



ISS AGRI Facility

The New Rendering Process





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What we have to solve?

- High contamination risk from stored waste at the slaughterhouses
- High contamination risk from transported waste to rendering facilities
- Rendering plants are a major odour and environmental threat
- Low value generated from blood and feather
- · Low value generated from ruminant waste
- High transportation costs

The ISS AGRI Facility has been developed to recycle by-products of the agricultural and food industries on site. The system is designed to treat all agricultural by-products, such as blood, fat, feathers, losses, animal carcasses, including poultry, fish, cow, pig and sheep.

This is a continuous and automated process, including sterilization and shredding in the ISS, separating solids, oil and water. The end products of the system are dried meals and fat that are used as ingredients for the animal and pet feed industry.

With the Celitron's solution the following benefits can be achieved:

- Local and immediate treatment of all waste generated at the slaughterhouse
- With our patented, medical sterilization and shredding technology it eliminates all pathogens, prevents any disease spreading and the possible contamination risk.
- Generating better quality meal and oil as a result of the innovative technology and short processing time
- No odour released to the environment
- Lower energy consumption as a result of the shorter cycle time and the pressure vessel
- Small footprint of the systems (smaller than storage needed for the usual storage of waste)
- Higher value generated from difficult to treat waste (blood, feather, ruminants)
- No transportation of waste
- The same equipment can process all types of waste







Liquid

ISS

Liquidizing and sterilizing of raw material (121-134°C, 30 min)

Decanter

Separation of particulate matter and liquids

Solids

Dryer

Efficient drying with no odours emission

Dry meal

High nutritional value

Separator

Effective separation of oil and water

Water

Discharge to sewage

Oil

Highly purified > 99%

This unique rendering system contains three main elements, the Integrated Sterilizer and Shredder (ISS), Decanter with Separator and Dryer, and some other subsystems for completing the rendering process.



ISS AGRI

Integrated Sterilizer and Shredder (ISS) – the patented technology

The ISS has an integrated shredder controlled by a powerful drive to perfectly process all the solid parts and fluid. The ISS is equipped with anti-vibrating and shock-absorbing elements in order to avoid the transmission of vibrations to the environment.

After the treatment in the ISS, the processed animal byproducts become sterile, non-hazardous and free from bacteria, viruses and prions.

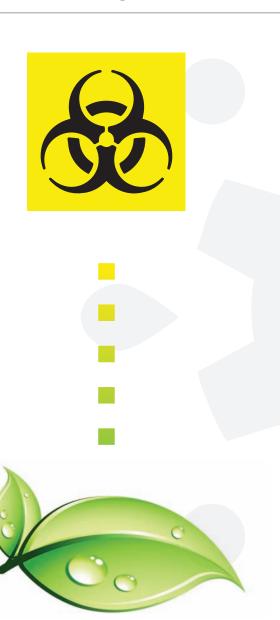
The treated material will be automatically transferred by pressure from the ISS to the buffer vessel. The buffer vessel stores the material and keeps the liquid homogeneous.





Advantages

- The full process from the feeding till the unloading is completed in less than 1 hour.
- Flexible Size From 5 up to 100 tons per day.
- Local treatment of waste No need to transport
- Small Footprint Installed at the slaughterhouses' production line, to save on storage and transportation.
- Can Treat Variety of Materials Blood, bones, feathers, etc.
- Durability Continuous, automatic operation
- High Quality end-product Improving the quality of solids and oil.
- No Odour Saves on expensive treatment and meets environmental regulations.
- Savings on Energy Costs.





Company profile

Celitron is a Hungarian (EU) manufacturing company with R&D focus on bio waste treatment and sterilization systems. We have an international presence, with more than 400 deployed medical waste treatment units and over 4,000 deployed steam sterilizers in over 70 countries worldwide.

Celitron develops and manufactures biological infectious waste treatment solutions for medical, pharmaceutical and the agriculture industry and steam sterilizers, autoclaves for infection control and decontamination procedures.

Celitron designs solutions, fulfilling the market's needs in accordance with all medical sterilization and machinery directives. We apply our technology and experience into creating solutions that protect the environment.

Our vision is to fulfill the market needs with turn-key solutions using only green technology.





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ISO 9001 and ISO 13485 certified company with CE certified products