



BARRIER SYSTEMS

Single Source Isolation Technologies

SQUARE TRAY DRYER-FILTER ISOLATOR



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The Walker Barrier Systems Square Tray Dryer-Filter Isolator is designed to give total operator and environmental protection during potent API slurry filtration, drying and product transfer between the dryer and the receiving container.

Process Description:

From the API slurry created within the remote reactor, the unit is designed to filter crystals from the API liquid into wet-cake form. The cake is then placed on trays and dried in the integrated Tray Dryer. Once dried, the powder is then weighed on the appropriate integrated balance and placed into bags. The bags of dried API are removed from the isolator under high containment by placing them into the RTP Beta containers.

This fully packaged system is provided with solvent recovery and mother liquor tanks for the filtration process as well as an integrated vacuum system. The tray dryer has heated shelving allowing consistent drying as well as a packaged temperature controlled unit for total system control and flexibility.

Design Advantages:

- Fully welded 7 gauge 316L stainless steel construction, with 5/8 inch corner radiuses, and laminated safety glass.
- Operating in negative pressure mode with HEPA filtered turbulent airflow.
- The HEPA filters are "push-push" type with safe change ability.
- PLC with password protection to automatically maintain the constant pressure in the Isolator within high and low set points, with audible and visual alarm back up, and full CIP control.
- Nitrogen purge system for internal explosion-proof classification, Class 1, Div 1, Group C & D.
- External explosion-proof, Class 1, Div 1, Group C & D.
- C-22 Hastelloy Pressure Filter mounted in the Isolator base.
- C-22 Hastelloy Vacuum Square Tray Dryer mounted in the back wall of the Isolator for better viewing & operator ergonomics.
- C-22 Hastelloy "Mother Liquor" tank mounted beneath the Isolator.
- Automatic CIP system and nitrogen purge system.
- 316L stainless steel solvent recovery tank.
- Square Tray Dryer with twice the capacity of round tray dryers.

Options:

- PLC based control systems with automated valves.
- Full validation services available including IQ/OQ protocols.
- Integration of a Mill (various types available).
- Wash liquid collection tank.
- Multiple size Tray Dryers available.
- Discharge into vessels via SBV technology.

Our Sales and Engineering staff will work closely with you to design the optimum system to meet your needs. Walker Barrier Systems offers complete in-house design, mock-ups, engineering, fabrication, installation and onsite start up services.



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