

## BUNDLETEC® HIGH PERFORMANCE ENGINEERING

## ChemTec™ Fabric Expansion Joint

Engineered chemical-barrier expansion joint impervious to acid dew point condensation and wet flue gases.

## TEMPERATURE RANGE

**-40°C / +300°C**

## DESIGN PRESSURE

**±10,000 Pa (±100 mbar)**

## MOVEMENTS

**Axial ±60mm**

## ATTENUATION

**15 -**

## MAX GAS VELOCITY

**< 35 m/s**

## HELIUM LEAK RATE

 **$Q \leq 1 \times 10^{-3}$** 

Certified Factory Assembly &amp; Inspection

## 1 MULTI-LAYER COMPOSITE MATERIAL ARCHITECTURE

## LAYER 1: CHEMICAL OUTER JACKET

Heavy-duty FKM (Viton®) / PTFE composite coated glass fabric, UV & acid mist proof

## LAYER 3: ZERO-POROSITY GAS BARRIER

Cross-laminated multi-film pure sintered PTFE foil (0.5mm), 100% impervious

## LAYER 2: THERMAL INSULATION CORE

Hydrophobic acid-resistant silicate and high-density E-glass insulation cushion

## LAYER 4: INNER CHEMICAL ARMOR

Inert woven PTFE scrim fabric sewn with continuous fluoropolymer sewing thread

## 2 TECHNICAL SPECIFICATIONS &amp; DESIGN MATRIX

| TECHNICAL PARAMETER   | ENGINEERING SPECIFICATION & MATERIAL DEFINITION      |
|-----------------------|------------------------------------------------------|
| Operating Temperature | -40°C to +300°C (-40°F to +572°F)                    |
| Design Pressure       | ±10,000 Pa (±100 mbar)                               |
| Authority Standards   | RAL-GZ 719 Group 3 / FSA-DSJ-401 / CE                |
| Corrosion Resistance  | pH 0 - 14 full spectrum acid & alkaline gas proof    |
| Barrier Membrane      | Pure sintered virgin PTFE foil (zero micro-pinholes) |
| Frame & Backing Bars  | AISI 316L / Hastelloy C-276 / PTFE-Coated Steel      |

## 3 INDUSTRIAL APPLICATIONS &amp; QUALITY ASSURANCE

- Thermal power plant wet flue gas desulfurization (FGD)
- Chemical plants, fertilizer & sulfuric acid production
- Municipal waste incinerator wet flue gas scrubbers
- Aggressive chemical processing and pickling lines

## 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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