

# Technical Article Series

Malting company screens high BOD rootlets with Kason separator.

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# Malting company screens high B.O.D. rootlets with Kason separator

Complete Solids/Liquid Separation

No blinding

Stream pollution prevented

## SCREENING POLLUTANT PARTICLES FROM DRAIN WATER...

A well-known malting company had a problem in its barley skimming process: the grill used to separate the water from the solid skimmings was not adequate to screen completely the small rootlets that inevitably would slip through the 1/32" opening. This became a matter for concern because the rootlets, which then flushed directly to the sewers - and thence to surrounding waterways - were loaded with enzymes having a high biochemical oxygen demand (BOD). A similar grid of finer mesh could not be used because excessive blinding would occur; still, the rootlets had to be screened out somehow.

## THE KASON SOLUTION...

The company replaced the stationary grill with a 48" screen separator by Kason. This separator is a unitized machine that imparts adjustable, multiplane, mechanical, inertial vibrations to the skimmings. Its motor has a double extension shaft, fitted at each end with variable eccentric weights. The top weight generates a horizontal throw to the screen assembly, while the bottom one creates a high frequency tilt on the screen. The third dimension is a tangential component resulting from the combined horizontal and vertical movements. The tangential component moves the solids laterally across the screen, while the water passes through the fine-mesh screening.



## RESULTS...

Because the vibrations imparted to the screening assembly continuously agitate the skimming solids, they are dislodged as soon as they tend to settle. The screen thus remains open, even though it is only 20 mesh, with a .034 opening. Controlled movement assures uniform anti-blinding action over the entire screen surface. The fine mesh completely screens out the high-BOD rootlets, thereby preventing pollution of nearby waterways.

## TYPICAL FOOD INDUSTRY APPLICATIONS...

Recovery of rice from hulls and coffee beans from chaff; dry classification of peas, instant coffee powders, ground coffees, dried milk, sugar, salts, starches, spices, nuts, rebolting flour, potato powder and flakes, powdered eggs, candies, powdered cheese, bread crumbs; solids/liquid separation of bagasse from sugar melt, casein curd from whey, protein particles from yeast slurry, gluten from wheat starch; de-watering of fruits and vegetables, spent coffee grounds, potato slices, instant rice, tuna; clarifying of chocolate liquor, french fry oil, molasses, caustic bottle wash, apple or citrus juices prior to filtration.