

BUNDLETEC® HIGH PERFORMANCE ENGINEERING

FlueTec™ Fabric Expansion Joint

Engineered high-temperature multi-layer expansion joint engineered for utility boilers and flue gas ducting.

TEMPERATURE RANGE
+100°C / +750°C

DESIGN PRESSURE
±20,000 Pa (±200 mbar)

MOVEMENTS
Axial ±100mm

ATTENUATION
20 -

MAX GAS VELOCITY
< 45 m/s

HELIUM LEAK RATE
 $Q \leq 1 \times 10^{-3}$



Certified Factory Assembly & Inspection

1 MULTI-LAYER COMPOSITE MATERIAL ARCHITECTURE

LAYER 1: REFLECTIVE WEATHER OUTER

Aluminized glass fabric / high-temperature silicone weather shield

LAYER 2: MULTI-TIER BOLSTER CUSHION

Multi-layered 1200°C rated bio-soluble ceramic thermal insulation bolster

LAYER 3: GAS VAPOR IMPERVIOUS LAYER

Thermal surge resistant high-spec PTFE/graphite composite membrane

LAYER 4: INTERNAL ALLOY WIRE MESH

Inconel 625 / AISI 310 knitted wire mesh & high-temp ceramic textile

2 TECHNICAL SPECIFICATIONS & DESIGN MATRIX

TECHNICAL PARAMETER	ENGINEERING SPECIFICATION & MATERIAL DEFINITION
Operating Temperature	+100°C to +750°C (+212°F to +1382°F)
Design Pressure	±20,000 Pa (±200 mbar high pressure rating)
Authority Standards	RAL-GZ 719 Groups 4 & 5 / FSA-DSJ / CE
Thermal Drop Efficiency	700°C flue gas reduced to < 60°C cold-face outer
Frame Configuration	Stand-off cold flange / thermal bridge insulated
Frame & Backing Bars	16Mo3 / AISI 321 / Structural Carbon Steel

3 INDUSTRIAL APPLICATIONS & QUALITY ASSURANCE

- Coal & gas utility boiler exhaust duct systems
- Air preheater (APH) hot air & flue gas connections
- DeNOx SCR/SNCR catalytic reactor inlet/outlets
- Waste-to-energy and biomass power generation plants

INTERNATIONAL STANDARD COMPLIANCE

All BundleTec compensators are engineered referencing RAL-GZ 719 technical recommendations and FSA-DSJ guidelines with certified helium leak tightness and DIN EN ISO 13934-1 tensile compliance.

RAL-GZ 719

FSA-DSJ

ISO 9001:2015

CE

ATEX 2014/34/EU

BUNDLETEC MANUFACTURING FACILITIES

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