



Camfil Air Pollution Control is part of Camfil, the world's largest air filtration manufacturer, with presence in more than 150 countries and production on all continents. We are experienced in pharmaceutical support, with a team of professionals focused solely on pharmaceutical applications, making us your ideal partner.

We work together with pharmaceutical and engineering companies and contractors to find effective, efficient, reliable solutions to control dust in pharmaceutical operations to protect workers, the environment and equipment while maximizing production.

# FARR GOLD SERIES® CAMTAIN™ PHARMA MANUFACTURING

“The Farr Gold Series contained dust collector is a winner for our pharmaceutical applications. It is way ahead of the curve of anyone in the dust collection industry. The results from the potent compound surrogate test are very positive. Nice work!”

—Project Engineer, Major Pharmaceutical Company

## FARR GOLD SERIES CAMTAIN

Camfil APC has named its contained dust collection system the Farr Gold Series Camtain. Camfil is the parent company of Camfil Air Pollution Control and is the world leader in contained HEPA filtration systems.

Safe-change containment systems are available for both the filter cartridges and discharge system. The cartridge change utilizes a bag-in/bag-out (BIBO) method while the discharge uses continuous liner technology. The Farr Gold Series can also support traditional dust collection for nuisance dusts and fumes that do not require full isolation and containment. Camfil APC has contained and non-contained dust collectors for pharmaceutical applications in the Americas, Asia and Europe.

## BENEFITS OF THE FARR GOLD SERIES COLLECTOR

- High entry, cross flow inlet eliminates upward velocities that can hold fine particulates in the filter cartridges, reducing the re-entrainment of the particulate matter.
- Vertically arranged filters shed virtually all the particles versus horizontal filters which allow the particles to build on top of the filter.
- High efficiency filters stop 99.99% of the dust at 0.5 microns!
- Specially treated filter media repels fine particulates for a lower pressure drop and longer filter life.
- HemiPleat Gold Cone design provides 25% more media for long service life
- Filter cartridges are sealed via an internal cam lock action, allowing convenient change-out through the BIBO safe-change system.

## FARR GOLD SERIES FOR PHARMACEUTICAL MANUFACTURING APPLICATIONS

The Farr Gold Series (FGS) units can be used in a variety of pharmaceutical dust collection applications including tablet presses, coating, fluid bed drying, spray drying, blending, granulation and general room ventilation. The FGS is perfect for high efficiency filtration for pharmaceutical manufacturing.

**Gold Series**  
FARR



Farr Gold Series Camtain



Potent Compound Containment Collectors



HEMIPLEAT® FILTERS WILL IMPROVE THE PERFORMANCE OF ANY CARTRIDGE DUST COLLECTOR. **GUARANTEED.**



Power up your dust collector with HemiPleat. With lower pressure drop HemiPleat filters, you can pull more air with less energy, thus capturing pollutants better. Filtration efficiencies exceed 99.99% at 0.5 micron particle by weight.



## GOLD CONE TECHNOLOGY

The patented Gold Cone filter has allowed many facilities to reduce the number of filters they have to use and change. The innovative cone of filter media expands the usable area of the filter, reducing the required number of filters by at least a third. The design also promotes long filter life with low pressure drop.

## SURROGATE TESTED DUST COLLECTION SYSTEM FOR PERFORMANCE VERIFICATION

The Farr Gold Series® Camtain™ contained dust collection system has been independently surrogate tested for validated performance verification. A major pharmaceutical company's surrogate testing protocol was followed with an independently contracted, AIHA accredited laboratory (Bureau Veritas) performing the testing. Using milled lactose as the surrogate, we collected over 48 area,

personal and swab samples for both the BIBO cartridge filter change and the continuous liner discharge. The FGS Camtain can handle risk based category 3, 4 and 5 compounds with OELs less than 1.0 mcg/m3 for an 8-hour time weighted average. Full test report data is available upon request.



**THE FARR GOLD SERIES®  
CAMTAIN™ DUST COLLECTOR  
COMBINES ENHANCED  
PERFORMANCE,  
SAFE-CHANGE CAPABILITY  
AND EASE OF  
MAINTENANCE  
WHILE PROTECTING  
THE WORKPLACE  
AND ENVIRONMENT  
FROM HARMFUL DUSTS.**



Two key concerns are the focus when handling pharmaceutical dusts - the potent, toxic or allergenic properties of the compound as it relates to personnel exposure and the explosion properties of the compound.

The first issue involves understanding the toxicological properties of the material, reviewing the Occupational Exposure Limit (OEL) and performing a risk based exposure evaluation to determine the methods for proper control. In most cases, some level of isolation and containment is required due to the fact that the pharmaceutical dust is extremely potent while being captured in a non-production area and cannot be released into the surrounding environment. In most cases, Camfil APC recommends a HEPA secondary safety system. With HEPA systems after the dust collector, recirculation of the filtered air back into the HVAC system is an option. This can significantly reduce energy costs while providing the necessary level of filtration for discharge air required by OSHA/EPA.

The second concern involves deflagration and explosion potential. Control measures such as explosion venting, chemical suppression and isolation systems may be required depending on the physical characteristics of the dust relating to Kst, Minimum Ignition Energy (MIE) and the location of the collector. When explosion vents are required, they must be vented to the outside by either placing the collector outdoors or ducting the vent exhaust to a safe location at a specified distance through the building structure. Camfil APC recommends an independent PE specify what explosion protection is required for a given material as it relates to standards in NFPA, ATEX and the insurance carriers.