camfil
AIR POLLUTION CONTROL

EXPLOSION PROTECTION SOLUTIONS

NFPA Compliant
Combustible Dust Collection Systems

Comply with new NFPA Fire and Explosion Standards 484-2012 and 654-2013 for Combustible Dusts.
Ensure a safe workplace for your employees.

Inlet Protection

Fast-Acting Valve

Designed to close within milliseconds of detecting an explosion, the fast-acting valve installs in either inlet and/or outlet ducting. The fast-acting valve creates a mechanical barrier within the ducting, which effectively isolates pressure and flame fronts (from either direction) from being able to propagate further through the process.

Inlet/Outlet Chemical Isolation

Designed to react within milliseconds of detecting an explosion, a chemical isolation system can be installed in either inlet and/or outlet ducting. The chemical isolation system creates a chemical barrier that suppresses the explosion within the ducting, reduces the propagation of flame through the ducting and minimizes pressure increases within connected process equipment.

STINGER™ Patent Pending

CLICK FOR MORE INFO

The purpose of the Stinger is to prevent a deflagration (explosion) that could occur in the dust collector from traveling back down the inlet pipe back into the workspace/process.

Detect and Suppress

These systems protect the dust collector from ignition sources such as sparks or embers. It detects them and activates a suppression system that extinguishes them before they reach the collector.

Outlet Protection

Integrated Safety Monitoring Filter (Patent Pending)

The iSMF 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. The key advantage of this device is that it prevents the transmission of explosive dust (fuel) from the collector.

Explosion Venting

Explosion Vent

Designed to be the “weak” link of the vessel, explosion vents open when predetermined pressures are reached inside the dust collector allowing the overpressure and flame fronts to exit to a safe area. Explosion vents minimize damage to the dust collector caused by overpressure created by a deflagration. Camfil APC’s standard explosion vents are ATEX certified and NFPA compliant.

Flameless Vent

Designed to install over a standard explosion vent, the “FlamQuench SQ” extinguishes the flame front exiting the vented area not allowing it to exit the device. This allows conventional venting to be accomplished indoors where it could otherwise endanger personnel and/or ignite secondary explosions.

Chemical Suppression

Designed to react within milliseconds of detecting an explosion, a chemical suppression system is installed in the collectors dirty air section.

The chemical suppression system prevents expanding a deflagration by releasing a chemical agent.

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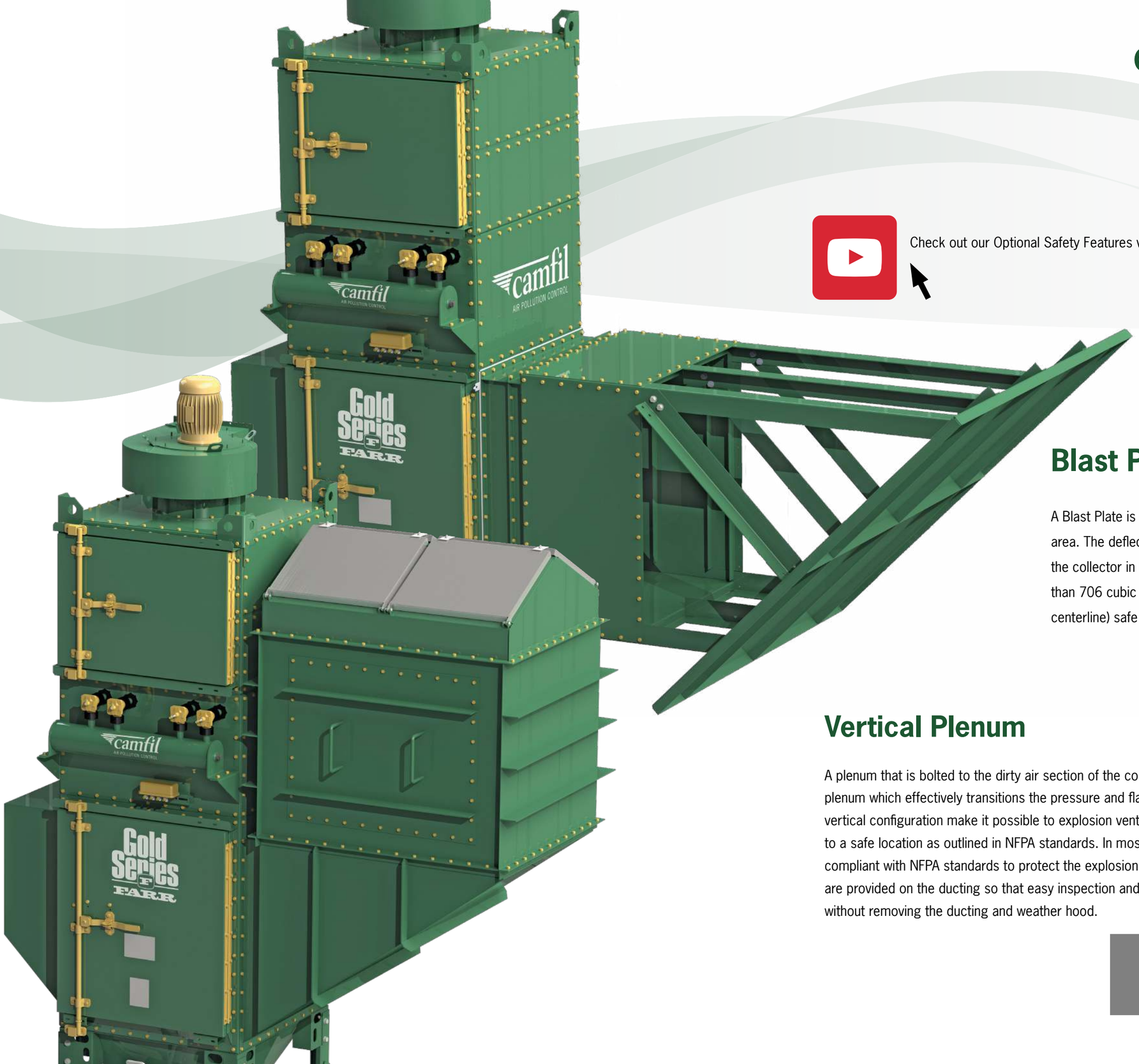

OPTIONAL SAFETY FEATURES

Check out our Optional Safety Features video.

Blast Plate

A Blast Plate is a deflector mounted directly in front the explosion relief area. The deflector is designed to restrict the flame length ejected from the collector in the event of an explosion. For vessels that are not greater than 706 cubic feet, the deflector is designed to reduce the axial (front-centerline) safe distance by 50 percent.

Vertical Plenum

A plenum that is bolted to the dirty air section of the collector. The explosion vent is mounted to the top of the plenum which effectively transitions the pressure and flame fronts from a horizontal to a vertical configuration. A vertical configuration make it possible to explosion vent through a roof and/or direct the pressure and flame fronts to a safe location as outlined in NFPA standards. In most cases, ducting and weather hoods are required to be compliant with NFPA standards to protect the explosion vents from the elements and other debris. Access panels are provided on the ducting so that easy inspection and/or replacement of the explosion vent is made possible without removing the ducting and weather hood.

Camfil APC | 3505 S. Airport Road, Jonesboro, AR 72401
www.camfilapc.com | e-mail: filterman@camfil.com
870-933-8048 | 800-479-6801