Tri-Mer

World Leader

in Glass Emissions Control

More installed systems than all other suppliers combined
Nearly a decade in glass: container, flat glass, tableware

Tri-Mer UltraCat is the proven solution for **air-fuel** and **oxy-fuel** gas furnace emissions:
PM, NOx, SOx, HCl, HF, metals, mercury, hex chrome, dioxins/furans, VOCs, CO

Tri-Mer® CORPORATION

UltraCat Catalytic Filters are Unique — and Superior

Structure and composition

Operating characteristics

Long service life

Large installed base

Proven long term: nearly a decade in glass

Our Specialty

Turnkey project delivery, from design through commissioning – guaranteed performance and schedule

- Proprietary filter system designs
- Integrated PM, NOx, SO2, HCl removal
- Engineering – all disciplines
- Regulatory agency support
- Site work, demo, construction
- In-house equipment fabrication
- Controls, CEMS, systems integration
- Installation, training, start-up

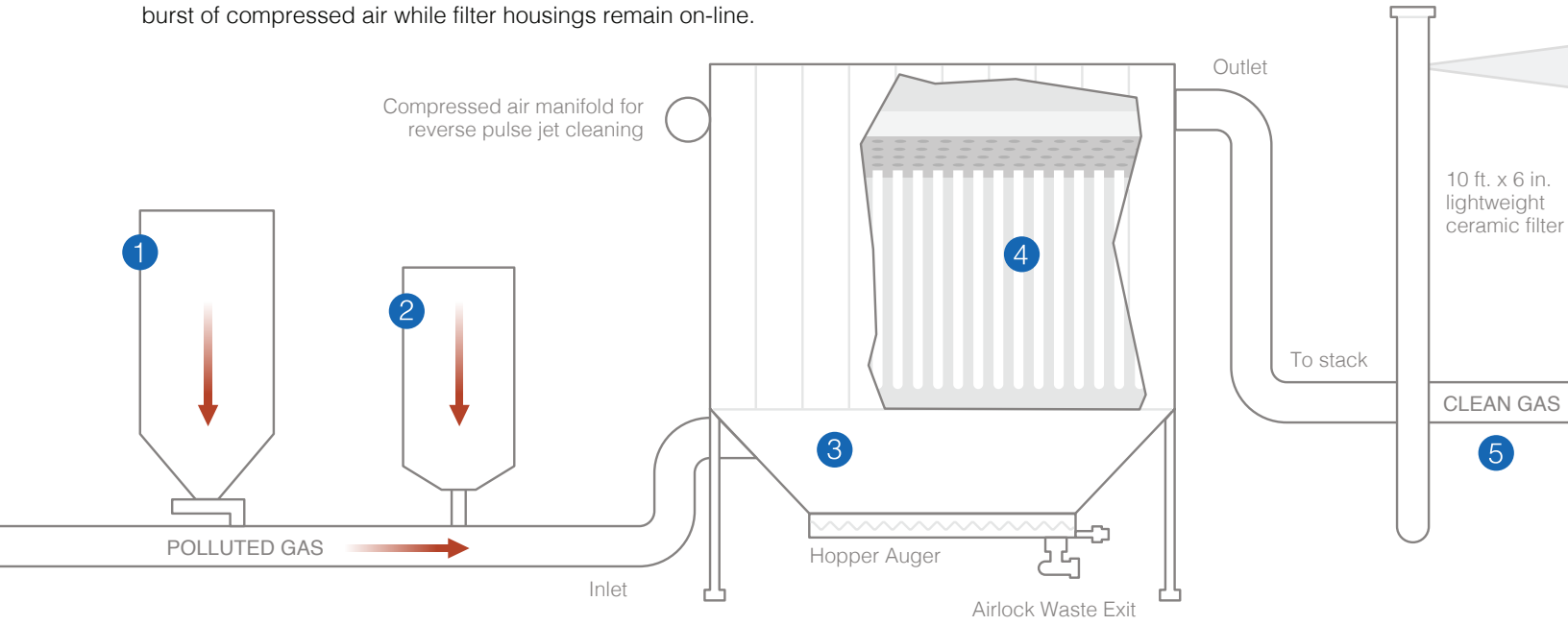
Dozens of Glass Furnaces with Tri-Mer Systems

- Proven system designs
- Proven UltraCat filter technology
- Proven operating history

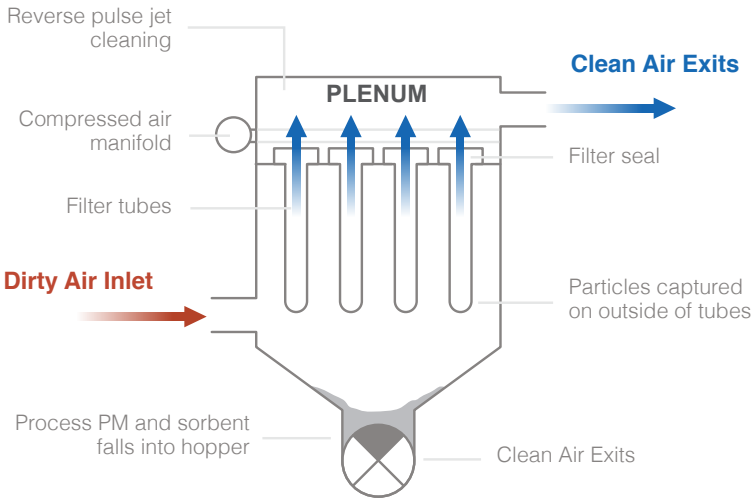
Tri-Mer has the Most Effective Emissions Control Available

1. **Dry Sorbent Injection:** Dry powdered sorbent – hydrated lime – is injected into the duct. It reacts immediately with the SO2, SO3, and HCl to form solid particles that will be captured by the ceramic filter.
2. **Ammonia Injection:** Aqueous ammonia is atomized and sprayed into the duct. It immediately turns into a gas and mixes with NOx. This mixing is not affected by the process PM or sorbent PM.
3. **Filter Housing:** The gas stream enters the filter housing, and the particulate from the process and sorbent is captured on the outer surface of the filters. Filters are periodically cleaned (about twice a day for glass) with a burst of compressed air while filter housings remain on-line.
4. **Ceramic Filters:** The NOx and ammonia mixture react on the enormous surface area of the nano-catalysts embedded in the filter walls.

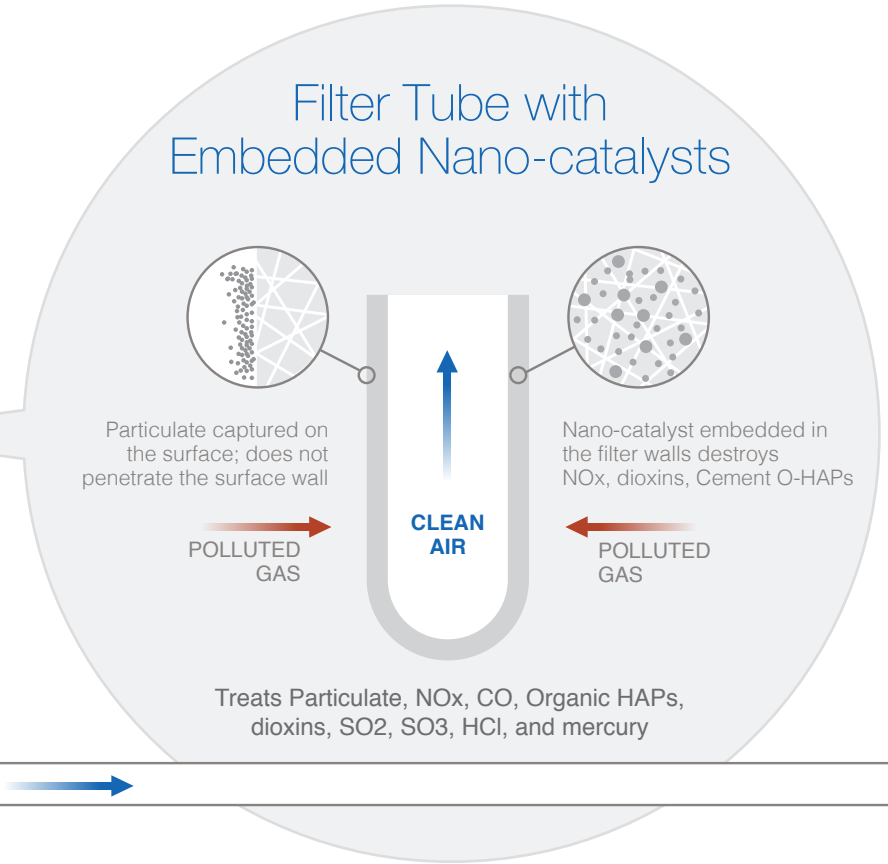
   The mixture is free from particulate that can blind or poison the catalyst, so the reaction can occur more efficiently and across a much wider temperature range. NOx is broken down into harmless N2 and water vapor. There is minimal ammonia slip.
5. **Clean Gas:** Treated air exits the ceramic filter system, drawn to the stack by an induction fan.



Filter Plenum Operation



Filter Tube with Embedded Nano-catalysts



Catalyst is inside the filter walls, protected from PM blinding and poisoning.

Multiple Plenums for Projects of Any Size

- Treats any gas flow volume – plenums are placed in parallel.
- Multiple plenums provide built-in redundancy to ensure up-time. No "ESP bottleneck."
- If a plenum is taken off-line for service, the other plenums treat the entire flow at a temporary higher pressure with no change in performance.

Contact Us

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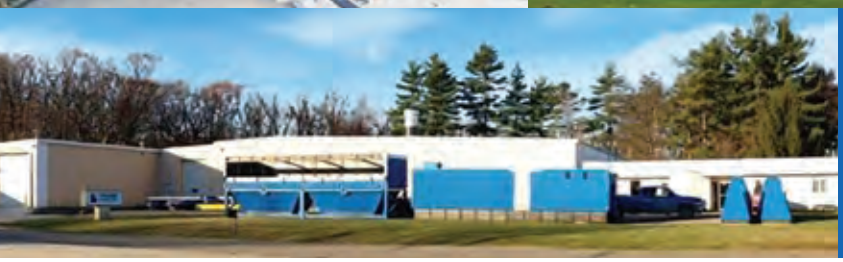

The Tri-Mer Headquarters is sited
on 12 acres near Detroit, Michigan.
The Heart of the Campus: a 250,000 sq. ft.
Engineering & Manufacturing Facility

Tri-Mer® CORPORATION

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Since 1960