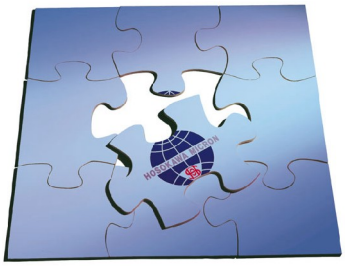
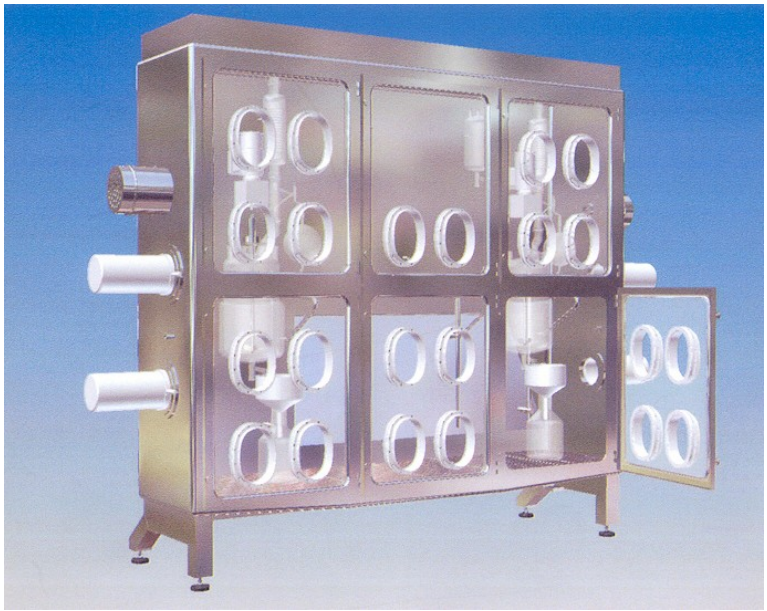


Wet Chemistry Isolators

Companies operating in the wet processing field of chemical synthesis now have access to innovative, specialist, wet processing, barrier containment systems when looking to safeguard personnel from potentially hazardous substances. Hosokawa Micron's Containment Division have recently developed wet chemistry isolator technology in conjunction with a leading custom synthesis company.



Designed to enclose a fully assembled and operating, small scale bulk active pharmaceutical manufacturing plant including reaction vessel, crystallisation equipment and filtration vessels the isolators give easy but contained operator access for product input, product removal, operational adjustment and maintenance.

The new Stott isolator has been developed in response to health and safety concerns for personnel working directly with the liquid forms of increasingly concentrated active, toxic ingredients used in pharmaceutical production. For research and development projects or for companies manufacturing small product quantities of pharmaceutical or other potent products, the isolator offers flexibility of operation, product integrity and personnel protection of the highest level.

The single chamber isolator offers two modes of operation, an isolator mode providing Operator Exposure Levels of < 1 mcg/m^3 8hr TWA and airflow mode to provide, by the use of inflow air velocity through the doors, and Operator Exposure Level of < 200 mcg/m^3 8hr TWA. As an additional safety feature because solvents are used in the process, the Stott isolator is designed to ensure any solvent vapour concentration remains below the lower explosion limit (LEL).

Within the isolator are shelves and dishes to retain small process components, cannisters, batch reagents or other products which precludes the need for open door access for most operator, process intervention.

Plant equipment is assembled via the open front doors and our photograph shows a typical equipment arrangement. All process services are piped to the isolator and connected outside the isolator.

The isolator is fully equipped with sprayballs and lance for complete CIP operation with the cleaning liquid fully discharged to drain.