TECHNICAL PROCUREMENT RESOURCE · FGD GYPSUM DEWATERING

FGD Vacuum Belt Filter Cloth — RFQ & Tender Specification Checklist

A standard 16-parameter technical checklist and print-ready plant engineering worksheet for utility and steel FGD gypsum vacuum belt filter cloth procurement.

Independent replacement cloth — not an OEM spare part. Dimensions and construction are confirmed per enquiry.
Download the FGD Belt Tender Specification Checklist (PDF).
The same 16-parameter checklist and print-ready plant worksheet on this page, as a file.
Download PDF Checklist
Engineering Integrity Policy

Flue Gas Desulphurisation (FGD) commercial tenders frequently include buyer-specified service-life targets (e.g., public buyer requirement examples cite 6,000 to 8,000 operating hours or 12 calendar months). Filter belt actual operating life depends strictly on slurry chloride concentration, quartz/fly-ash abrasive content, wash box pressure, belt tracking alignment, and operating pH.

Our policy: If your tender or BOQ contains a specific service-life requirement clause, please attach the full specification. Our engineering team calculates whether that requirement is technically supportable for your specific slurry conditions rather than blindly copying an ungrounded warranty into a commercial quotation.
Procurement Specification Standard

16 Essential Technical Fields for FGD Belt Procurement

Basing a commercial tender solely on "nominal length and width" is the leading cause of tracking instability, premature seam fatigue, and cake carryover. Ensure these 16 parameters are captured.

Group A: Machine & Dimensional Boundary

Basic equipment parameters determining mechanical fit and drive clearance.

- 1
  Plant / Generating Unit ID e.g., Thermal Power Station 2x660MW Unit 1 FGD or Sinter Plant Desulphurisation.
- 2
  Machine OEM & Exact Model e.g., Delkor HBF 3.0x20, Andritz RT 2.6x18, FLSmidth HBF 3.2x22. OEM nameplate photo recommended.
- 3
  Active Filtration Area (m^2) Effective vacuum zone area across suction boxes.
- 4
  Cloth Width & Developed Loop Length (mm) Exact finished edge-to-edge width and closed endless perimeter length.

Group B: Slurry & Process Chemistry

Chemical environment dictating synthetic yarn polymer selection and resistance.

- 5
  FGD Gypsum Slurry Origin Limestone-gypsum wet scrubber (coal-fired power plant) vs steel-sinter flue gas desulphurisation.
- 6

Feed Slurry Solids Concentration (wt%) Typical feed consistency from hydrocyclone underflow (typically 45–55 wt%).

- 7
  Operating Slurry Temperature & pH Continuous operating liquor temperature (°C) and operating slurry pH range.
- 8
  Chloride Content & Cake Wash Quality Chloride ion concentration (ppm Cl^-) and available fresh wash water volume.

Group C: Fabric & Seam Construction

Weave mechanics, permeability, seam joint, and edge reinforcement configuration.

- 9
  Polymer Candidate Family Polypropylene (PP) or Polyester (PET) selected based on chemical exposure and temperature.
- 10
  Weave Pattern & Permeability at Stated ΔP Target permeability in CFM or L/dm²·min with the specific laboratory test pressure differential (e.g., 200 Pa per ISO 9237 / ASTM D737).
- 11
  Seam Joint & Pintle Material Clipper hook (316L, 904L, or Hastelloy C-22) with PEEK or synthetic pintle core, or PAD seamless joint.
- 12
  Edge Reinforcement & Tracking Profile Ultrasonic edge sealing, hot-melt polyurethane edge coating, or rubber V-guide tracking profile.

Group D: Performance & Verification Requirements

Performance metrics, service life clauses, and delivery inspection certificates.

- 13
  Target Gypsum Cake Residual Moisture Target cake moisture level (typically ≤ 10 wt% for commercial wallboard plaster use).
- 14
  Current Belt Service Life & Failure Mode Average service life achieved by current belts and primary reason for change-out (wear, blinding, or seam failure).
- 15
  Tender Service Life Clause Review Explicit evaluation of plant warranty run-hour clauses against process slurry conditions.
- 16
  Batch Inspection & Factory QC Deliverables Dimensional verification sheet, sample cut tensile test log, and air permeability batch inspection record.

On-Site Field Recording

Print-Ready Plant Engineering Worksheet

Use this standardized single-page worksheet to record dimensions and process data directly on the filter plant floor. Click the print button to output a clean A4 sheet.

HVBFcloth.com · FGD Filter Belt Inspection & Procurement Worksheet

Document Ref: WS-FGD-2026-V2 · Standard Plant Survey Protocol
Survey Date: _____
Inspector: _____

No.	Technical Specification Item	Field Observation / Measured Value	Unit / Status
01	**Power Station & Unit No.**	[ ]	Plant Tag
02	**Filter OEM & Model Designation**	[ ]	OEM Model
03	**Belt Finished Width (Edge-to-Edge)**	Measured: [ ] mm	Per drawing spec
04	**Belt Developed Closed Loop Length**	Measured: [ ] mm	At working tension
05	**Effective Active Vacuum Filtration Area**	Nominal: [ ]	m^2
06	**Flue Gas Gypsum Slurry Origin**	( ) Coal-Fired Wet Lime ( ) Steel Sinter FGD	Check one
07	**Feed Slurry Consistency & Solids wt%**	Typical: [ ] wt% Max: [ ] wt%	wt% solids
08	**Operating Temperature & Slurry pH**	Temp: [ ] °C pH Range: [ ]	Process env
09	**Chloride Concentration in Slurry Liquor**	Chloride: [ ] ppm Cl^-	Corrosion check
10	**Current Filter Cloth Polymer & Form**	( ) Polypropylene (PP) ( ) Polyester (PET)	Yarn material
11	**Target Air Permeability (with test ΔP)**	Value: [ ] ΔP: [ ] Pa	CFM or L/dm^2·min
12	**Seam Joint Type & Hook Alloy**	( ) Clipper 316L ( ) Clipper Hastelloy ( ) PAD	Joint spec
13	**Edge Sealing & Tracking Guide Strip**	( ) Ultrasonic Seal ( ) PU Coated ( ) Rubber V-Guide	Tracking profile
14	**Cake Discharge & Residual Moisture**	Discharge: ( ) Clean ( ) Sticky Target: [ ]%	wt% moisture
15	**Current Belt Change-out Reason**	( ) Seam Tear ( ) Blinding ( ) Tracking / Edge Wear	Failure mode
16	**Tender Operating Life Clause (if any)**	Requirement: [ ]	Hours / Months

Next step: Photograph the old cloth, seam joint, machine nameplate, and completed worksheet, and send them by email to rfq@hvbfcloth.com or upload them with the engineering RFQ form at hvbfcloth.com/rfq/engineering/. Attach up to 8 files (each up to 3.5 MB; keep the combined total under about 3 MB). For larger files, reply to the confirmation email and attach them there.

Direct Engineering Consultation

Have an FGD Tender or Replacement Requisition?

Upload your plant data sheet, BOQ, or nameplate photograph. Our technical team will review chemical compatibility, seam mechanics, and permeability selection against your machine layout.