



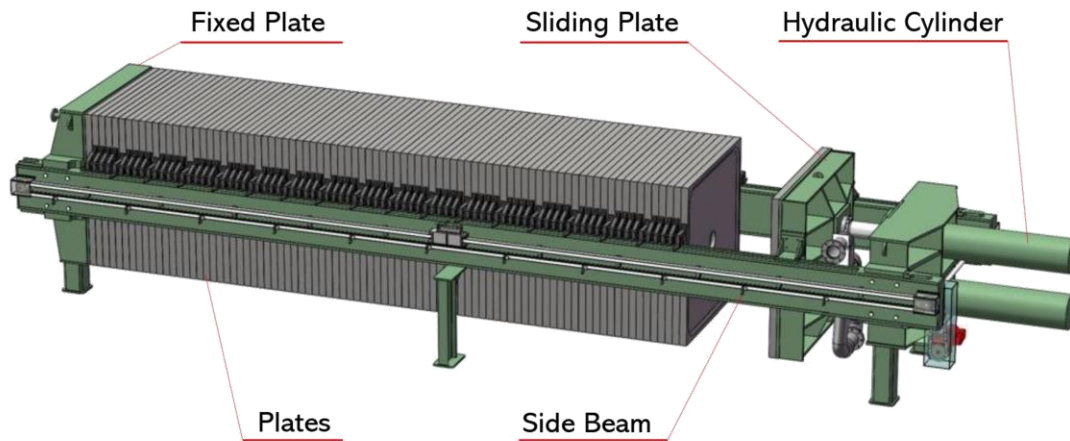
# FILTER PRESSES

*Comprehensive filtration solutions for the mining industry*





Modern mining requires efficient, cost-effective and environmentally friendly technologies for fine solids dewatering. A filter press, schematically shown below, utilizes the pressure difference provided by the feed pump and pressurized media to achieve solid-liquid separation and has been gaining popularity in the mining industry for both tailings as well as ore concentrate fines dewatering.



Aury, a DADI company serving the mineral and coal processing industries, is proudly presenting the Jingjin filter press to our mining customers through our regional operations in Australia, Africa and the United States. Jingjin Environmental Protection Co. Ltd., founded in 1988, is a world-wide authority in industrial filtration technologies. The award-winning Jingjin filter presses have been widely used in many industries including mineral and coal processing, chemical, food, municipal waste water treatment, among others.





# High Efficiency Membrane Filter Press



With decades of technical advancement and innovation, the high-efficiency membrane filter press has been widely used in coal preparation, mineral processing and titanium dioxide manufacturing. It is known as a workhorse filter press that delivers consistent throughput, excellent availability and stable performance.

## Key features:

- High efficiency, 3-4 cycles per hour.
- Quick feeding by simultaneous feeding from both ends.
- Improved dewatering performance. For example, < 8% cake moisture can be achieved on copper and gold concentrate filtration.
- Multiple sizes available including 1000, 1250, 1500, 1600, 2000 and 2500×2600 models (numbers referring to plate size in mm).
- High throughput, up to 1,500 m<sup>2</sup> filtration area on a single unit.



# Single Chamber Feeding with Air Drying Filter Press



In a single chamber feeding with air drying filter press, slurry is fed into each filtration chamber independently, resulting in a more uniform cake formation. Instead of squeezing the cake by the membrane plate, compressed air is directly introduced to the filtration chamber in this type of filter presses. While the compressed air penetrates the cake, more liquid can be removed without further compressing the cake. Thanks to the unique design, this filter press can produce a low moisture and loosely structured cake, which is preferred in many dewatering applications.



## Key features:

- Excellent sealing and easy filter cloth replacement.
- Low cake moisture, e.g., <7% cake moisture on iron ore and gold concentrate and <13% moisture on clean coal can be achieved; Cake moisture usually 8-15% less than competing filter presses on the market, depending on specific applications.
- Efficient cloth washing using 30-50% less water.
- High filtration area, 13% higher than conventional plates.
- Fully automatic and high efficiency with 4-5 cycles per hour. Optional automatic cake dischargers available.

# Ultra-High Pressure Membrane Filter Press



To increase the operating pressure, all major components of the filter press, including membrane plates, hydraulic unit and main frame body have been carefully engineered and fabricated to make the ultra-high pressure press. At the membrane pressing stage, pressurized water is pumped into the membrane plates and the working pressure can reach 100 bars, whereas the conventional membrane filter press using compressed air normally operates from 7 to 12 bars. Thanks to the ultra-high working pressure, this type of filter presses has been widely used for ultrafine particles and tailings dewatering in many industries.

## Key features:

- Ultra-high and adjustable working pressure (10 to 100 bar).
- High feed pressure, up to 40 bar.
- Self-locking hydraulic cylinders for maximum safety and energy saving.
- Low moisture cake, 20-30% lower than conventional presses. For example, 17-18% cake moisture on titanium oxide yellow pigment (80 bar), 13-16% on coal flotation tailings (55 bar) can be achieved.

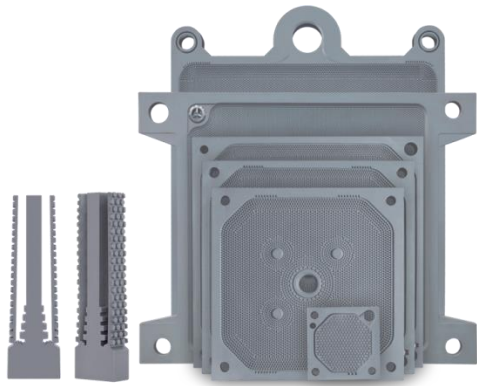




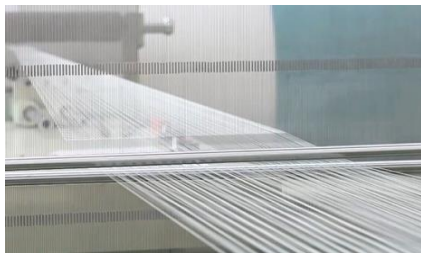
## Filter Plates and Filter Cloth

As the largest filter press manufacturer in the world, Jingjin also offers the widest selection of filter plates and filter cloth, critical components to optimize the performance of your filter press operations. Filter cloth made by Jingjin's state of the art facilities features high open area, stable filtration rate and long service life. Some of the best filter plates and cloth in the industry

are designed by Jingjin. For example, the membrane inflation pressure of the Jingjin PP membrane filter plate can reach 10 Mpa / 145 psi / 100 bar.



For each project, our experts will carefully review your application and process information to select the most suitable filter press plate and cloth. If needed, we can also custom design the filter plates and or filter cloth to meet your expectations.

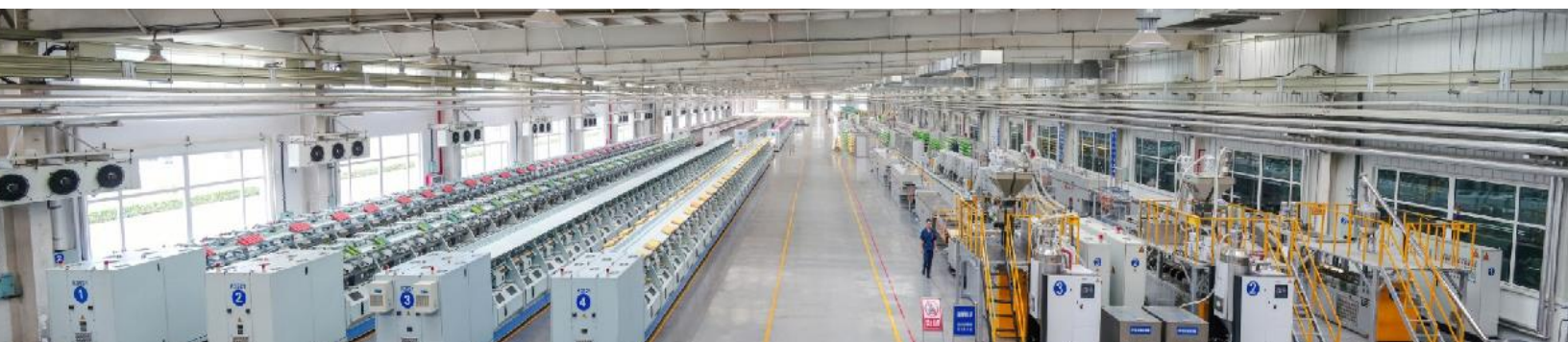




# Application Gallery



*Jingjin, trusted by thousands of customers around the world.*







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