



**Design,
Supply & Support**

One Stop Solution to your Filters Production

PLM FILTER SOLUTION

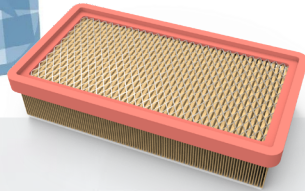
Cabin Air Filter Line

Hebei Leiman Filter Material Co., Ltd

Hebei Luman Filter Parts Co., Ltd

Hebei Deman Technology Co., Ltd





To start a new factory, you may want to know:

- How much profit can I get from producing filters?
- How much money do I need to invest to build a complete filter line?
- What kinds of machinery and raw materials do I need to purchase?
- If I don't know how to operate the machinery or have questions about the filter production flow, how can I solve these problems?
- How can I train my workers to operate the machines smoothly?

More...

What You Need is Exactly What We Can Supply.

Our company is started from Hebei Leiman Filter Material Co., Ltd., established in 1990, with over 30 years of experience in filtration industry.

We established PLM brand in 2018 to offer one stop solution for filter manufacturing, provide complete turnkey solutions and customized production lines, including air, oil, and industrial filters, covering automotive and industrial applications. With a 10,000 m² factory, 300+ machine types, and strong in-house manufacturing capability, we deliver over 400 machines annually.

All equipment is ISO9001, SGS, and CE certified. We have cooperated with more than 10 global brands like MAHLE, HENGST, and Parker, etc. To date, we have served more than 300 customers and helped many of them successfully achieve complete line installation, trial production, and stable mass production.

You are welcome to contact us for consultation and customization!





WHY CHOOSE US?



One-stop Filter Production Solution

We provide one-stop solutions for the filtration industry, including site selection, factory setup, plant layout and capacity planning, equipment matching, material selection, worker training, and delivery of smooth factory production.



Build complete Eco Fuel & Oil Filter product line for customers and optimized production



Provide customized equipment solutions for well-known brand factories

WHY CHOOSE US?



Qualified and Certification

- Our PLM GROUP equipment is all CE certified and meets global export qualifications.
- We hold ISO9001 Quality Management System Certification and SGS Certification.



Filter glue



Cabin filter media



Filter paper



Filter mesh



Hot melt glue



Non-woven

WHY CHOOSE US?

→ **Wide Variety Category**

- Annual production over 400 machines, over 15 high-quality complete production lines;
- With the annual launch of new machines reaching more than 30 models, and raw material updates to 200 models





WHY CHOOSE US?

→ Service and Support

PLM has its own design and sales team, capable of helping customers design production line layouts that meet process requirements based on the production process. According to the customer's requirements, the automation level was adjusted, equipment combinations and optimizations were implemented, achieving the overall line solution, material matching, process support, and training implementation.

- We provide a one-stop solution, helping customers build a factory from scratch.
- We assist customers in moving from "able to produce" to "stable production," improving the yield rate and customer satisfaction rate.
- We focus on the matching degree of equipment at the customer's site and the stability of the production cycle.



Eng. Zhang

R&D Chief Technician
20 years experience Experts Familiar with the production process and equipment of various products.



Eng. Wang

R&D Senior Technician
15 years experience Experts in filter machines Installation and production



Eng. Zhang

R&D Senior Technician
18 years experience Experts in punching and electrical



Cabin Filter Line Process Guidance



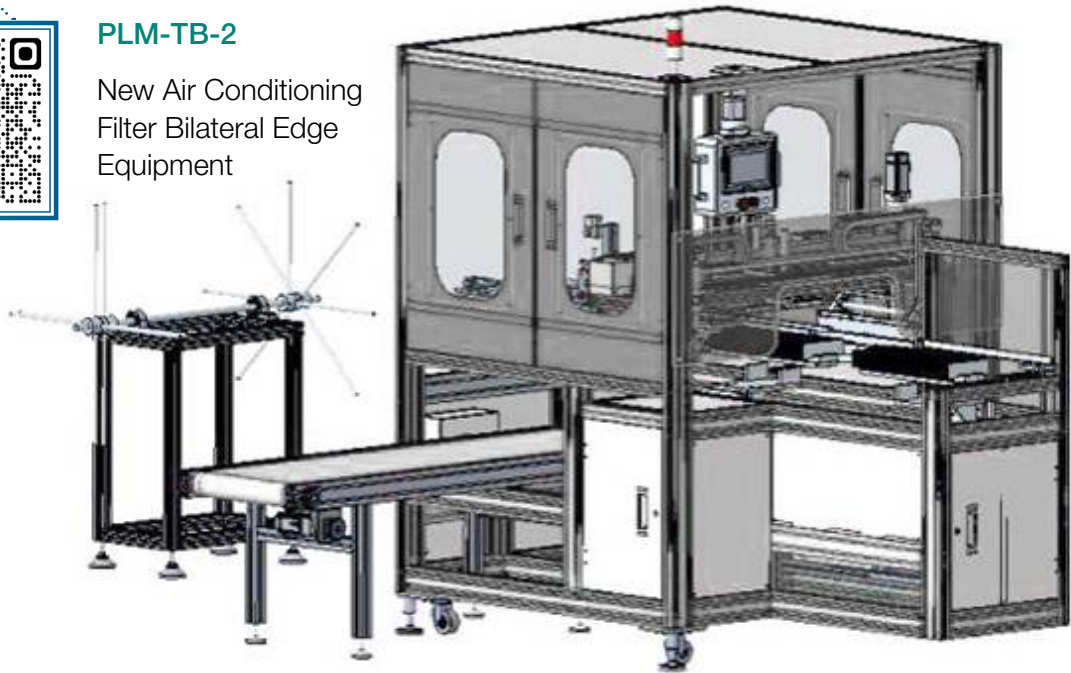
- 1. Non-Woven Filter Cloth Pleating 
- 2. Non-Woven Filter Cloth Cutting 
- 3. Special-Shaped Filter Cloth Cutting 
- 4. Cabin Filter Edge Material Cutting 
- 5. Cabin Filter Edge Bonding & Trimming 
- 6. Quality Inspection (Visual) 
- 7. Printing 
- 8. Film Shrinking 
- 9. Inner Box Packaging 
- 10. Carton Packaging 

Reco.



PLM-TB-2

New Air Conditioning
Filter Bilateral Edge
Equipment



Best choice

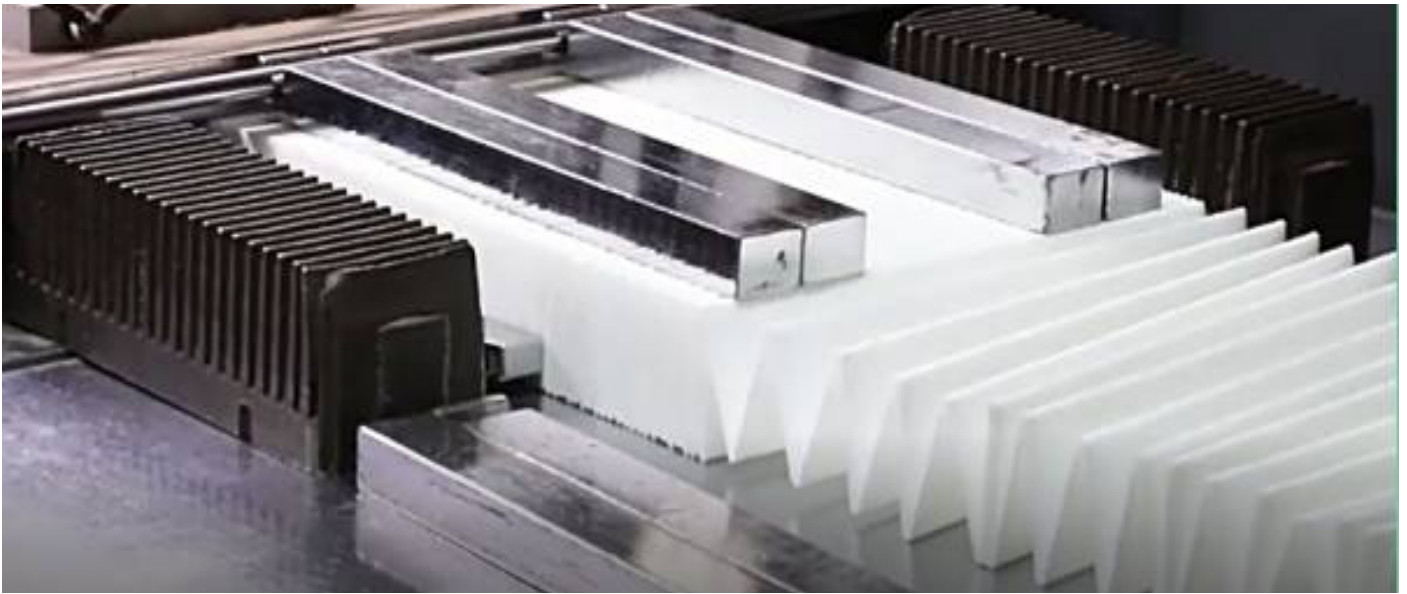
PLCZ55-600-II

Full-Auto Knife
Paper Pleating
Production Line

Machine Solutions – Cabin Filter Line

1.

Non-Woven Filter Cloth Pleating



PL-AUTO55-1050F

Automatic Knife Folding Machine



PLCZ55-1050-S

Full Auto CNC Knife Paper Pleating Machine



Best choice

PLCZ55-600-II

Full-Auto Knife
Paper Pleating
Production Line



PLCZ55-800-II

Full-Auto Knife
Paper Pleating
Machine



PLCZ55-1050-II

Full-Auto Knife
Paper Pleating
Machine



PLCZ55-1250-II

Full-Auto Knife
Paper Pleating
Machine



PLCZ55-2050-II

Full-Auto Knife
Paper Pleating
Machine

2.

Non-Woven Filter Cloth Cutting

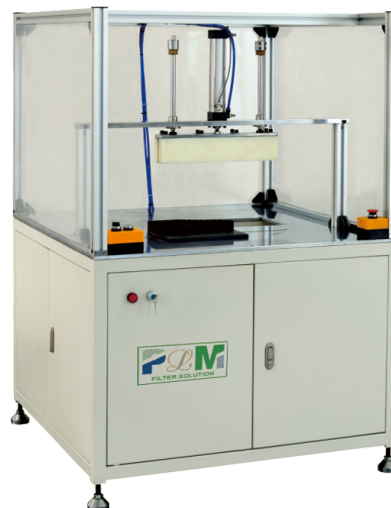
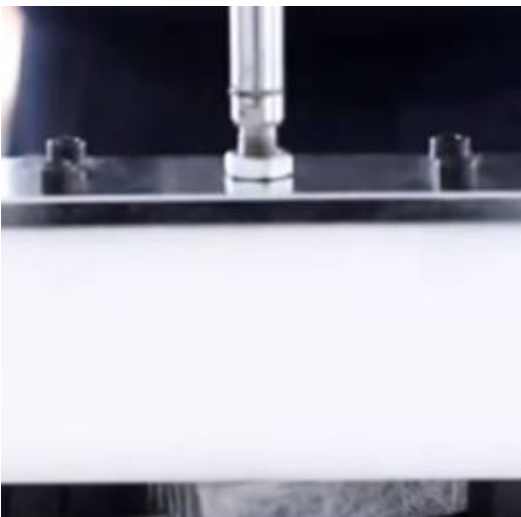


PLPW-1

Horizontal Multi-layers Mesh Cutting Machine

3.

Special-Shaped Filter Element Cutting

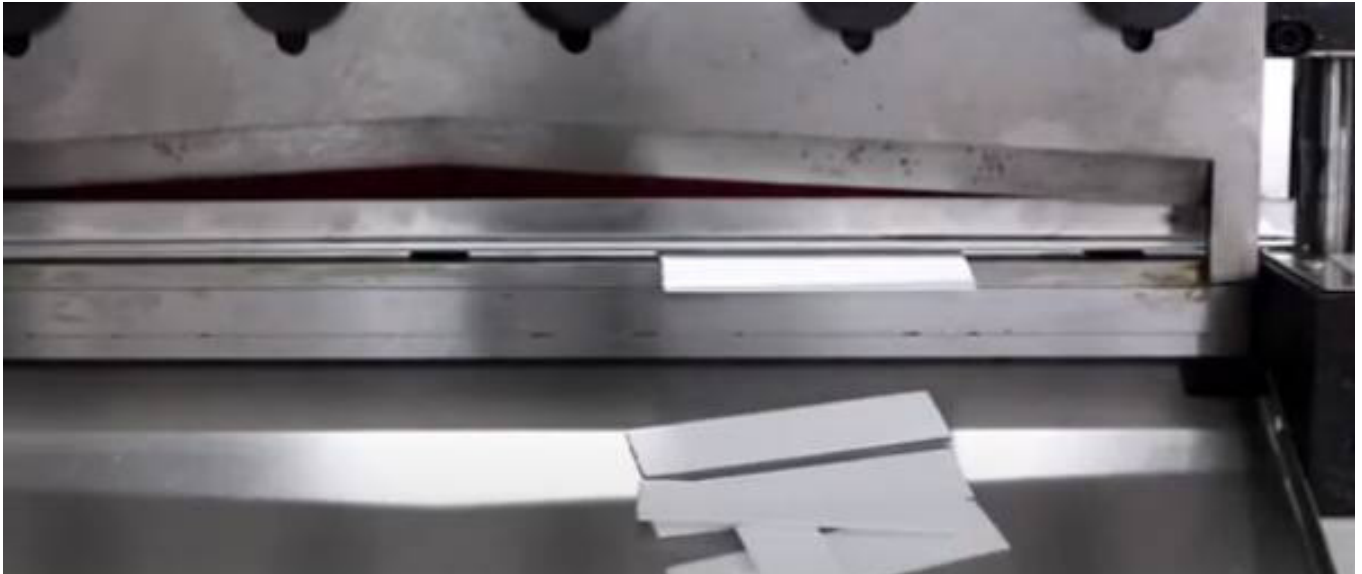


PLHL-1

Special-Shaped Filter Trimming Machine

4.

Cabin Filter Edge Material Cutting



PLHK-50

Cabin Filter Non-woven Piece Slitting Machine

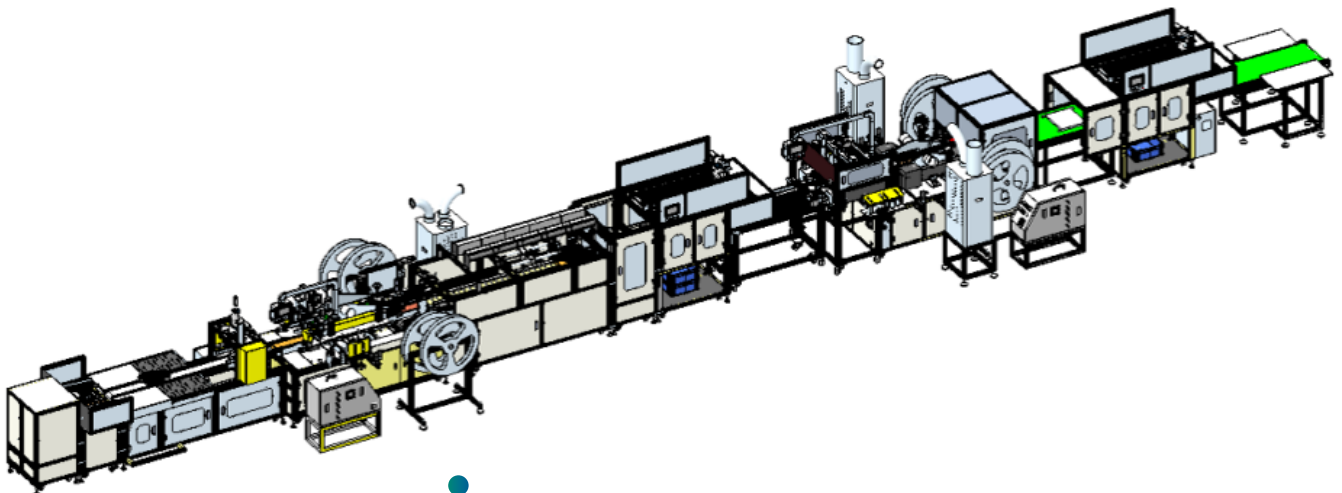


PLHL-500

Cabin Filter Bonding Machine

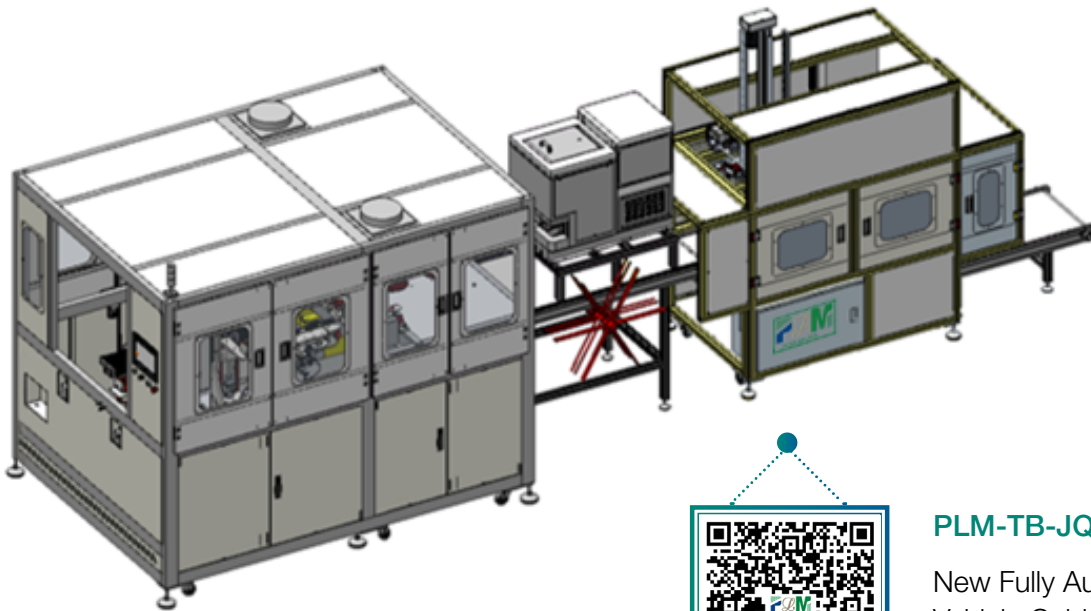
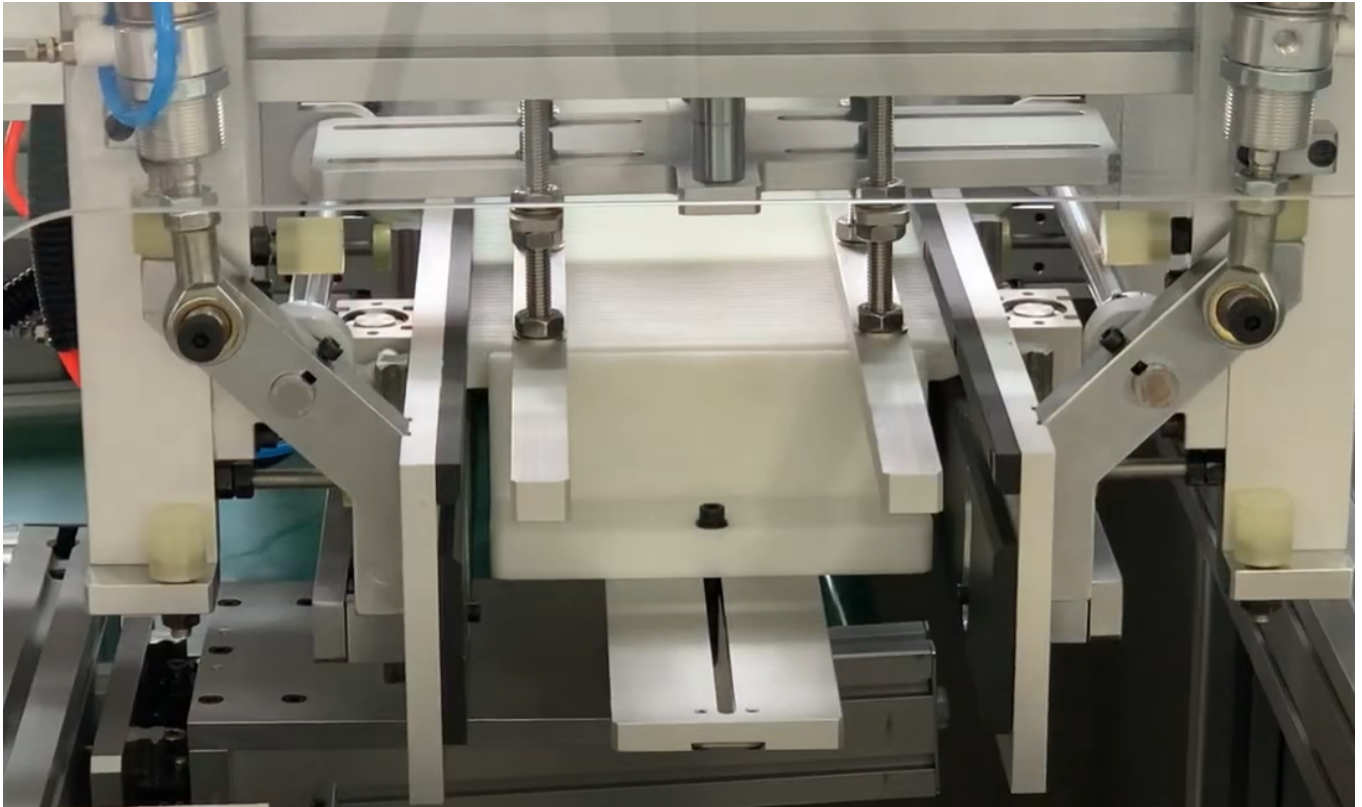
5.

Cabin Filter Edge Bonding & Trimming



PLM-TB-4

Cabin Filter Automatic Bonding
Line- Four Side Type



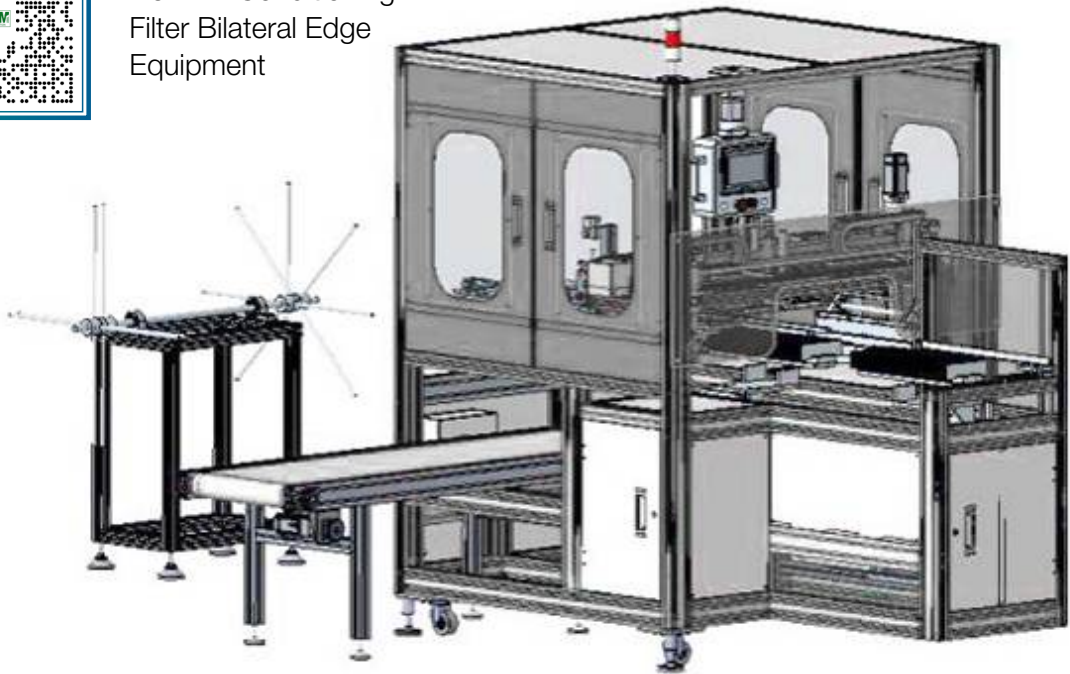
PLM-TB-JQ

New Fully Automatic
Vehicle Cabin Filter
Element Four-Side
Sealing Production Line



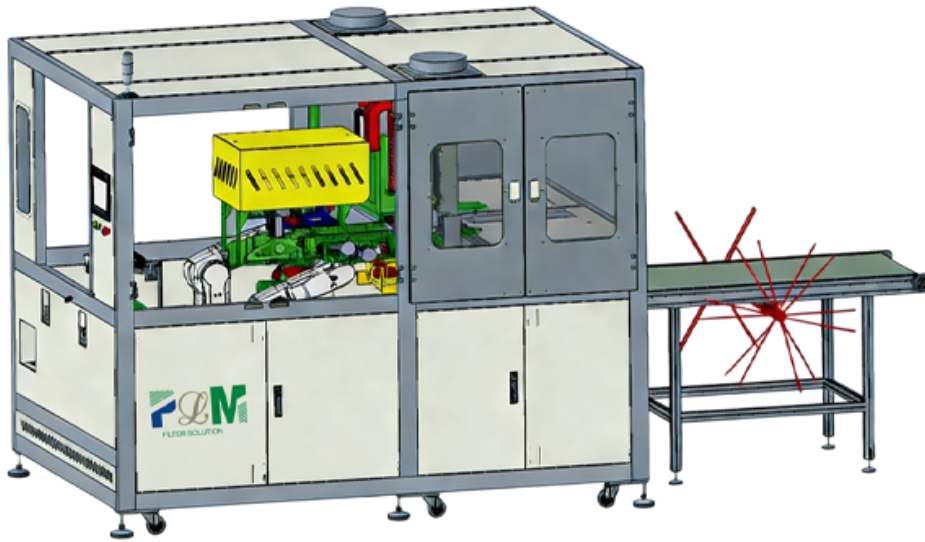
PLM-TB-2

New Air Conditioning
Filter Bilateral Edge
Equipment



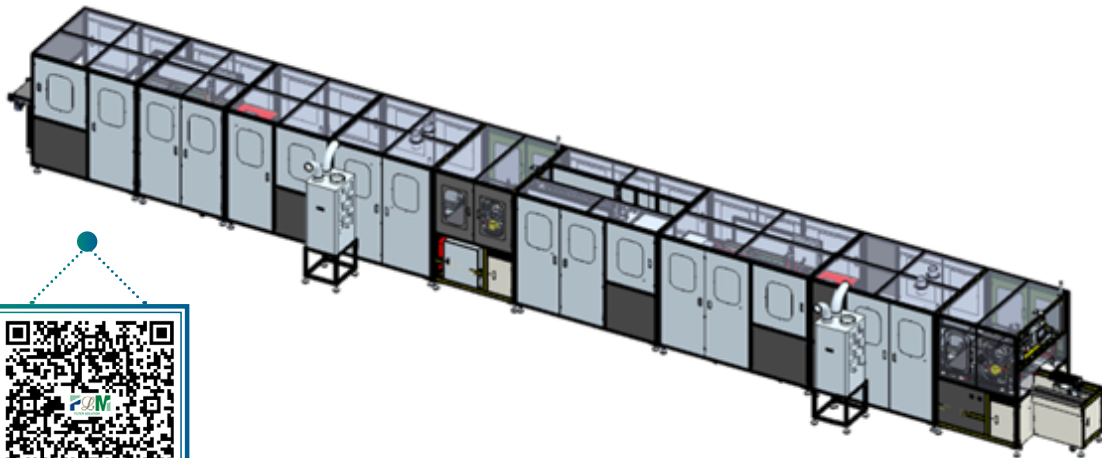
PLM-JQ-1

Air Conditioning
Filter Edge Trimming
Machine



PLM-TB-4S

Automobile Air Conditioning Filter Paste Four-Side Production Line



PLM-TB-2-4

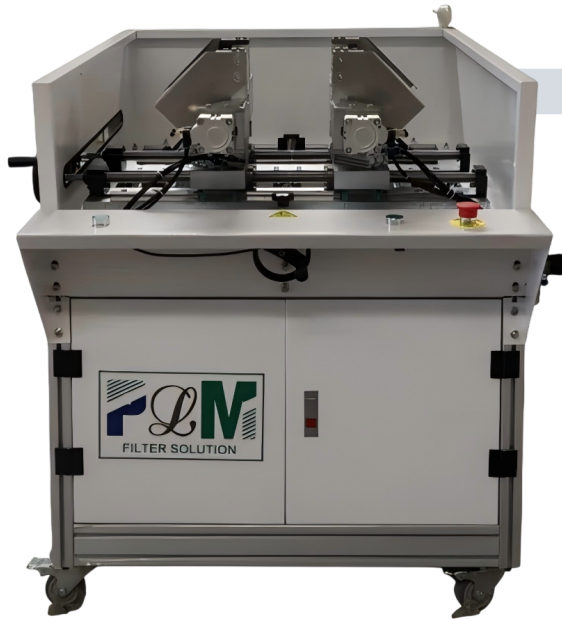
Dual Station Automobile Air Conditioning
Filter Paste Four-Side Production Line



PLLG-1

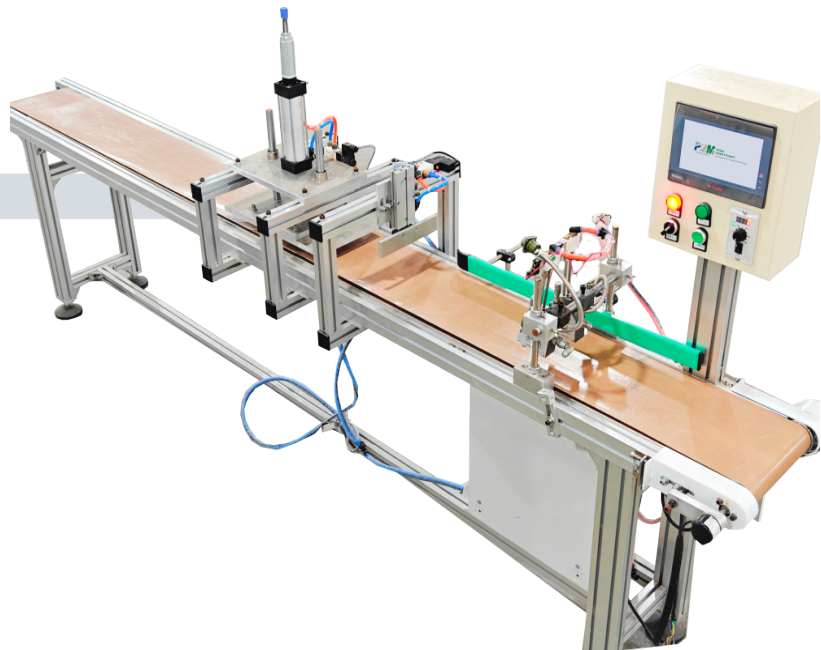
Best choice

Semi-Auto Cabin Air
Filter Gluing Machine



PLHX-4

Cabin Filter Trimming
Machine, 4 Corner

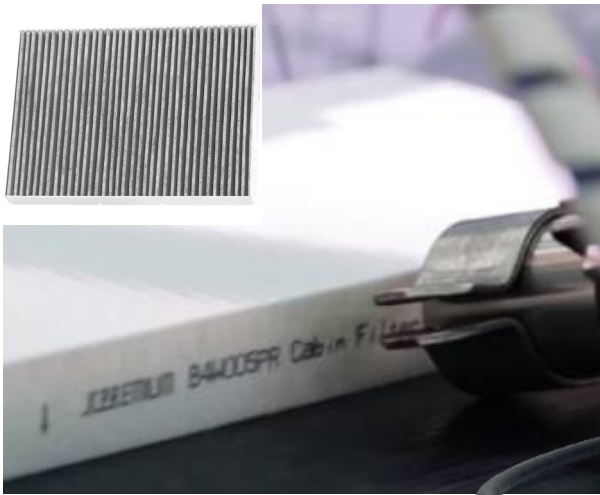


PLFJ-2A

Customize Automation
Panel Air Filter Gluing
Machine

6.

Quality Inspection (Visual)



7.

Printing



PLPM-1240

Fully Automatic Printing
Machine

8.

Film Shrinking

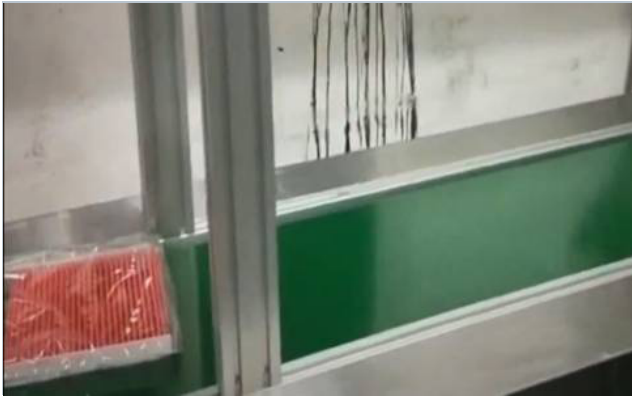


PLRS-2A

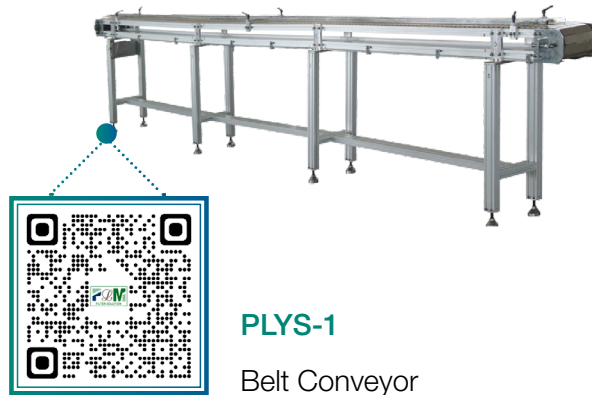
Automatic Heat Shrink
Film Machine

9.

Inner Box Packaging



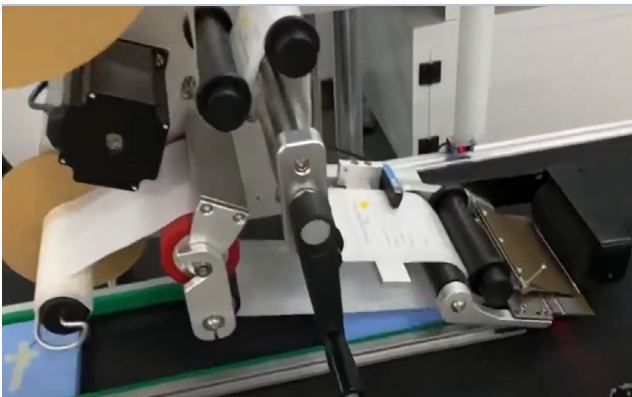
Conveyor Belt



PLYS-1
Belt Conveyor



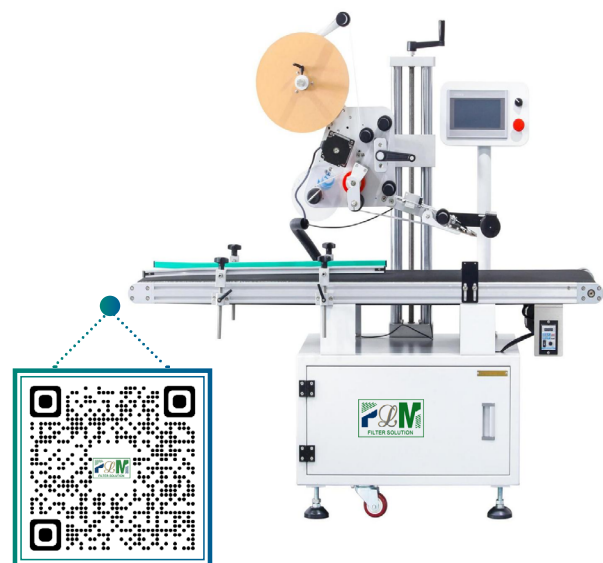
Turntable table



Automatic labeling machine

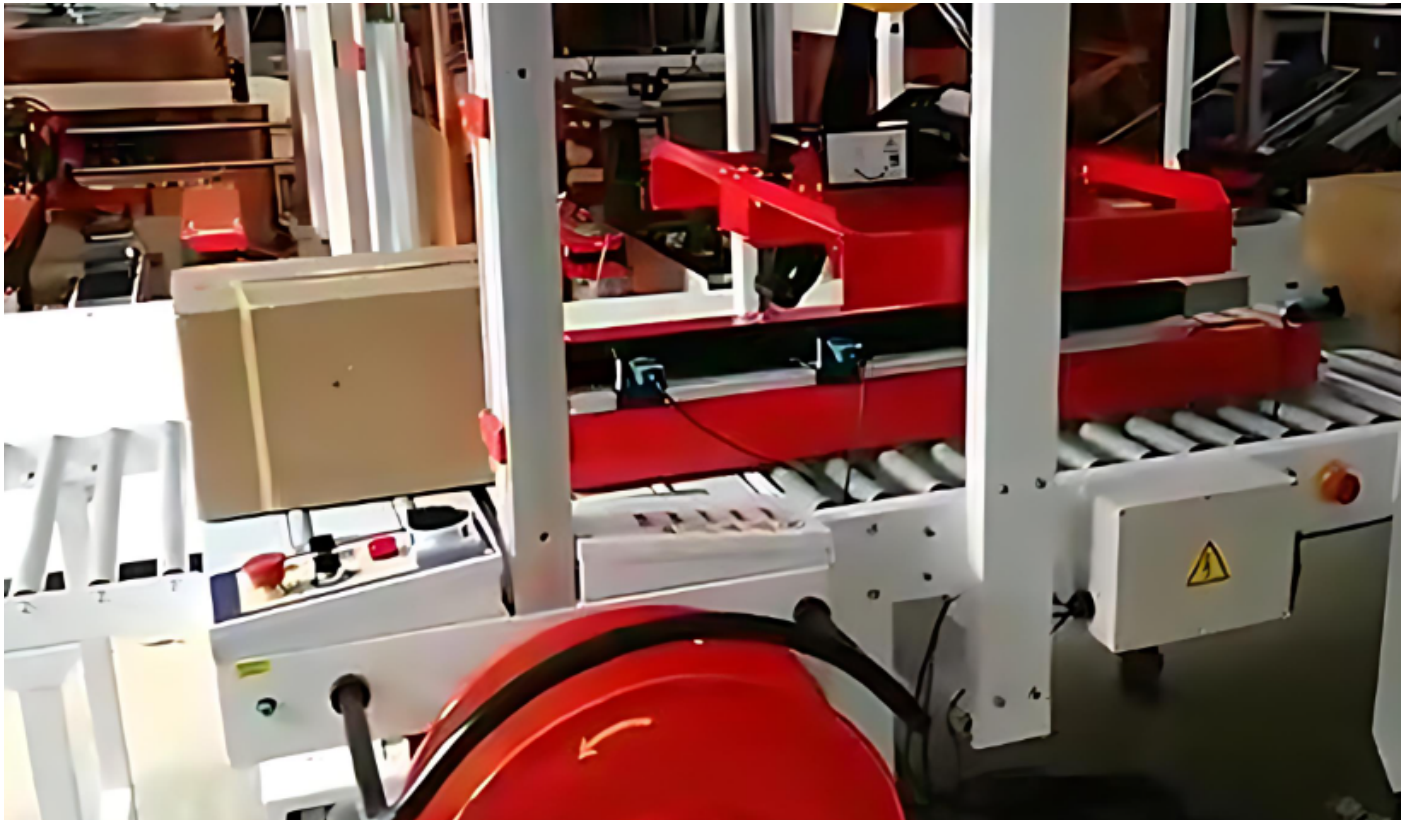
PLTB-1

Automatic Labeling Machine



10.

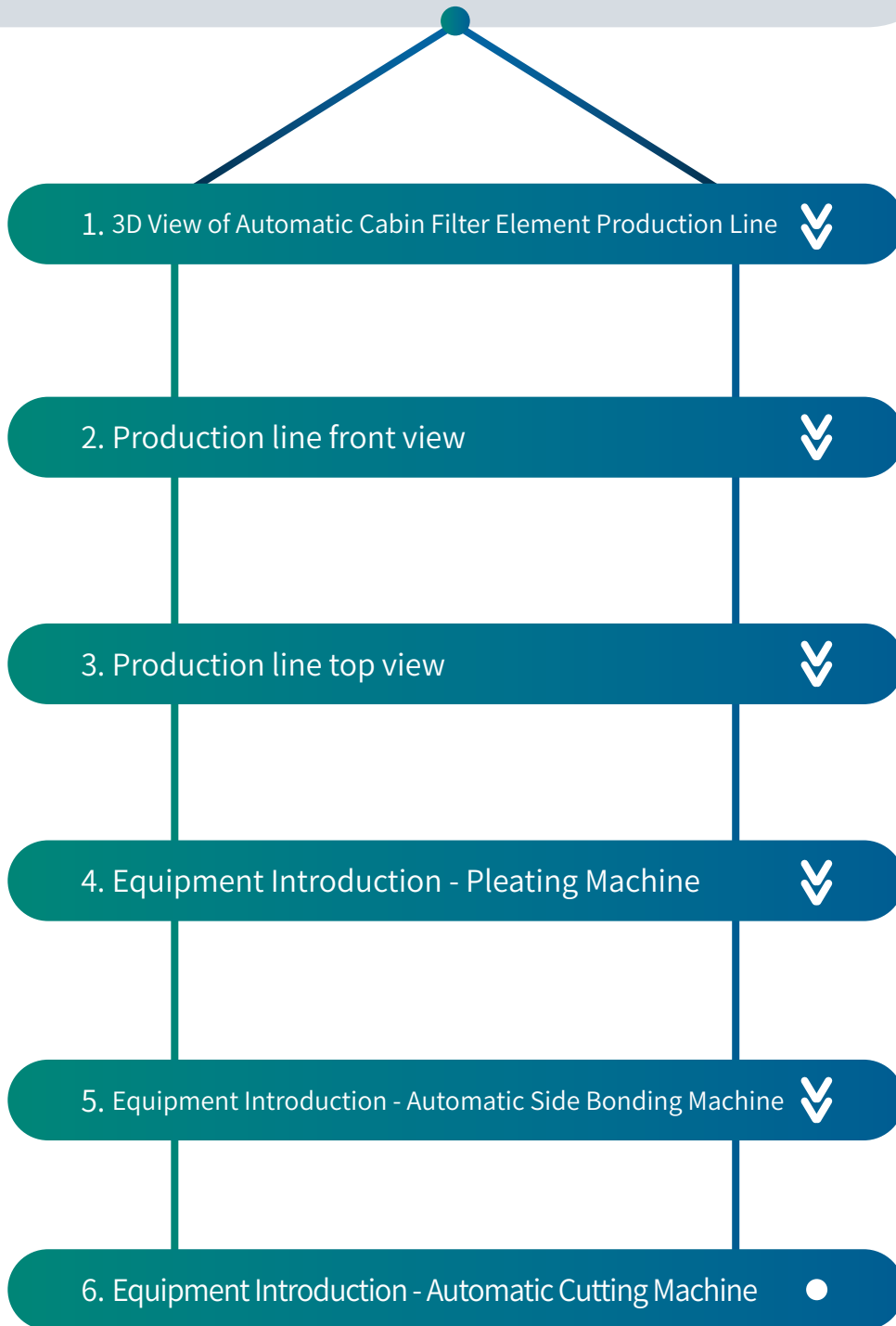
Packing



PLM-DB5060

Automatic Sealing and
Strapping Machine

Full-Auto Cabin Filter Line Process Guidance



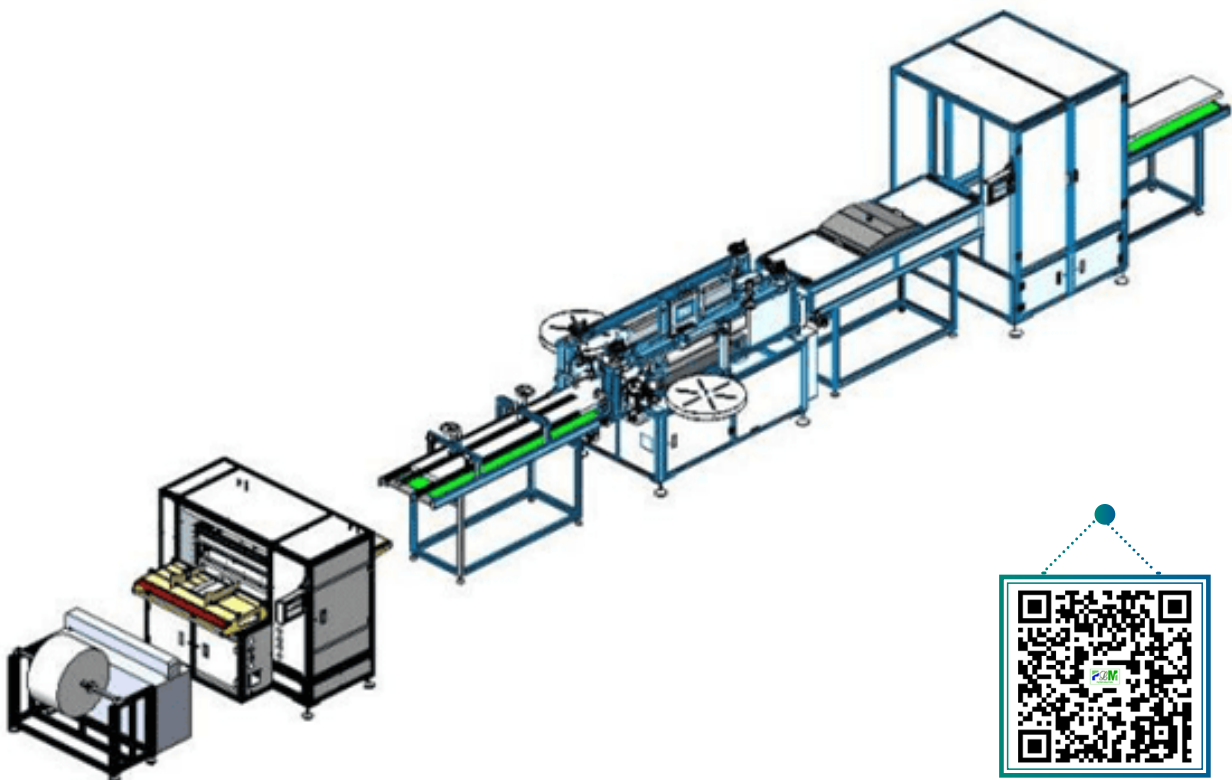
1.

3D View of Automatic Cabin Filter Element Production Line

Recently, we developed a new production line of cabin filters, which has less equipment and higher efficiency. Besides, the operation is more convenience than the traditional production lines.

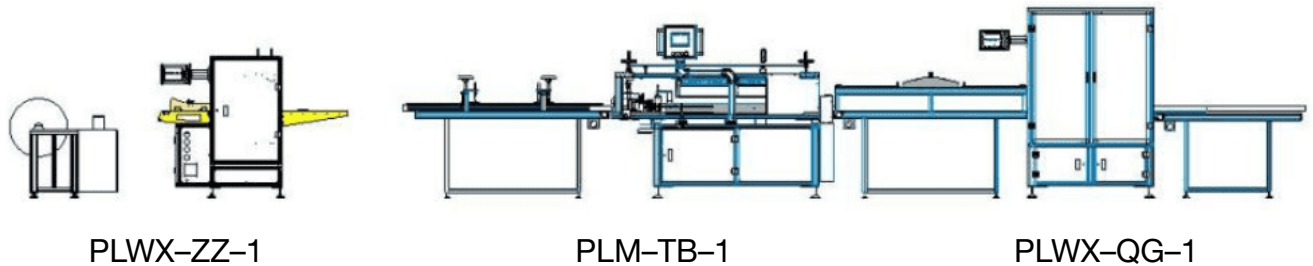
This automatic cabin filter production line mainly consists of 3 parts: Pleating machine, automatic side bonding machine and automatic cutting machine.

The production process is origami forming → automatic interval division and automatic edge side bonding → automatic cutting → automatic blanking.

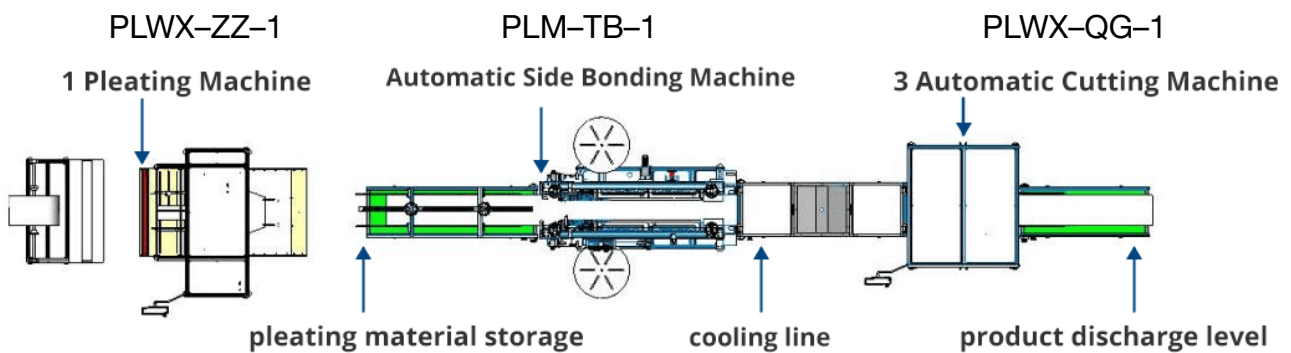


PLM-ZD-1

2. Production Line Front View

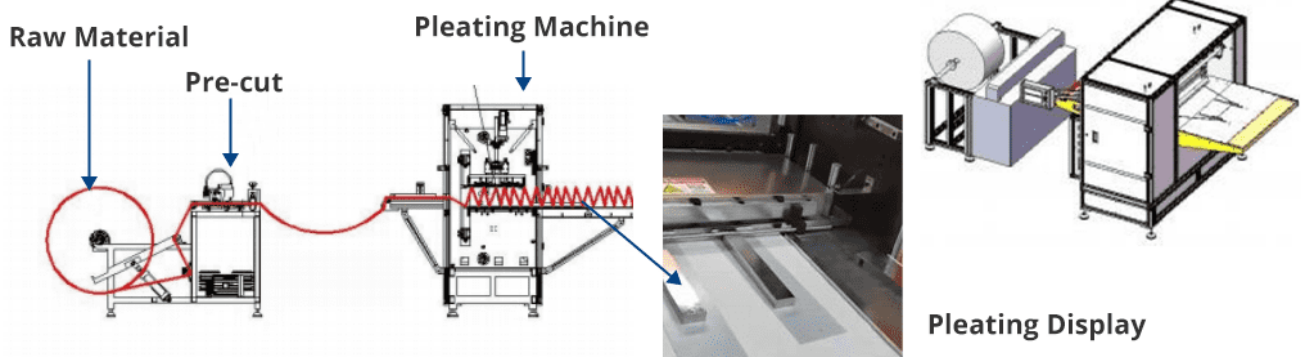


3. Production Line Top View



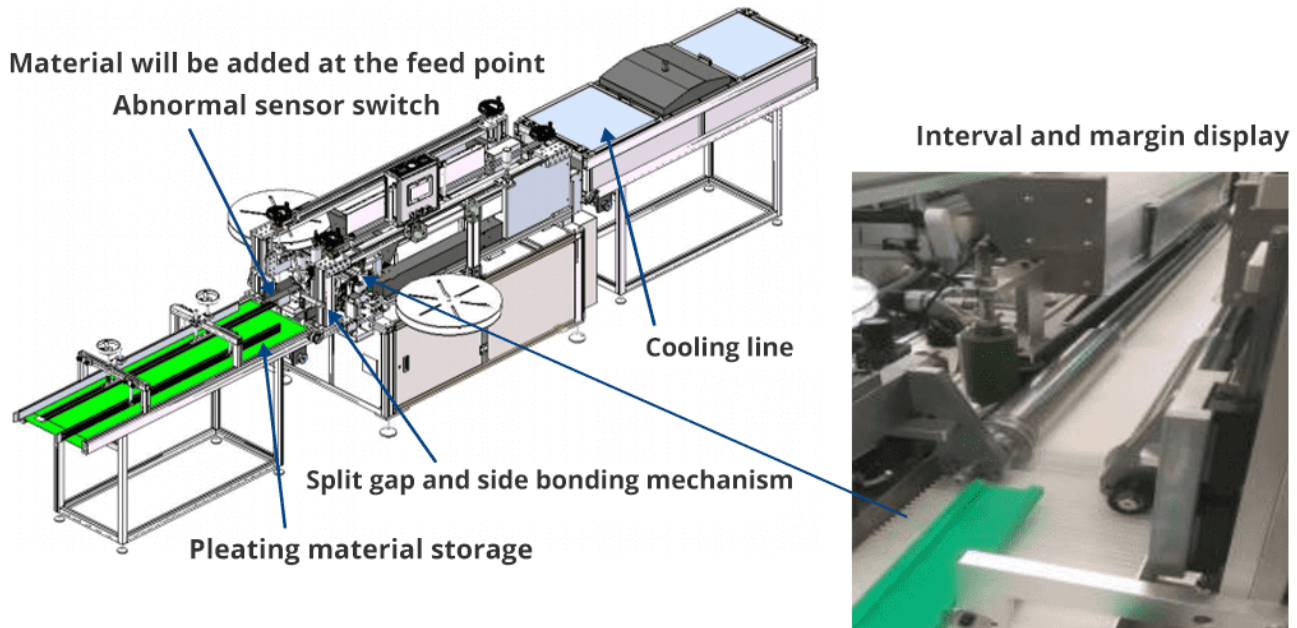
4. Equipment Introduction - Pleating Machine

- This origami glue injection equipment mainly consists of 3 parts: roll material rack, pre-cutting, origami machine;
- Action flow:
unwinding of roll material → pre-cutting according to the product → automatic folding according to the height of the product.
- Electrical: total power of origami machine: 15 kW, 380 V / 50 Hz; air pressure: 0.6 MPa



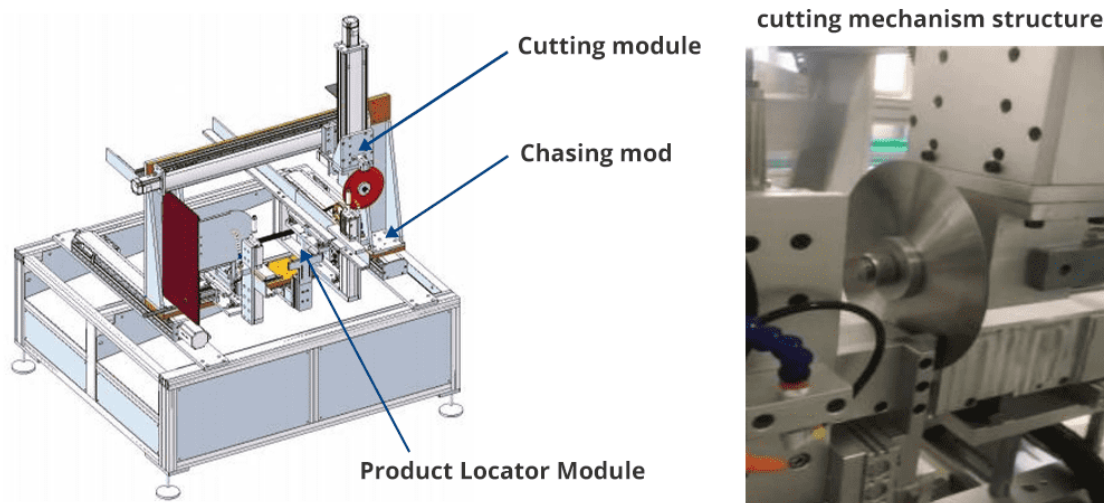
5. Equipment Introduction - Automatic Side Bonding Machine

- This side bonding machine mainly consists of 3 parts: feeding line, automatic partition and side bonding mechanism, cooling line;
- Action flow: Automatically divide the interval → automatically paste the edge.
- Electrical: Total power of side bonding machine: 15 kW, 220 V / 50 Hz; Air pressure: 0.6 MPa



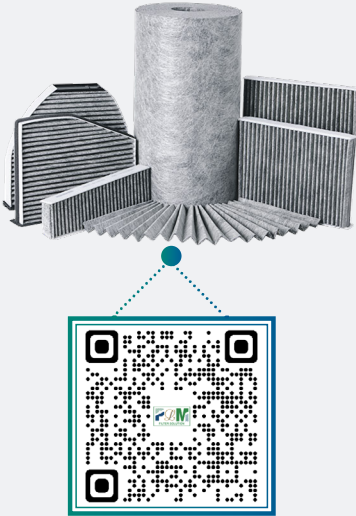
6. Equipment Introduction - Automatic Cutting MachineMachine

- This automatic cutting machine mainly consists of 3 parts: cutting module, product positioning module, chasing cutting module;
- Action process: automatically cut to the set length according to the previous data → automatic chasing cutting → automatic discharge.
- Electrical: Total power of three-axis machine: 6 kW, 220 V / 50 Hz; Air pressure: 0.6 MPa



Material Solutions – Cabin Filter Line

Non-Woven Filter Cloth

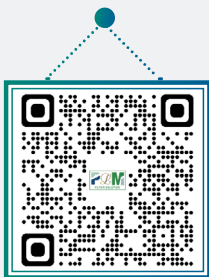


Non-woven filter cloth can be divided into standard non-woven cloth, thermoforming non-woven cloth, activated carbon non-woven and antibacterial non-woven cloth. Non-woven filter cloth are basic and important material in filter production. They are suitable for car air filters, cabin filters, household air purification filters, fuel filters, hydraulic system filters and dust filters.

| Model | Weight | Thickness | Air permeability | Filtration Efficiency | Heat Resistance | Flame Retardancy | Pore Size | Dust Holding Capacity |
|--------------------|------------------|-----------|---------------------|-----------------------|-----------------|------------------|-----------|-----------------------|
| unit | g/m ² | mm | L/m ² /s | % | °C | | µm | g/m ² |
| AC301 (White) | 240±10% | 2.7±0.3 | ≥ 1000 | ≥ 97 | ≥ 150 | | 120–150 | ≥ 500 |
| AC307A (beige) | 260±10% | 2.8±0.3 | ≥ 800 | ≥ 97 | ≥ 150 | | 110–140 | ≥ 700 |
| ACH240 (white) | 240±10% | 2.6±0.3 | ≥ 800 | ≥ 98.5 | ≥ 150 | F1 | 80–110 | ≥ 700 |
| ACH250-OEM (white) | 250±10% | 2.7±0.3 | 800–1300 | ≥ 98.5 | ≥ 150 | F1 | 120–150 | ≥ 700 |
| AOE609 | 260±10% | 2.8±0.3 | 600–1200 | ≥ 98.5 | ≥ 150 | | 120–150 | 120–150 |
| AOE909 (white) | 280±10% | 3.6±0.3 | 800–1300 | ≥ 98.5 | ≥ 150 | | 100–130 | ≥ 700 |
| AC301-B3 | 240±10% | 2.7±0.3 | ≥ 1000 | ≥ 97 | ≥ 150 | | 120–150 | ≥ 500 |
| AF250-P1 | 250±10% | 2.0±0.3 | ≥ 1000 | ≥ 97 | ≥ 150 | | 130–180 | ≥ 400 |
| AF250-G2 | 250±10% | 2.0±0.3 | ≥ 800 | ≥ 97 | ≥ 150 | | 120–150 | ≥ 400 |
| AF250-C-Y2 | 250±10% | 1.8±0.2 | ≥ 800 | ≥ 97 | ≥ 150 | | 120–150 | ≥ 400 |
| GF250 (white) | 250±10% | 2.2±0.3 | ≥ 1000 | ≥ 96 | ≥ 150 | F1 | 110–150 | ≥ 400 |

Remark: The follow information is for reference only. Please consult our sales staff for specific selection.

Hot Melt Glue



Hot melt glue, also called hot melt adhesive is widely used in air filters and oil filters for bonding, shaping and assembling in the production process. Because hot melt glue is environmental protection and fast curing, which can increase production efficiency. Different filter applications have different requirements for the characteristics and materials of filter hot melt glue. Commonly used filter hot melt glue include EVA, PO (Polyolefin), PA (Polyamide), etc. And PA hot melt glue is especially used for oil-resistant and high-temperature filtration.



| | |
|------------------------------------|---|
| Application | For Edge Bonding of Cabin Air Filter |
| Appearance | White particle |
| Density | - |
| Contents | EVA |
| odor | Odourless |
| Melt Condition | Colorless and transparent |
| Melt Speed | 5–8 s |
| High Temperature Resistance | 80 °C |
| Low Temperature Resistant | - |
| Viscosity | 5500–8500 cP (180 °C) |
| Softening Point | 95±5 °C |
| Glue performance | Even & smooth |
| *Recommended Operating Temperature | 150–170 °C |
| Advantage | Good initial tack, fast curing speed, high bonding strength, no glue opening. |

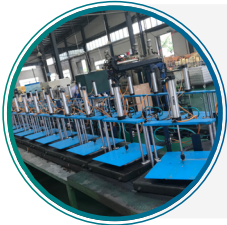
Remark: The follow information is for reference only. Please consult our sales staff for specific selection.

Technical Support



Production Cost & Profit Calculation

According to your needs and requirements, we will calculate the budget you need and supply an optimal solution to help you get the best equipment within your limited budget.



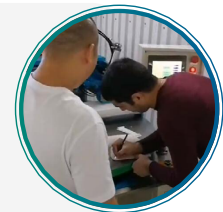
Extendable Upgradable Production Line & Reasonable Layout

We will design extendable, upgradable production line and calculate the most reasonable footprint of the production line according to your requirements.



Worker Training

We have create rich training documents and videos for your fast learning and training. You can come to our factory for actual operation instruction.



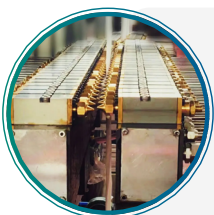
Machine Installation & Maintenance Guidance

Before delivery, we have debug and test machine to achieve the best performance. Besides, we will deliver the installation guidance and maintenance guidance along with machines.



Technological Improvements & Production Flow Optimization

We will evaluate your machines and production flow based on the production state of your production lines and put forward our suggestions for improvements.



Machine & Mold Customization

We will customize machine to match your local market needs. Besides, various molds customization service are accepted for your efficient and easy production.

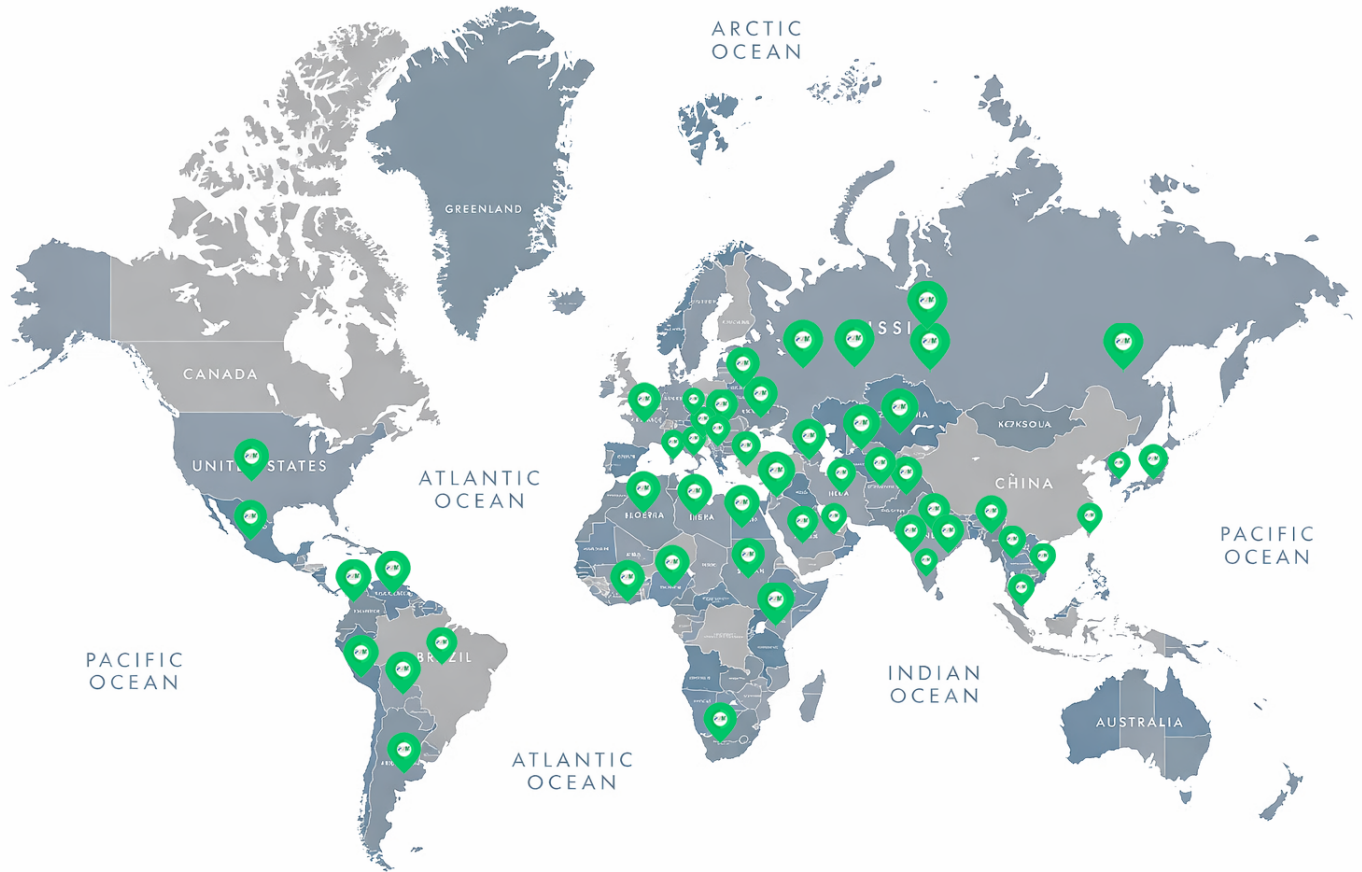


Professional team after-sales support

We have a commitment of "4, 8, 36" which means respond to your requirements within 4 hours, give the pre-solution within 8 hours and complete within 36 hours.



Our Global Partners





**Design,
Supply & Support**

One Stop Solution to your Filters Production

PLM FILTER SOLUTION GROUP

Hebei Leiman Filter Material Co., Ltd

Hebei Luman Filter Parts Co., Ltd

Hebei Deman Technology Co., Ltd.

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WEB: www.pmfiltersolution.com



2024 edition

ONE STOP SOLUTION TO
YOUR FILTERS PRODUCTION

