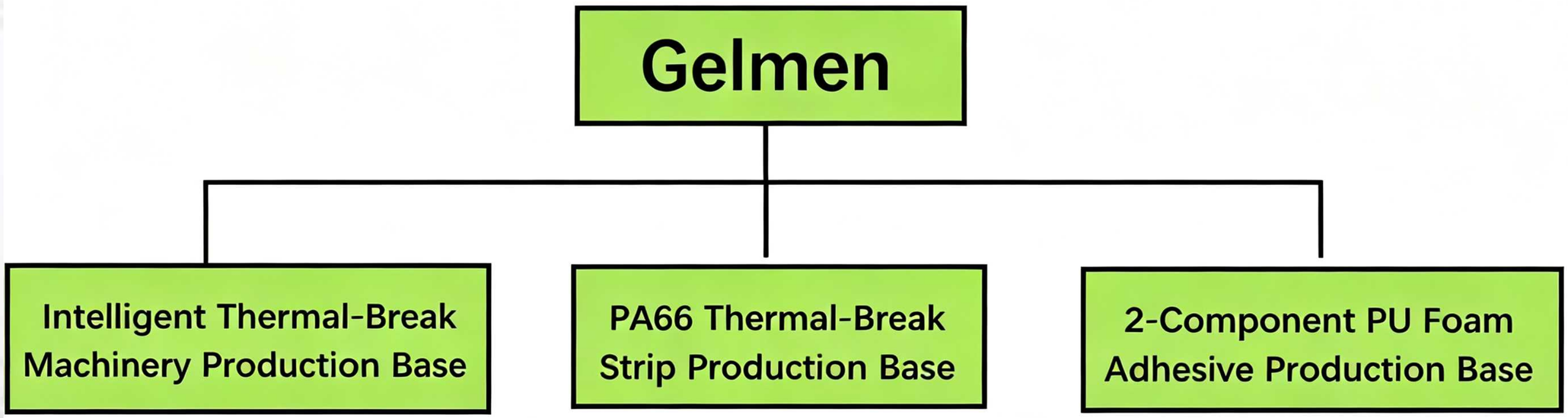
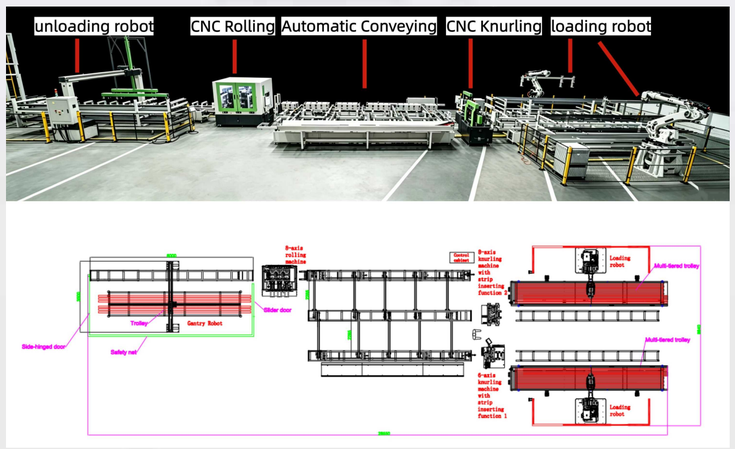
Company profile

Gelmen
格尔曼

Complete Profile Thermal Insulation Solution





CNC Thermal Break Line



PA66 Thermal Break Strip



Foaming Equipment & Materials

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

Customers served

Gelmen
格尔曼

Guangdong Gelmen Your specialized manufacturer of machines for insulating aluminium profiles!Special profiles? No problem -- our machines are up to any task.

Our customers have Germany Schuco，JapanYKK (Suzhou/Shenzhen)，Ural Siberian (RUSSIA)，SIAL (RUSSIA)，ROSSLAV (RUSSIA) ，USPC(RUSSIA)，KFK（Croatia），Dubai Euro Systems，Dubai ARABIAN EXTRUSIONS，Dubai GUTMANN，HOLCOM (Vietnam) well-known door and window companies，Dubai GUTMANN，Muangthong Aluminium(Thailand)，Canada，Australia，United States ...To provide them with efficient and high-precision rolling technology solutions.



Croatia customer to factory inspection



Dubai Aluminum Company production site

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

CNC Thermal Break Line for Aluminum

Gelmen
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① Knurling machine (Top knurling) (bottom knurling)

② Strip Feeding Machine

③ Rolling machine

④ PU Foam Pouring Machine/Shear Force Test Machine

⑤ Loading And Unloading robots

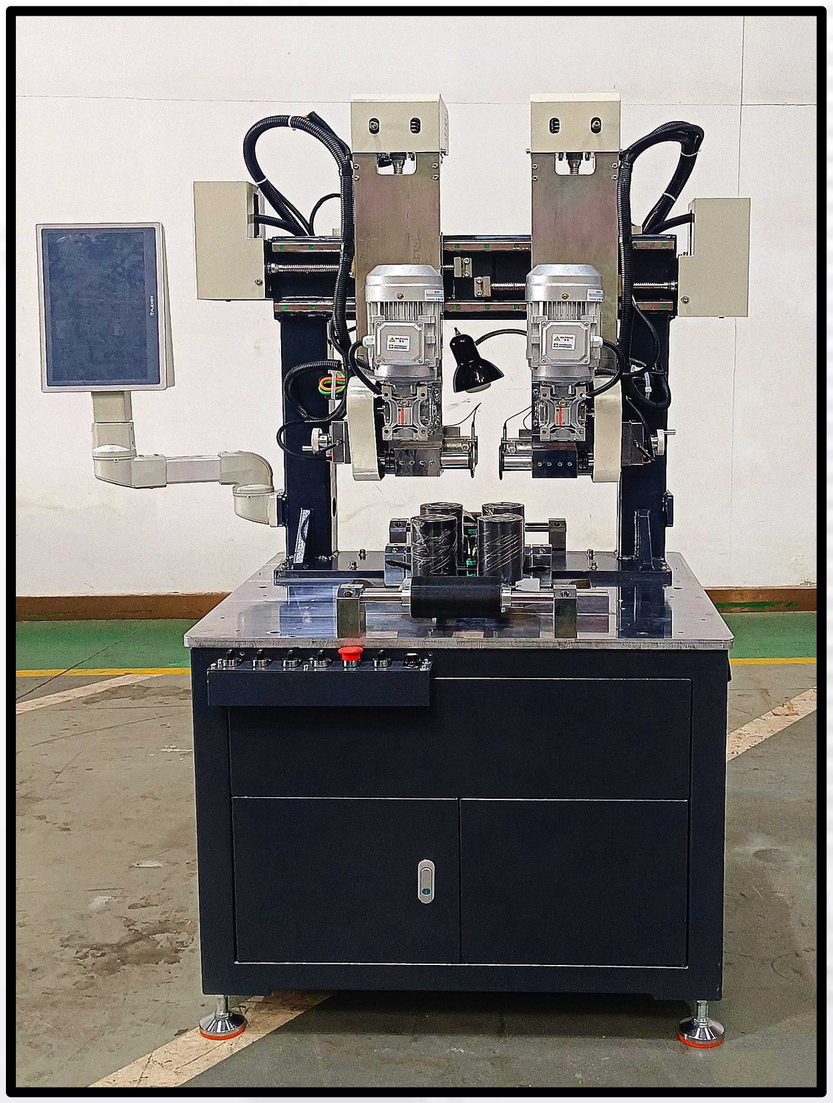
⑥ Automatic conveying system

⑦ PA66 Thermal Break Strip

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

6-axis CNC Knurling machine with strip inserting (Top knurling)

Gelmen
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Machine Features :

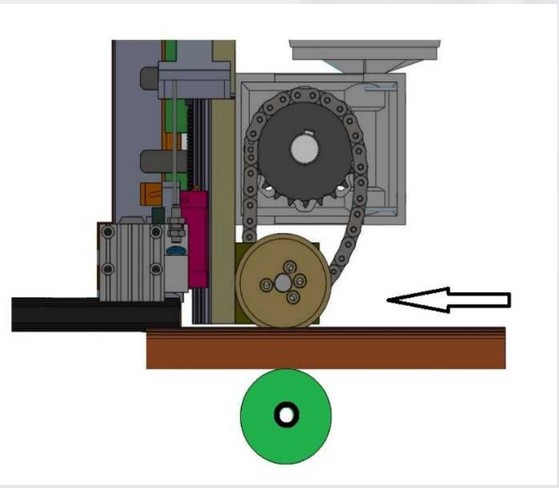
1) the knurling discs made of tungsten steel , the HRC hardness is 90-91 degrees.

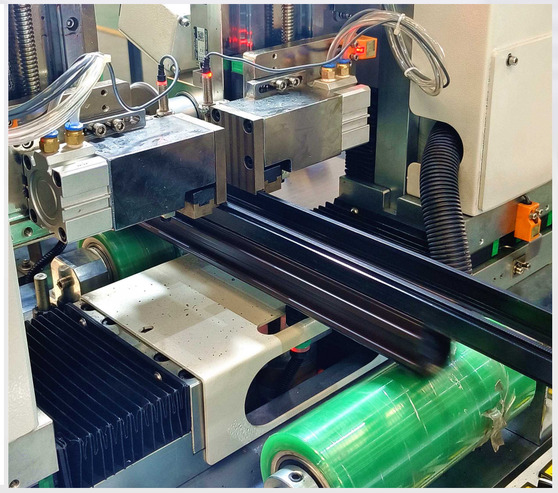
2. CNC adjustment of the height of the two clamps allows for quick replacement of insulation strips of different specifications. Realize the insertion of insulation strips of while knurling teeth

3. CNC adjusts the vertical height and horizontal width of two knurling Discs,

4. The main electrical appliances include Schneider, Siemens PLC, Siemens Servo Motors, and Schneider Electrical components, and AirTAC pneumatic.

5. Advanced 15.6-inch human-machine interface, equipped with specialized software developed by our company. When knurling various aluminum profiles, data storage and retrieval can be achieved; This enables quick replacement of various aluminum profiles.It can store 2000 profiles data.



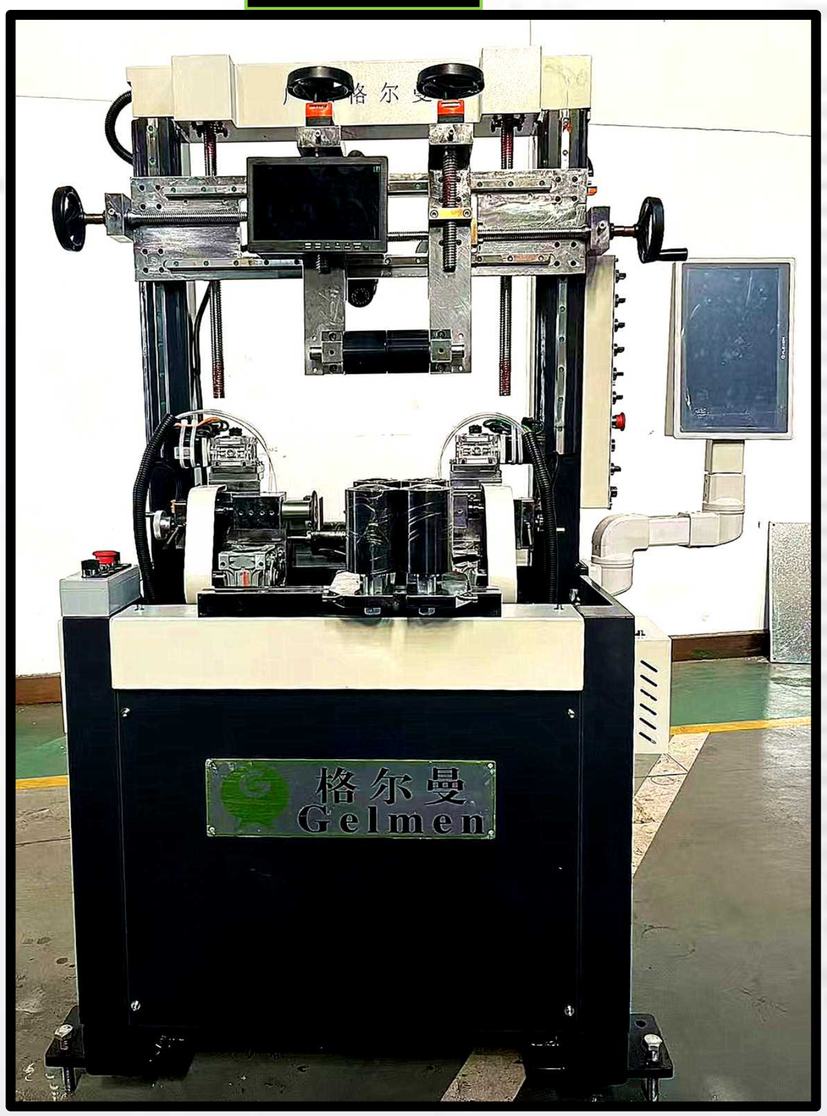


Item Name	GKC-CNC-01
Electricity	380V/50Hz
Total power	3.5Kw
Diameter of Knurling disc of Knurling Disc	80mm
CNC adjust range of Knurling Disc	Horizontal（width）： 210 mm
	Vertical（height）： 210 mm
CNC adjust range of strip clamps	10---75mm(insulation strip)
Knurling speed	0-100m/min
Max processed profiles	200x200mm(WxH)
Knurling Disc adjust width	0-210mm
Machine size	1200x1150x1860mm(LxWxH)
Machine weight	800Kg

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

9-axis CNC Knurling machine with strip inserting (Bottom knurling)

Gelmen
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Machine Features :

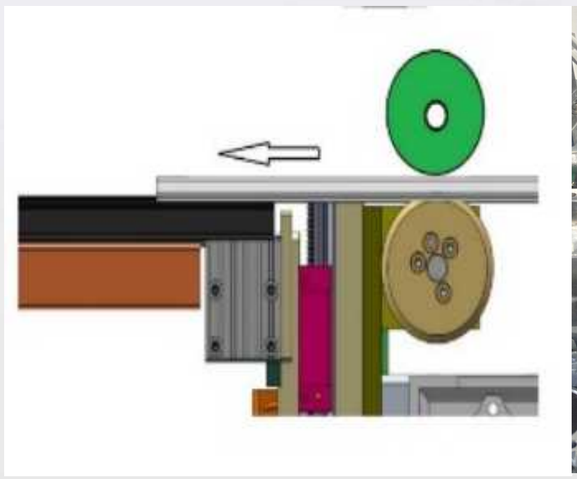
1) the knurling discs made of tungsten steel , the HRC hardness is 90-91 degrees.

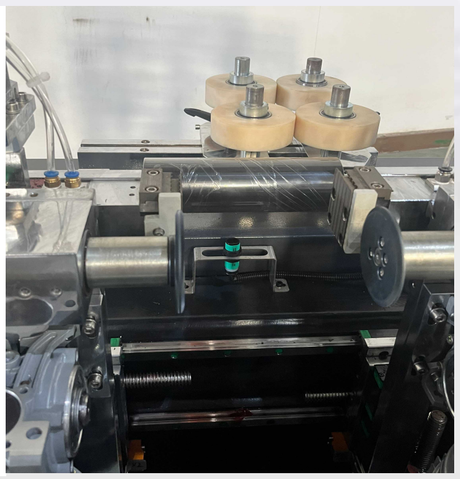
2) Advanced 15.6-inch human-machine interface, equipped with specialized software developed by our company. When knurling various aluminum profiles, data storage and retrieval can be achieved; This enables quick replacement of various aluminum profiles.It can store 2000 profiles data.

3) The main electrical appliances include Schneider, Siemens PLC, Siemens Servo Motors, and Schneider Electrical components, and AirTAC pneumatic.

4) CNC adjustment of the height of the two clamps allows for quick replacement of insulation strips of different specifications. Realize the insertion of insulation strips of while knurling teeth.

5) CNC adjusts the vertical height and horizontal width of two knurling Discs, CNC adjusts the vertical height of the upper rubber roller, and CNC adjusts the vertical height of the roller bracket located at the inlet.





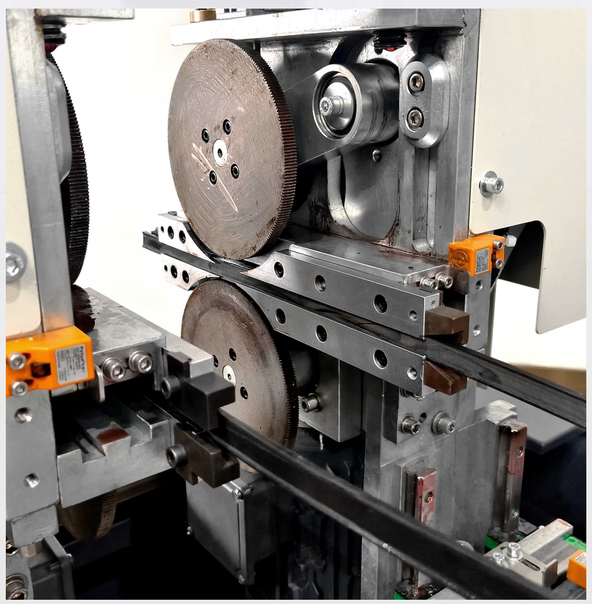
Model No.	GKC-CNC-02
Voltage	380V/50Hz
Total power	5.5Kw
Knurling disc diameter	80mm
Kunrling adjust range	Horisontal (width)：190 mm
	Vertical（height）：190 mm
Strip clamps adjust range	12---75mm （ for insulation strips)
Knurling speed	0-100m/Min
Max process size	200x200mm(WxH)
Knurling disc adjust width	0-190mm
Machine size	1100x900x1900mm(LxWxH)
Machine weight	800Kg

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

5-axis CNC strip inserting machine

Gelmen
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Machine Features :

1) Unique feeding unit for thermal barrier strip insertion., Taiwan brand linear guide rail with ball screw to achieve high-precision sliding and positioning.

2) CNC adjusts the height of two heads and the width of two heads.

3) CNC adjustment of the height of the two strip feeding slot, servo motor CNC drive, can quickly replace different specifications of heat insulation strips.

4) Main electrical appliances are Schneider, Siemens converters, Siemens PLC, Siemens Servo Motors, and Schneider Electrical components, AirTAC pneumatics.

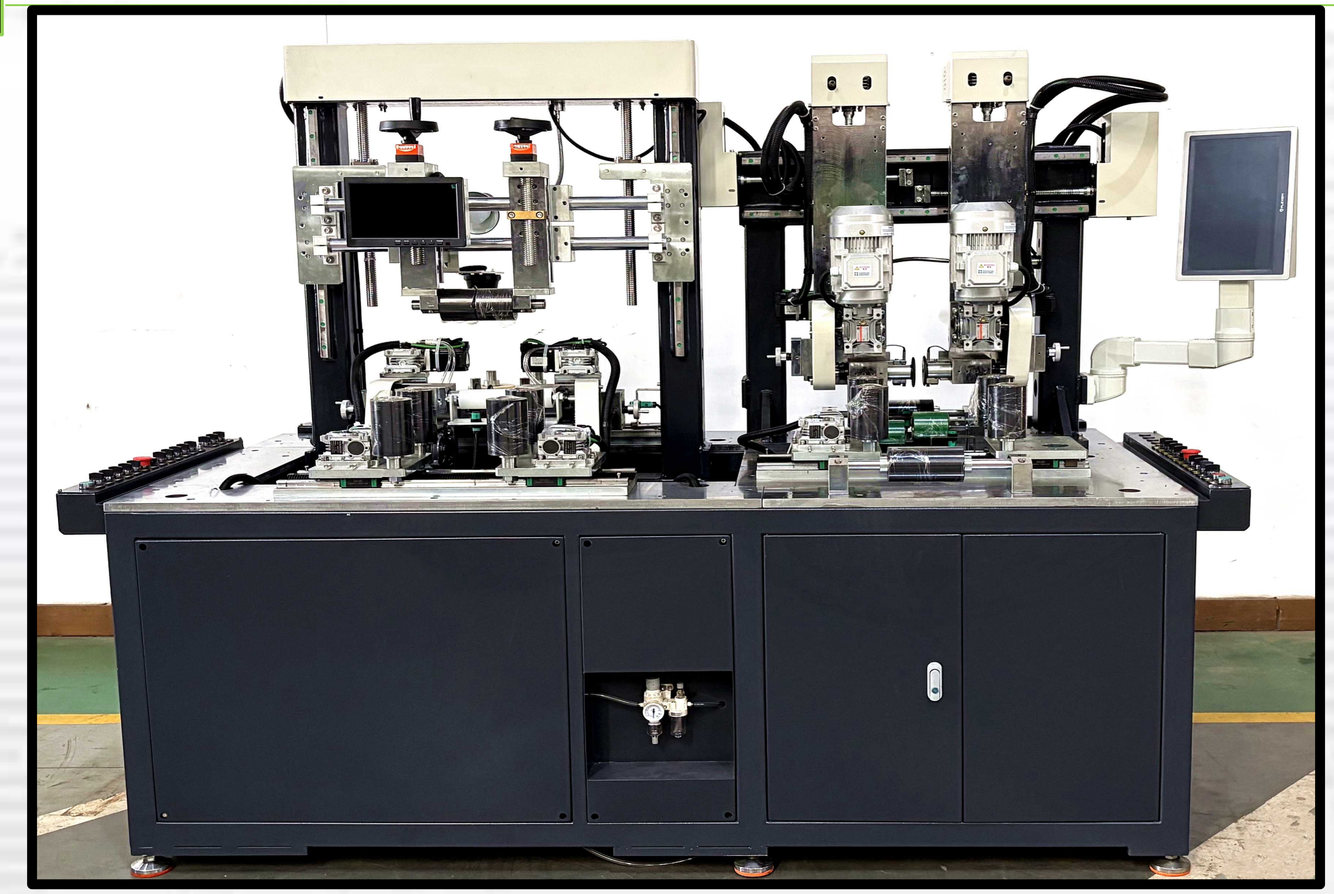
5) Advanced 15.6-inch human-machine interface, equipped with specialized software developed by our company. When knurling various aluminum profiles, data storage and retrieval can be achieved; This enables quick replacement of various aluminum profiles.It can store 2000 profiles data.

Item Name	GCT-CNC-01
Electricity	380V/50Hz
Total power	3.5Kw
Diameter of Feeding gear disk	160mm
CNC adjust range of Feeding gear disk	Horizontal（width）：200 mm
	Vertical（height）：200 mm
CNC adjust range of strip clamps	10---71mm(insulation strip)
Feeding speed	0-100m/min
Max processed profiles	210x210mm(WxH)
Machine size	1200x850x1860mm(LxWxH)
Machine weight	800Kg

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

3-in-1 CNC Integrated Knurling & Insertion & Taping Workstation

Gelmen
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Machine Features :

1) This fully CNC integrated workstation integrates all core processing functions including A-profile taping, A-profile knurling, A-profile thermal break strip insertion, B-profile taping, B-profile knurling, and mutual insertion of A/B profiles. It realizes one-stop completion of profile knurling, strip insertion and surface taping processes.

2) Equipped with two upper-group knurling discs above the profile, both the vertical height and horizontal width of the discs support CNC precise adjustment.

3) Equipped with two lower-group knurling discs below the profile, with CNC adjustable vertical height and horizontal width for flexible processing demands.

4) Fitted with 4 sets of thermal break strip clamps with CNC adjustable vertical height. It supports quick replacement of thermal strips in different specifications and achieves synchronous profile knurling and strip insertion processing.

5) All rubber rollers, guide rubber rollers and equipment brackets of the machine are fully CNC adjustable to ensure high-precision positioning and processing stability.

6) The machine adopts high-quality brand components for core parts: Schneider electrical components, Siemens PLC and Siemens servo motors, and AirTAC pneumatic components, ensuring stable and durable equipment operation.

7) It is equipped with a 15.6-inch high-definition HMI and self-developed professional software. The system supports storage and quick recall of processing parameters for various aluminum profiles, enabling fast production switching. It can store parameter data of up to 2000 different profile models.

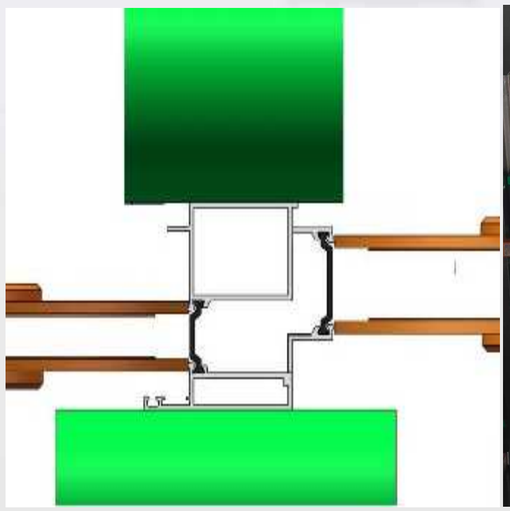
Gelmen----Complete Thermal Break Solution for Aluminum Profiles

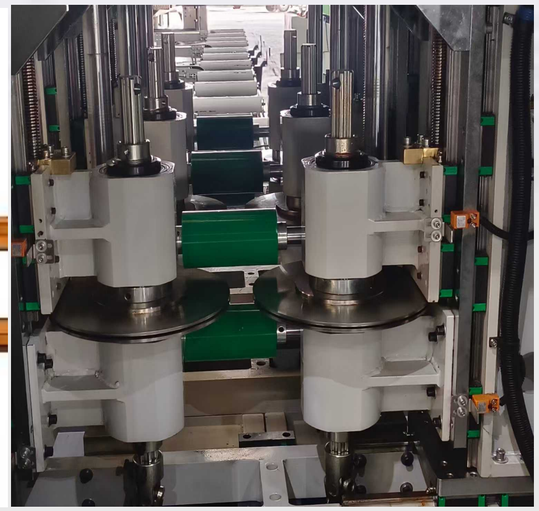
8-axis CNC rolling machine

Gelmen
格尔曼



1) The main electrical components of the "8-axis CNC system" include Schneider, Siemens PLC, Siemens Servo Motors, and Schneider Electrical components, AirTAC pneumatic, etc.
2) Advanced 15.6-inch human-machine interface, equipped with specialized software developed by our company. When knurling various aluminum profiles, data storage and retrieval can be achieved; This enables quick replacement of various aluminum profiles.It can store 2000 profiles data.
3) Full time six disc drive. The six rolling discs all have the characteristics of main force, uniform force, fast speed, and high efficiency, and the frequency converter has a stepless speed regulation function. Each set of rolling discs is equipped with a pressure sensor, and the rolling pressure value can be displayed in real-time on the touch screen or external digital display.
4) The vertical height of the rolling discs on the left and right sides can be adjusted separately by CNC, and the vertical thickness of the rolling discs on the left and right sides can be adjusted separately by CNC.
5) The rolling discs made of Cr12MoV steel , the HRC hardness is 58-62 degrees.
6) The horizontal movement of the 3 rolling groups and the vertical movement of the 3 rubber rollers are both adjusted by CNC.





Item Name	GYJ-CNC-01
Electricity	380V/50Hz
Total power	7.2Kw
Diameter of rolling Disc	270mm。
Left and right Discs interval	12-75 mm insulation strips available
Max process profiles	210x390mm (WxH)
Rolling speed	0-90m/min
Machine size	1850x1450x1900mm
Machine weight	2100kg

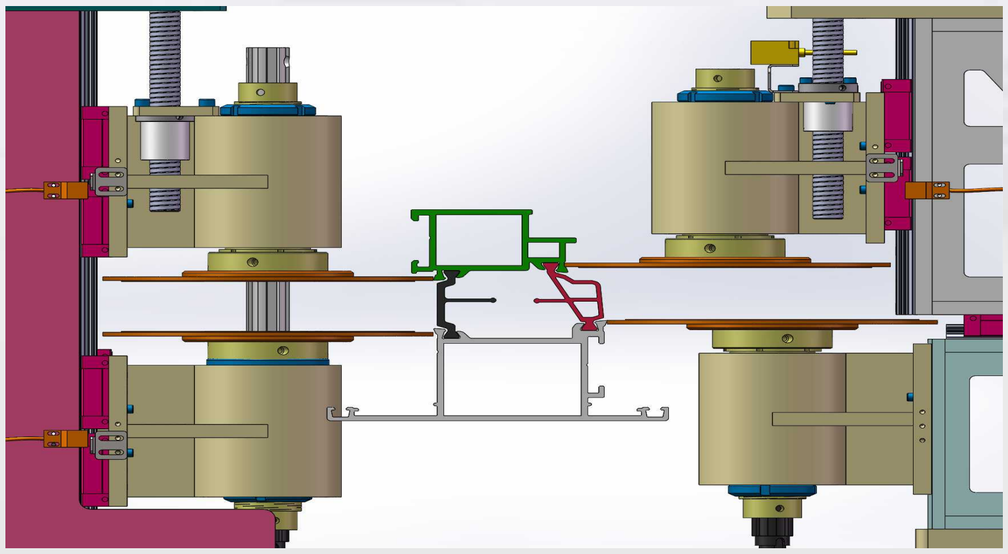
Gelmen----Complete Thermal Break Solution for Aluminum Profiles

11-axis CNC rolling machine

Gelmen
格尔曼



1) The main electrical components of the "11-axis CNC system" include Schneider, Siemens PLC, Siemens Servo Motors, and Schneider Electrical components, AirTAC pneumatic, etc.
2) Advanced 15.6-inch human-machine interface, equipped with specialized software developed by our company. When knurling various aluminum profiles, data storage and retrieval can be achieved; This enables quick replacement of various aluminum profiles.It can store 2000 profiles data.
3) The upper rolling disc of the movable rolling unit can be CNC adjusted to achieve forward and backward displacement relative to the lower rolling disc, realizing the rolling of a special thermal break aluminum profile with inclined insulation strips as shown in the following figure.C.
4) The vertical height of the rolling discs on the left and right sides can be adjusted separately by CNC, and the vertical thickness of the rolling discs on the left and right sides can be adjusted separately by CNC.
5) The horizontal movement of the 3 rolling groups and the vertical movement of the 3 rubber rollers are both adjusted by CNC.



Item Name	GYJ-CNC-02
Electricity	380V/50Hz
Total power	8.6Kw
Diameter of rolling Disc	270mm。
Left and right Discs interval	12-72 mm insulation strips available
Max process profiles	210x390mm (WxH)
Rolling speed	0-90m/min
Machine size	1850x1480x2000mm
Machine weight	2100kg

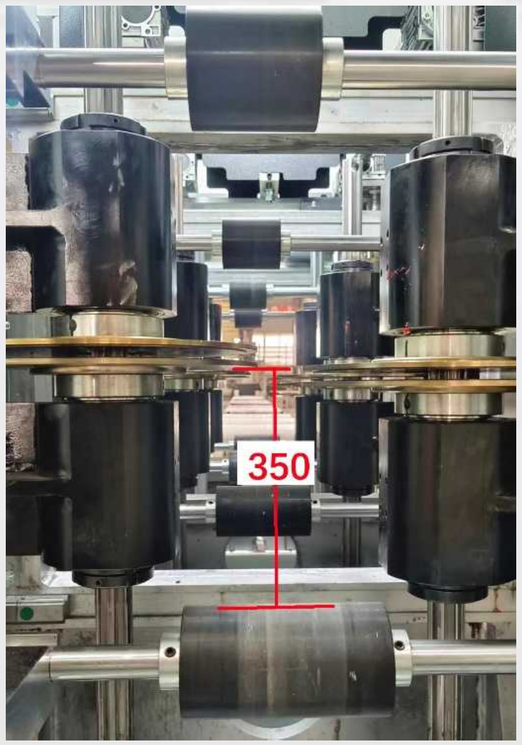
Gelmen----Complete Thermal Break Solution for Aluminum Profiles

Ultra-large 9-axis CNC Rolling machine for Curtain wall

Gelmen
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1) This is a specialized CNC rolling machine designed for rolling large and ultra-high curtain wall thermal break aluminum profiles. Its rolling disc can be CNC vertically raised and lowered to a super height of 350mm.
2)The main electrical appliances include Schneider, Siemens PLC modules, Siemens servo motors, and AirTAC pneumatic, Siemens frequency converter
3) Full time six disc drive. The six rolling discs all have the characteristics of main force, uniform force, fast speed, and high efficiency, and the frequency converter has a stepless speed regulation function. Each set of rolling discs is equipped with a pressure sensor, and the rolling pressure value can be displayed in real-time on the external digital display.
4) The vertical height of the rolling discs on the left and right sides can be adjusted separately by CNC, and the vertical thickness of the rolling discs on the left and right sides can be adjusted separately by CNC.
5) The width of 3 pairs of horizontally moving rolling discs can be adjusted separately by CNC, and the vertical height of 3 sets of rubber rollers can be CNC controlled



Item Name	UGYJ-CNC-01
Electricity	380V/50Hz
Total power	8.5Kw
Diameter of rolling Disc	270mm。
Minimum insulation strip size	12mm
Maximum insulation strip size	80mm
Max process profiles	200x400mm (WxH)
Rolling speed	0-90m/min
Machine size	2250x1850x2150mm
Machine weight	3100kg

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

PU Foam Pouring Machine/ Shear Force Test Machine

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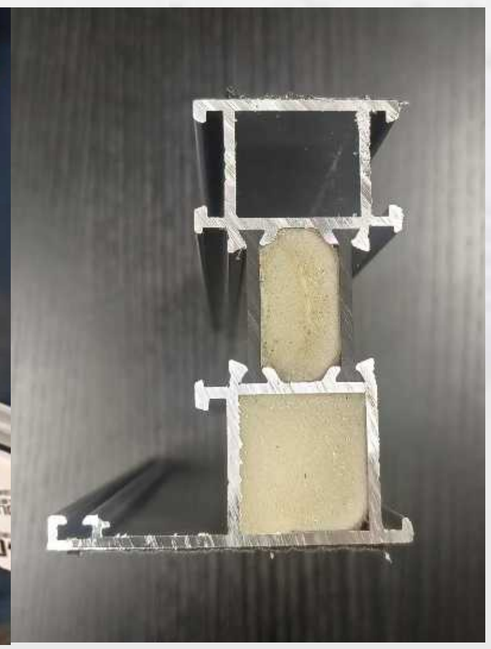


Paper feeding Filling Foaming Machine for Thermal break Aluminum Profiles

Main Technical Parameters (PU Foam Pouring Machine)

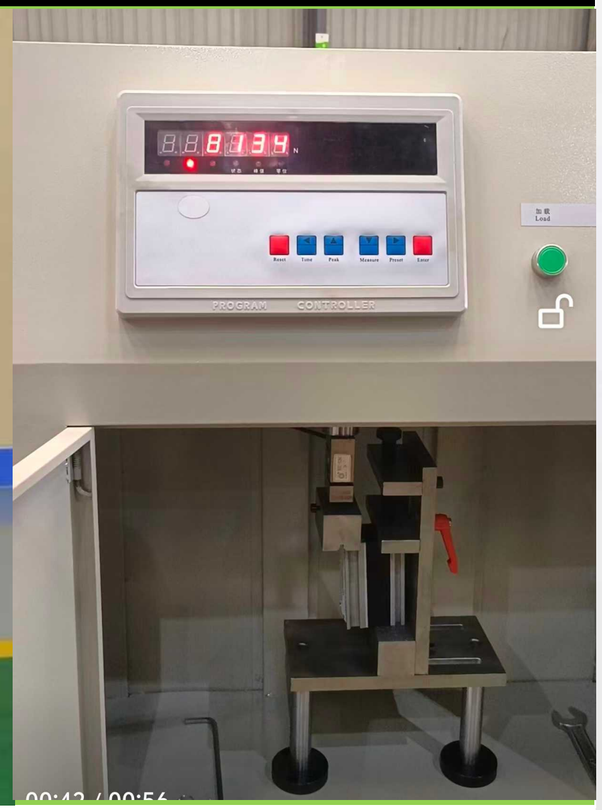
Power Supply: 380V, 50Hz, 3P4W
Motor Power: 2×1.5kW + 1×0.75kW
Heating Power: 4×1kW
Prod. Speed: 0-3m/min
Overall Dimension: 5560×1750×1250mm
Weight: 450kg





Shear Force Test Machine

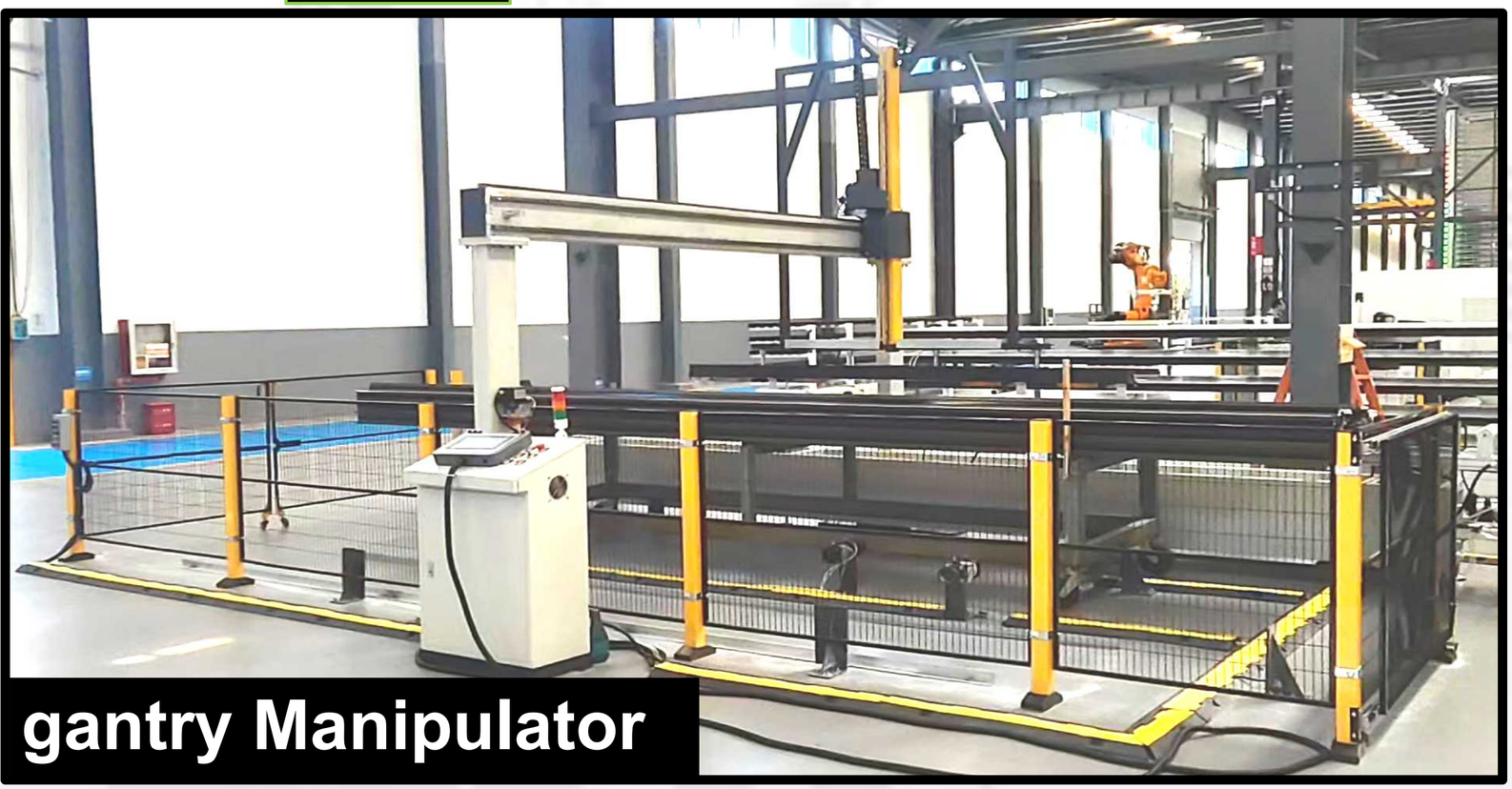




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Loading And Unloading robots

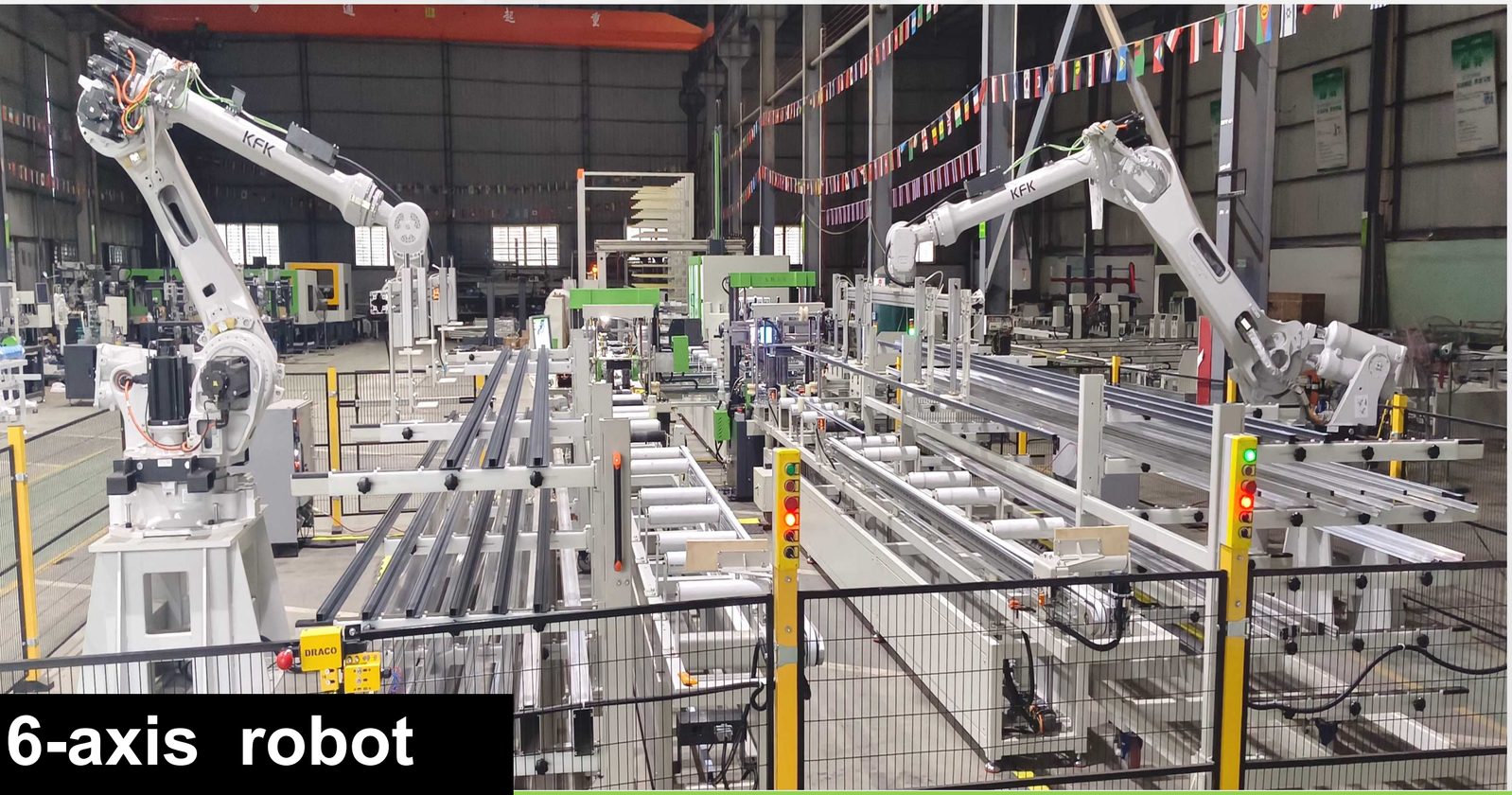
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gantry Manipulator



Cantilever Manipulator

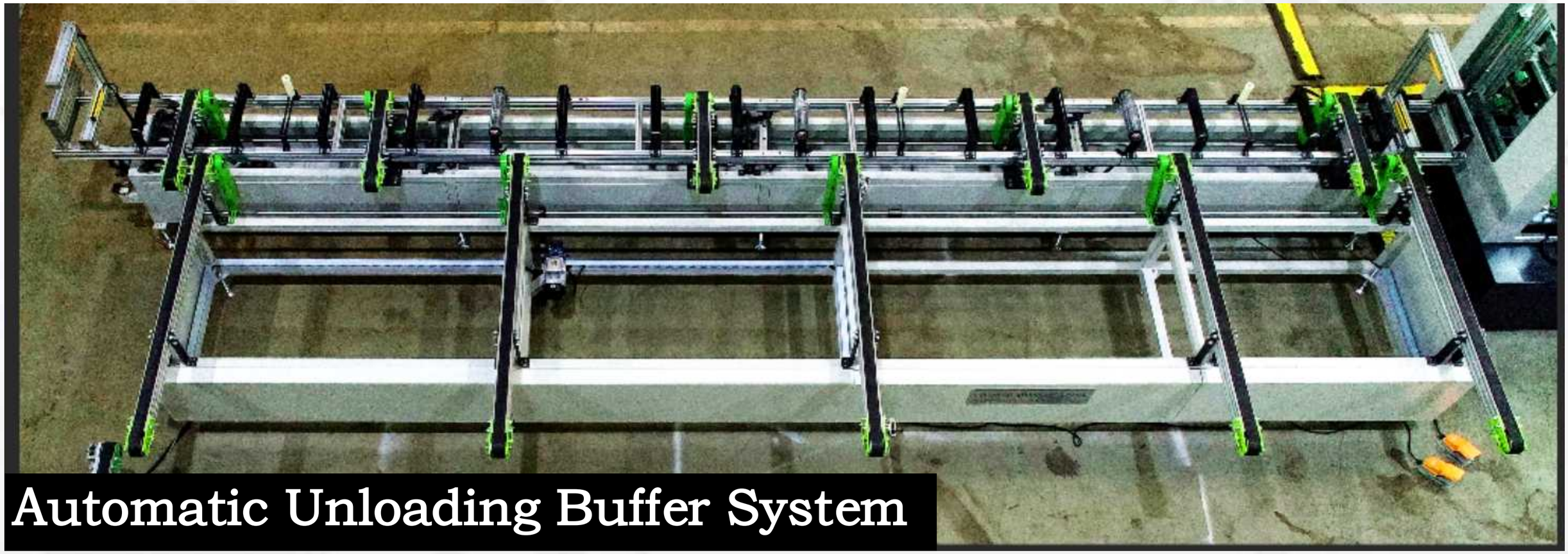


6-axis robot

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Automatic conveyor system

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Automatic Unloading Buffer System



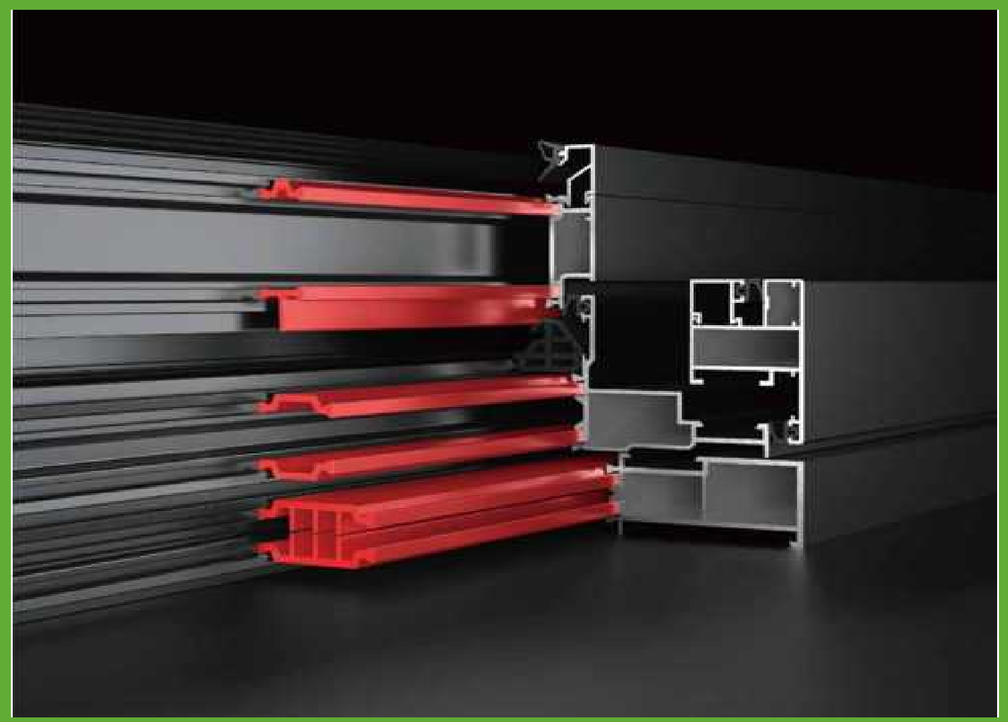
Automatic conveying system between three machines

Gelmen----Complete Thermal Break Solution for Aluminum Profiles

GELMEN

Gelmen guarantees that only PA66 nylon raw materials are utilized.

PA66 Thermal Break Strip



Premium Thermal Break Strip Manufacturing Base

facilities worldwide

Equipped with the latest advanced production

FOURTH GENERATİON FULLY SERVO TWİNSCREW EXTRUDER

High-precision thermal break strip extrusion line



AUTOMATİC DOUBLE HEADSAWİNG MACHİNE

High-precision automatic cutting equipment for thermal break strips

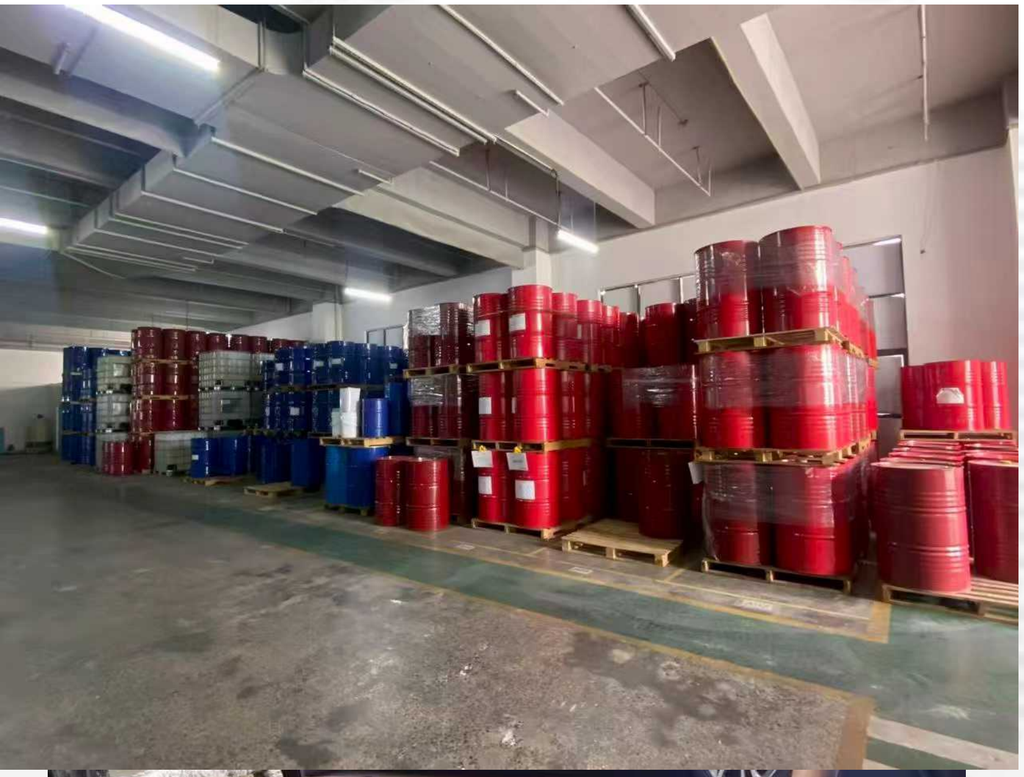


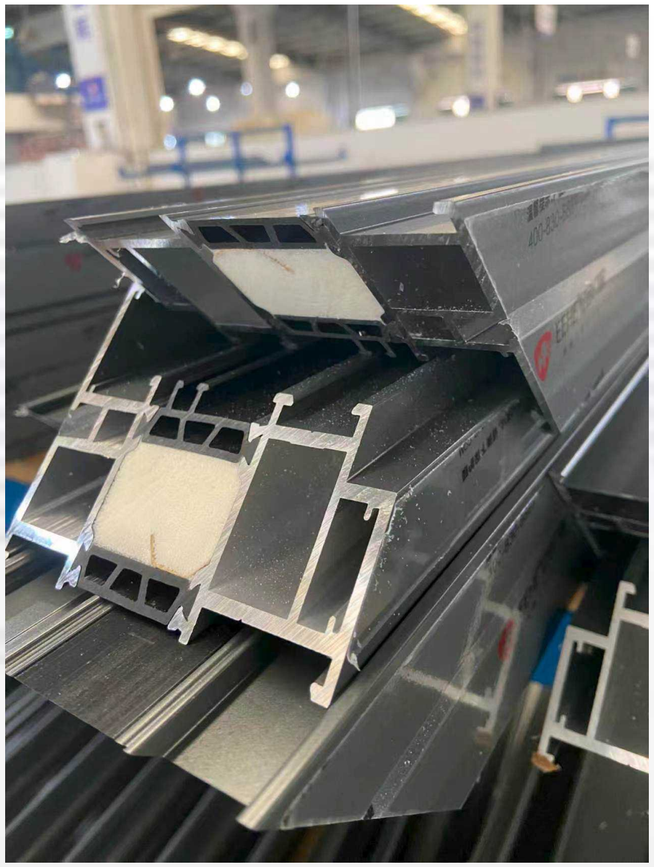
GELMEN specializes in developing exclusive, customized thermal break strips.

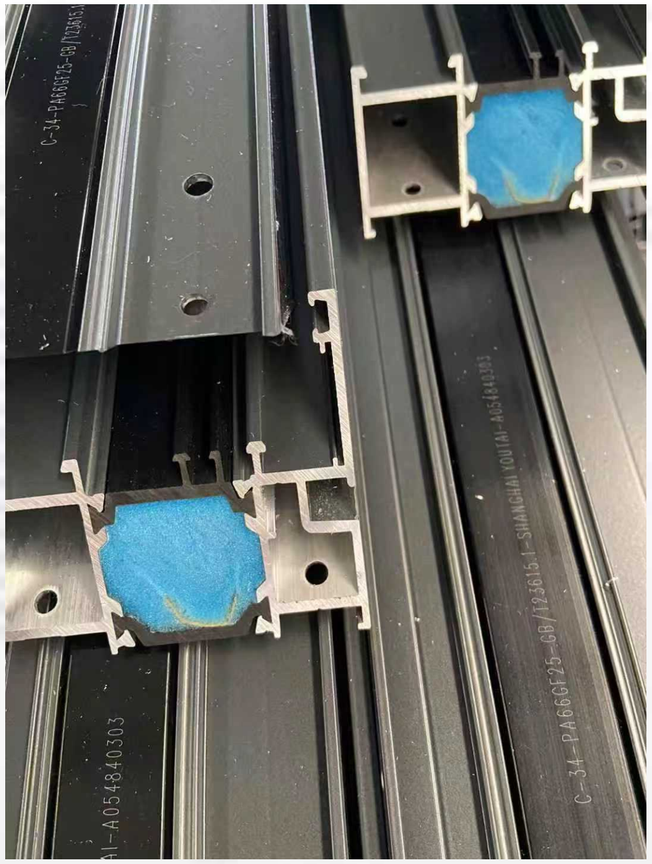
- ☑ Middle East High-Temp Edition
- ☑ Russia Extreme Cold Edition

Two-part PU Foam System

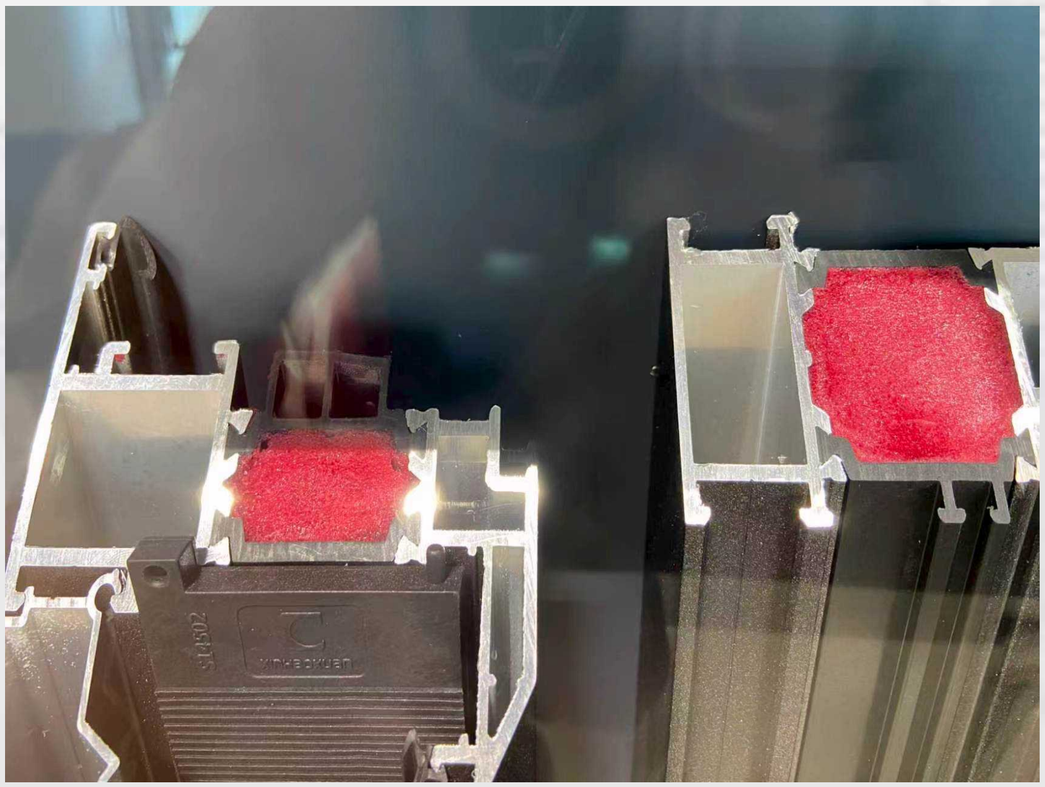
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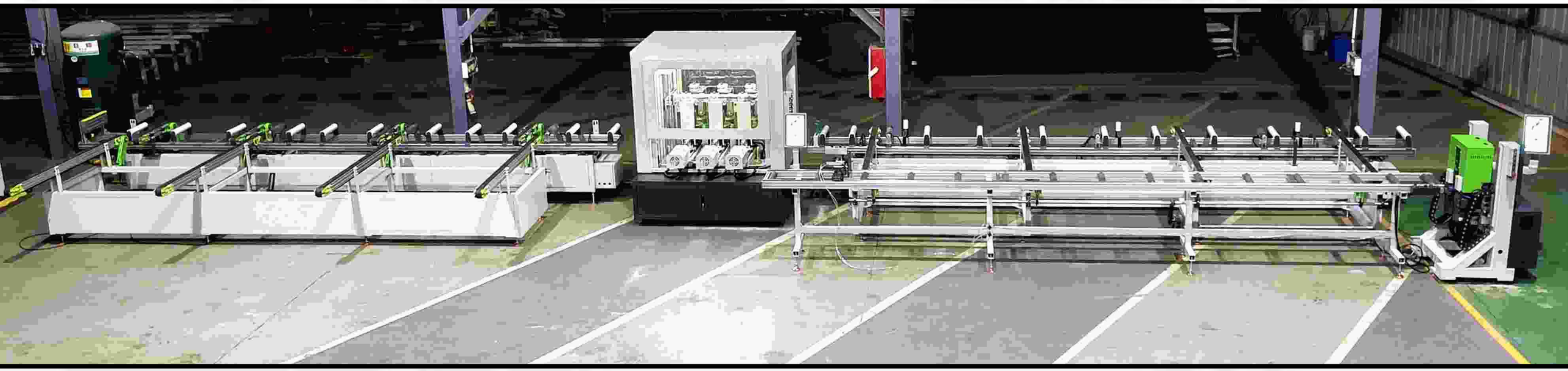




Gelmen----Complete Thermal Break Solution for Aluminum Profiles

Specialized thermal break assembly line for Schuco Germany

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Product Description

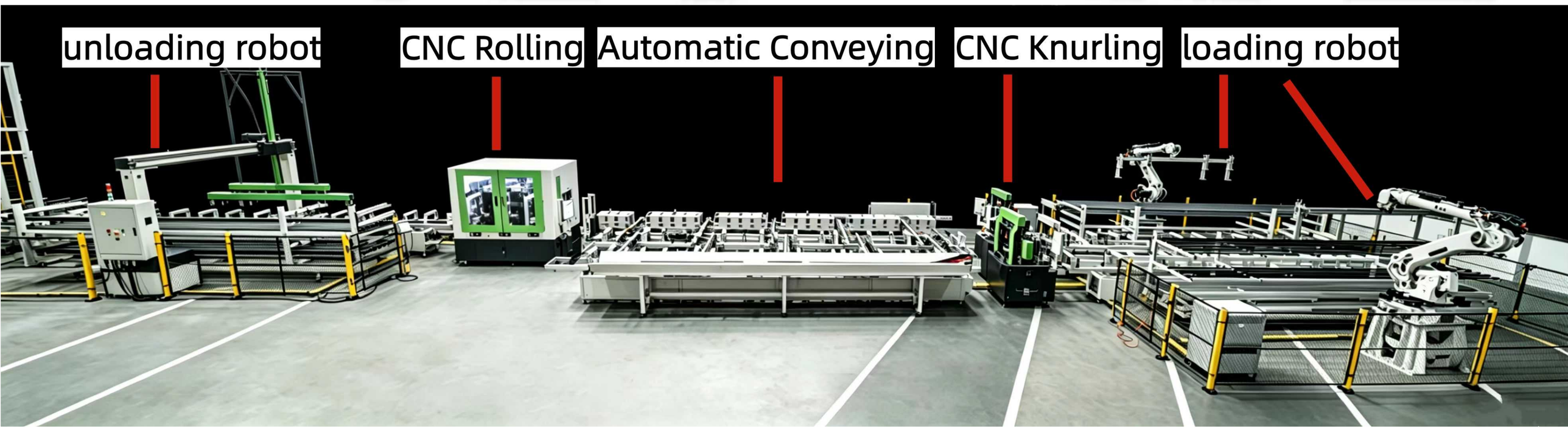
Schuco is a German brand and former manufacturing company founded in 1912 by Heinrich Müller and the businessman Heinrich Schreyer in Nuremberg, popularly known as Germany's toy capital. The company's specialty was making toy reproductions of cars and trucks in tin, plastic and die-cast. The company went bankrupt in 1976 but was reorganized in 1993 and then totally independent again by 1996 before its acquisition by the Simba Dickie Group in 1999.

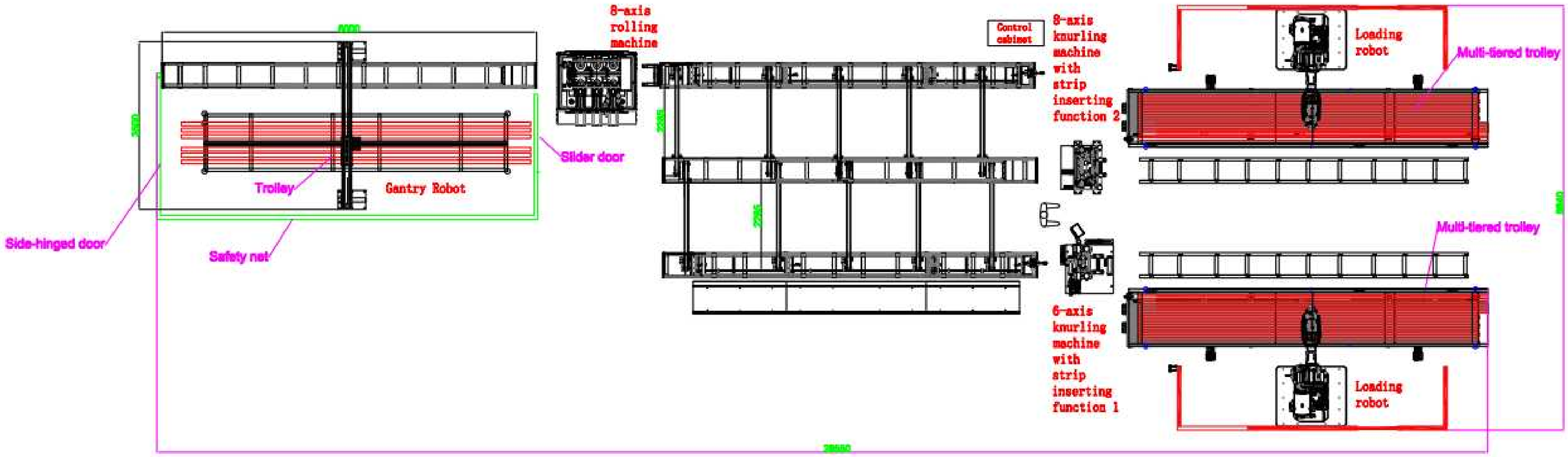
SCHÜCO

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Loading and unloading robot full-automatic line

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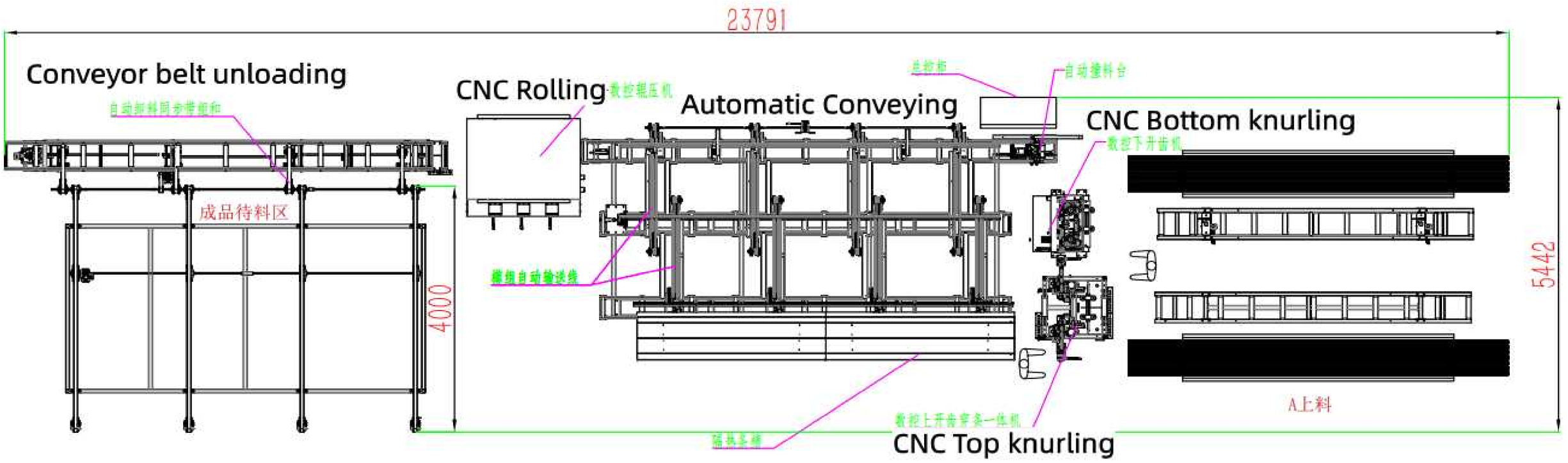


Gelmen----Complete Thermal Break Solution for Aluminum Profiles

Full-automatic line

Gelmen
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Gelmen----Complete Thermal Break Solution for Aluminum Profiles

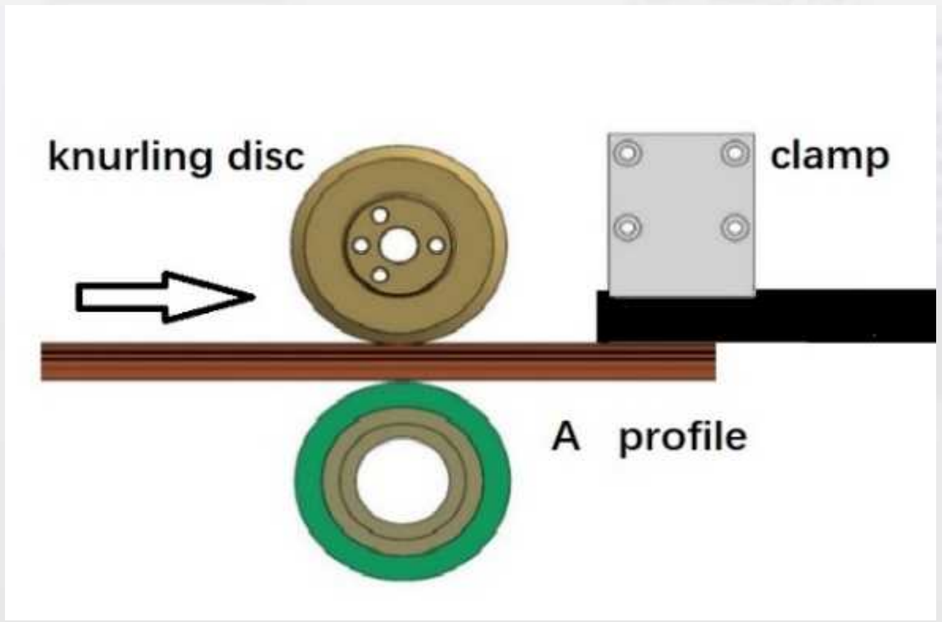
Semi-automatic line

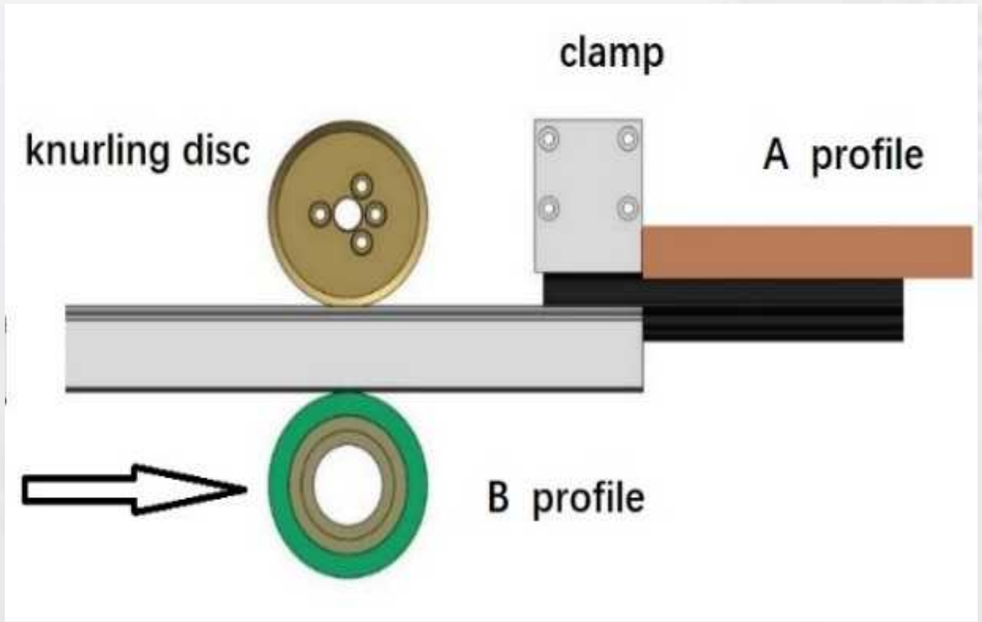
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Combination plan: Top knurling + Top knurling+ Rolling+ Conveyor belt unloading

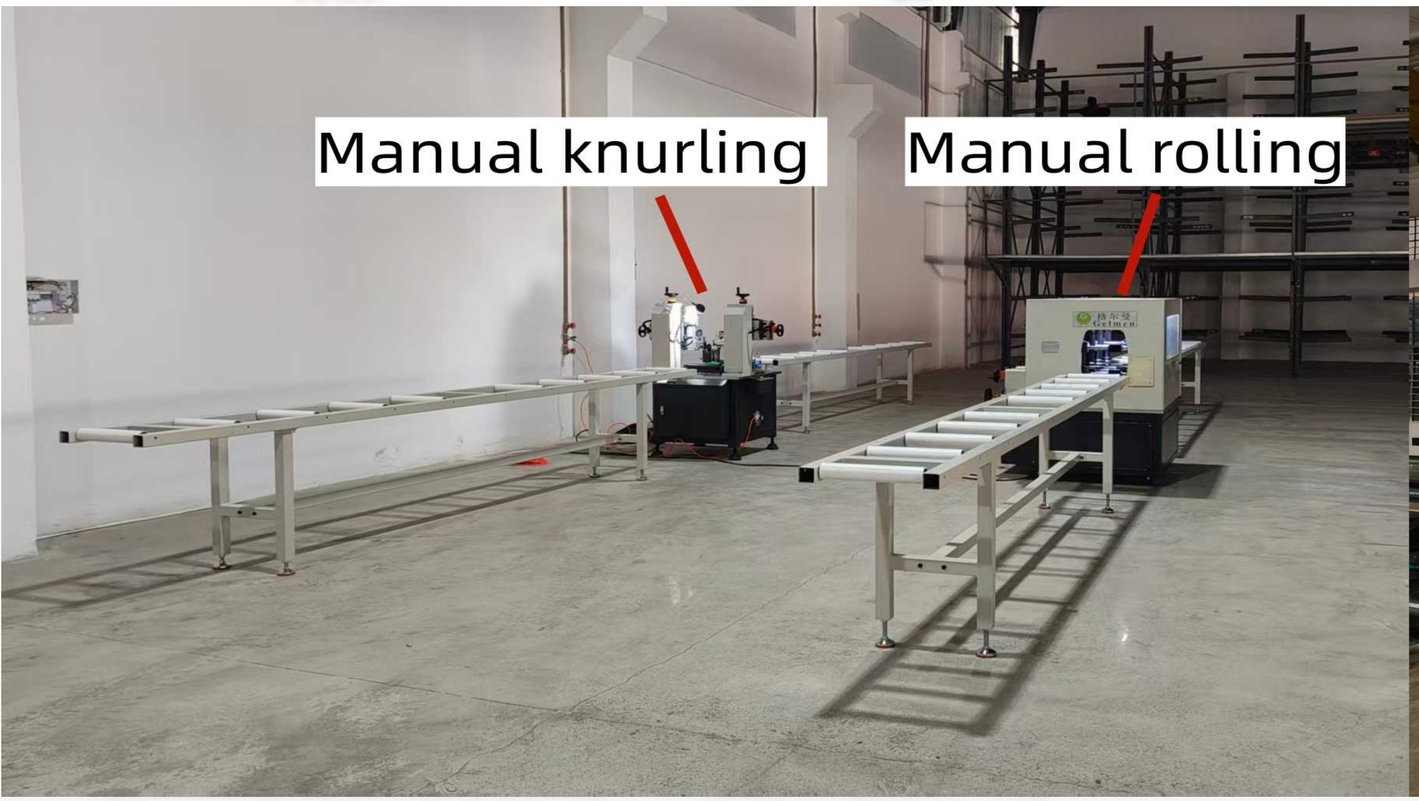


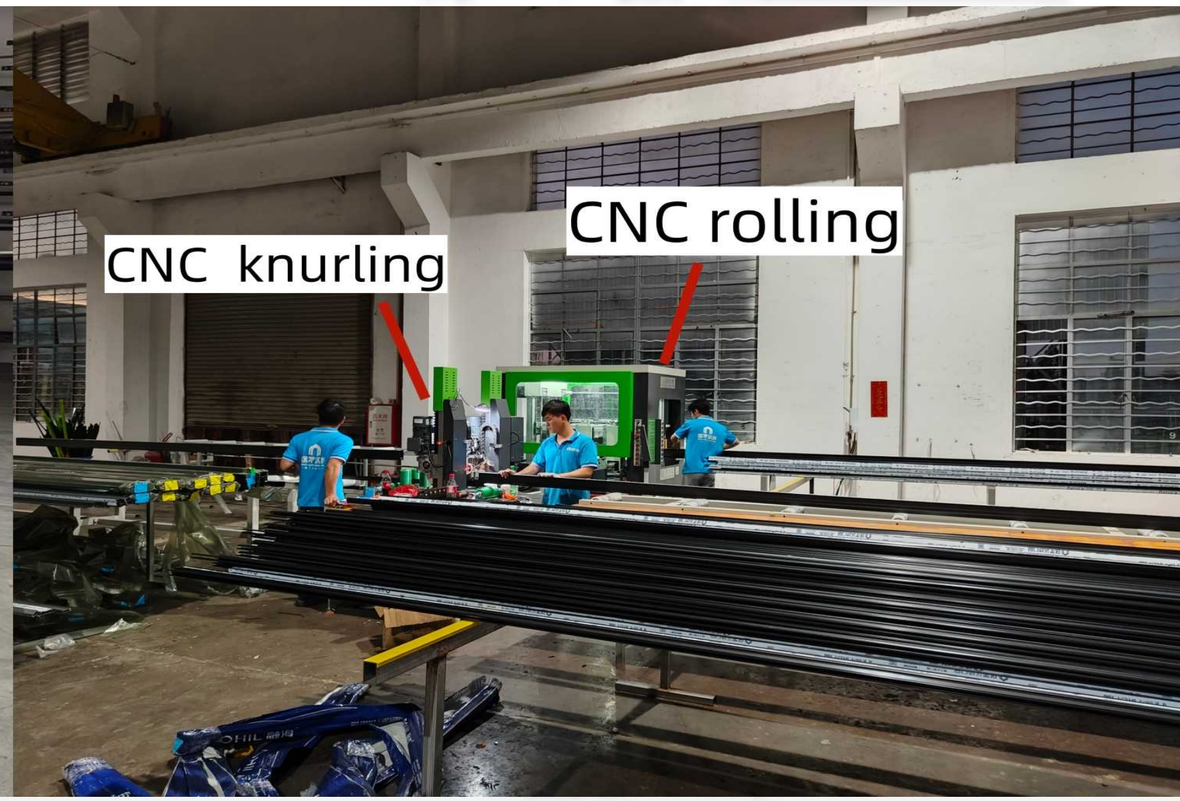


Gelmen----Complete Thermal Break Solution for Aluminum Profiles

Manual line

Gelmen
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Combination plan: Top knurling + Rolling+ 4 shelves



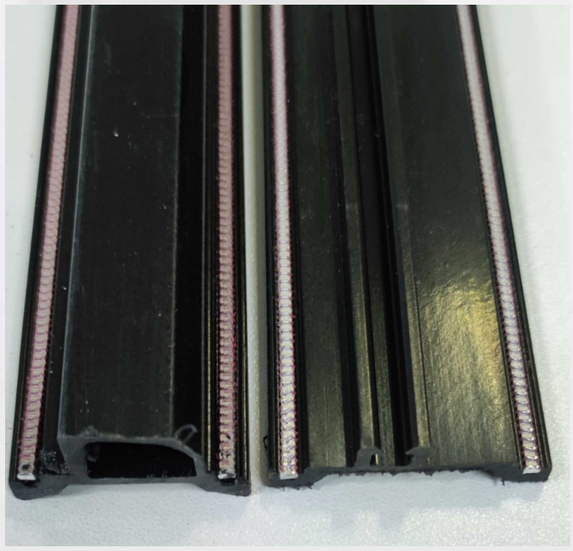
Gelmen----Complete Thermal Break Solution for Aluminum Profiles

For Schuco thermal break machine

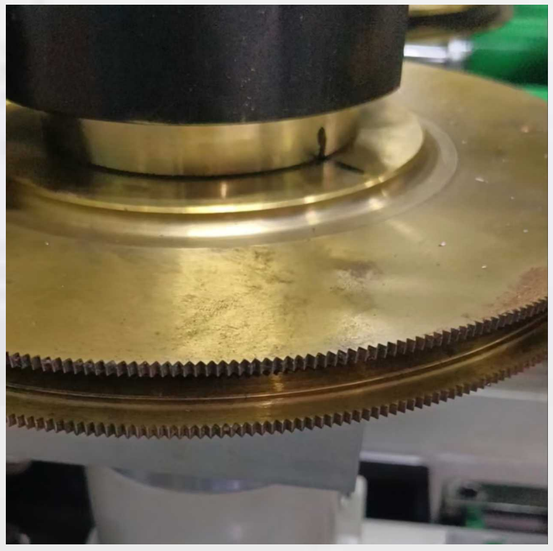
SCHÜCO

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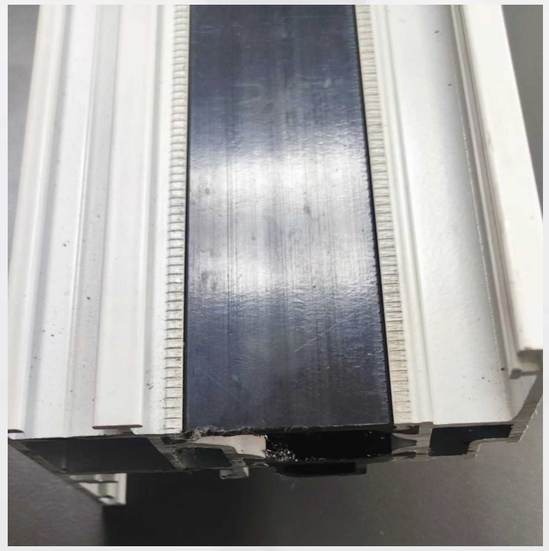




Heat insulation strip tooth marks



Special rolling disc



Finished product

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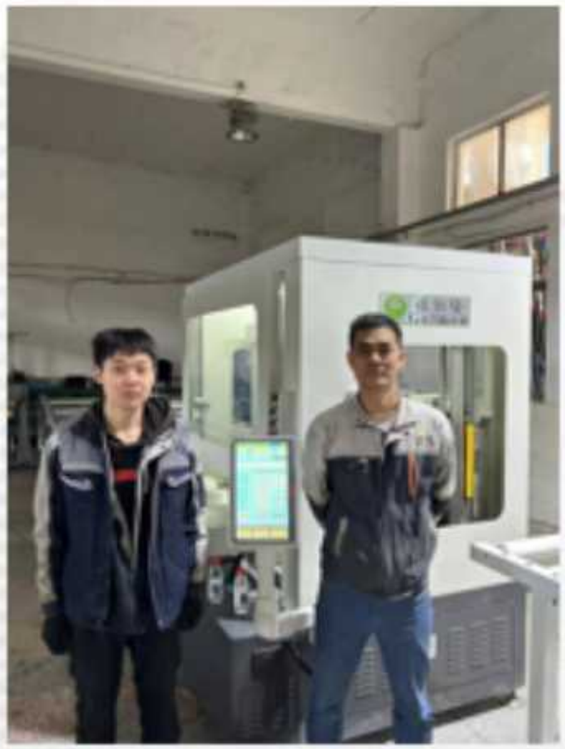
Schuco Cooperative-
Quality accuracy verification

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Schuco Shanghai



Schuco Beijing



Schuco Shanghai



Schuco Shanxi



Schuco Zhejiang NoKo



Schuco Changzhou

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Global Renowned Partners

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Dubai GUTMANN



Dubai ARABIAN EXTRUSIONS FACTORY



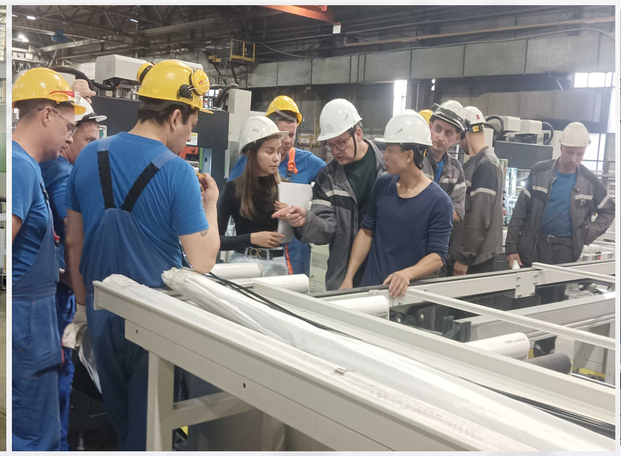
Dubai Euro Systems



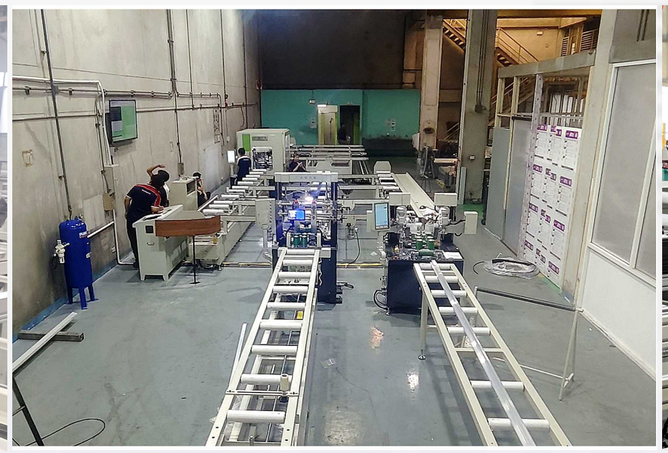
EURO Windows & Doors, Qatar



SIAL Group, Russia



USPC, Russia



Muangthong Aluminium ,Thailand



KFK (Croatia)



Vietnam HOLCOM



Mr. Kiran from India



Mr. Kim from Korean



Mr. Eldar from Russia

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Japan YKK Production base

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Chinese partner

On site pictures of Chinese customers

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AUTOMATIC PACKAGING MACHINE

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① Automatic paper wrapping machine for profiles

② Profile automatic

③ Single tie profile bagging

Automatic paper wrapping machine for profiles

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TECHNICAL PARAMETER	
Approx dimensions	Length 18000mm × width 5000mm
Total power	About 24kW
Applicable profile specification range	Length 3500-7200mm section width 120-250mm Height 60-150mm
Applicable packaging material	Kraft or composite paper Thickness 200-600g/m² Width 400-700mm
Work efficiency	3 rolls per minute,About 150 volumes per hour
one person to complete the operation independently, reduce labor intensity	
THE DATA IS PART OF THE MACHINE PARAMETERS. FOR MORE DETAILS OR SPECIAL REQUESTS, PLEASE CONTACT US.	



AUTOMATIC PACKAGING MACHINE

Profile automatic

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TECHNICAL PARAMETER	
Approx dimensions	Length 16000mm × width 4000mm
Total power	About 10kW
Applicable profile specification range	Length 3000-7500mm section width ≤ 200mm Height ≤ 150mm
Applicable packaging material	PE or PVC protective film thickness 3-10c
Work efficiency	10-13 pieces/min (measured by material length of 6 meters)
one person to complete the operation independently, reduce labor intensity THE DATA IS PART OF THE MACHINE PARAMETERS. FOR MORE DETAILS OR SPECIAL REQUESTS, PLEASE CONTACT US.	





AUTOMATIC PACKAGING MACHINE

Single tie profile bagging

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TECHNICAL PARAMETER	
Approx dimensions	Length 22000mm×width 5000mm
Total power	About 30kW
Applicable profile specification range	Length 3500-7200mm section width 70-250mm Height 60-150mm
Applicable packaging material	PE plastic bag or PVC shrink bag Thickness 5-22c Width 20-40 min
Work efficiency	3-5rolls per minute,About 180 volumes per hour
THE DATA IS PART OF THE MACHINE PARAMETERS. FOR MORE DETAILS OR SPECIAL REQUESTS, PLEASE CONTACT US.	



AUTOMATIC PACKAGING MACHINE

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