

## Russell Compact Sieve® delivers high-capacity check-screening of raw materials at chemicals plant

### Kemira installs industrial sieving system to screen incoming raw materials unloaded from dry bulk tanker

Kemira Chemicals (UK) Ltd. (Kemira), part of the Kemira Oyj chemical industry group, is a producer of advanced chemicals for pulp and paper, water treatment, oil and gas and a wealth of other industrial chemical applications. At its production site in Ellesmere Port, UK, Kemira produces a variety of coagulants for the treatment of waste water.

These high-performance chemicals are used in municipal and industrial water treatment processes to remove foreign particles and organic matter. As with all Kemira products, only the highest quality can be accepted, and this is reflected by the raw materials and processing equipment used in production. Also, due to the high demand of these products, Kemira must employ high-capacity, efficient equipment, to ensure optimum output and minimal downtime. Hence, when seeking a solution to screening incoming raw materials, Kemira contacted Russell Finex for a solution.

Kemira had previously experienced difficulties with foreign contamination entering its chemical production process. Bulk loads of raw materials such as aluminium hydrate could contain stones, wood and agglomerated material. These loads would be conveyed directly into glass-lined chemical reactors. However, contaminants could cause damage to the interior of these reactors, as well as the agitators and downstream pumps, valves and pipework.

David Sparks, Plant Manager at Kemira Chemicals (UK) Ltd. Ellesmere Port, said, "We were experiencing significant issues with damage to our reactors and other equipment, due to contamination in some of our hydrate powders. As well as the high costs of replacing or repairing the equipment, this also meant costly production downtime."

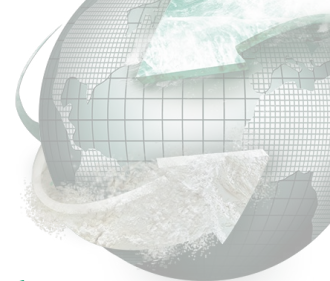
Following consultation with Russell Finex, it was decided a **Russell Compact Sieve®** would be the ideal solution to removing contamination from the incoming powders. This high-capacity **check-screener** can be easily installed in existing conveying and loading areas, providing a compact solution to screening incoming materials. The unit was installed as part of the conveyor system from the dry



**Figure 1.** The Russell Compact Sieve® installed as part of a conveying line for incoming raw materials at Kemira Chemicals (UK) Ltd.

- **Protect equipment and final products** – Eliminate potentially harmful oversized material from powders and liquids
- **Increase production** - These vibratory screeners achieve a higher throughput per unit mesh area than conventional vibrating screens
- **Fits into smaller spaces** - These check-screeners can fit easily into existing installations and conveying lines

bulk tanker to the reactor and is used to screen up to 48 tonnes of incoming aluminium hydrate per day and protect downstream equipment from foreign contamination.



Sparks continued, “We are delighted with how the Russell Finex sieve has performed since it was installed. It has been invaluable in checking incoming materials, meaning we’ve experienced virtually no problems with contamination and damage to our equipment. The unit is used all day, every day and has exceeded our expectations regarding durability.”

The **Russell Compact Sieve®** range of vibratory sieves is used across a variety of industries to remove oversized contamination and is ideal for high-capacity screening of powders and liquid slurries. These industrial sieves

can provide solutions for raw material handling, primary and secondary manufacturing processes and final product screening that can be applied to **chemical, pharmaceutical, food, metallurgy** and **coatings** applications and a range of other industries.



**Figure 3.** The Russell Compact Sieve® removes contamination from aluminium hydrate powders, protecting chemical processing equipment.



**Figure 2.** The Russell Compact Sieve® is used to screen up to 48 tonnes of incoming powders a day.

fit neatly into existing production lines, providing considerable screening capacity without requiring excessive headroom. An innovative design means these screeners are less than half the height of a traditional vibratory screener, and a wide range of sizes and configurations means the machine can be tailored to suit the exact needs of chemical, mineral or other applications.

Established in 1934, Russell Finex is a global leader in providing **industrial sieving and filtration solutions** for the processing industry. With a range of check-screensers, vibratory separators and self-cleaning filters, the company