



RUSSELL FINEX

Global Sieving & Filtration specialists

Leading food consortium utilizes waste by producing biodiesel from animal fat

Russell Finex supply Consorzio Latterie Virgilio with customized Self-Cleaning Russell Eco Filters® to produce animal fat by-products

Consorzio Latterie Virgilio is an Italian consortium that is associated with 70 dairies and more than 2,000 farmers. Working with the members of the consortium, the company primarily focuses on the production of dairy products, including butter, fresh cream and aged cheeses. However, with increasing uses for animal fat, the company recognized the opportunity to expand their product range. Sourcing fat from their slaughter plant, the company sought to produce two key animal fat by-products – an animal fat spread (an Italian delicacy) and biodiesel.

The processing of these animal fat by-products required a new processing line to be built, and therefore Virgilio approached a well known engineering house to provide a processing solution. The proposed system required the meat fat to be minced before it is steam heated into a liquid form at just under 100°C. As the meat fat contains skins and cartilages that are difficult to break down, the liquid product is then fed to a filtration system to remove any oversize contamination. Having worked with Russell Finex previously, the engineering house did not think twice about supplying the Self-Cleaning Russell Eco Filter® to Virgilio for this stage of the process.

The unique design of the Self-Cleaning Russell Eco Filter® ensures that material passes through the filter screen whilst the screen is automatically cleaned using a rotating wiper inside the element. "The Eco Filter wiper system works on a continuous basis, cleaning the filter element surface at all times, providing a consistent throughput rate and differential pressure" states Andrea Bozzellini, Area Responsible.

The units were customized to meet the exact requirements of the application. As the filter was required to remove oversize above 100 micron which is then returned to the pulverizer for rework, the oversize outlet was reduced in size from 2" to 1" and attached to a pump. The pump constantly feeds the oversize back into the main line. "Russell Finex were happy to facilitate the necessary adjustments to the machine to suit the process better", continues Bozzellini.



Figure 1. The Self-Cleaning Russell Eco Filter® installed at Consorzio Latterie Virgilio

- Self-cleaning design provides consistent throughput and differential pressure
- Reclaims oversize above 100 micron, eliminating the loss of good product
- Integrated second unit for Clean-in-Place system

Due to the nature of the product being processed, the pipework needed to be cleaned on a regular basis. Therefore, a second Russell Eco Filter® was supplied, acting as a Clean-in-Place system circulating water with cleaning solution around the pipework.

Russell Finex has over 75 years of experience manufacturing and supplying separators, screeners and filters to enhance productivity and ensure product quality. The company serves a variety of industries in over 140 countries with applications that include adhesives, ceramics, chemicals, colors, enamels, explosives, food, inks, latex, metal powders, paint, paper coatings, pharmaceuticals, plastisols, powder coating, and waste oils.

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