QUAD PULSE PACKAGE® PX

The compact filter for the pharmaceutical and chemical industry.

With Quad Pulse System*
*registered for patent approval

The compact filter for the **pharmaceutical** and **chemical** industry.
Many processes in the pharmaceutical industry can produce hazardous dusts in high concentrations. Cleanable filter systems are sometimes necessary to facilitate continuous manufacturing processes, preventing regular, expensive filter replacements.

The Quad Pulse Package PX utilizes segmented cleaning of the filter cartridge to provide the following benefits:

- Economical, space-saving cleaning unit requiring just a single primary filter cartridge.
- Cleaning during operation for production process and product quality control.
- Low pressure drop across the filter for energy cost savings.
- Camfil pleated filter technology provides exceptional dust release enabling extended filter service life and reduced filter replacement.

Market leading BiBo (Bag-In/Bag-Out) system over all stages

1. **BIBO Safe-Change Primary Filter**: Utilizes the market-leading Camtain methodology with an antistatic BIBO bag operation, providing a safe change solution to protect workers and prevent cross-contamination.

2. **BIBO Safe-Change HEPA Filter**: Uses the Camsafe system methodology for BIBO filter change. Ensures safe-change with the finest, most harmful dust particles.

3. **BIBO Safe-Change Dust Discharge**: A quick and simple operation to remove the collected dust with safe-change protection.

### AND FOR THOSE HAZARDOUS DUSTS REQUIRING FULL SAFE CHANGE CAPABILITY:

**The Quad Pulse Package® PX**

Compact filtration stages for pharmaceutical manufacturing processes:

**Stage 1:**
Primary filter with excellent filtration efficiency to remove the majority of the collected dust and prolong the service life of the second stage filter.

**Stage 2:**
HEPA filter to H14 providing 99.995% filtration efficiency to capture the finest, most harmful dust particles.

**Compact design, small footprint**
Space on the production floor and in the plantroom is at a premium. The NFPA compliant explosion protection capabilities of the device enable the Quad Pulse Package to be conveniently installed with easy access for all maintenance functions.

**High Performance, low noise level**
The integrated fan can provide the suction required for most individual applications. At the same time, the unit is insulated to make it very quiet during operation.

**Controls Fire and Toxic Material Release Hazards**
For combustible dusts the QPP will vent the deflagration through the HEPA filter eliminating the hazard of fire and toxic material release. The vented gases can be released through the outlet if it is open to the atmosphere (not ducted) or through a deflagration panel on the side of the unit. Smoke and noxious gases are not retained in the vessel so the hazard analysis should consider this.

**The Quad Pulse construction provides explosion protection in accordance with NFPA standards.**

- Compact and strong unit construction incorporates a unique HEPA filter design, with specialized materials from the aerospace industry, providing the following key advantages:
  - The Quad Pulse Package contains two stages of filtration. The first stage is a high efficiency cartridge filter, the second stage is a HEPA filter.
  - Deflagration venting is provided after the HEPA filter assuring that toxic materials are not released into the factory or the environment.
  - The collector has been tested by a third party to withstand higher deflagration pressures encountered when venting through the secondary filter or venting through the outlet.
  - The pressure resistant construction maintains the vessels integrity and prevents damage during a vented deflagration.
  - Compact unit with flexibility for indoor installation reduces the need for long duct runs.

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Camfil APC Quad Pulse Package® PX – provides optimum cleaning performance and safety for a wide range of pharmaceutical manufacturing processes:

- tableting
- mixing
- blending
- granulation
- drying
- coating
- filling
- packaging

Also applicable for a range of applications within other industries with similar technical demands, including the chemical industry, cosmetics and nuclear industries.

- low energy consumption
- twenty-four-seven operation
- zero downtime during operation
- save time and money
- compact size for ease of installation
- explosion pressure shock resistance