



Adding value every step of the way with Russell Finex separation equipment

Haitoglou Bros SA works with Russell Finex to optimize its tahini and sesame production process with several separation solutions for wet and dry products

Founded in 1924, Haitoglou Bros SA, Greece, is a global leader in the production of sesame products. Processing up to 150 tonnes of seeds a day, Haitoglou prides itself on modern production facilities, meeting the highest standards of hygiene and automation in the industry, ensuring a premium quality product. From sesame oil and flour to seeds and tahini paste, a wealth of international bakery, confectionery and other food manufacturers, retailers and consumers rely upon the quality of Haitoglou's products.

To meet international standards, the company has invested in state-of-the-art processing and separation equipment throughout automated production lines at its Thessaloniki site. As the business has expanded, Haitoglou has taken the necessary steps to meet production demands, not only with capacity levels but also product quality, hygiene and operator health and safety - with Russell Finex providing **high-quality separation equipment** every step of the way.

The first step towards automation began in 2002, when Haitoglou sought a high-capacity automated solution to separate good sesame seeds from soft peels, broken seeds and dust. Russell Finex provided a solution that delivered the capacity of two spring-mounted separation units which Haitoglou had previously been using. The **Finex Separator™** helped the company reach the desired capacity of two tonnes an hour and improved grading accuracy. These multi-deck machines provide various cuts of material in one operation. In this case the larger foreign material is removed via the upper screen while smaller particles such as peel fragments and dust are removed using the lower screen.

Nikos Itskos, Haitoglou Bros SA Technical Director, comments, "We first contacted Russell Finex many years ago to provide a higher capacity solution to grade our peeled sesame seeds. We found the quality of separation and capacity was a significant improvement on the previous machines we were using, as the Finex Separator is more powerful than other separators."



Figure 1. Installation of two Finex Separator™ units at Haitoglou Bros SA sesame seed production line

Benefits of Russell Finex separation equipment for the food industry:

- Increase production capacity – High capacity equipment providing vast improvements in throughput
- Improved accuracy – Advancements in sieving and filtration accuracy, with proven separation of wet and dry materials down to 20micron
- Reduce downtime – Equipment is designed to be easily stripped down and cleaned without tools
- Customizable solutions – The full range of Russell Finex separation equipment can be modified to meet the unique requirements of different materials



Haitoglou installed additional Finex Separator™ units at this stage of the production line to further enhance production. This demonstrated a step towards using high-performance separation equipment to help the company meet rising demand for its products, and further improvements were subsequently made to downstream equipment. Haitoglou relocated its sesame production to another building - facilitating a completely automated production process - with Russell Finex sieving machines forming an integral part.



Figure 2. An additional Finex Separator™ installed at Haitoglou Bros SA production line

The next area of focus was the post-washing stage. Good seeds would stick to the surfaces of the washing unit and be lost during cleaning. Despite seeming like a small quantity, even if 0.1% of product was lost, considering the vast amounts of seeds processed, this amasses to a substantial loss of product. Two Russell Compact Sieve® units were installed after the washing stage to recover these seeds. Water is flushed through the washing machine and into the sieves, where the seeds are then extracted from the wash water, dust and sediment. This is now an automated process, and as well as increasing product yield, production costs were also reduced by meeting modern environmental

standards reducing organic material in waste water, lowering contaminated waste water disposal costs.

Mr Itskos stated, "What impressed us about Russell Finex equipment was not just the high capacity and accuracy of separation but also the large variety of machines available. If we require very fine separation or a more compact machine - this is available. When we need to grade larger material or filter liquid products - there is a solution. No other supplier has such a variety of options."

Additional Russell Compact Sieve® machines were also installed to guarantee the quality of sesame seeds before packaging. Haitoglou had been experiencing issues with agglomerated seeds entering the final product and compromising quality. In addition, these agglomerated seeds would block the pneumatic tube transport systems used to pass the seeds from one unit to the next. Mr Itskos stated, "Even if there was one clump of product per 100kg of seeds, this would not be acceptable for Haitoglou. We promise 100% quality for our customers - any less is unacceptable. The Russell Compact Sieve guarantees the quality of our packed sesame seeds by removing any clogging or oversize."

At Haitoglou Bros SA, the sesame seeds are either packaged or further processed to make tahini. To produce tahini, milling and sterilization processes are applied, and the resulting sesame paste must then be filtered to remove oversize contamination and guarantee a consistent, smooth



Figure 3. A Russell Compact Sieve® installed at Haitoglou Bros SA to guarantee the quality and consistency of sesame seeds



product. The company invested in the **Self-Cleaning Russell Eco Filter®** to fulfil this requirement. These automated inline filters can be installed easily into an existing production line to remove oversize contamination from liquid products. A unique and continuous self-cleaning design means there is no downtime to change filter elements, and no slowing of throughput due to blockages. The filters are totally enclosed, preventing contamination - ideal for food applications.

As with the packaged sesame seeds, a final quality-check solution was installed at the end of the tahini production line. A unique high-speed Russell Compact Sieve® was custom-built especially for Haitoglou and installed before the packaging stage, to provide a final quality-check of

quality of Russell Finex equipment. We have vast experience in working with sesame seed products, and understand that sesame products can be very difficult to process. For us to invest in so many Russell Finex machines is testament to their quality. We now only choose Russell machines for these applications."

With five subsidiaries around the world Russell Finex is a global leader in the design and manufacture of innovative separation equipment. Over 80 years of experience in supplying equipment to the food industry has allowed Russell Finex to secure the trust and partnership of Haitoglou, a major global brand, into the future.

Mr Itskos concluded, "Since our first purchase in 2002, we have trusted Russell Finex to supply high-quality equipment to meet the needs of our customers. We now run a completely automated sesame and tahini production line, and are very happy with the service provided by Russell Finex. From onsite tests at our factory, or trials at Russell Finex's test facility to after sales support, whenever a new application has been identified, we have received excellent advice from the sales team. If ever we have an occasional issue, we can always talk to an engineer and rely on a fast response."

Established in 1934, Russell Finex's longevity and reputation sees it regarded as a global market leader, supporting a variety of industries including **food, pharmaceutical, chemical, coatings, metal powders and ceramics.**



Figure 4. An inline Self-Cleaning Russell Eco Filter® installed at Haitoglou Bros SA to guarantee a consistent quality of tahini paste

the tahini paste. Its compact design ensures they fit easily into existing production lines, and enclosed operation not only protects operators from dust and fumes, but ensures total containment, eliminating the risk of contamination at this crucial stage before packaging. The units are available with all-stainless-steel parts and can be quick and easily dismantled and assembled for cleaning, making it ideal for the food industry.

Haitoglou has been delighted with the level of automation, capacity and quality provided by Russell Finex equipment. Mr Itskos commented, "We are very satisfied with the

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