water activity and with possibilities to add a NIR sensor.

The BDS (Bulk Density System) provides frequent inline sampling and analysis of bulk density, moisture, temperature as well as visual product inspection. With this inline measurements you secure that every minute of production you are running the best quality possible and therefore every customer get the same product every time. With live control you are capable to reach the right quality faster than ever before.

The SPS (Single Point Sampler) is used for collecting a fixed-volume sample in a given product flow. The samples are often used to lab testing but also to secure that you get the samples safely out of the production line.

The GAS (Gloss Analysis System) can detect absorption of oil and fat after coating, it takes an image of the feed or food and analyzes the reflection of the product. The gloss value is converted into an analog value, which indicates how well the oil or fat has been absorbed into the product. The small and compact design makes it easy to install wherever you want at the production line.



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OPTICAL SORTING

Tomra manufactures the Nimbus, which has laser technology that classifies by color, structure and biological characteristics, that is, it scans the product and upon detection of a foreign material expels it through an ejection of air, even when the elements are of the same size, shape and color than the croquette. In addition, it has a built-in BSI+ system, which detects the biometric characteristics of the products by comparing them with the stored data to determine if they accept or reject. This state-of-the-art sensor and development allows the detection of cross-contamination with other products, even when it is the same. shape, size or color than the correct product.

Through a hopper, the Nimbus is uniformly fed with the product to be classified. It falls towards the inspection area, where it is scanned by the front BSI camera and rear laser. A few thousandths of a second later, the defective materials or products are deflected with an ejection of air towards the rejection zone, while the good product, which meets the requirements, continues its natural free fall.

With the installation of the Nimbus, the Total Quality of the production is ensured, due to the fact that contamination of foreign elements such as plastics, paper, metals, glass is avoided; and cross-contamination with other products by analyzing the biometric composition of the croquettes.

The Nimbus is without a doubt the Definitive Solution to ensure that the Food is of High Quality, capable of satisfying the expectations and demands of the guardians and their pets. The team transforms the invisible into the visible, while the problems of cross contamination and unwanted elements will be problems of the past.



Advantages of the Nimbus:

- Control of the entire production
- Optimized sorting
- High capacity
- Drive excellence
- Avoid customer complaints
- Increase brand loyalty and protection

[More info](#)

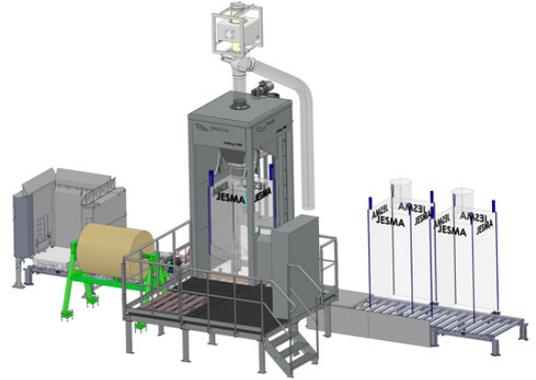


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OTHER SOLUTIONS & CONTACT

Big bag filling

With **Jesma** we also offer the solution for filling big bags. The equipment is made up of: a pallet stacker, a roller conveyor, a big bag filling station that includes their weighing, and a conveyor with a capacity to store up to 16 filled units. The system is suitable for different types of products, for example raw materials, flours, granules, pellets and more.



More solutions

At **Clivio Solutions** we provide other equipment and solutions, your inquiries are always welcome. We are interested in being able to help you, together with our Partners, providing the best quality and excellence solutions that exist in the market.

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