BundleTec

BT-EPC-ITP-EN-2026

EPC Quality Dossier, Sample ITP & Factory Acceptance Test (FAT) Package

Inspection & Test Plan (H/W/R), EN 10204 2.2 vs. 3.1 Certification Matrix, WPS/WPQR, EN 1593 Nekal® & Optional Helium QA

1. Sample Inspection & Test Plan (ITP) — Hold / Witness / Review Matrix

H: HOLD · W: WITNESS · R: REVIEW

No.	Fabrication / QA Stage	Governing Code / Criteria	Verifying Record / Certificate	Mfr	EPC / Client
01	Textile / PTFE / CMS-Bio Receiving	RAL-GZ 719 (Mar 2017) · REACH	**EN 10204 2.2** + Batch Traceability	H	R
02	Metallic Frame, Liner & Bolt Receiving	EN 10025 / EN 10088 / ASTM A240	**EN 10204 3.1** Heat Chem & Mech	H	R
03	Exotic Alloy PMI Spectrometer Verification	Inconel 625 / 310S (1.4845) / C-276	Positive Material ID (XRF) Report	H	W
04	Welding Procedure & Welder Qualification	EN ISO 3834-2 · EN ISO 15614-1 / 9606	WPS / WPQR & Valid Welder Roster	H	R
05	Steel Frame Weld NDT (VT & PT)	ISO 17637 (100% VT) · ISO 3452 (PT)	ISO 9712 Level II NDT Report	H	W
06	Multi-Layer Lamination & Hot Splicing	370°C PTFE Weld / FKM Vulcanization	Press Temp / Pressure / Dwell Log	H	R
07	Baseline Belt Gas-Tightness Test	RAL-GZ 719 · EN 1593 Nekal® ≥50 hPa	Zero-Bubble FAT Leak Certificate	H	W
08	Optional Extended Helium QA Verification	BundleTec Protocol Q ≤ 1.0×10^{-3} mbar·l/(s·m)	Helium Mass-Spectrometer Report	W	W
09	Dimensional, Flow Arrow & R≥3mm Check	L_inst / W×H ±2 mm · Edge R ≥ 3 mm	Final Dimensional FAT Datasheet	H	W
10	Coating, Transit Locks, Tagging & Crating	ISPM-15 Timber Crate · SS Nameplate	Release Note & Final MRB Dossier	H	R

2. Explicit EN 10204 2.2 vs. EN 10204 3.1 Certification Matrix

EPC AUDIT TRANSPARENCY

Component Group	Certificate Class	Scope / Reference	Metallurgical / Polymer Compliance Note
PTFE Film, Elastomers, Silica & CMS-Bio	EN 10204 2.2	RAL-GZ 719 (Mar 2017) · DIN EN ISO 13934-1	Non-metallic polymer & textile layers carry batch test reports (2.2) per official RAL-GZ 719 practice.
Steel Frames, Liners (PD), Bars & Bolting	EN 10204 3.1	S235JR / S355J2+N / 304 / 316L / 310S (1.4845) / C-276 / Inconel 625	All structural metallic components carry heat-number traceability and EN 10204 3.1 mill certificates (+ PMI on alloys).

Quality Systems, Welding & PED/ATEX Policy: BundleTec Arnavutköy holds **ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, and ISO 10002:2018**. Structural steel frames are fabricated under qualified **WPS/WPQR & EN ISO 3834**. Non-PED fabric expansion joints ≤0.35 bar do NOT carry generic PED CE; **ATEX 2014/34/EU Ex/CE** applies strictly to assessed explosive-zone assemblies (conductive PTFE Rs < 10^6 Ω, grounding R < 1 Ω).

48-Hour Emergency Turnaround & 24/7 Senior Engineer Hotline: +90 530 675 18 99 · Tel: +90 212 823 37 57 · info@bundletec.com · www.bundletec.com/en/

BundleTec Arnavutköy Fabric Expansion Joint Plant (HQ): Karlıbayır Mah. Bayrak Cd. No: 134D & 132C, 34275 Arnavutköy / İstanbul, Türkiye (Fabric expansion joint manufacturing ONLY)

BUNDLETEC ENDÜSTRİYEL ÜRÜNLER MAKİNA SAN. TİC. LTD. ŞTİ. · TUZLA V.D. - 190 147 89 15 · MERSİS: 0190147891500001 · Trade Reg: 402094-5 · KEP: bundletec@hs01.kep.tr

3. Factory Acceptance Test (FAT) Checklist

- **EN 1593 Nekal® Foam Test:** 100% zero-bubble leak check across all belt splices at ≥50 hPa (official RAL-GZ 719 baseline).
- **Optional Helium QA:** Extended mass-spectrometer verification at **Q ≤ 1.0×10⁻³ mbar·l/(s·m)** for zero-emission toxic/acid duty.
- **Dimensional Check:** W×H / Ø, L_inst, diagonals & bolt-circle ±2 mm; all belt-facing flange corners verified R ≥ 3 mm.
- **Weld NDT & PMI:** 100% VT (ISO 17637), PT (ISO 3452) on structural seams; 100% XRF PMI on Inconel 625, AISI 310S (1.4845), and Alloy C-276.

4. Tiered Realistic Manufacturing Lead Times

Supply Scope	Lead Time	Basis
Belt-Only / Spare Kit	48 h – 7 days	10,000+ m² Arnavutköy stock
Carbon Steel Framed	2 – 3 weeks	S235JR / S355J2+N + VT/PT
310S / C-276 / Inconel Frame	3 – 6 weeks	EN 10204 3.1 + PMI + WPS

DECHEMA Chemical Summary: Wet H_2SO_4/HCl/HF (pH 0–14) → 100% sintered PTFE + C-276; Dry flue ≤750°C → CMS-Bio + 310S (1.4845); Oil/hydrocarbons → FKM/PTFE (never EPDM).

5. Anonymized Heavy-Industry Reference Plant Track Record

FIELD-PROVEN SERVICE

Sector & Plant Capacity	Series & Service Duty	Duct Size	Operating Conditions	Service Life
Combined-Cycle Power (CCGT — 900 MW)	GtTec™ · Gas Turbine Diffuser → HRSG	7,200 × 4,800 mm	+620°C / 55°C/min shock · 58 m/s	6+ yrs (active)
Integrated Cement Plant (6,500 tpd)	ArminTec™ · Clinker Cooler & Cyclone	Ø 3,400 mm	+480°C · 120 g/Nm³ abrasive dust	5+ yrs (active)
Coal Utility Wet FGD (660 MW)	ChemTec™ · Absorber Inlet & Outlet	6,000 × 3,800 mm	+145°C · ±28 kPa · pH 1–2 H_2SO_4/Cl^-	7+ yrs (active)
Steel Melt Shop (180 t EAF Off-Gas)	FlueTec™ · Primary Dedusting Duct	Ø 2,800 mm	+720°C peak +780°C · 310S (1.4845)	4+ yrs (active)
Petrochemical Refinery & Utility Boiler	FanTec™ / FlueTec™ · ID Fan & APH	4,200 × 2,400 mm	+180°C / +420°C · ±15 kPa · ATEX opt.	8+ yrs (active)

EPC Vendor Prequalification Package: Full ISO 9001/14001/45001/10002 certificates, project-specific ITP/QCP templates, and statutory vendor registration credentials (TUZLA V.D. 190 147 89 15 · MERSİS 0190147891500001) are issued immediately upon request to **info@bundletec.com** (Nayri Akbuğa · BundleTec Engineering).

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