SERVICES



ANALYSIS, BAGS INSTALLATION, ACCESSORIES

GAS AND LIQUID FILTRATION

testori®
TESTORI GROUP

Intro-Summary

Testori's 100 years of **know-how and vertically integrated production of filter media for gas and liquid filtration** are essential for technical assistance of our customers, best material choice, proper design of finished products and both pre and post-sales support. Testori services include:

- Internal **R&D** laboratory equipped for analysis, technical support and development of new products to face the most challenging applications
- **Design & engineering** department for the design of customized products and technical analyses, **installation** and **maintenance**
- **Spare parts and accessories** offered for bag houses to complete Testori's broad range of products

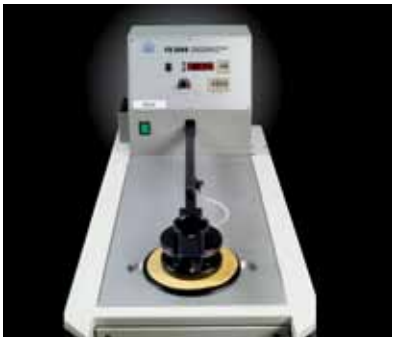
TECHNICAL SUPPORT AND LABORATORY ANALYSIS

Our laboratories perform two types of analyses:

- **Quality control** on felts, woven fabrics and on converted products
- **Analysis of used samples** (filter-press cloths, filter bags, etc.) provides after sales service for new designs, problem solving and check of the residual lifetime

Burst test

Bags installation



Permeability test

Our analytical capabilities include:

- Permeability (EN ISO 9237)
- Material thickness (EN ISO 9073-2)
- Material density (EN 12127)
- Shear and tensile strength (EN 29073-3 / EN 13934) of felts and cloths
- Burst test: measure of necessary pressure to break a 10 cm^2 sample (DIN 53861)
- Size distribution and chemical composition of process dust
- Felt and woven fabric resistivity (DIN 54345/1-5)
- Scanning electron (SEM) and optical microscope photos
- Infrared spectrometry: analysis of organic molecule composition, providing useful information to understand filter bag properties and problems
- Measurement of dust penetration into the needle felt
- Differential Scanning Calorimeter

Filter media efficiency test - VDI3926:2004 - Verein Deutscher Ingenieure

VDI 3926/2004 test is a method for comparative characterization of dry cleanable filter media under standardized conditions. Testori and the customer are able to **evaluate cleaning properties, residual pressure losses and filtration efficiency**, by:

- Comparison of filtration performance of different felts (test results are not absolute)
- Estimation of cleaning pulse interval time
- Forecast of stack emissions (PM10 and/or PM2.5)
- Simulation of filter media process performance at high temperature (Tmax = 150°C)

Efficiency test method can be run also in accordance of ISO 11057-2011 and ASTM D6830-02 standard.

Woven fabric - detail

Resistivity test

VDI - Efficiency test

ENGINEERING AND DESIGN

The analyses of plant operating data and of used samples (dimensional, fabrication, chemical/mechanical testing) allow to **engineer finished products in close relationship with customers**.

GAS FILTRATION
(filter bags, etc.)

- Design optimization to guarantee perfect fit in the tubesheet hole to avoid leakages
- Design to optimise the bag “pinch” on the cage and avoid mechanical stresses in operation (i.e. precise bag fit on the cage)
- Optimisation of manufacturing details to assure maximum potential bag life (i.e. reinforcements or special seams)

LIQUID FILTRATION
(cloths for filter presses, belt filters etc.)

- Design optimization with respect to the required fabric
- Use of special reinforcements on severe stress points

Bags & Cages

Cloth for filter press

R&D

INSTALLATION AND MAINTANANCE

Testori offers complete assistance through specialized maintenance teams of Our sister companies in Italy and France: Filter-Tex® (in Maranello, Local Unit of Tessitura Euganea - Testori Group) and TTL France (in Mulhouse, controlled by Testori Group).

The main activities are related to bag replacement, assistance and maintenance on bag filter.

- **Installation of new set of filter bags** (startup of new plant or used bag replacement): check for cleanliness of dust collector walls and tubesheet and for tightness of the bag in the tubesheet hole to avoid dust leakage from the top. A good installation assures that the dust cannot bypass the bag media. Proper cage insertion assures longer bag life
- **Bag replacement:** considering the high dust level in filter plants, the correct equipment is a must to avoid health and safety hazards, using equipment designed and approved for the job and an experienced team
- **Maintenance contract:** the maintenance program provides planned inspections of installed filter media and measures the emission levels
- **Check and control of filter leakage using fluorescent leak powder** to check a new installation or to identify leakage from the collector and form the bags (if unusually high emissions are recorded). The leak powder is available in multiple colors (to allow re-testing), is inert, non-toxic, shows up under ultraviolet light and identifies leakages both from bags and from carpentry

SPARE PARTS AND ACCESSORIES

To complete its broad offering of products to its customers, Testori proposes “turn-key” solutions with the following products:

- **Support cages.** Bag cages, in carbon or stainless steel, galvanized or with cataphoresis coating. Cages are available also with a special treatment to prevent chemical attack. We supply standard and specialty cage tops with bottom pans welded to the inside. Testori also offers two and three piece cages: this design allows installation and removal of longer bags in limited headroom applications
- **Venturis & Nozzles for pulse-jet.** An integral part of most pulse-jet systems, available in spun mild steel, Vydyne and cast aluminium. Venturis reduce internal filter bag wear by directing the compressed air in pulse-jet collectors to the center of the filter bag and provide an air bubble which improves bag cleaning
- **Seals / Gaskets**
- **Electrodynamic probe** for baghouse (TUV approved in according to EN 15859) to allow **continuous monitoring of flow rates and dust concentrations** (in any process condition). This device increases plant performance and reduces maintenance costs by means of:
  - Early detection of dust leaks
  - Precision and reliability (less than 0.1 mg/m^3)
  - Reduced downtime
  - Less time inside the collector

Electrodynamic probe


Leakage test


Bags installation

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