

# Catalytic Filtration Systems

*to help you meet  
EPA regulations*



**Removes up to 99%  
of dioxins & furans**

**Low maintenance**

**Low cost of ownership**






Your  
**Solution**  
for Dioxin & Furan  
Emissions



**A Cost-Effective Solution for Dioxin & Furan Abatement**  
*Helps secondary aluminum recyclers meet EPA regulations*

Now a Donaldson® Torit® baghouse equipped with GORE® REMEDIA®\* catalytic filter bags can provide the economical solution you've been searching for! We've combined advanced dust control with catalytic chemistry technology to produce one simplified system that: (1) removes and destroys up to 99%\*\* of the dioxins and furans, (2) requires minimal maintenance, and (3) provides the lowest cost of ownership.



**Donaldson Torit baghouses are self-cleaning dust collectors** providing continuous filtration in a compact design. They are modular, allowing for flexible design, even in restricted spaces.

Inside the collector, the **catalytic filter bags** — GORE® REMEDIA® — are made of an expanded polytetrafluoroethylene (ePTFE) membrane laminated to a catalytic felt substrate that filters and destroys up to 99% of the dioxins and furans.

**The Donaldson Torit solution provides:**

- Baghouse collectors configured to your needs
- Filter bags that help destroy dioxins and furans
- Local support from our network of field engineers

\* GORE® and REMEDIA® are registered trademarks of W.L. Gore and Associates, Inc.

\*\* Based on EPA stack emissions testing (Method 23)

## Low Maintenance Compared to Other Dioxin Control Systems

The Donaldson Torit Catalytic System is a passive control technology that operates continuously, offering reliable, consistent performance year after year with minimal maintenance.



### Donaldson Torit Dalamatic® Baghouse Collector

*with GORE® REMEDIA®  
filter bags, installed at a  
major secondary aluminum  
processing plant.*

### Destroys Dioxins

- Unlike sorbent-based systems such as powder activated carbon (PAC) that only capture dioxin and furan molecules, the Donaldson Torit Catalytic System actually helps **destroy** them.
- Donaldson Torit Catalytic System removes and destroys up to **99%** of dioxins from the gas stream.
- Proven to help meet EPA requirements for dioxin and furan emissions. Successfully installed in over 100 applications around the world.

### Lower Disposal Costs

- With no dioxin-contaminated sorbents to dispose of, the Donaldson Torit Catalytic solution results in up to 93% less contaminated waste thus minimizing landfill costs when compared to sorbent-based systems.

### Easy to Operate

- Continuously filters airborne particulate and destroys gaseous dioxins and furans.
- No injection system to operate or adjust, as with sorbent-based systems.

### Reduces Corrosion

- With sorbent-based systems, cooling of flue gas is often required to maximize dioxin removal efficiency. This cooling can cause the flue gas to go below the acid dew point, causing acidic condensation to form on the inside of the baghouse — resulting in corrosion, rust and short baghouse life. In contrast, the Donaldson Torit Catalytic System operates at temperatures up to 500°F (260°C), greatly reducing the chance of baghouse corrosion.

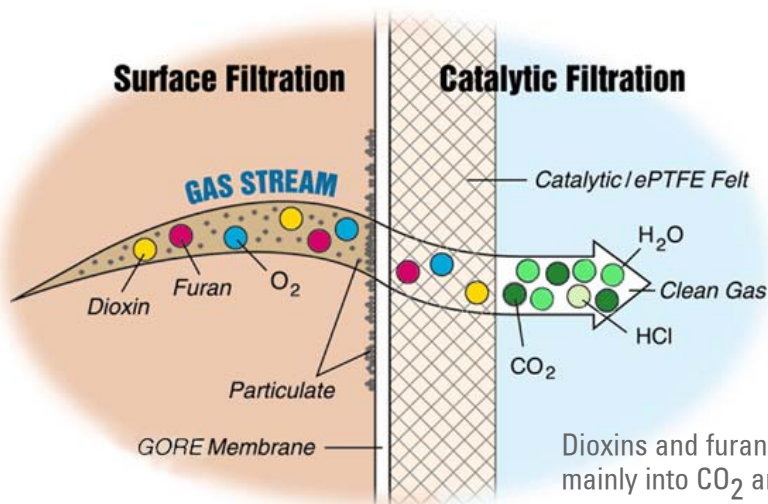
### Long Product Life

- High mechanical strength and durability.
- Reduced bag changeout costs.
- GORE® REMEDIA® bags are warranted by W.L. Gore
- Donaldson Torit collectors carry a 10-year warranty

## How the Donaldson Torit Catalytic System Works

The Donaldson Torit Catalytic System works to capture dioxins and furans in both gas and particulate forms.

- As contaminated air passes from the process into the baghouse, the ePTFE membrane captures dioxin and furan attached to the particulates on the surface of the filter bag.
- When the  $\Delta P$  reaches a pre-set level and the self-cleaning mechanism is triggered, a burst of compressed air dislodges dust from the bag surface. The dislodged dust cake falls into the collection hopper for final removal.
- The gaseous dioxins and furans pass through the ePTFE membrane into the catalytic felt. The catalyst instantly reacts with the dioxin and furan molecules to **convert** them into  $\text{CO}_2$ ,  $\text{H}_2\text{O}$ , and insignificant amounts of  $\text{HCl}$ .



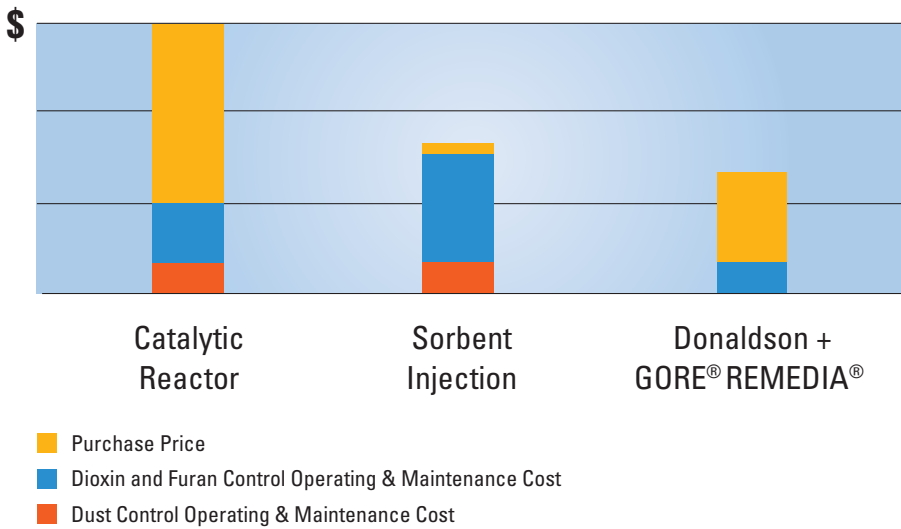
*The catalytic bags are available in a variety of shapes and sizes to fit Donaldson Torit baghouse collectors.*



**MEET EPA REGULATIONS**  
with lowest cost  
of ownership



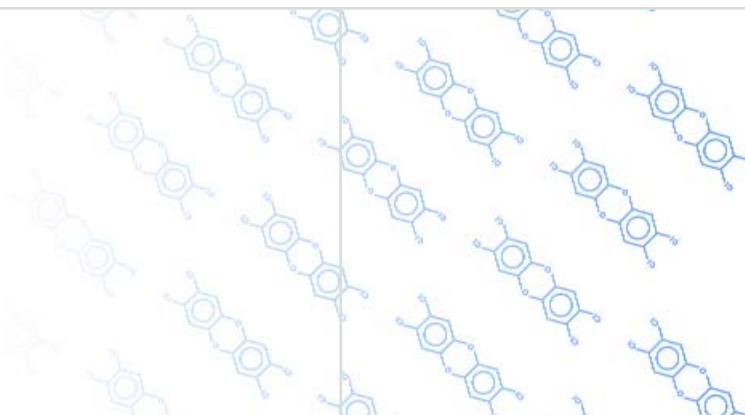
## Provides Lowest Cost of Ownership Over a 15-Year Period



### The Superior Value & Peace of Mind

No other system does what the Donaldson Torit Catalytic System does, and no other system provides as high a value. This system removes and destroys up to 99% of the dioxins and furans from the airstream — and does so in a way that is easier to maintain and costs less to operate!

**The Donaldson Torit catalytic solution is available in a variety of baghouse configurations.**



# Cleaner Air Worldwide

## Better Technology



- 550 engineers worldwide
- More than 500 patents
- Broad range of innovative collectors and filters
- 100's of media formulations

## Experience & Service



- Technical expertise and support
- Ready-to-ship filters and parts within 24 hours
- 1,000,000+ dust, fume, & mist collectors installed

## Global Support



- Facilities in 35 countries
- 37 manufacturing plants and 11 distribution centers
- Sales offices worldwide



# Donaldson®

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800-365-1331**



Printed in USA

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Catalytic Filtration Systems 11-2006