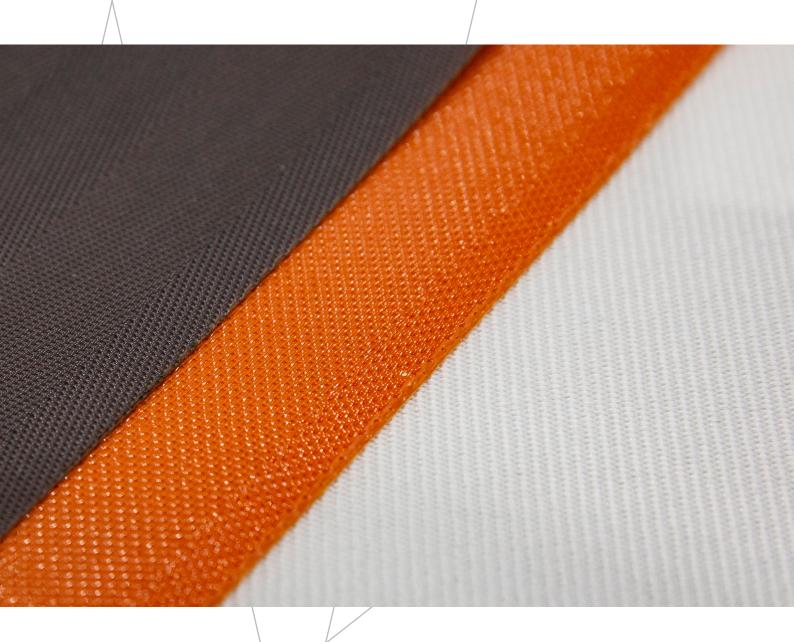
BOLIAN

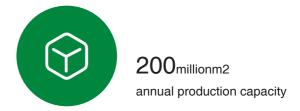


Liaoning Bolian Filtration Solutions 辽宁博联过滤有限公司



30⁺ **■**







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 solid-liquid separation and diaphragm bags used for nickel cobalt electrowinning processing. It is rated "High-Tech Enterprise" in 2015 with nearly 30 years of manufacturing experience and world-leading technologies.



BOLIAN adheres to the core concepts of "specializing in liquid-solid separation and focusing on fine 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.



Advanced imported production line

BOLIAN hired a European technical expert, with over 40 years of experience in the textile industry, to lead our R&D team to overcome the world technical difficulties and developed the 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.

Internationally-sourced advanced inspection and test equipment in an independent lab are used to ensure product quality and to support new product development.

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

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, United States, Russia, Chile, Peru, Australia, 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;

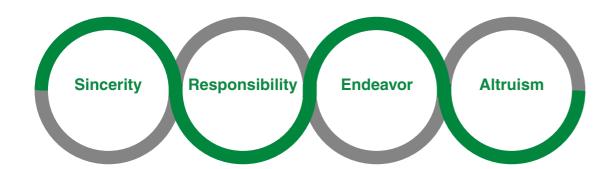
DLW cloths have passed FDA and EU food grade certification;

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"









RESEARCH & DESIGN

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 an international enterprise with excellent product quality, comprehensive service and world-renowned reputation!





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, existing products upgrading, 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 FILTER CLOTH

全球工业滤布研发定制供应商

www.boliancn.com

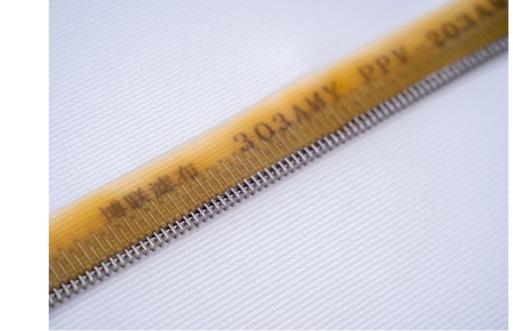
FDA food grade certification

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.







The filter seams



Ultrasonic automatic edge sealing

Product features:

- Ultrasonic automatic edge sealing is adopted to prevent fraying edges;
- High filtration accuracy, up to 5µm;
- 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.

Material:

- · Polypropylene multi-filament
- Polypropylene mono-multi filament series
- Polypropylene multi-mono filament series
- Polyester multi-filament series
- Polyester multi-mono filament series
- Non-woven fabric



Applications:

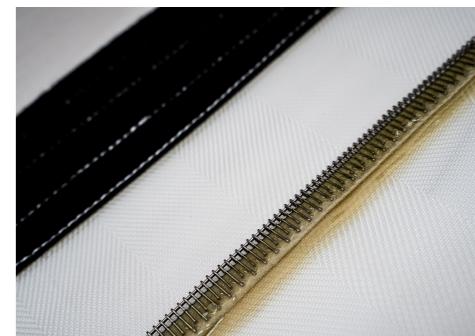
- Metallurgical processing: copper ore, nickel ore, iron concentrate, lead and zinc ore, tailings de-watering, etc.;
- Chemical industry: aluminum hydroxide, strontium carbonate, phosphate fertilizer, acid leaching extraction, catalyst and other industries;
- Food: modified starch;
- Non-metallic ore: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

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

BOLIAN Weaving looms are imported from Europe, the single width of horizontal belt filter cloth can reach up to 4.68m; The heat-setting machine ensures the dimensional stability of the filter cloth, which is an important feature of high-quality products.







Cake side Seams

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, and 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 super smooth and thus easier for cake release;

 Long service life, efficient filtration and cost saving.

Material:

- Polypropylene double-layer monofilament series
- Polyester double-layer monofilament series
- Phosphoric acid cloth



Applications:

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

Diaphragm bags are used in the electrolytic system of pure nickel sulfate in the process of soluble and insoluble anode.

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

The designated diaphragm bag supplier for China Jinchuan Group.









Diaphragm bag

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:

- Polyester cotton diaphragm bag
- Polyester diaphragm bag
- Modified material diaphragm bag



Applications:

Used in the electrolysis process of

- nickel smelting;
- electrolytic nickel;
- nickel electrowinning;
- electrolytic copper/ refinery
- High copper refinery, etc.

Advanced European equipment has been adopted for weaving, which makes the filter cloth more stable and with higher filtration efficiency and, 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.







Seam treatment

Flue Gas Desulfurization belt

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 wear resistance, corrosion resistance, long filter belt service life, energy saving and consumption reducing;
The filter media is usually gypsum, carbide slag, etc.

Material:

Polyester series



Applications:

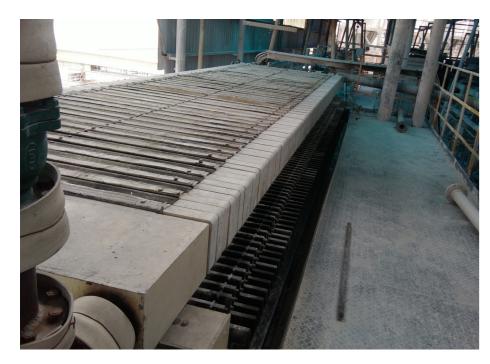
Used in gypsum desulfurization, thermal power generation/power plant (Flue gas) desulfurization; tailings treatment, etc.

FILTER PRESSES FILTER CLOTH

全球工业滤布研发定制供应商

www.boliancn.com

The filter presses filter cloth produced by BOLIAN is specially researched and developed for high-capacity filter press filters. A high-capacity filter press is a new type of horizontal filter press. Compared with traditional horizontal filter presses, it has the characteristics of low filter cake moisture content, high degree of automation, and good washing performance. High-capacity filter press filter cloth needs to have excellent performance on sealing with plates since the cake drying needs to be done by blowing air with huge pressure. Thus, the filter cloth needs special treatment to meet this requirement.







Vulcanized filter cloth

Filter press filter cloth

Product features:

The sealing surface of filter cloth is vulcanized by special technology, which improves the sealing reliability;

BOLIAN vulcanized filter cloth is made of natural rubber with softer and better adhesion, which is not easy to degum and bulge during use. Its purpose is to reduce the moisture content of filter cake and effectively avoid leakage;

To ensure a low moisture content of filter cake (less than 10%) and to withstand high pressure at the same time;

The service life of vulcanized filter cloth is about 60 days, which is longer than that of other filter cloths under the

Material:

Polypropylene series

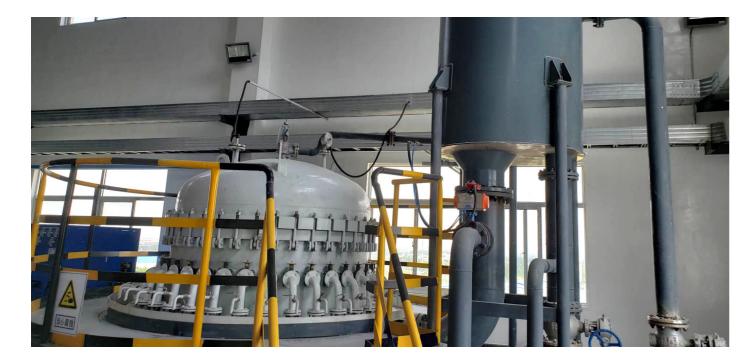


Applications:

Suitable for copper concentrate, nickel concentrate, gold tailings and other applications;

Vulcanized filter cloth is widely used in large nickel concentrate workshops, China Gold Mining, China Zijin Mining, etc.

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. Mainly used in the sugar industry, alumina, vanadium extraction from steel slag and other chemical industries.







Export packing box

Export packing pallet

Product features:

The technical parameters of filter bags can be adjusted and tailored according to customer requirements;

Self-developed technology and special materials are adopted to prevent the surface of filter cloth from blocking easily and to extend filter bag service life;

Good air permeability, increased filtration flow, quick cake unloading and mud removalimproved productivity, which all reduce customers' costs; Good filter cloth service stability.

Material:

Polypropylene



Applications:

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

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-sales service

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, Russia, 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.

