

High Efficiency Catalytic Filter Bags

Multi-layer Structure for Longer Reaction Time and Higher Efficiency

The internal layer contains a high catalyst load. Its thicker catalytic layer extends reaction time (0.35–1s), delivering higher conversion and removal efficiency than other brands at the same filtration velocity.

Multi-functional Catalyst

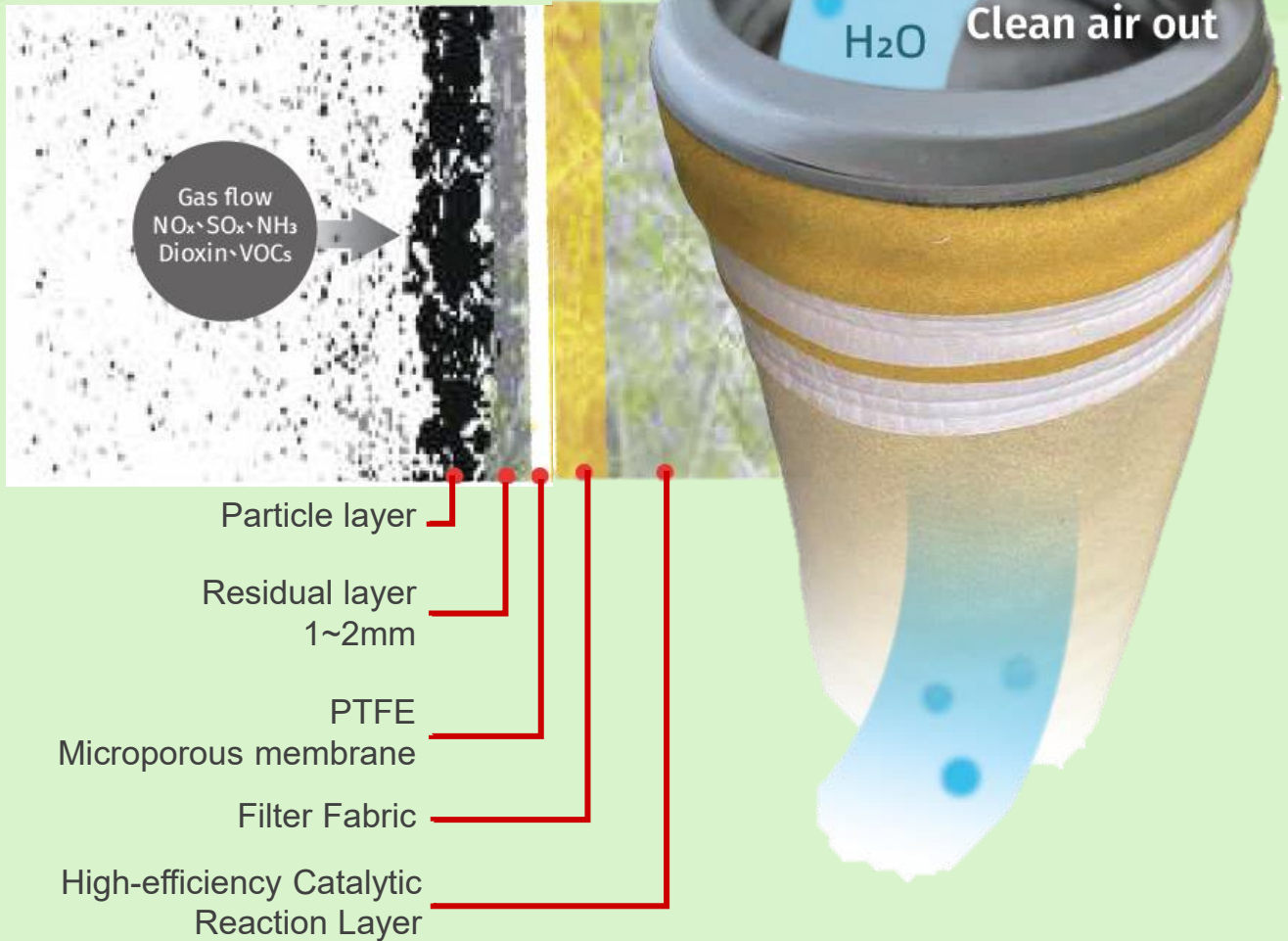
Proprietary formulation enables DeNO_x at medium/low temperatures and decomposition of dioxins and VOCs.

Integrated Treatment

With upstream alkaline and reducing agents, the system removes acid gases, dust, SO₂, NO_x, and dioxins in one process.



Structure of High-Efficiency Catalytic Filter Bags



Membrane structure + dust cake barrier = superior dust collection efficiency

Application Industries

- Waste (liquid) incineration
- Biomass power plant
- Cement and lime kilns
- Iron, Steel sintering/coking
- Metal smelting/foundry
- Glass kilns
- Boiler



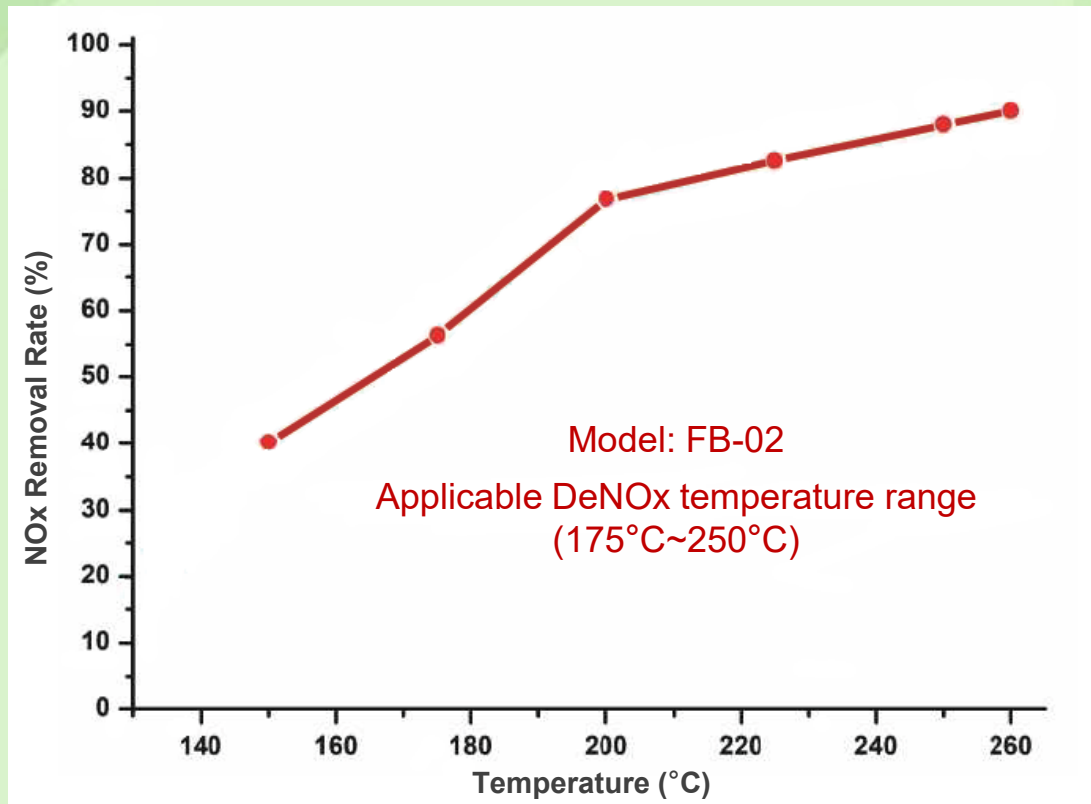
Advantages & Size Dimension of High-Efficiency Catalytic Filter Bags

- Selected hydrophobic, hydrolysis-resistant, and breathable customer-specified materials. Resistant to acidic and alkaline gases
- High catalyst loading; excellent removal efficiency
- Anti-deformation: withstands >200,000 pulse-cleaning cycles
- Long abrasion life: filter bags and cages do not suffer multi-point wear damage from continuous friction
- ESG-oriented product supporting environmental sustainability
- Dimensions vary based on equipment type, gas flow rate, operating temperature, and required filtration efficiency.
- Custom diameters and lengths available upon request.
- **Catalyst type:**
FB-01 (low-temp): for deNOx 120~200°C
FB-02 (mid-temp): for deNOx 175~250°C, for Dioxin removal 175~230°C

Material / Properties	Composition & scrim	PTFE, Teflon	PTFE, Teflon Membrane	Polymide, P84	Polymide, P84 Membrane
Fabric weight	g/m³	800g±5%	800g±5%	550g±3%	550g±3%
Thickness	mm	1.0 – 1.4	1.0 – 1.4	1.6 – 2.2	2.0 – 2.6
Air permeability	L/dm2.min (@200Pa)	80 – 120	20 – 40	100 – 150	20 – 50
Tensile strength	N/(5x20cm)	≥800 ≥800	≥800 ≥800	≥900 ≥1200	≥900 ≥1200
Elongation at break (warp / weft)	%	≤15 ≤20	≤15 ≤20	≤30 ≤50	≤30 ≤50
Maximum operating temperature	°C	<260	<260	<280	<280
Thermal shrinkage at 260°C/30min	%	≤1.5 ≤1.5	≤1.5 ≤1.5	≤1.5 ≤1	≤1.5 ≤1

Typical Dimension and Filtration Area								
Filter bag O.D.	mm	150			160			Others
Filter bag length	mm	3,000	4,500	6,000	3,000	4,500	6,000	
Filtration area	m²	1.4	2.1	2.8	1.5	2.3	3.0	

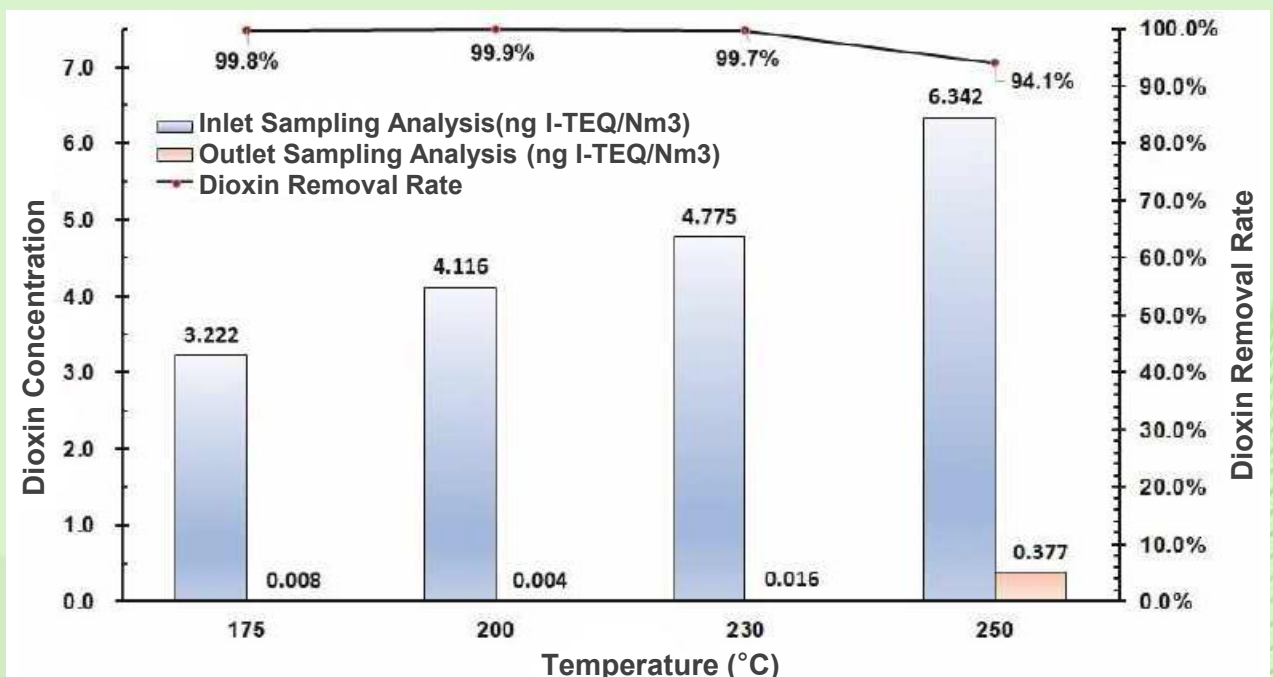
Dual DeNOx and Dioxin Removal Efficiency



Dioxin Removal Efficiency

With vanadium-based catalysts, dioxins react with oxygen and decompose into non-toxic substances such as CO₂, H₂O, and HCl.

Reaction (oxidation): $C_{12}H_nCl_8-nO_2 + (9+0.5_n)O_2 = (n-4)H_2O + 12CO_2 + (8-n)HCl$



Model: FB-01
Low-temperature DeNOx environment
(120°C~200°C)

Temperature (°C)	NOx Removal Rate (%)
120	61
150	82
175	90
200	95
225	95
250	94

Removal rate for particles $\geq 0.2\mu\text{m}$: 99.2~100%



Catalytic Filter Bag Fabric

Third-Party (TTRI) Test Result

Test Item	Unit	Value	Test Method
Air Permeability	ft ³ /ft ² /min	10.6	ASTM D737-2018 (ΔP 125Pa, 38 cm ² area)
Breaking Strength	Kgf/5cm (N/5cm)	144.0 Warp (1411)	ASTM D5035-2011 Strip Method, 30±1cm/min, CRE
		139.9 Weft (1371)	
Bursting Strength	Lb/in ² (psi)	506	ASTM D3786-2018 Mullen type



CK CHOKO CO., LTD.

5F, No.417-1, Chi-Shyan 2nd Rd., Chyan-Jin Dist.,
Kaohsiung 80143, Taiwan
Tel: +886-7-2167357 Fax: +886-7-2167356
<https://www.choko.asia>