

GORE™ FILTRATION TECHNOLOGY

45+yrs of experience in air pollution control

- dePM / deDioxin
- deNOx / deSOx / deHg

Naoki Moriuchi

nmoriuchi@wlgore.com

+81-90-5514-0244



Together, improving life



45+yrs. of experience in air pollution control

History of Product development

Gore enters pollution control business (industrial air filtration)

1973



Gore begins Mercury and SO₂ control technology development

2002

Launch of GORE® DeNO_x catalytic filter bags

2015

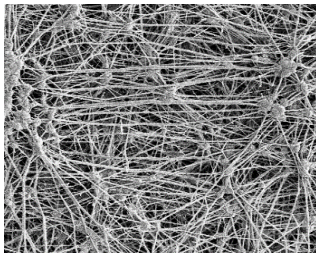


Mercury & SO₂ Control Modules commercialized in Japan and India

2019

1969

Expanded PTFE technology invented



1996

Launch of REMEDIA® filter bags, Gore's first gas phase remediation product



2013

Mercury & SO₂ Control Modules commercialized in U.S.



2018

Mercury & SO₂ Control Modules commercialized in Europe

2021+

Mercury & SO₂ Control Modules commercialized in Indonesia

1958

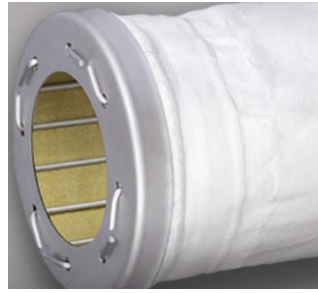
W.L. Gore and Associate Inc. Formed



W.L. Gore & Associates, Inc.

45+yrs. of experience in air pollution control

GORE® REMEDIA® Catalytic Filter Bags / GORE® DeNOx Catalytic Filter Bags

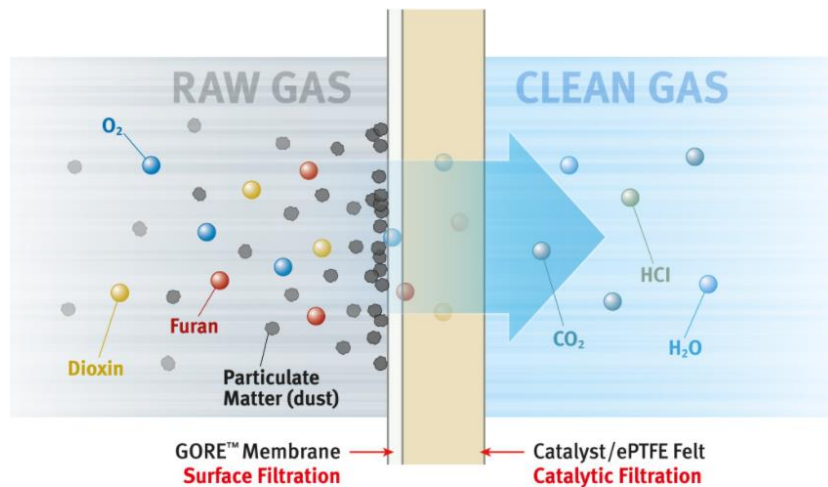


□ GORE® REMEDIA® Catalytic Filter Bags

- remove dioxins ($< 0.1 \text{ ng/m}^3$) and furans simply by installing new filters in your baghouse
- catalyst reacts with the dioxin and furan molecules to convert them into insignificant amounts of CO_2 , H_2O and HCl
- GORE Membrane captures fine particulate
- Alternatives to powdered activated carbon or SCR

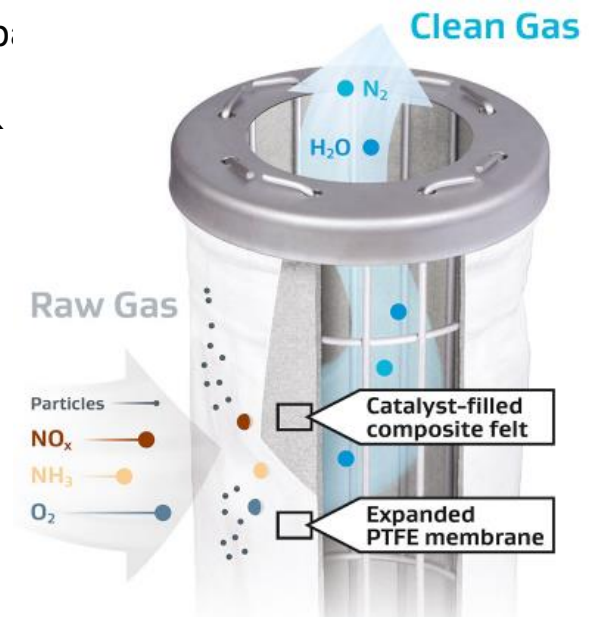
□ GORE® DeNOx Catalytic Filter Bags

- reduce NO_x and NH_3 with minimum or no changes in the existing processes and equipment
- catalyst instantly reacts with NO_x and NH_3 molecules to convert them into insignificant amounts of N_2 and H_2O
- GORE Membrane captures fine particles
- Alternatives to SCR or SNCR



“Catalytic Filtration”

simultaneously provide dust control and remove hazardous pollutants



45+ yrs. of experience in air pollution control

GORE™ Mercury and SO₂ Control System – new approach to deHg and deSO_x

➤ **remove both elemental and oxidized mercury at 1 system**

→ no need to oxidize mercury before GORE system (= no SCR)

➤ **simultaneously remove SO₂ and Hg**

→ no need to consider reagent or install FGD

➤ **Very low operating cost**

➤ **Applicable for**

- # Coal Fired Power Plant / Industrial Boiler
- # Incinerators
(municipal solid waste / hazardous waste and so on)
- # Cement
- # others

