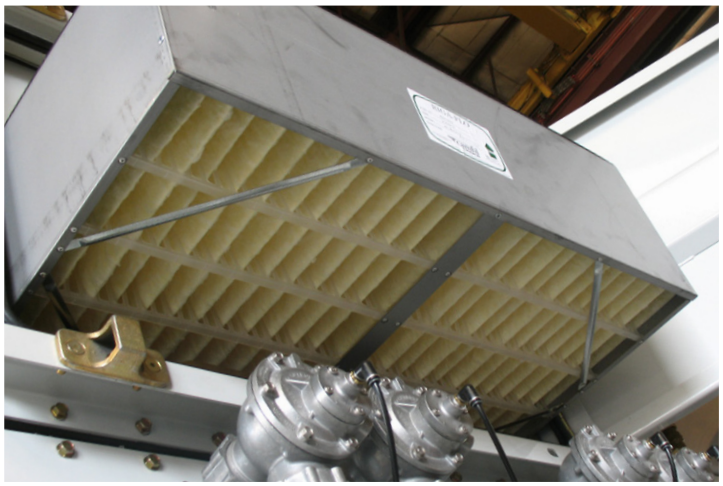
camfil
AIR POLLUTION CONTROL

iSMF

Integrated Safety Monitoring Filter





Riga-Flo® filter being installed in iSMF.

Standard Features & Benefits —

- Conveniently installed from the factory on top of the standard Farr Gold Series® dust collector.
- Allows access to the HEPA or Riga-Flo® filters via the same platform used to access the primary filters.
- Reduces installation costs as there is no additional remote mounted system to be installed that typically requires additional consideration to access the filters when they are required to be changed.
- Allows the total footprint of the dust collection system to be reduced, thus saving valuable manufacturing floor space.
- Each module incorporates two Camfil filters. These filters are easily clamped into position using the same style locking mechanism as those used on the primary filters. Filters are included, but not factory installed.

- **The HEPA grade filters have a minimum efficiency of 99.95 % at MPPS and are capable of handling 4240 m^3/h of air per filter.**
- **The Riga-Flo filters have a 95% ASHRAE efficiency and are rated for 4240 m^3/h, per filter.**

- Incorporates a Magnahelic gauge for easy monitoring of differential pressures across the final filters.
- Allows the filters to be located prior to fan, thus keeping them under negative pressure.
- Camfil APC also allows this option to be used as a flame arrestor for combustible dust when recirculating the air back into the work space in most cases. (See next page for details.)

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The Integrated HEPA Safety Monitoring Filter is mounted on top of the Farr Gold Series®.



During explosion in a Farr Gold Series, no flames come out of the exhaust pipe. The inlet pipe is protected by a back pressure damper.

Used as a flame arrestor for combustible dust

The iSMF, incorporating HEPA or Riga-Flo filters, has been proven to isolate the downstream equipment from the progression of a flame front during an explosion. The Farr Gold Series dust collector with an integrated Safety Monitoring Filter allows you to recirculate exhaust air back into the work space when your dust is explosive. In some cases additional pressure wave protection could be required.

The key advantage of this device is that it prevents the transmission of explosive dust (fuel) from the collector. Remote mounted secondary filters cannot do this and are typically not designed to withstand the pressures associated with an explosion. Ducting design and location of remote mounted filters also injects excessive variables that have to be considered by a hazard analysis.

The iSMF system not only arrests the flame front but also monitors the condition of the primary filters and stops any leakage that might occur.

With this feedback the operator knows when a primary filter starts leaking and can fix the leak before it becomes a safety issue.

Also, the iSMF protects the facility from the hazard of any dust passing through a damaged primary filter.

Camfil APC claims that this system prevents the progression of the flame front to the outlet of the dust collector. This simplifies installation and the users risk assessment according to ATEX 1999/92EC. Final assessment if this is sufficient or not lies with the user.

Camfil APC offers a technical report titled “Integrated Safety Monitoring Filter (iSMF) Qualified as a Flame Front Arrestor”, which describes the background and limitations of the iSMF. It also details the test procedure and results of the test series of multiple controlled ST2 internal explosions. This technical report is available upon request.

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