

BOLIAN[®]



Liaoning Bolian Filtration Solutions
辽宁博联过滤有限公司

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BOLIAN FILTRATION SOLUTIONS

30⁺
yrs



40000m²
production base



6million m²
annual production capacity



14
national technology patents

ABOUT BOLIAN

Liaoning Bolian Filtration Solutions was established in 1997, with the former name of Shenyang Bolian Filter Cloth Factory. Bolian specializes in the design, development, manufacturing and sales of woven filter cloth for liquid-solid separation and diaphragm bags for nickel-cobalt electrolytic processing. It is rated "High Tech Enterprise" in 2015 with nearly 30 years of manufacturing experience and world-leading technologies.



Advanced imported production line

Bolian hired a European technical expert, with over 40 years of experience in the textile industry, leading our R&D team to overcome technical difficulties worldwide and develop high-quality filter cloths.

The workshop is equipped with a European production line and self-developed heat setting machine, automatic ultrasonic edge-sealing machine to ensure high-quality cloth.

Our lab is equipped with advanced imported equipment to ensure product quality and support the development of new products.

Multiple certifications

- 14 national technology patents
- ISO9001 Quality Management System Certification
- ISO14001 Environmental Management System Certification
- ISO45001:2018 Occupational Health and Safety Management System Certification

Bolian adheres to the core concepts of “specializing in liquid-solid separation and focusing on high-quality product manufacturing”. We follow the values of “integrity, responsibility, innovation, dedication, and respect and being respected”. Our mission is to supply high-quality and reliable products and services to our customers, and to pursue material and spiritual happiness for all Bolian employees at the same time. Our target is to be the leading global enterprises in the filtration industry. We have committed ourselves to making a contribution to the filtration industry and offering our comprehensive services and products as a one-stop filtration solution to all our global customers.



Global market

Bolian has varieties of products that are widely applied in different industries like chemical, mining, metallurgy, non-ferrous metals, environmental protection, non-metallic minerals, flue gas desulfurization, and food. With years of effort, Bolian has won a strong reputation with our valuable customers, both domestically and globally. Our products are exported right around the world, to Europe, Australia, United States, Chile, Peru, etc.

Long-term cooperation with globally-renowned enterprises

Bolian has been the supplier of the world’s largest copper producer (BHP), the world’s largest nickel producer, and Bolian has been the top supplier to large lead-zinc producers, alumina groups and non-ferrous enterprises in China.

QUALIFICATIONS

Honors in 30 years

In 2010, we gained ISO9001 Quality Management System Certification;

We gained ISO14001 Environmental Management System Certification;

We gained ISO45001:2018 Occupational Health and Safety Management Systems Certification;

DLW cloths have passed FDA and EU food grade certification;

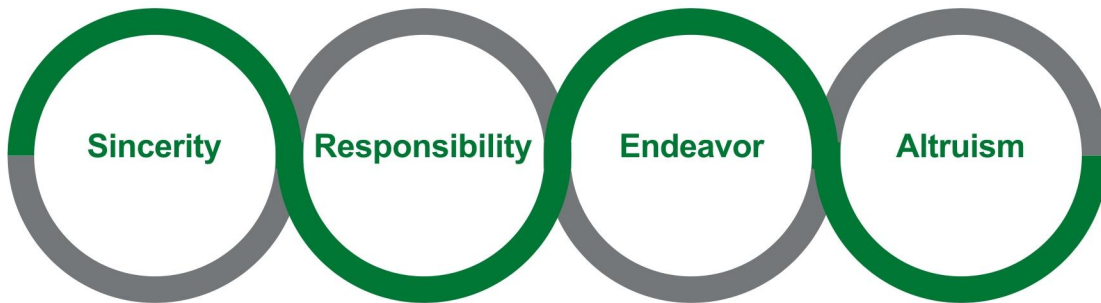
In 2010, we obtained a national patent for electrowinning diaphragm cloth/bag;

In 2012, we obtained a national technology patent for our self-developed multiple hot roller heat setting machine;

In 2013, we obtained a national technology patent for industrial filter cloth woven with covered yarn material;

In 2015, rated as "High Tech Enterprise";

In 2023, Bolian participated in the drafting of the document FZ/T 64015-2023, which sets out the standards for the textile industry in the People's Republic of China.





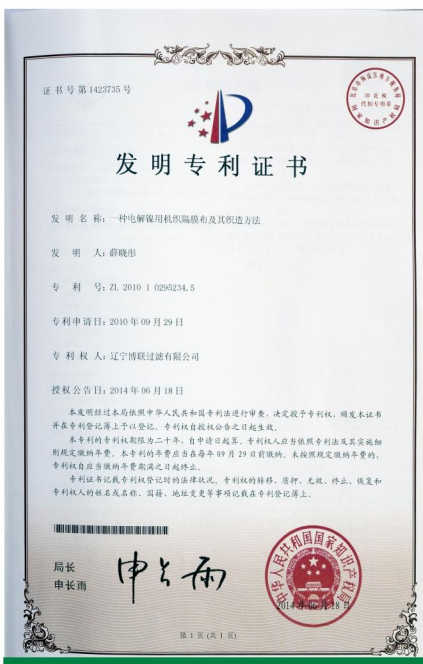
Quality Management System Certificate



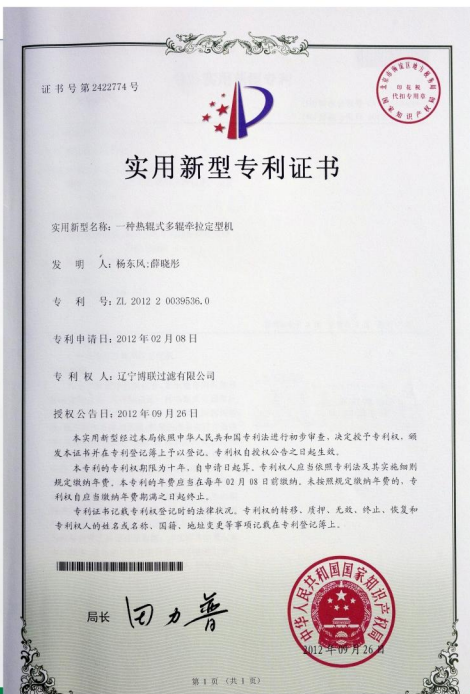
Environmental Management System Certificate



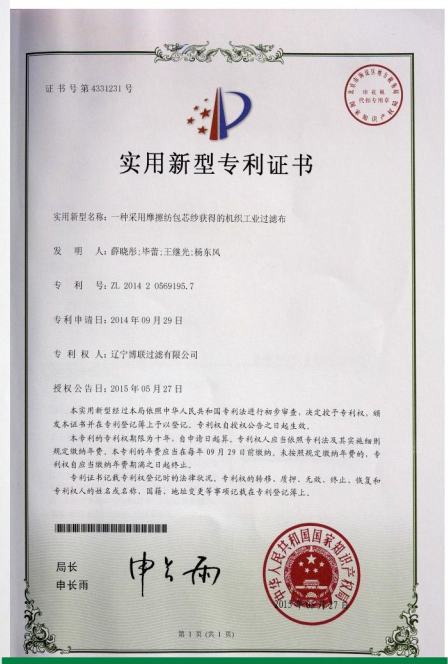
Occupational Health and Safety Management System Certificate



Invention Patent for Electrowinning Diaphragm Cloth



Patent for Hot Roller Typesetting Machine



Patent for Filter Cloth

INNOVATION & TECHNOLOGY

Focusing on the liquid-solid separation field for nearly 30 years.

Bolian filter cloth selects the highest-quality materials in the world.

Each production process strictly follows the ISO9001 quality management system.

Product quality is strictly controlled and the quality standard is implemented according to the national textile industry standard "FZ/T64015-2009".

Bolian has become a global enterprise with reputation for excellence in product quality, comprehensive service, and high standards!



Production and supply strength

40,000 square meters production base, international high-level production line using advanced German technology to develop and produce various types of filter cloth.

We provide a stable supply and can meet the long-term and diverse needs of customers, whether domestic or overseas. At present, we are the supplier for the top global copper producer (BHP) and the diaphragm cloth supplier for the world's largest electrolytic nickel producer.

Research and development team

There are more than 20 senior technical personnel in R&D team, who are responsible for production and operation technical support, new product development, technology management, test management and process management. The R&D team also undertakes the company's technical development strategy, new product development, product upgrade, management and other technical support to meet the development needs of the enterprise.

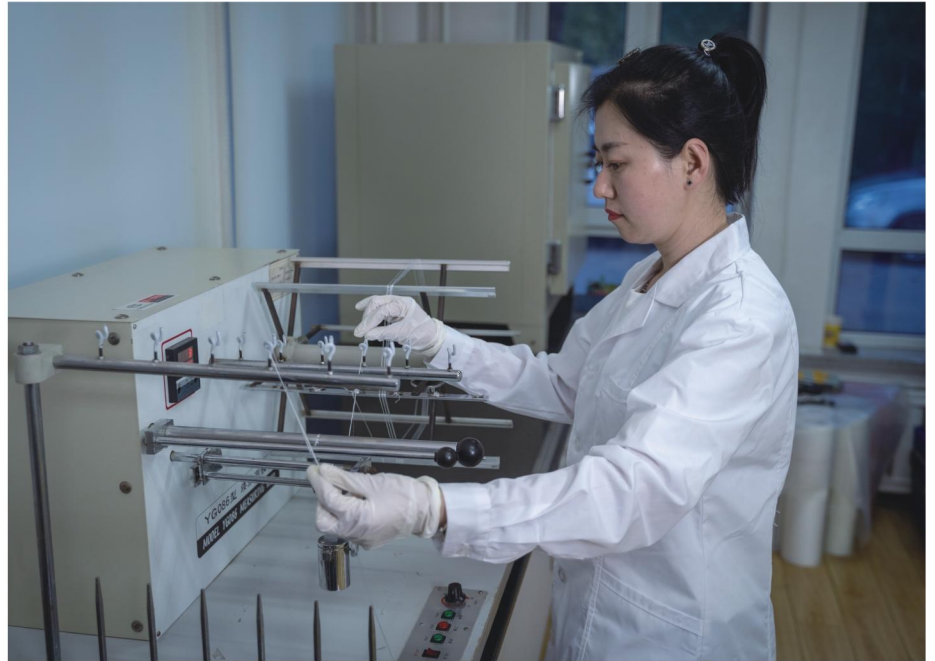
We employ textile industry experts from Germany to control product quality.



R&D and Testing Center



Focus on details control



Independent laboratory

We have a professional testing laboratory and sample room. The laboratory covers an area of 240 square meters and it is responsible for sample analysis and fabric performance testing. It is equipped with a range of international filter fabric performance testing equipment, which can measure various technical indices for products in real-time, to ensure product quality.

A number of school-enterprise cooperation projects

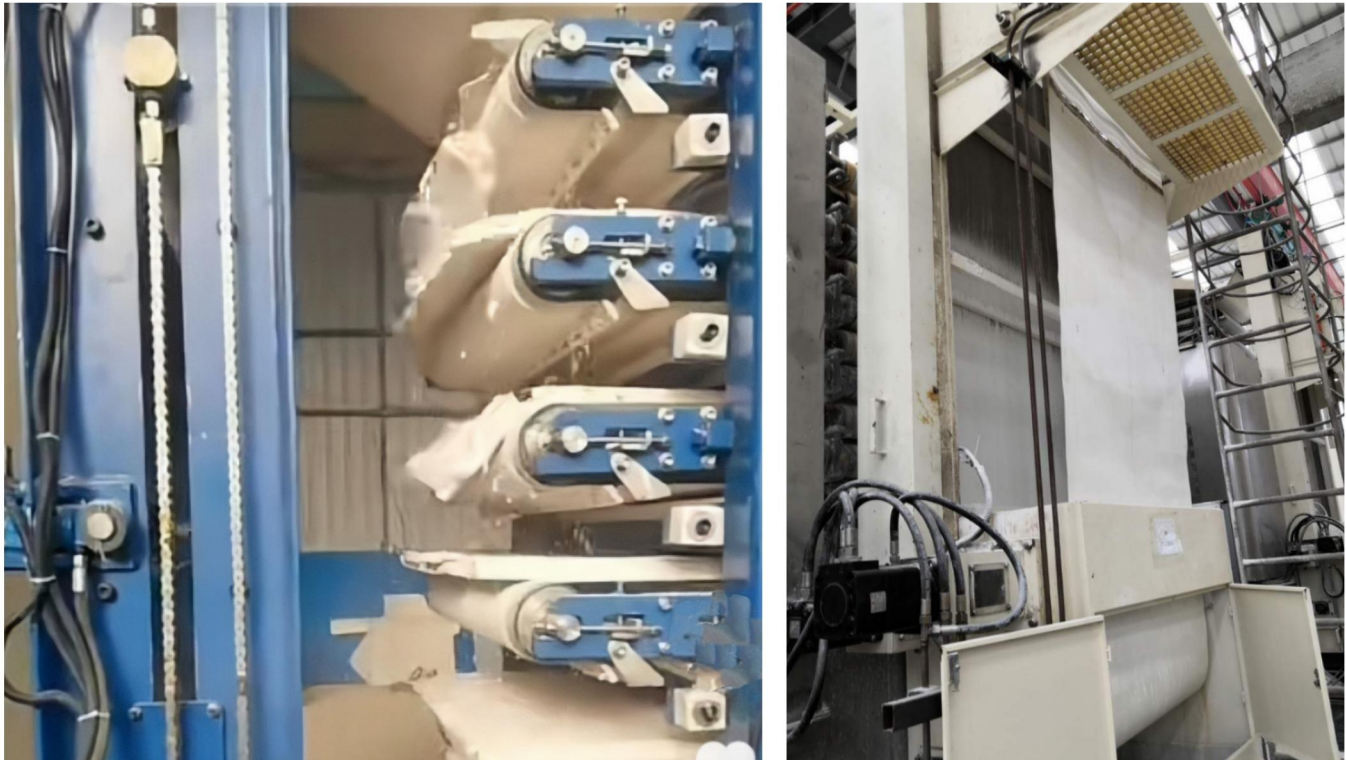
With the accelerating process of product internationalization, more and more new topics of interest have been accumulated in the enterprise. Therefore, Bolian has united with Dalian Polytechnic University and other universities to develop new textile raw materials, yarns, fabrics, etc., to truly promote knowledge transfer and innovation.

TOWER PRESS CLOTHS/ BELTS

FDA food grade certification;

More than 20 years of filter cloth manufacturing experience on tower press filter and also the supplier for OEM (Original Equipment Manufacturer) LAROX filter;

The domestic market share can reach up to 90% or more and also the world's designated filter cloth supplier for large copper and nickel producers.

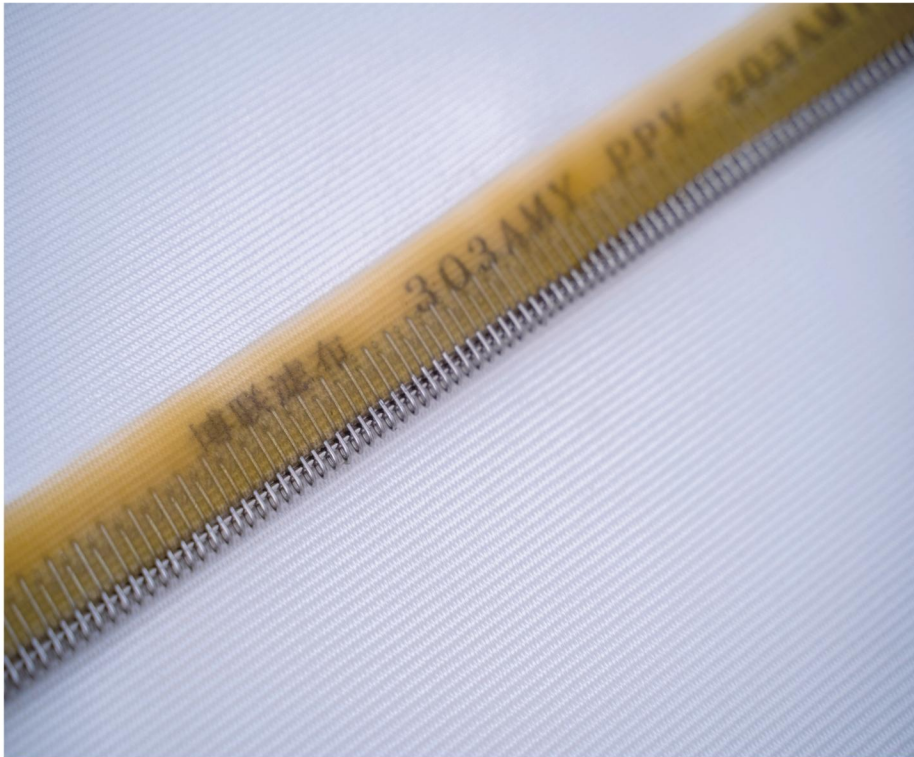


Product features:

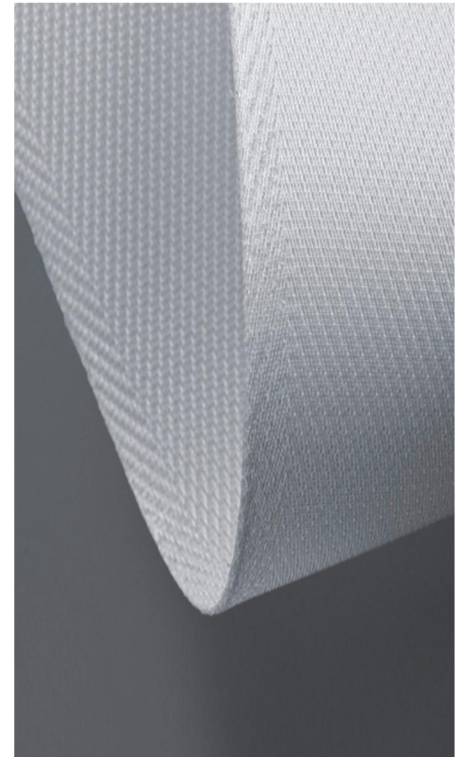
- Ultrasonic edge sealing is adopted to prevent fraying edges;
- High filtration accuracy, up to 5 μ m;
- High strength and good thermal stability;
- The seams are specially treated to extend the service life of the filter cloth;
- Long service life, efficient filtration, and cost saving;
- Elongation control;
- Various types of clipper joint.

Material:

PP, PET, Modified materials



The filter seams



Ultrasonic automatic edge sealing



Applications:

- Metallurgical processing: copper ore, nickel ore, iron concentrate, lead and zinc ore, tailings dewatering, etc.;
- Chemical industry: aluminum hydroxide, strontium carbonate, phosphate fertilizer, acid leaching extraction, catalyst and other industries;
- Food: starch;
- Non-metallic ore: coal washing, coal chemical industry, etc.;
- Bio-pharmaceuticals.

HORIZONTAL VACUUM FILTER CLOTHS/ BELTS

High filtration efficiency, not easy to block, and easy cake release.

Bolian weaving looms are imported from Europe, the maximum single width of horizontal belt filter cloth can reach up to 4.8 meters;

The heat-setting machine ensures the dimensional stability of the filter cloth, which is an important feature of high-quality products.



Product features:

- The structure of double-layer monofilament products is stable;
- The upper and lower layers of the double-layer monofilament filter cloth are composed of monofilament yarn, which makes it easier for the filtrates or slurry to pass, so it is not so easily blocked;
- The filter cloth has received a post-treatment process, which effectively avoids the shortening and tracking issue of the filter cloth during use;
- The filter cloth has been treated by a calendering process to make

the cloth surface smooth and thus easier for cake release;

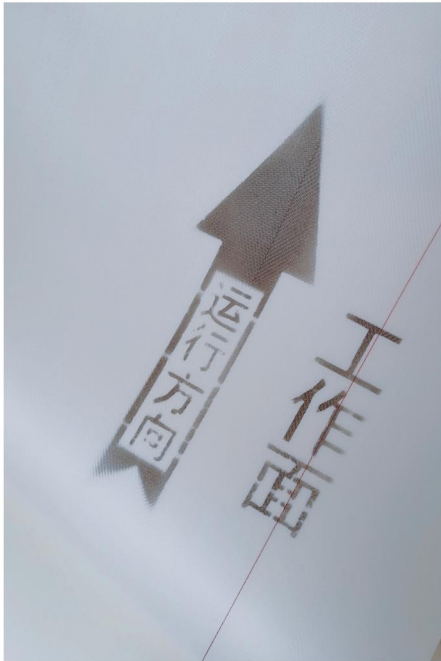
- Long service life, efficient filtration and cost saving.

Material:

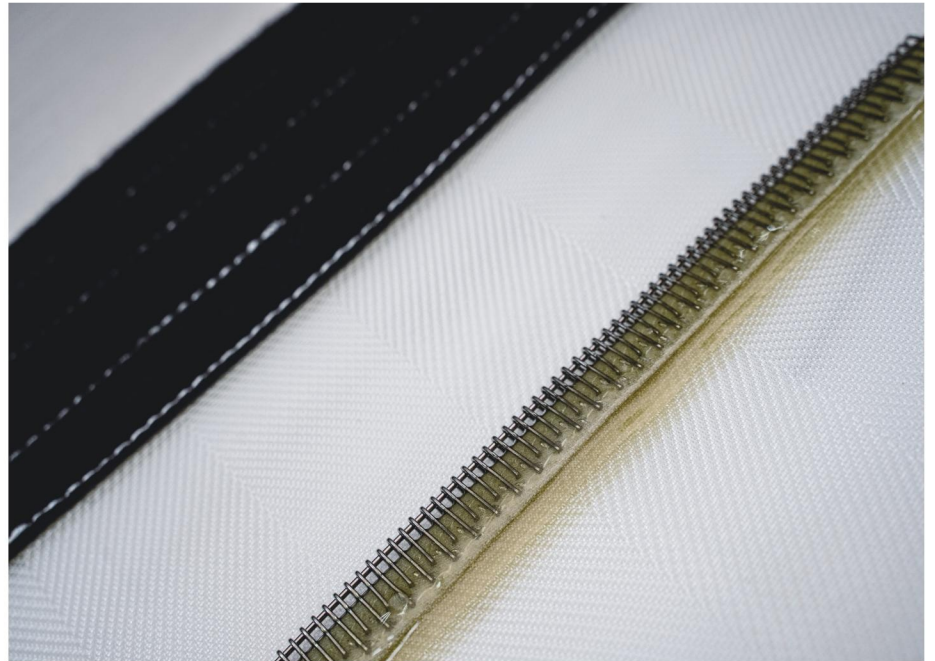
- PET, PP

Main Categories:

- Phosphoric Acid Cloth (Phosphoric Acid Industry)
- Filter Cloth for Lithium Battery (Lithium Industry)
- Flue Gas Desulfurization Belt (FGD)
- Sludge Dewatering Mesh Belt



Cake side



Seams



Applications:

- Matching with Horizontal Vacuum Belt Filter (HVBF) ;
- Widely used in metallurgical industry, non-metallic minerals, chemical industry, bio-pharmaceuticals, environmental protection and other industrial fields.

ELECTROLYTIC DIAPHRAGM CLOTHS/ BAGS

Bolian has extensive experience on electrolytic filtration industry. Diaphragm cloth we developed is used in the electrolytic refining process of non-ferrous metals, such as electrolytic copper, nickel, cobalt, etc.

The designated supplier for the world' s large nickel and cobalt smelter;

The designated diaphragm bag supplier for China Jinchuan Group.



Product features:

- Stable water permeability and electrolyte level deviation can be achieved in strict accordance with European testing standards;
- The service life can reach more than three months, which increases the service life of the diaphragm bag and improves the quality of nickel plate;
- On the premise of electrolyte level difference, the resistivity of the diaphragm bag is reduced to the lowest point, which saves energy and greatly reduces the cost of producing electrolytic nickel.

Material:

PET, Polyester cotton,
Modified materials.



Diaphragm bag sewing



Diaphragm bag



Applications:

- Used in the electrolysis process of
- nickel smelting;
 - electrolytic nickel;
 - nickel electrowinning;
 - electrolytic copper/ refinery;
 - high copper refinery, etc.

Filter Press Cloth

The filter press cloth is used in the filter press. The plates and frames are arranged alternately, with filter cloth covering both sides of the filter plate. A pressing device is used to press the plates and frames, forming a pressure filtration chamber. Bolian's filter press cloth is designed for horizontal filter presses with large filtration areas and multiple chambers, and after special processing, can effectively solve issues such as poor sealing and leakage.

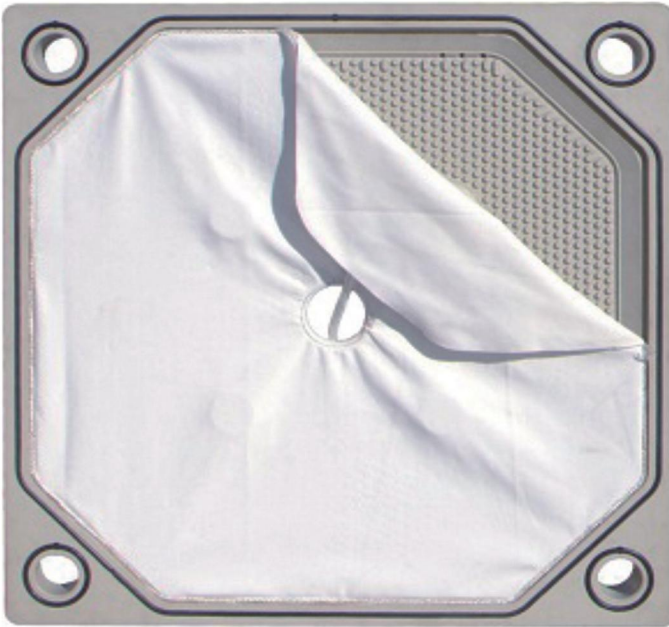


Product features:

- Various categories, suitable for various filter presses, with high pressure strength;
- The filter cloth has excellent acid and alkali resistance, high tensile strength, and a wide range of applications;
- The filter cloth has excellent heat resistance and good abrasion resistance after heat-setting processing;
- The uniformity of the cloth surface is excellent. Compared to similar filter cloths, the flux is larger under the same filtration accuracy, Multiple specifications can meet the needs of different equipment usage;
- Easy cake release, good water filtration performance;
- Stable product quality, customized products.

Material:

- Polypropylene series
- Polyester series
- Polyamide series



Membrane plate



Barrel neck



Applications:

Mainly used in industries such as sludge dewatering, mineral processing, food, chemical, metallurgy, etc.

High-capacity Filter Press Cloth/Vulcanized Filter Cloth

High-capacity filter press cloth is often used in traditional horizontal filter presses. Bolian developed this product especially for high-capacity filter presses, also known as vulcanized filter cloth or glue-hanging filter cloth. High-capacity filter press is a new type of horizontal filter press, with characteristics of low filter cake moisture content, high degree of automation and good washing performance. The equipment relies on the anti wind to remove water, which has high demands on the sealing of the filter chamber. Therefore, the filter cloth of the equipment must undergo special sealing treatment.



Product features:

- The rubber is tightly bound to the filter cloth through a special vulcanization process, ensuring a good sealing performance. It can prevent air leakage when the filter machine is blowing in reverse;
- Natural rubber is a superior material to synthetic rubber due to softness, adhesion, environmental friendliness, and vulcanization strength. It is not easy to debond, bulge, or other issues, but it can withstand high pressure.

Material:

- Under the same conditions, the vulcanized filter cloth has better sealing performance and higher blowing efficiency, so the moisture content can be less than 15%.
 - Under continuous operation, the average service life of vulcanized filter cloth is 45-60 days, which is 30%-50% longer than that of the ordinary filter cloth, greatly improving the working efficiency of the filter machine and reducing costs.
- Polypropylene series
 - Polyamide series



Vulcanized filter cloth



Vulcanization treatment



Applications:

- Suitable for copper concentrate, nickel concentrate, gold mine tailings, etc.
- Vulcanized filter cloth is widely used in large nickel concentrate workshops, China Gold Mining, China Zijin Mining, etc.

FLUE GAS DESULFURIZATION BELTS (FGD)

Advanced European equipment has been adopted for weaving, which makes the filter cloth more stable and with higher filtration efficiency moreover, the filter cloth also has excellent performance on anti-breaking and anti-folding (anti-pleating). The average service life can reach up to 6 months or more.



Product features:

- Polyester material has better performance at high temperature, and dimensional stability;
- High-density looms imported from Germany are used to make filter cloth with excellent performance on anti-deformation, anti-stretching, and anti-folding (anti-pleating);
- Excellent performance on abrasion resistance, corrosion resistance, long service life, energy saving and consumption reducing.

Material:

PET



Seam treatment



Flue gas desulfurization belt



Applications:

- Used in gypsum desulfurization, thermal power generation/power plant (Flue gas) desulfurization;
- Tailings treatment, carbide slag, etc.

Tissue Forming Belt

The forming fabric is a crucial component of the paper machine, mainly playing a role in fiber and liquid separation, post separation support, and transmission. The forming belt quality directly affects the paper quality. Bolian tissue forming belt is designed with high-quality materials and a three-ply fabric structure, woven with advanced imported equipment. It offers greater density and fiber support compared to a typical two-and-a-half-layer structure.

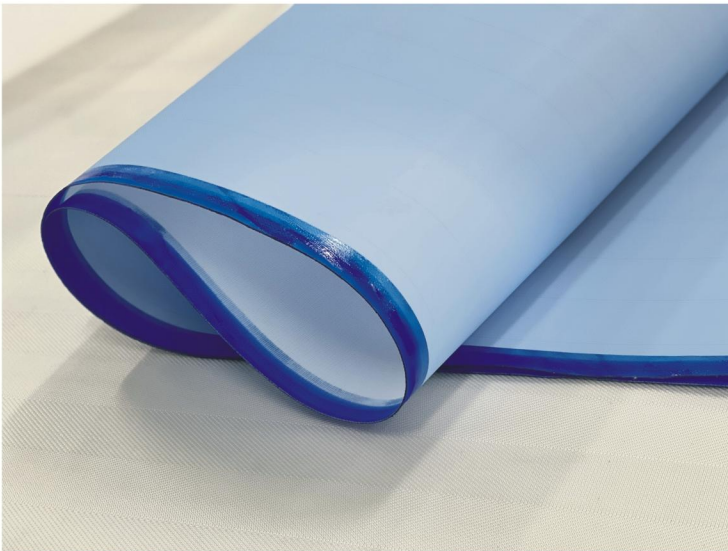
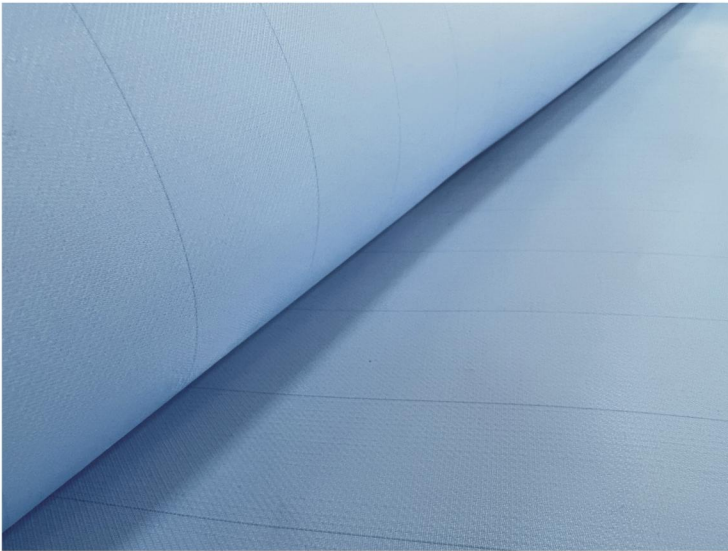


Product features:

- Three-layer fabric structure with excellent density and better support performance;
- No mesh trace on the surface, easy to clean, and good paper peeling ability;
- High forming properties, pulp retention, and dewatering ability;
- Woven with imported equipment to maintain stable running performance while providing high abrasion resistance;
- Excellent dimensional stability;
- Each production process follows ISO 9001 quality management system to guarantee that each finished product meets the industry testing standards.

Material:

Polyester+Nylon



Applications:

- Mainly used in the production of 11-15g/m² tissue paper (toilet paper, napkins, etc.)
- The forming belt can be applied to the Shanghai Qingliang Industry Co., Ltd and the production of the “Crescent” paper machine and the PMP paper machine.

LEAF FILTER CLOTHS/ BAGS

Vertical leaf filter is a kind of filtering equipment that can be widely used in fine filtering units. With high equipment efficiency, high degree of automation, long service life of filter cloth, good filtrate index and low operating cost, it is the best fine filtration equipment in the world. The vertical leaf filter is simple in structure and easy to operate, and mainly consists of cylinder, filter elements, high tank, pressure relief pipes, pneumatic valves and automatic control system. It's mainly used in the sugar industry, alumina, vanadium extraction from steel slag and other chemical industries.



Product features:

- Filter bags can be customized based on customer requirements.
- The self-developed technology prevents the filter cloth surface from easy blockage, extending the filter bag service life.
- Good air permeability, increased filtration flow, rapid cake release, and slurry removal capabilities boost productivity, which reduces customer costs.

Material:

PP, PET

Applications:

- Used for vertical leaf filter ;
- Used in red mud filtration, chemical alumina and other industries.



Export packing box



Export packing pallet



We offer a range of filter cloths, configured with different clippers, packaging, accessories, and other options to meet the diverse needs of customers.

OUR SERVICES

One-stop customized filtration solution for industrial filter cloth
Professional and complete technical support



Pre-sale services

Technical consulting, sample testing, filtrates/slurry analysis, scientific type selection;
Learning the operation condition of filter equipment;
Learning existing filter cloth working conditions and technical requirements;
Used filter cloth analysis;
Filtrates inspection and analysis, scientific type matching;



In-sale services

Order tracking, filter cloth testing;
Following up on filter cloth usage condition during running;
Fitting service for filter cloth;



After-sale services

Quality assurance, regular return visits, filter cloth maintenance, etc;
Analysis of the potential problems during filter cloth running;
Suggestions for possible improvements;

*“ Global industrial filter cloth
customization service provider ”*



15 countries

Bolian filter cloth products are sold all over the world and exported to America, Europe, South America, Chile, Peru, Australia, Mexico and other countries and regions. Bolian has established long-term and stable cooperation with the world's large copper mines, nickel mines, China's large aluminum group, China Gold Zijin Mining, etc.

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