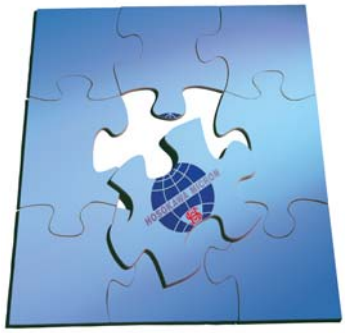

Hosokawa Micron Granulators for Plastic Recycling in Cleanroom Applications

A significant range of plastic injection and blow moulded parts are manufactured under cleanroom conditions, particularly for medical, pharmaceutical, optical and electronic applications. Grinding the plastic waste at the point of production is not only the most cost effective method of recycling this waste but also the most direct way. Hosokawa Micron Ltd are now able to offer a granulation system to help manufacturers achieve in-situ recycling benefits without compromise of cleanroom environments.

With a range of grinder options to suit throughput capacities, feed materials and end product fineness requirements Hosokawa Micron Ltd work in partnership with customers to determine the most appropriate waste reduction and handling solution.

Because the acceptable particle emission rates for the manufacture of plastic parts under cleanroom conditions are particularly low a unique system has been developed by Hosokawa, with the granulator installed inside a dust cabin which is kept under constant negative pressure. This prevents particles escaping into the cleanroom environment. The same negative pressure is utilised in the discharge of the regrind product at an FIBC filling station or alternative. The complete mill unit can be wheeled out of the cleanroom for cleaning and maintenance.

The selection of the granulation system is dependent on the size of the cleanroom and air suction tolerances within the cleanroom. In larger cleanrooms, where space allows, the granulator can be arranged directly beside the production machine however for smaller cleanrooms where this is not possible a distant granulator can be utilised. By incorporating a pneumatic product transportation system from the point of production waste plastic can be transferred from the blow moulder or plastic injection machine to the granulator.

This system can be adapted to handle the waste plastic from several smaller cleanrooms with waste transferred pneumatically to a centrally placed granulator.