



## SIX OF THE BEST

*Hosokawa Micron have recently supplied six Rietz In-line Disintegrators to a UK site of a major multi-national chemical company thus solving a major agglomerate problem.*

A polymer gel is chemically formed into crystals in a reaction vessel. These crystals are suspended in a white spirit based solvent. In normal operation, the crystals can agglomerate together into larger pieces that require gentle de-agglomeration. During process upsets however, partially formed material of a rubbery texture requires size reduction for reprocessing.

Manual removal by sieving where the process operators physically pushed the oversize lumps through a fine mesh was the standard operating procedure, but this was soon deemed unacceptable from a health and safety viewpoint. Partial drying of the gel was a common problem through solvent evaporation.

A safe viable process whereby the agglomerates could be broken down continuously in a fully contained system with no operator exposure and also ensuring no physical damage to the gel crystals themselves was the ideal solution and the customer brief to Hosokawa Micron Ltd.

The Rietz In-line Disintegrator type R18 proved to be ideal for the job following initial sighting trials in the Runcorn Test Centre and an R18 was installed on site for long term evaluation in the customer's process. After 6 months of adjustment, modification and optimisation, the results were successful and six R18 in-line disintegrators were ordered to meet strict ATEX regulations and to work safely in a hazardous solvent environment.

Rietz In-line Disintegrators are specifically designed for the size reduction, de-agglomeration, mixing and delumping of suspensions, liquids and pastes. Materials entering the top of the rotor are subjected to repeated impact and attrition forces from the high speed rotating hammers with centrifugal force carrying the mixture through perforated screens to give effective processing.

These compact In-line Disintegrators helped solve a major agglomerate problem in an economical and safe manner and was the result of close co-operation between the end use and Hosokawa Micron.

