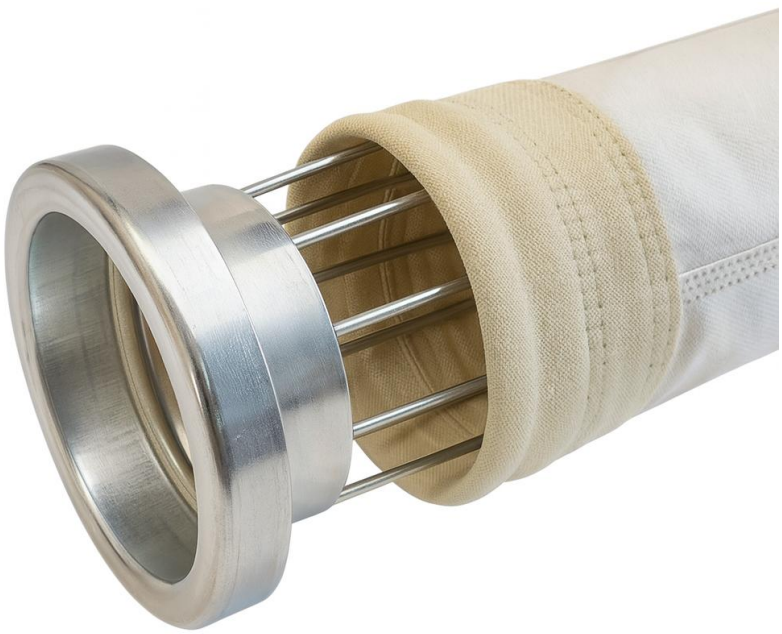
DFX Series

DFX™ Series – Dust Filtration Excellence Built for Industrial Demands

DFX-NMX™ – Aramid (Nomex®) High-Temperature Dust Bags Technical Overview

FiltraCore Asia's **DFX-NMX™ Aramid (Nomex®) Dust Filter Bags** are manufactured from **premium aramid needlefelt** with a basis weight of **500–600 g/m²**, supported on a woven scrim for dimensional stability. The felt is optionally treated by **singeing, glazing, or PTFE membrane lamination** to improve cake release and minimise emissions.

Aramid (Nomex®) is classified as a **high-temperature filtration material**, with a recommended **continuous operating limit of 200 °C** and **short-term excursions up to 220–240 °C**. It offers **good chemical resistance to acidic gases such as SOx and NOx**, but only **moderate resistance to strong alkalis**. Mechanical performance is marked by **low shrinkage, high abrasion resistance, and dimensional stability** under cyclic cleaning.



In service, **DFX-NMX™ is widely applied in cement kilns, asphalt dryers, foundries, and incinerators**, where gas temperatures, abrasive dust, and cleaning stresses demand a robust filtration medium. The needlefelt construction delivers **predictable pressure drop behaviour**, reliable cleaning response, and **extended service life** compared to polyester or acrylic alternatives.

DFX-NMX™ bags are supplied in **OEM-equivalent constructions**, compatible with housings from **Donaldson®, AAF®, Parker Hannifin®, BWF® Envirotec, FLSmidth®, and other major system providers**.

Engineered for Heat. Designed for Longevity. Proven in Harsh Environments.

DFX Series

Technical Specifications

- **Material:** 100% Aramid (Nomex®) Needlefelt, typically 500–600 g/m²
- **Operating Temperature:** Continuous up to 200 °C; peaks up to 220–240 °C
- **Micron Ratings:** Typically 10–50 µm, depending on finish and application
- **Finish Options:** Glazed, singed, or PTFE membrane laminated for improved cake release and low emissions
- **Construction:** Sewn with high-temperature thread (aramid or PTFE); double or triple stitched seams
- **Seam Style:** Standard double needle or reinforced stitching for high-stress systems
- **Air Permeability:** 8–12 m³/m²/min (pre-conditioning, finish dependent)
- **Chemical Resistance:** Good resistance to acidic gases (SOx, NOx); moderate resistance to alkalis
- **Hydrolysis Resistance:** Limited – not recommended for high-moisture or dew point conditions
- **Cage Compatibility:** Designed for use with round or oval cages; venturis compatible
- **Compliance:** OEM-equivalent designs; food-contact compliant variants available (FDA 21 CFR; EU 1935/2004 & 10/2011)
- **Add-Ons:** Wear pads, anti-collapse rings, top-load guides, spark-resistant cuffs

Standard Dimensions

- **Lengths:** 1000 mm to 6000 mm (custom lengths available on request)
- **Diameter:** Standard diameters 120 mm, 125 mm, 130 mm, 150 mm, and 160 mm; other diameters available on request

- **Top Options:** Snap band, raw cuff, corded cuff, compression cuff, flange collar, or ring top
- **Bottom Options:** Sewn disc (standard); reinforced bottoms or wear pads available for abrasive environments
- **Customisation:** Sizes and constructions can be tailored to fit specific housing requirements or OEM specifications

Recommended Air-to-Cloth (A/C) Ratios[1] for DFX-NMX™

Application	Cleaning System	Recommended A/C Ratio (m/min)	System Type	Media Type	Notes
Cement Kilns & Clinker	Pulse Jet	0.8 – 1.2	Baghouse	Aramid (Nomex®) Needlefelt	Stable under high temperature; avoid direct dew point conditions
Asphalt Mixing Plants	Pulse Jet	1.0 – 1.5	Baghouse	Aramid (Nomex®) Needlefelt	Withstands thermal spikes; good abrasion resistance
Metal Foundries	Pulse Jet	1.0 – 1.4	Baghouse	Aramid (Nomex®) Needlefelt	Strong abrasion resistance; ensure adequate cooling in molten zones
Waste Incinerators	Reverse Air	0.6 – 1.0	Baghouse	Aramid (Nomex®) Needlefelt	Use downstream of conditioning/cooling; not suited to high moisture load

[1] Recommended air-to-cloth (A/C) ratios are indicative and intended for general design reference. System-specific performance may vary depending on particulate properties, air volume, filter cleaning frequency, and baghouse design. For high-temperature applications or corrosive gas environments, consult FiltraCore Asia's engineering team to validate operating parameters for DFX-NMX™.

Pleated variants of this media are sometimes promoted but are not considered commercially reliable due to fibre and service-life limitations. FiltraCore Asia supplies only proven bag constructions in line with global OEM standards.

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