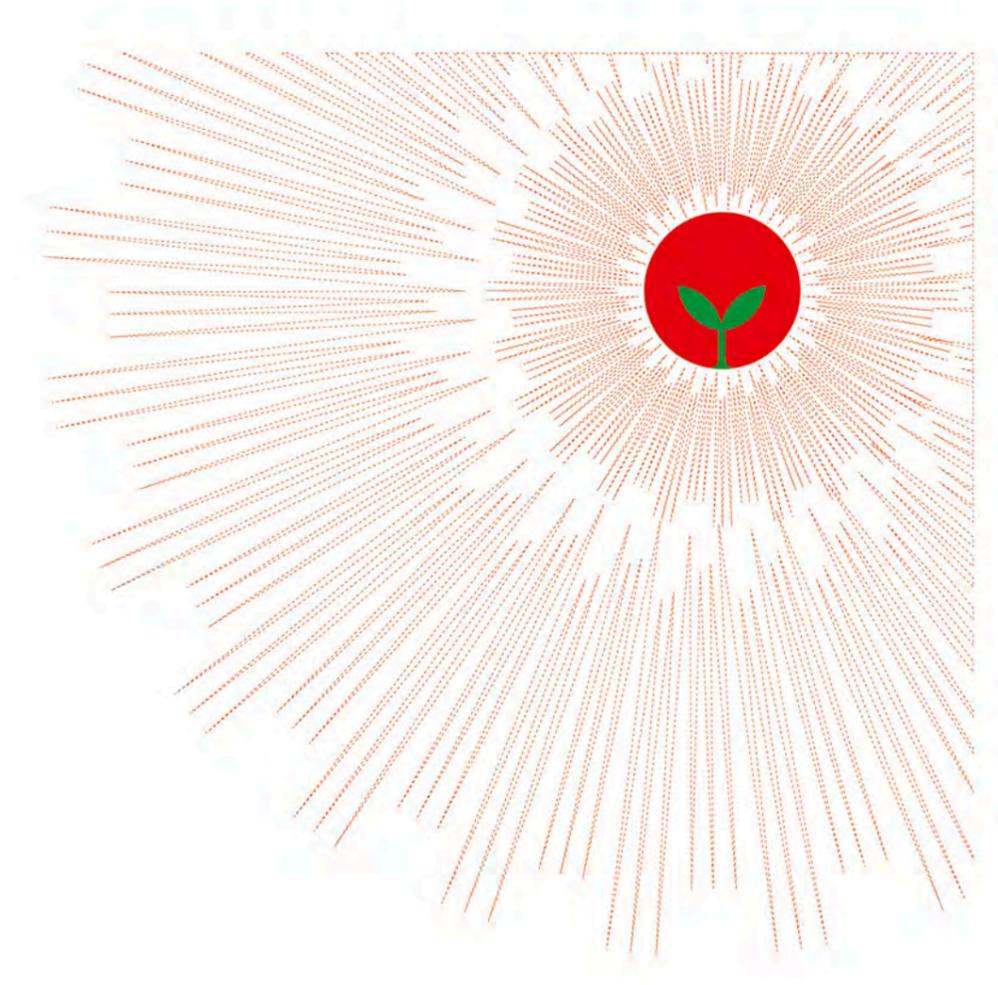


*Yingyang Nonwoven Machinery,
your reliable partner!*



JIANGSU YINGYANG 
NONWOVEN MACHINERY CO.,LTD

Add:Zhitang Town Renyang Industrial Park,
Changshu,Jiangsu,China • P.C:215539

Tel:+86-512-52587768 • Fax:+86-512-52588372

E-mail:yingyang@china-nonwovens.com/webmaster@yingyang.cn

Website:www.yingyang.cn/www.china-nonwovens.com

YINGYANG
NONWOVEN MACHINERY



**YINGYANG, YOUR CHOICE OF A PROGRESSIVE
AND SUCCESSFUL FUTURE!**



Fan Liyuan

Board Chairman

- Vice President of China Textile Machinery Association
- Executive Vice Chairman of China Nonwovens Industrial Textiles Association
- Chairman of Changshu Nonwoven Industry Chamber of Commerce
- Jiangsu Province, the Seventh/Eight/Ninth People's Congress

Jiangsu YINGYANG Nonwoven Machinery Co., Ltd. is a professional nonwoven machinery manufacturer located in Changshu City near Shanghai. The Company was founded by the chairman Liyuan Fan in 1992 and has grown to become the largest of its type in China and probably the largest in the world.

Jiangsu YINGYANG Nonwoven Machinery occupies a total area of 110,000m², including manufacturing workshops, plus display hall and office buildings.

Including sales and administration team, company employees total over 500 people involved in the manufacturer of nonwoven machinery of all types.

The principles of quality and service are paramount to the operation of YINGYANG machinery and to its relationship with its customers worldwide.

The company's products include but are not limited to the manufacturer of carpet, geotextiles, synthetic leather, thermal and chemically bonded wadding, spun-bond, automotive products and other non-wovens.

YINGYANG has a continuous development program not only in new products such as Spunlace Production Line, but also in terms of the most modern machining units and European laser checking systems.

The next major development has just this years started in the building of a new office unit to more suit the needs of YINGYANG, its customers and our employees.

The machinery to manufacture the above products continues to be supplied to companies in, for example: Australia, France, Germany, India, Japan, Korea, Saudi Arabia, South Africa, UK, USA as well as the domestic market in China and other Asian countries with in fact over 52% of our sales volume is exported.

This has led to YINGYANG continuing to enjoy an excellent reputation as a major leading supplier of nonwoven machinery through out the world.

The company is the first one in this industry in china to pass ISO9001-2000 Quality Management System certificate in 2000.

Jiangsu YINGYANG nonwoven Machinery has grown rapidly in the domestic market in recent years and is proud to report that it is enjoying the same success in the export market with machines supplied to 66 countries.

There are many reasons for this but a most important one is the hard work and dedication shown by all YINGYANG employees.

It is not only our intention to achieve the highest honors but also to continue to receive the respect and confidence of our many customers and this is already being shown by the number of repeat orders we continue to enjoy.

This success contributes greatly to our continuing efforts in development and the motivation of Jiangsu YINGYANG Nonwoven Machinery as a global supplier of the highest standard.



YINGYANG machinery are operational in 66 countries around the world



Manufacturing workshops of 63,000 m²

Professionalism is a driving force at Yingyang and the company employs the newest technology in Turning-milling machine from Japan, Boring-milling machine center from Italy, CNC manufacture, plasma welding, and the latest European laser checking systems to ensure consistent and repeatable manufacture of components and machinery.

All part of our quality system which is registered to ISO9000-2000, and implemented throughout the plant.



▶ Turning-milling compound original imported from Yamazaki Mazak in Japan



▶ Boring-milling machine center original imported from PAMA in Italy



▶ Zeiss coordinate measuring machine original imported from Germany



▶ Polished shaft bushing



▶ Italian Unity Prima - Laser cutting machine



▶ Newly-updated CNC machines

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Unit Machine

OPENING & BLENDING

- YYKB-III BALE OPENER
- YYKS-III OPENER
- YYHM-III BIG CHAMBER BLENDER

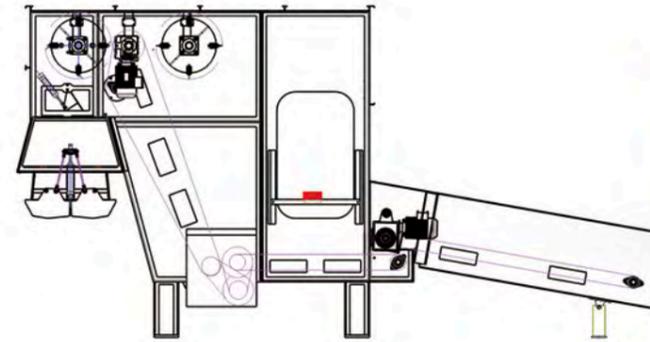
YYKB-III BALE OPENER

Function

To pre-open all kinds of fiber from bales then weighing pre-determined percentages as required for a total blend. Weighing is by electronic scale and transfer of material is by cross conveyor to the opener.

Main specification

Machine width: 1100mm 1600mm
 Production capacity: ≤300kg/h ≤500kg/h
 Weigh pan capacity: 0.2-2.5 kg 0.3-3.5kg
 Installed power: 5.95kw
 Drop frequency: 2-4times/min



▲ Tri-roller for better opening and mixing



Characteristics

- Weigh by required proportion
- Electronic weighing accuracy ±3%
- Control of the spiked lattice and fiber leveling roller by separate inverter
- Lengthened feeding apron and load-bearing apron are available.



YYKS-III OPENER

Function

To open the fiber and transfer by fan to the next procedure.

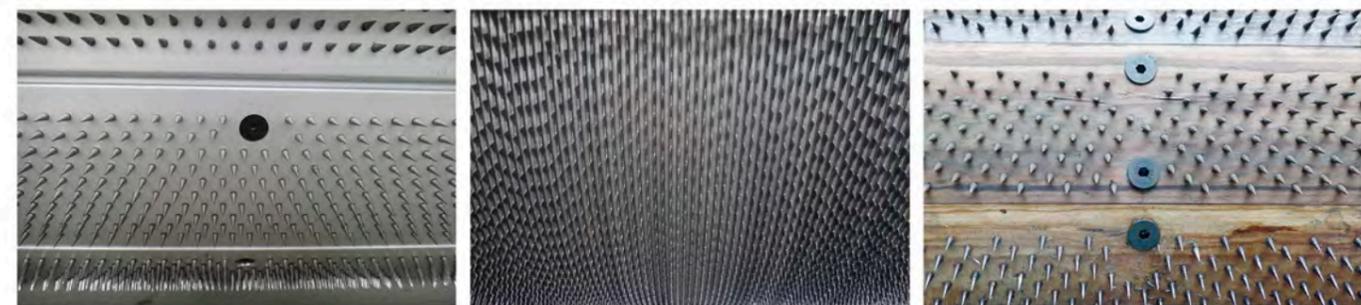
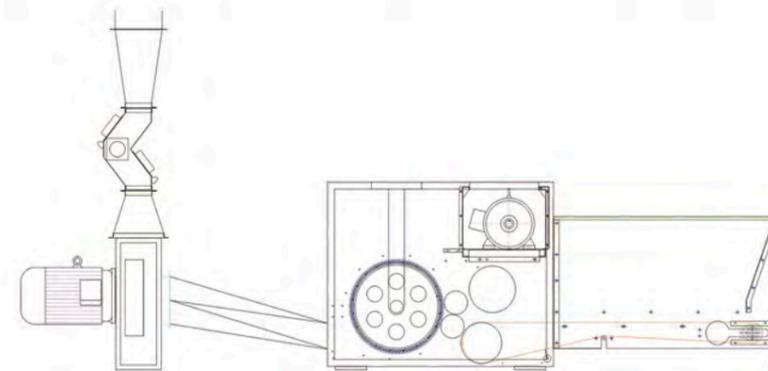
Main Specification

Working width: 1000mm 1500mm
 Capacity: ≤1000kg/h ≤1200kg/h
 Installed power: 21.5kw 25.5kw



Characteristics

- Equipped with detection of fiber overload with alarms and auto reverse of feed rolls on E-Stop.
- Three options of cylinder: a) pin-plated cylinder, b) wired cylinder, or c) metal-plated cylinder.
- Equipped with Variable Speed feed rollers.
- Conveying lattice can be from 1.5 meters to 10 meters according to needs.





YYHM-III BIG CHAMBER BLENDER

Function

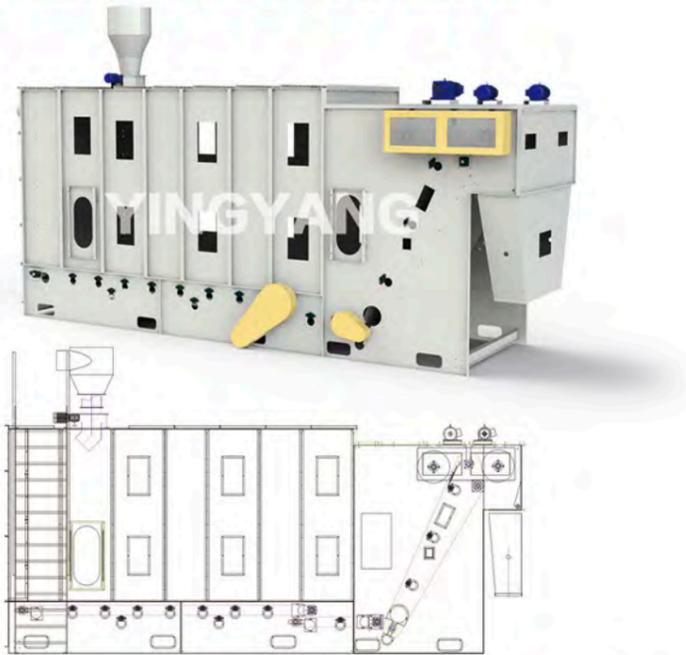
To blend and store any opened fiber to also ensure continuous production feed to the card line.

Main Specification

Working width:	2000mm	2200mm	2500mm
Capacity:	≤600kg/h	≤800kg/h	≤1000kg/h
Chamber Volume:	30m ³	33m ³	38m ³
Installed power:	9.69kw	9.69kw	10.69kw

Characteristics

- Rotary spreader for fiber infeed.
- Double sets of photo-electric sensors to control the chamber fiber levels.
- Floor conveyor lattice, incline lattice and leveling roller are inverter driven.



FIBER CONVEYING



A Separation of return fibers from Card with pressure-free performance for reuse property.



B Transport of fibers by fan to prompt the fiber easily suctioned from the condenser.

C Two-way distributor is designed for a switch unit with pneumatic conveying system.





FIBER STORING

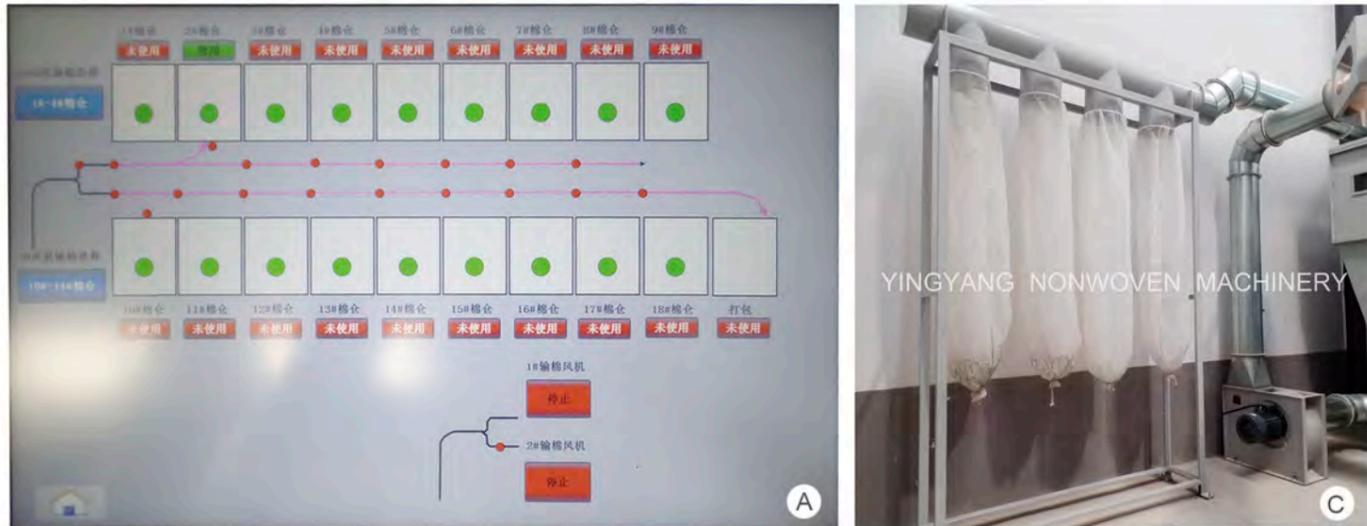


- Ⓐ A number of separate unit of storage cabinet is available to store and blend a variety of fibers mixed in different recipe properly, which is pneumatic controlled to fill, close or transport to the downstream unit flexibly.
- Ⓑ Designed for storage of fibers and controlled materials supply to next procedure.
- Ⓒ Collection of dust or return fibers

Unit Machine

FEEDING & CARDING

- YYQG-III PNEUMATIC FEEDER ----- 10
- YYGM-III VIBRATING FEEDER ----- 11
- YYZT- AUTO-LEVELER ----- 12
- YYSL-III CARDING MACHINE ----- 13



YYQG-III PNEUMATIC FEEDER

Function

After opening and blending, the fibers are fed into an even layer or batt to feed to the carding machine.

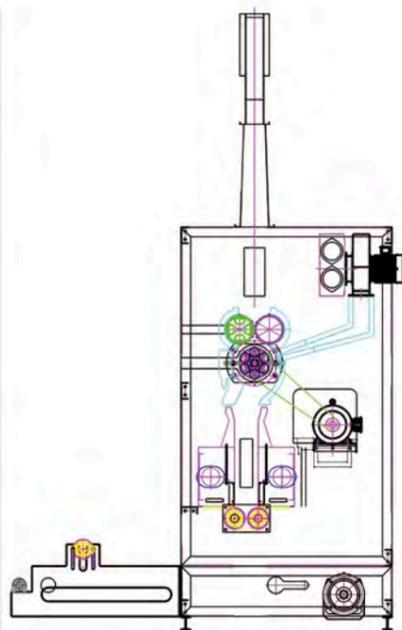
Main specification

Working width:	2300mm	3050mm
Capacity:	500 kg/h	1000kg/h
Installed power:	10.4kw	11.9 kw



Characteristics

- Upper and bottom chamber with built-in fan by variable speed inverter control. Completely sealed and pressurized air controlled system.
- Fiber feeding by air-flow guiding and the feeding time is adjustable.
- Highly accurate pneumatic control system with adjustable pressure.
- Output batt thickness is adjustable as needed.
- Outfeed rolls controlled by inverter.



YYGM-III VIBRATING FEEDER

Function

After opening and blending, the fibers are fed into an even layer or batt to feed to the carding machine.

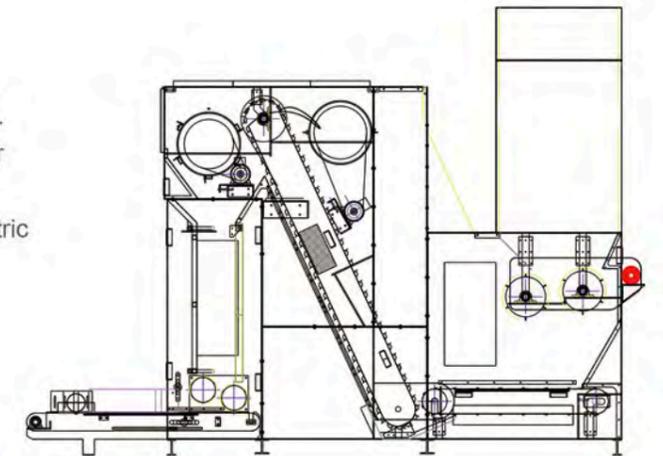
Main specification

Working width:	1400mm, 1700mm, 1850mm, 2150mm, 2350mm, 2850mm
Capacity:	300-1000kg/h
Installed power:	8.19kw, 10.69kw



Characteristics

- Rotary spreader to feed fiber into the pre-feed storage chamber. Dust collection function is included at this point.
- Spiked lattice and leveling roller are controlled by inverter drives.
- Feed chute distance is adjustable and double photo-electric sensors control the level of fiber feed in the chute.



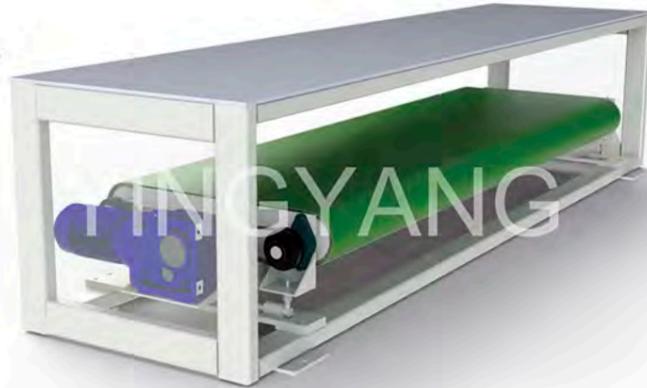
YYZT-AUTO-LEVELER

Function

To monitor the ACTUAL batt weight of fiber passing over the load cell controlled apron and then making feed roll adjustments to compensate and thus give a constant web weight at the doffers.

Main specification

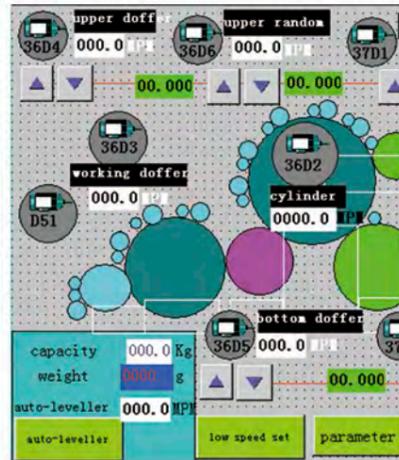
Working width: according to card width
 Speed: maximum 10m/min
 Installed power: 0.75 kw
 Sensor weighing range: 500-5000g/m2
 Machine direction basis weight: CV value < 2%



Characteristics

- Accurate weighing and control system ensures uniform weight measurement of the fiber batt.
- The inverter controls the speed and thus can give real-time feedback and synchronized operation of the card feed rolls to give constant doffer web weights.

weighing platform	00.00	M
center to feeding	00.00	M
Feeding roller teeth gap	0.00000	M/teeth
effective web loading	00.00	M
length on platform	00.00	M
effective web loading	00.00	M
width on platform	00.00	M
feeding max speed set:	00.00	m/min
current g/m2	000	g



YYSL-III CARDING MACHINE

Function

This machine is used for fully carding the fiber batt to fiber webs for the next procedure.

Specification

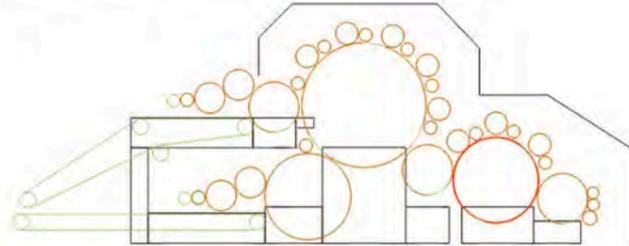
Working width: 1550mm 1850mm 2000mm 2300mm
 2500mm 3000mm 3200mm
 Capacity: ≤1000kg/h (6D fiber)
 Installed power: 54.4kw (1550-2000mm)
 61.9kw (2300-2500mm)
 88kw (3000-3200mm)



YYSL-III CARDING MACHINE

Characteristics

- The card is of modular design allowing for ease of transport and installation.
- It is mounted normally on an 800mm width platform with CE/UL approved walkways allowing for ease of observation and access as required in a safe manner.
- There is a metal detect system fitted whereby the feed rollers are designed to detect metal and will automatically go into reverse for several seconds to reverse any metal away from the card licker-in. Main cylinder equipped with emergency brake system.
- All card main cylinders and main rollers are manufactured in a controlled manner in house and are all dynamically balanced prior to installation.
- All drives are variable speed and synchronized to allow for full automatic control of machines prior to and after the carding system.
- Total sealing of all rollers prevents fiber causing issues with bearing wrap ups.
- All covers are laser cut to give perfect fit and all of them are raised/ lowered by means of air soring and electrical pusher.
- Electronic locking and safety protection of the whole machine is standard and complies with UL/CE requirements.



A Opening of the card cover is by air-cylinder assisted control, and the machine is available to be moved out for easy maintenance access on a rail.

B Rubber doffing roller used to strip the fiber from the stripping roller freely.



Unit Machine



WEB FORMING

- YYPW-III DOUBLE-BELT CROSS LAPPER ----- 16
- YYQS-III 15-ROLL WEB DRAFTER ----- 17
- YYQS-III 5-ROLL FELT DRAFTER ----- 18

YYPW-III DOUBLE-BELT CROSS LAPPER

Function

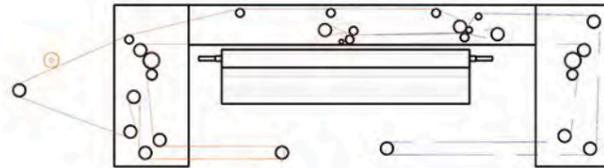
A higher speed unit to fold and plait the webs from carding machine evenly into the required weight and thickness and then to feed the batt to the next procedure.

Main specification

- Input apron width: to match card width.
- Output apron width: 2500~7600mm
- Lapping speed: ≤70m/min
- Product evenness: CV≤4%
- Installed power: 42kw

Characteristics

- The machine adopts advanced servo motor drive and utilizes special servo motion control linkage.
- The machine has the function of transverse profile for a good evenness in cross direction.
- The machine uses lifetime anti-static light weight lattice transmission system with good lateral stiffness and high conductivity.
- The unit has a high quality and profiled frame with high rigidity and not easily deformed.
- This machine employs unique rectify control with high sensitivity.
- Reciprocation uses high strength synchronized belt drive units.
- The machine running is stable and low noise with long service life.
- Conveying and transmission lattices utilize pneumatic control with constant tension, auto pressure settings and alarm functions giving safe and reliable operation.



YYQS-III 15-ROLL WEB DRAFTER

Function

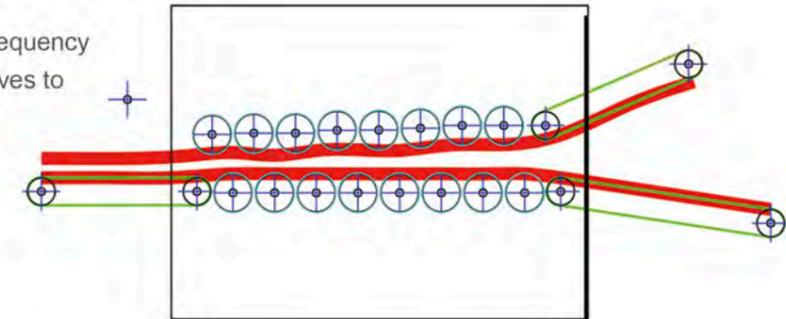
This machine is used for drafting the folded batt from the cross lapper through multiple sets of variable speed rollers, each group with its own independent drive unit. This allows for a more uniform MD, CD orientation and better surface quality. Meanwhile, to adjust unit weight of web and increase the line speed.

Main specification

- Working width: 3000~7000mm
- Draft ratio: 1:1~1:3 (5 groups)
(Higher draft ratio is also available.)
- Output speed: ≤25m/min
- Installed power: 8.25kw~11.75kw

Characteristics

- High precision draft rollers with surface wired card clothing and adjustable roller spacing.
- The draft ratio can be gradually adjusted through frequency conversion technique and multiple sets of motor drives to guarantee the web uniformity.
- Upper and bottom drafter rollers can be raised /lowered integrally to allow different density web through it and easy to be cleaned.



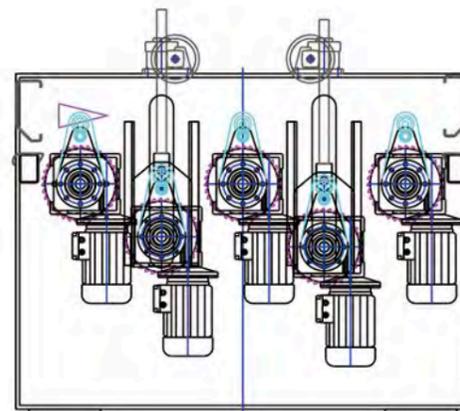
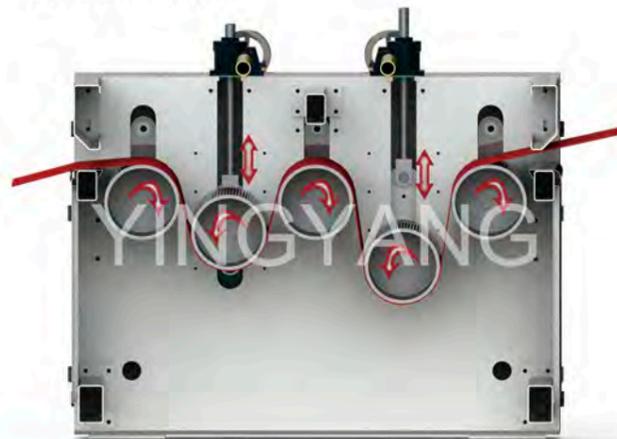
YYQS-III 5-ROLL FELT DRAFTER

Function

This machine acts on the needled web to optimize the MD: CD uniformity of the needled material prior to finish needling. This is important for the production of geotextile, filter material, roofing material, substrate and some automotive products. The MD:CD uniformity can be up to 1:1.

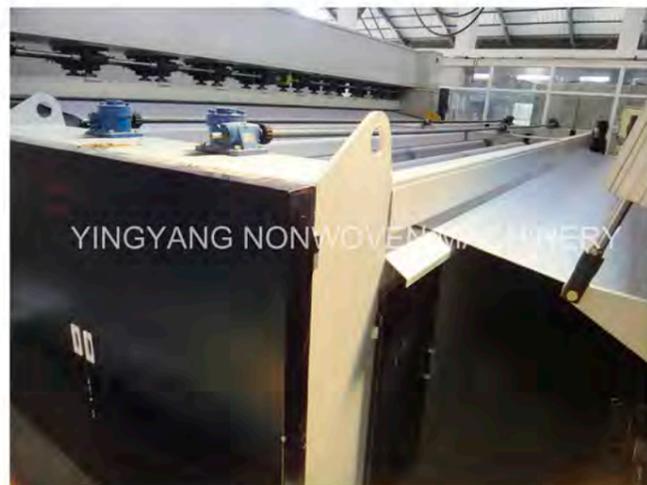
Main specification

Working width: 3000~7000mm
 Output speed: ≤15m/min
 Installed power: 11.75kw



Characteristics

- High precision draft rollers with surface wired card clothing and W-shaped drafter roller arrangement.
- Draft rollers are driven individually by inverter VS drives and are adjustable to guarantee the web evenness.
- Drafting zone length is adjusted by stepless frequency control for ease of production process adjustments.



Unit Machine

NEEDLING

- YYWR-BATT FEEDER ----- 20
- YYGZ-I PRE-NEEDLER ----- 21
- YYGZ-II NEEDLE LOOM ----- 22
- YYGZ-III TANDEM NEEDLE LOOM ----- 23
- YYGZ-IV NEEDLE LOOM ----- 24
- YYGZ-V NEEDLE LOOM ----- 25
- YYZS-NEEDLE LOOM ----- 27
- YYTH-PATTERN NEEDLE LOOM ----- 28
- YYTW-RIB/VELOUR NEEDLE LOOM ----- 29
- YYQR-RANDOM VELOUR NEEDLE LOOM ---- 30

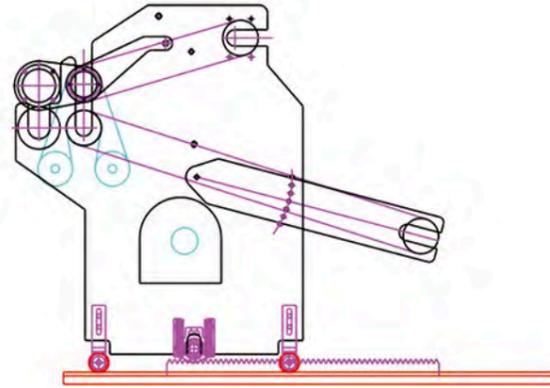
YYWR-BATT FEEDER

Function and characteristics

- The machine used to feed the voluminous webs from the cross lapper to the needle loom evenly with minimum draft.
- Anti-static wedge shape feeding device and nylon-finger feeding rollers, the gap between the rollers is adjustable.
- Inverter or servo motor driven feeding system.
- Movable for operation and maintenance.

Main specifications

Working width (2200-10000) mm
 Web weight ≤2000 gram /m²



YYGZ-I PRE-NEEDLER

Function

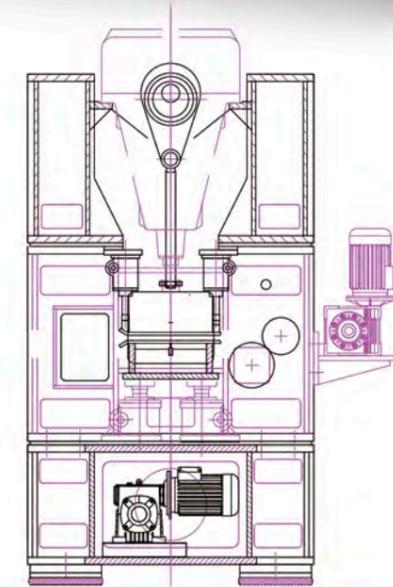
Used for pre-punching and consolidating the web.

Main specification

Working width: 2200~10000mm
 Needle density: 2000~5000 n/m
 Needle stroke: 40~60mm
 Needle frequency: 800-1200s/min
 Needling type: Single board (down stroke)

Structure

- Crank case complete with a vertical balance system.
- Centralized oil lubrication circulation and cooling system complete with pressure and temperature alarm systems.
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top dead center controlled stop.



YYGZ-II NEEDLE LOOM

Function

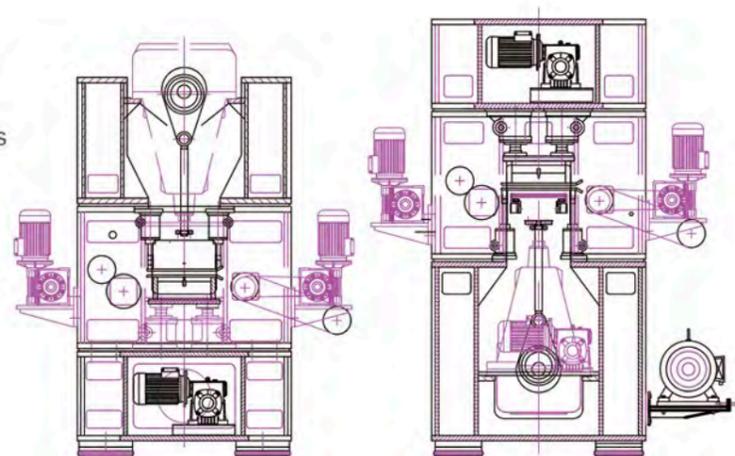
Used for reinforcing and surface finishing nonwoven fabrics.

Main specification

- Working width: 2200~10000 mm
- Needle density: 4000~8000 n/m
- Needle stroke: 25~50 mm
- Needle frequency: 800-1200 s/min
- Needling type: single board, up/down stroke

Structure

- Crank case complete with a vertical balance system.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.



YYGZ-III TANDEM NEEDLE LOOM

Function

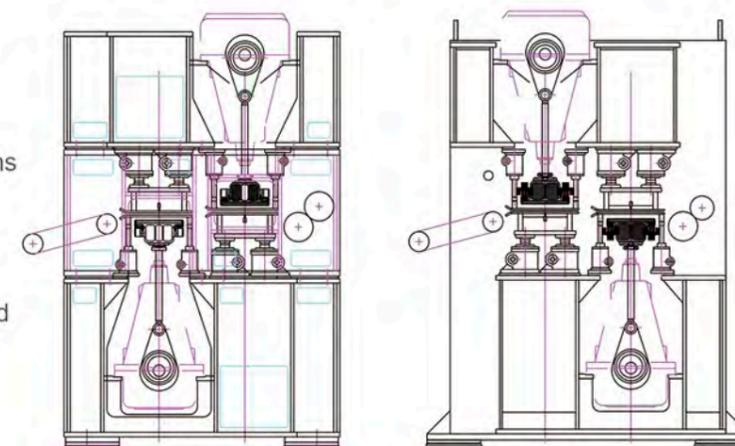
Used for reinforcing and surface finishing of nonwoven fabrics.

Main specification

- Working width: 2200-8000 mm
- Needle density: 5000-8000 n/m² boards
- Needle stroke: 25-40 mm
- Needle frequency: 800-1200 s/min
- Needling type: double boards in total, tandem needling

Structure

- Crank case complete with a horizontal and vertical balance system.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top and bottom dead center controlled stop.



YYGZ-IV NEEDLE LOOM

Function

Used for reinforcing and surface finishing of nonwoven fabrics.

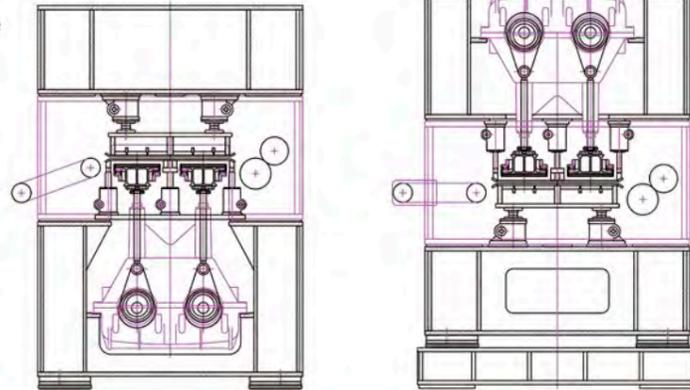
Main specification

- Working width: 2200-8000 mm
- Needle density: 5000-8000 n/m*2 boards
- Needle stroke: 25-40 mm
- Needle frequency: 800-1200 s/min
- Needling type: double boards, up stroke or down stroke



Structure

- Crank case complete with a horizontal and vertical balance system.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top and bottom dead center controlled stop.



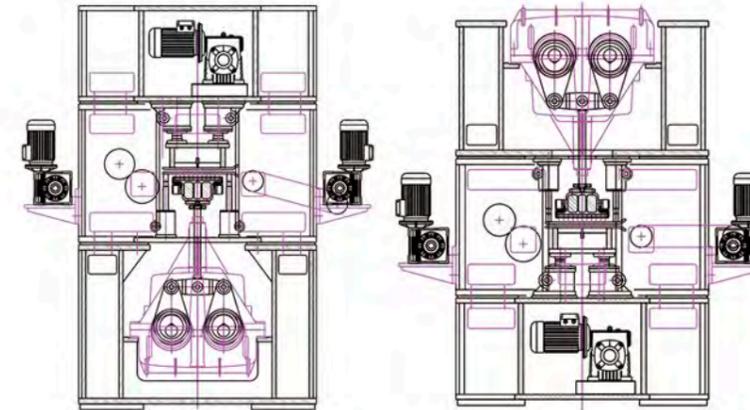
YYGZ-V NEEDLE LOOM

Function

Used for reinforcing and surface finishing of nonwoven fabrics.

Main specification

- Working width: 2200-8000 mm
- Needle density: 5000-8000 n/m
- Needle stroke: 25-50 mm
- Needle frequency: 1200-1800 s/min
- Needling type: double shaft
(up stroke/down stroke, tandem needle)



Structure

- Crank case complete with a horizontal and vertical balance system.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top and bottom dead center controlled stop.



YYGZ-V NEEDLE LOOM

▼ Designed with a double-axis structure for high speed running stably after being processed by international advanced milling machining.



▼ Manufactured at 7500mm working width running at 1500r/m, typically used for PET filament Spun-bonded products.



YYZS-NEEDLE LOOM

Function

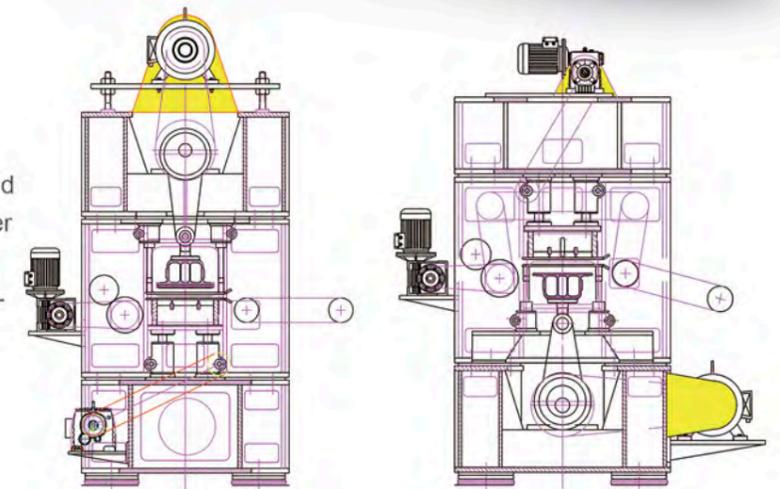
Used for the production of needle punching nonwovens such as garments interlining, shoddy felt, substrate for carpet, geotextiles.

Main specification

Working width: 2700-10000 mm
 Needle density: 4000-6000 n/m
 Needle stroke: 25-60 mm
 Needle frequency: ≤1000s/min
 Needling type: single board, up/down stroke

Structure

- All inverter driven.
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube; multi random computer needling pattern for needle board.
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top dead/bottom center controlled stop.



▲ Working width 10m for Geotextiles

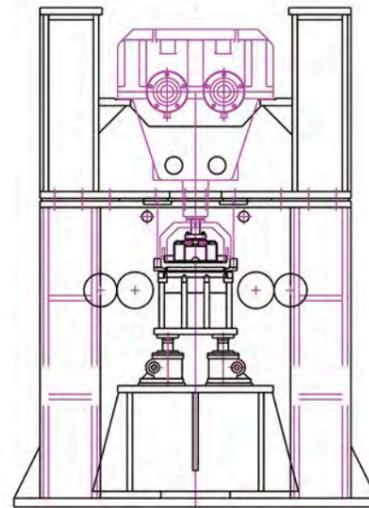
YYTH-PATTERN NEEDLE LOOM

Function

This machine is mainly used for producing designs using single-color or multi-color effects on nonwoven substrates to make pattern and rib carpets, which are widely used for automobile, exhibition, hotel, housing, flooring, blankets, etc.

Main specification

- Raw material: Synthetic fiber such as Polyester, Polypropylene, etc.
- Product weight: 200-1000 gram/ m2
- Working width: 1200-5600 mm
- Pattern width: 180mm or 240mm
- Needle stroke: 50mm
- Needle frequency: 1000 s/min



Structure

- This design of loom adopts a double shaft drive motion, main shaft driving the needle beam up and down in a straight line at a high speed, and the ancillary shaft controlling needle depth and gap.
- Unique grid bed plate structure ensures uniform pattern.
- Servo motor or inverter controlling system to control the pattern stroke advance precisely.
- The whole machine utilizes PLC interface by touch screen and production parameters clearly displayed on HMI to make operating parameters easy to change, and parameters can be saved.



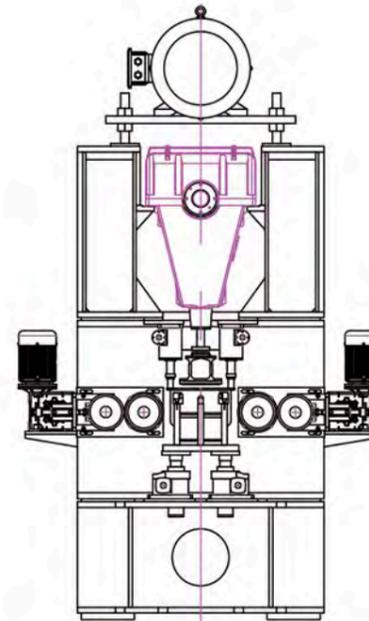
YYTW-RIB/VELOUR NEEDLE LOOM

Main specification

- Product weight: 200-1000 gram/ m2
- Working width: 2400-5600 mm
- Needle density: 4000n/m
- Needle stroke: 35mm
- Needle stroke 1300s/min

Characteristics

- Crank case complete with a horizontal and vertical balance system.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- Magnesium alloy/ PU combined needle board locked firmly by lock-bolt or air tube;
- Chrome plated delivery rollers with carved or patterned surface.
- Auto top dead center controlled stop.



YYQR-RANDOM VELOUR NEEDLE LOOM

Function

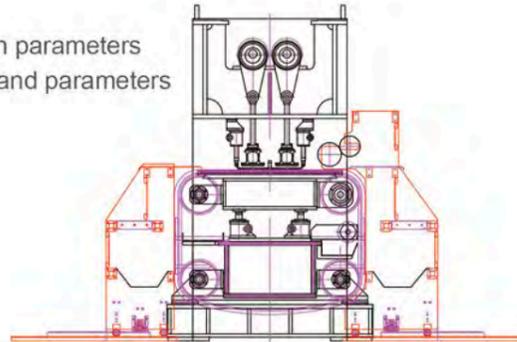
The purpose of random velour machine is to make a non-directional velour pile effect on a nonwoven substrate for end uses such as automotive, floor covering, wall covering and felt for toys etc.

Main specification

- Raw material: Synthetic fiber such as Polyester, Polypropylene, etc.
- Product weight: 350-800 gram/ m2
- Working width: 2500- 4500 mm
- Needle density: 5000n/m* 2 needle boards
- Needle stroke: 30mm
- Needle frequency: 1500s/min

Characteristics

- High precision double crank shaft system drives high strength needle punching system made of aluminum alloy.
- Central oil lubrication circulation and cooling system complete with pressure and temperature alarm systems
- High quality long service life brushes are fitted into a unique brush conveyor system which offers a perfect penetration base for a clean smooth material surface during running.
- Right brush stripping position with mark free.
- Equipped with double cleaning system.
- The whole machine utilizes PLC interface by touch screen and production parameters clearly displayed on HMI to make operating parameters easy to change, and parameters can be saved.



Unit Machine

THERMAL-BONDING & HOT ROLLING

- YYZ-CALENDER ----- 32
- YYTG-SURFACE TREATMENT MACHINE ----- 33

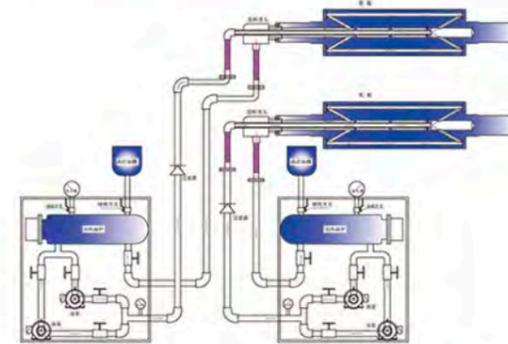
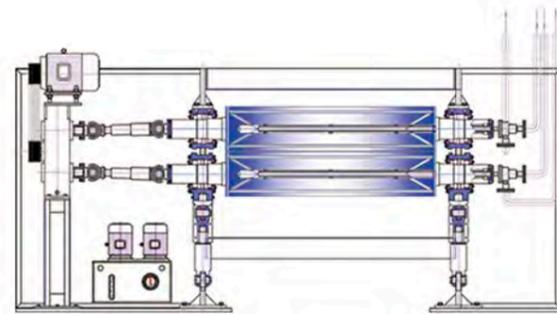
YYRZ-CALENDER

Function and characteristics

Used where high pressure is required for maximum control of thickness or surface treatment and bonding of light weight nonwoven material.

Main specifications

Working width	(1800 -3600) mm
Working pressure	≤100Kg/cm
Mechanical speed	≤300m/min
Surface temp.	≤260℃
Temp. Difference	±1℃
Structure style	2-roller or 3-roller
Heating method	hot oil circulation



Structure

- Heated rollers are adopt heat-resistant alloy steel or 42CrMo, surface engraved by electronic programmed engraving system.
- Separate oil heating system, adjust and keep the temperature automatically.
- Up-and down rollers cross over 0-30mm axial direction, pressure in the two ends can be adjusted precisely by hydraulic system.
- The Bearings are lubricated/ cooled by a separate oil system.
- The universal coupling is connected to inverter motor for driving.



YYTG-SURFACE TREATMENT MACHINE

Function and characteristics

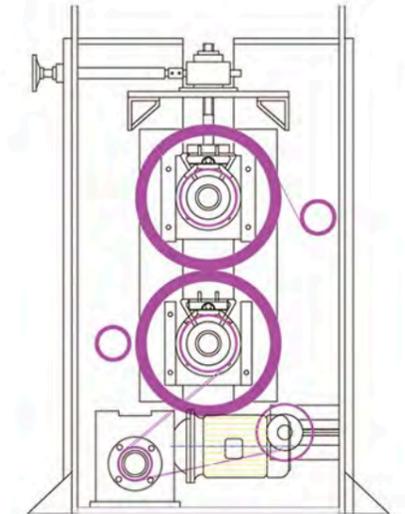
Used for after treatment of nonwoven fabric to improve its surface and quality.

Main specification

Working width	(2000-6000) mm
Mechanical speed	≤20m/min
Surface temp.	≤250℃
Cylinder diameter	φ 400- φ 570mm
Structure style	2-roller or 3-roller or 4-roller
Heating method	hot oil circulation, electricity heating

Structure

- Heated rollers are made of heat resistant alloy steel with surface coated chrome or Teflon, and the gap among rollers is adjustable.
- Inverter motor is used for drive and control.





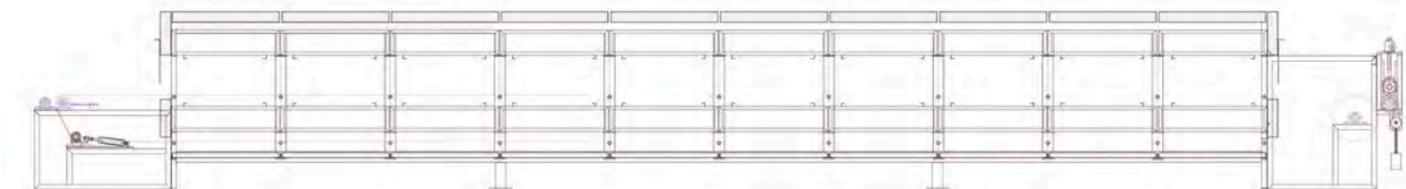
YYHW-THERMAL BONDING OVEN

Function

This machine is used to thermal bond the web from cross lapper by melting the low melt fiber by hot air penetration.

Main Specification

Working width:	≤4000mm
Heating Chamber Length:	6m, 8m, 10m, 12m
Heat setting temperature:	≤200℃
Working speed:	≤20m/min
Structure:	single belt thermal-bonding oven, double-belt thermal-bonding oven
Heating source:	hot oil circulation, gas burner heating, diesel oil burner heating, electricity heating
Installed power:	17.2KW (Electricity heating power according to oven width and length)



Characteristics

- Compact design for heating chamber to achieve the best heat energy utilization.
- Unique design for thermal insulation layer so as to achieve the best insulating result, reducing heat loss
- The distance between upper air channel and conveyor belt can be automatically adjusted according to the thickness of the web.



Unit Machine

DRYING & HEAT SETTING

- YYHW- THERMAL BONDING OVEN ----- 35
- YYHY-THERMAL BONDING OVEN ----- 36
- YYHP- CHEMICAL BONDING OVEN ----- 38
- YYHG CYLINDER DRYING MACHINE ----- 39
- YYDX-STENTER HEAT SETTING PRODUCTION LINE ---- 40

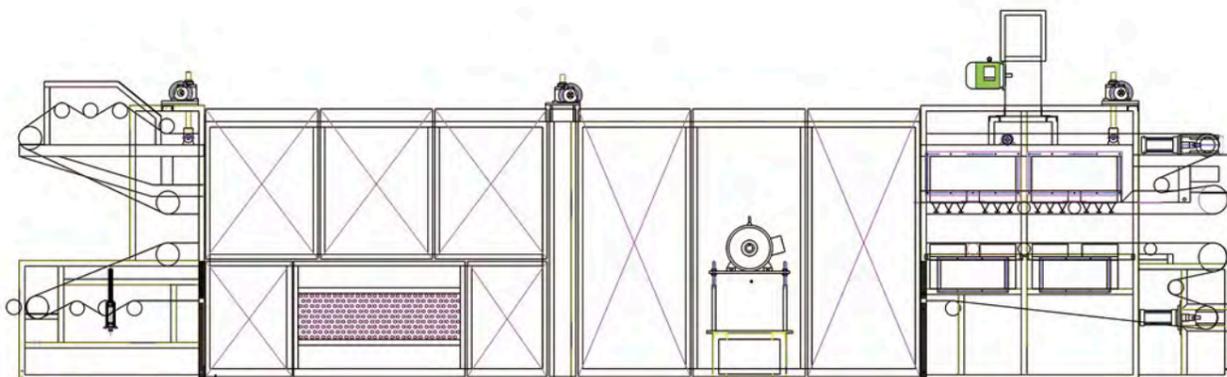
YYHY-THERMAL BONDING OVEN

Function

This machine is used to thermal bond web or semi-finished nonwovens contained low melt fiber by hot air penetration to achieve certain thickness and hardness.

Main Specification

Working width:	≤3800mm
Heating Chamber Length:	6m, 8m, 10m double belt
Heat setting temperature:	≤200°C
Working speed:	≤20m/min
Heating circulation method:	top-blowing and bottom-suction, bottom-blowing and top-suction penetration in turn
Heating source:	Electricity heating, gas burner heating, diesel oil burner heating
Installed capacity:	62.4KW (Electricity heating power according to oven width and length)



Characteristics

- Top-blowing and bottom-suction, bottom-blowing and top-suction alternately to evenly thermal bond through the wadding and ensure uniform surface.
- Burners are directly connected to the suction fan by stainless steel pipe to improve the mixing effect of the heated air.
- Upper air channel uses Teflon soft connections to achieve excellent sealing during hot air circulation.
- Unique design for thermal insulation layer so as to achieve the best insulating result, reducing heat loss



YYHP-CHEMICAL BONDING OVEN

Function

This machine unit is used to dry cross laid material with surface&bottom chemical treatment to bond the material by hot air penetration.

Main Specification

- Working width: ≤5300mm
- Heating Chamber Length: 8m ,10m,12m 3layers
- Heating temperature: ≤200°C
- Working speed: ≤25m/min
- Heating source: Hot oil circulation, gas heating by burner, diesel oil heating by burner
- Installed power: 62.2KW



▲ Front spraying



Characteristics

- Compact design for heating chamber to achieve the best heat energy utilization.
- The spraying section is equipped with transparent cover to protect workshop environment from spray diffusion.
- Unique design for thermal insulation layer so as to achieve the best insulating result, reducing heat loss.



▲ Three-pass oven with enclosed and mobile guarding door at inlet



▲ Back spraying

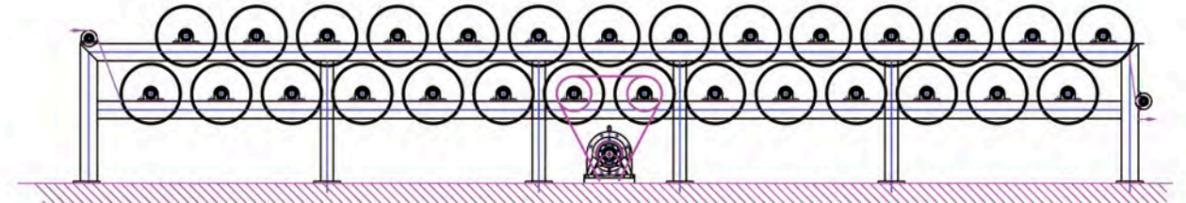
YYHG-CYLINDER DRYING MACHINE

Function

Used for drying nonwovens.

Main specifications

- Working width (1800-3500) mm
- Cylinder qty. (19-30) pcs
- Cylinder diameter ϕ 570mm
- Heating method hot oil circulation, steam heating
- Structure horizontal orientation or vertical



YYDX-STENTER HEAT SETTING PRODUCTION LINE.

Function

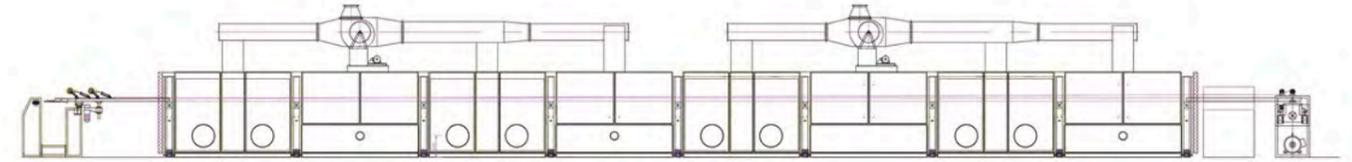
This production line is suitable for after-treatment of needle punched nonwovens applied with glue.

Main Specification

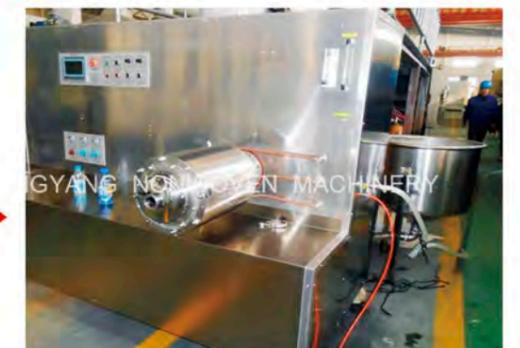
- Working width: ≤6400mm
- Hot air circulation: counter blowing
- Structure: horizontal or vertical
- Mechanical speed: ≤20m/min
- Fabric weight: 100-800g/m²
- Heat resource: gas burner heating , hot oil heating
- Working temperature: ≤220°C
- Cooling: forced air cooling from fan
Drive by inverter controlled AC motor.
- Heating chamber length: 18m, 24m(standard), 30m.

Characteristics

- Counter blowing with upper& bottom air volume adjustable by inverter.
- Tenter for each section can be adjusted by separate motor with encoder control.
- The humidity exhaust volume can be automatically controlled by humidity sensor.



◀ Latexing machine



Foaming machine ▶

Unit Machine

ASSISTANT EQUIPMENT

- YYXT-WINDER & CUTTER ----- 43
- YYZH-GUILLOTINE CUTTER & WINDER ----- 44
- YYZQ-VERTICAL CUTTER ----- 45
- YYFQ-SLITTING MACHINE ----- 46
- YYCB-ACCUMULATOR ----- 46
- YYSB-RECYCLING MACHINE ----- 47
- YYBL-EDGE-TRIM OPENER ----- 48
- YYBK-EDGE-TRIM OPENER FOR THERMAL BONDED WADDING ---- 48
- YYDB-PACKER ----- 49

YYXT-WINDER & CUTTER

Function

To vertical, cross cut and neatly roll finished punching fabrics to specified roll length.

For soft nonwovens, automatic winding, doffing, roll changing is available as an option if customer choose such design.

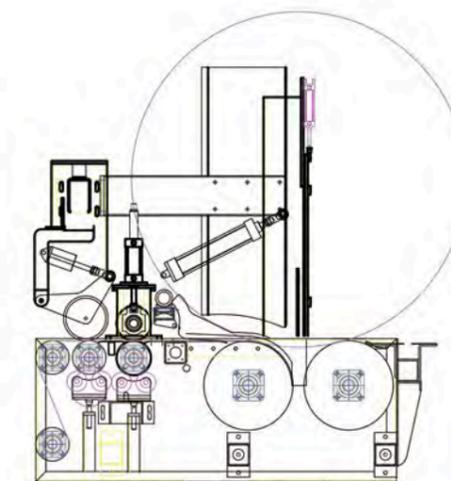


Main Specification

- Working width: ≤10m
- Installed power: 3.75-6.75 kw
- Winding diameter: ≤1200mm

Characteristics

- Linear guide is an option for vertical cutting; the vertical cutting frame is installed on the linear guide, which is very convenient for movement and adjustment. Normal design is without linear guide.
- Linear guide along with synchronous belt is an option for cross-cutting, with smooth running, low noise and no oil dirty. Normal design is combination of the chain and wheel.
- For geotextile and asphalt felt substrate, which have particular requirement for the roll diameter, an added pressure roller is an option to make the winding more compact.



YYZH-GUILLOTINE CUTTER & WINDER

Function

To vertical, cross cut and neatly roll thermal bonded wadding to specified roll length.

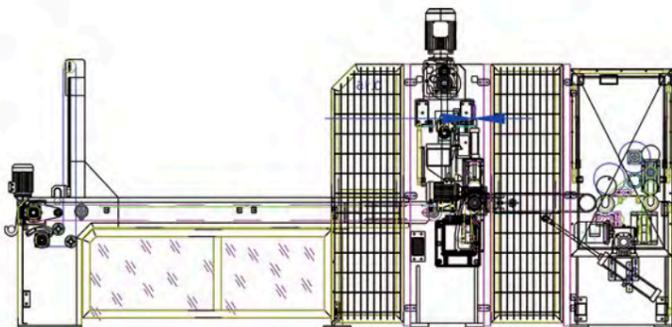
Main Specification

Working width: ≤3800mm
 Electric cross-cutting frequency: ≤3times/min, for product ≤9000g/m²
 Guillotine cutting frequency: ≤8times/min, for product ≤2500g/m²
 Installed power: 12kw
 Winding diameter: ≤1500mm

Characteristics

- Sheet Cutting accuracy ± 2.5 mm.
- Photoelectric fixed length cutting.
- Winding by meter with high precision encoder.

▼ Guillotine cross-cutting frequency: ≤8times/min, cutting gram weight ≤2500g/m²



▼ Electric cross-cutting frequency: ≤3times/min, cutting gram weight ≤9000g/m²



YYZQ-VERTICAL CUTTER

Function

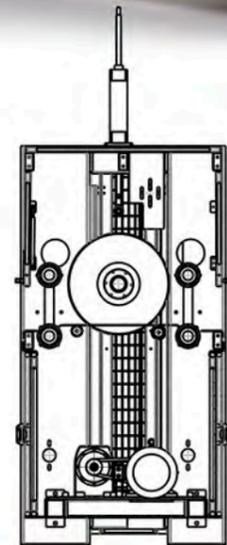
Used to cut thermal bonded wadding longitudinally.

Main Specification

Working width: ≤3800mm
 Revolving speed of cutter: 150-300r/min
 Installed power: 7kw
 Suitable weight: 1000-9000g/ m²

Characteristics

- Revolving speed of cutter is adjustable, which can cut the thickness of the cotton quilt up to 200 mm.
- Cutting frame can be raised/ lowered by air cylinder, and all blades are installed on the same axis.
- It's optional for customers to make every single blade equipped with linear guide, which can be raised/ lowered independently and conveniently.





YYFQ-SLITTING MACHINE

Used for nonwovens fast section cutting, metering, winding and etc.



YYCB-ACCUMULATOR

Function

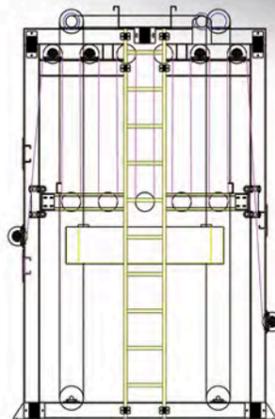
To store the substrate of former output quantitatively for the next procedure.

Main Specification

- Working width: ≤8000mm
- Fabric storage: 3-30m
(depending on different production line)
- Installed power: no power, weight balancing

Characteristics

- Equipped with a buffer spring.
- Accumulator goes up and down, easy for adjusting.
- Increase or decrease the weight depending on the type of substrate, easily and practically.



YYSB-RECYCLING MACHINE

Function

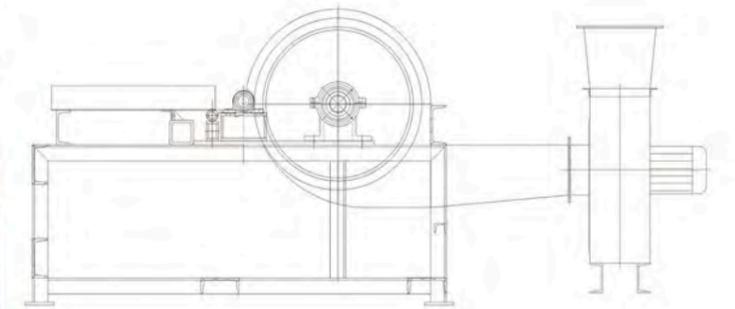
This machine is used for opening and recycling the cotton, waste yarn, non-woven leftover materials and scraps etc.

Main Specification

- Working Width: 1000mm
- Capacity: 50-100 kg/h
- Installed Power: 18.7kw

Characteristics

- Sectional feeding plate by forcing spring. Distance between each plate can be adjusted to ensure evenly feeding of raw material.
- High density lamination pin plate opening cylinder with $\phi 700\text{mm}$ diameter.





YYBL-EDGE-TRIM OPENER

Function

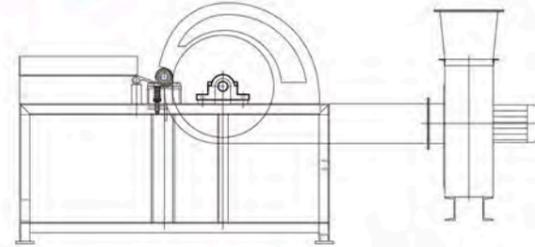
This machine is used for opening and recycling the needle-punched edge trim materials with different densities.

Main Specification

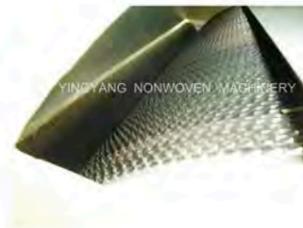
Working Width: 600mm, 1000mm
 Capacity: 30-80kg/h 50-100 kg/h
 Installed Power: 8.45kw 11.2kw

Characteristics

- Variable speed feeding roll with nose bar for infeed tension and with control by several springs.
- Main cylinder is normally coarse card clothing wire.



▶ Wired opening roller suitable to process needle punching scraps.



YYBK-EDGE-TRIM OPENER FOR THERMAL BONDED WADDING

Function

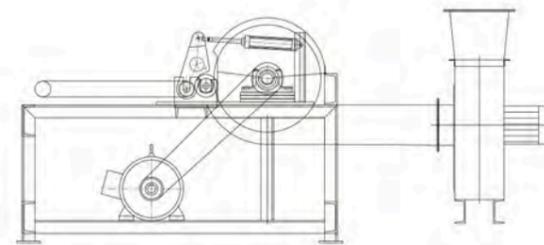
Used to open and recycle edges of thermal bonded wadding

Main Specification

Working Width: 1000mm
 Capacity: 50-150 kg/h
 Installed Power: 14.7kw

Characteristics

- A pair of wired roller feeding structure, counter-pressing with up and down air-cylinder, feeding height 0-50mm
- Wired opening cylinder



▶ Wired or pinned opening roller suitable to process thermal bonding scraps.



YYDB-PACKER

Function

The roll of wadding is pulled inside a conical section that gradually reduces in diameter. There are 8 pieces of belt and pressing plate to compress the wadding during transportation in the conical section. At the end of conical section the roll then enters a cylindrical section. At the exit of the cylindrical section, the compressed roll of wadding enters a previously located plastic bag, and once the roller enters the bag it is packed at the bag diameter.

Main Specification

Dimension: 4775mm (L) × 2250mm (W) × 2250mm (H)
 Package diameter: Up to 1200mm
 Package length: unlimited
 Package speed: 19.2m/min
 Belt specification: 3mm×150mm (W) × 10275mm (L) × 8pcs

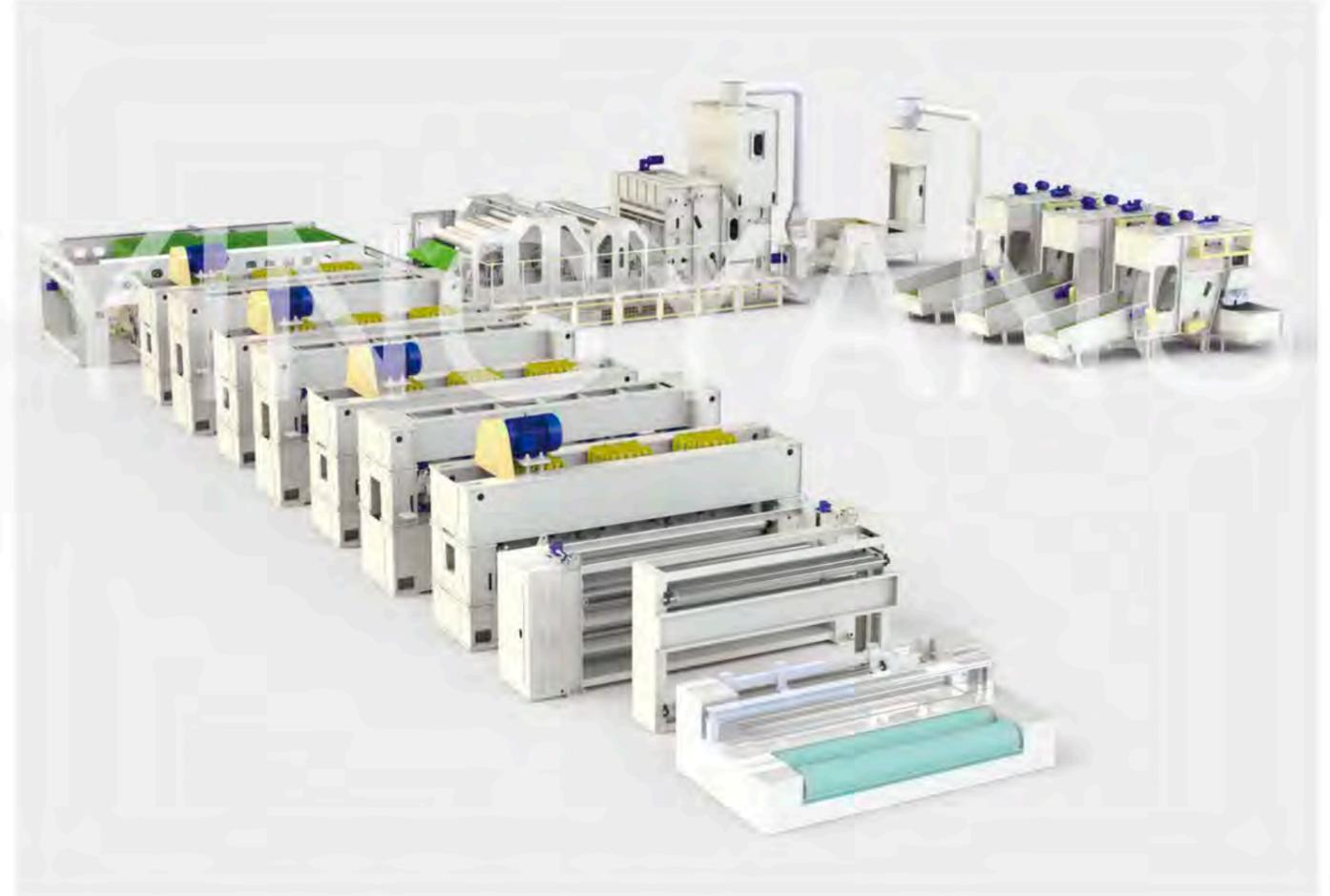


Production Line

NEEDLE PUNCHING

- SYNTHETIC LEATHER SUBSTRATE PRODUCTION LINE ----- 52
- AUTOMOTIVE INTERIOR NONWOVENS PRODUCTION LINE ----- 54
- GEOTEXTILE PRODUCTION LINE ----- 56
- ASPHALT SUBSTRATE PRODUCTION LINE ----- 58
- FILTER FELT PRODUCTION LINE ----- 60
- NEEDLE PUNCHED CLEANING CLOTH PRODUCTION LINE ----- 62
- NEEDLE PUNCHED JUTE FELT AND GLASS FIBER FELT PRODUCTION LINE ---- 64

NEEDLE PUNCHING



- Opening and blending with accurate control of fiber percentages in the blend.
- Carding machines with high capacity and excellent quality of design and engineering. yingyang weight control systems ensure constant web weights with little weight variations.all cards are fitted with regulated air flow and dust control/extraction units.
- Yingyang crosslappers with advanced control system are of various types to meet specific customer requirements.
- Needle looms of all the normal configurations are available in widths as required. Needle densities and patterns are to customers specifications as needed. The needle loom modular design allows for continuous high speed operation and ensures long life of the machines. this is coupled with a continuous pressurized and cooled lubrication system giving stable operation in long term.
- Siemens or Mitsubishi PLC and HMI systems are standard and other types are possible if required.

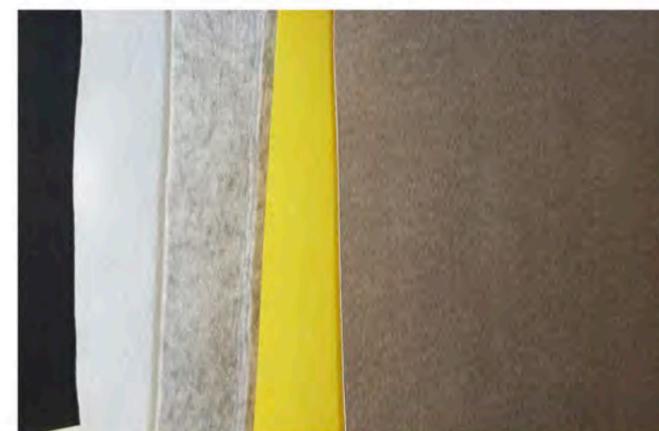
▷ SYNTHETIC LEATHER SUBSTRATE PRODUCTION LINE

Application

Used to make PU or PVC synthetic or artificial leather substrates of high density, and synthetic or artificial leather substrates utilizing sea-island fine denier fibers and multiple needling zones. The products can be used for shoes, luggage, garment, and furniture etc.

Product net width: $\leq 4500\text{mm}$

Product specification: $\leq 500\text{g}/\text{m}^2$



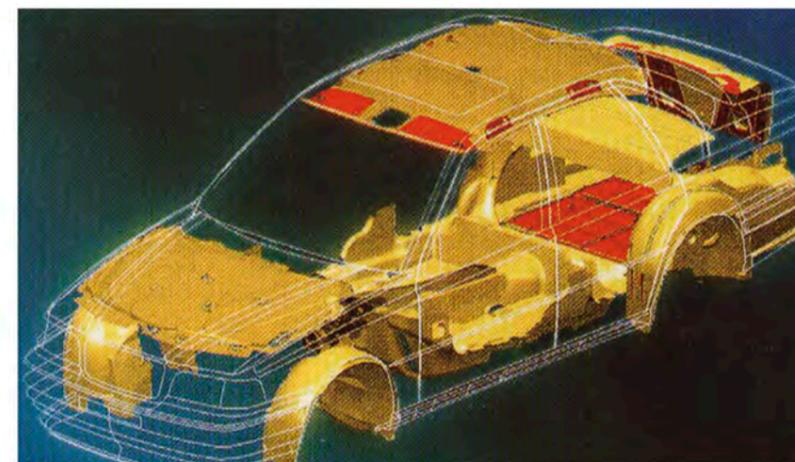
▷ AUTOMOTIVE INTERIOR NONWOVENS PRODUCTION LINE

Application

Used to make all types of automotive interior applications from carpet to package trays and trunk liners etc.

Product net width: ≤4500mm

Product specification: ≤1500g/ m²



▷ GEOTEXTILE PRODUCTION LINE

Application

Used to make product for highway, railway and airport runway soil stabilisation, also for landfill and drainage control applications.

Product net width: ≤8500mm

Product specification: ≤1500g/㎡



▲ 6m Geotextile Production line



▲ 6m Geotextile Production line



▲ 10m Geotextile Production Line



▲ 10m Geotextile Production Line





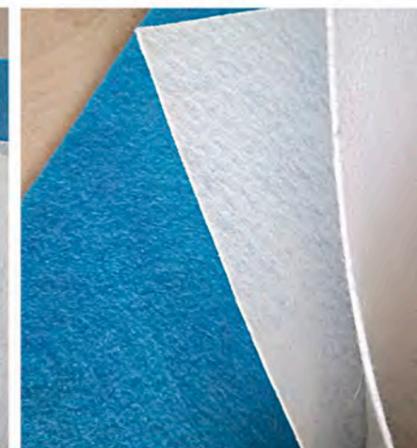
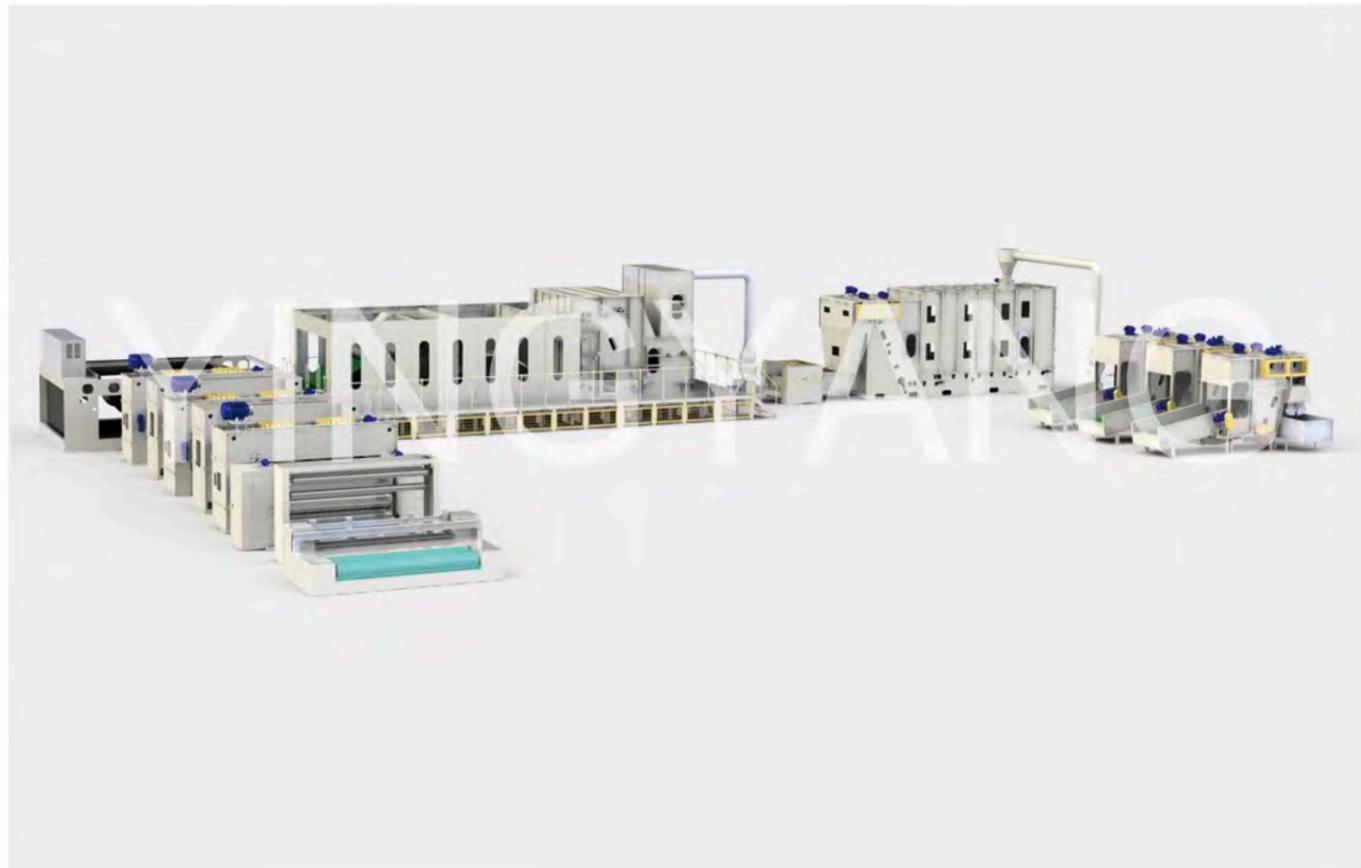
▷ ASPHALT SUBSTRATE PRODUCTION LINE

Application

Used to make substrate for construction, manufacture of roofing waterproof.

Product net width: $\leq 4500\text{mm}$

Product specification: $\leq 500\text{g/m}^2$



▷ FILTER FELT PRODUCTION LINE

Application

Used to make all types of heat-resistant upscale filter used in industrial production of materials prone to any amounts of dust and exhaust gas in the atmosphere.

Product net width: $\leq 2200\text{mm}$

Production specification: $\leq 1000\text{g/m}^2$





▷ NEEDLE PUNCHED CLEANING CLOTH PRODUCTION LINE

Application

Used to make products as wiping cloths, and also products for car wash systems.

Product net width: ≤3600mm

Product specification: ≤300g/㎡





▷ NEEDLE PUNCHED JUTE FELT AND GLASS FIBER FELT PRODUCTION LINE

Application

Used to make products with jute and/or glass fiber blended with polypropylene, by carding or airlay, needling, thermoformed, into such as door panels or package trays for the automotive industry.

Product net width: ≤2000mm

Product specification: ≤3000g/m²



▼ Needled forming line after Air laid system



▼ Needling or thermal-bonding oven after carding and cross lapping system



Production Line

DRYING & HEAT SETTING

- THERMAL BONDED WADDING PRODUCTION LINE ----- 68
- THERMAL BONDED SOFT WADDING PRODUCTION LINE ----- 70
- CHEMICAL-BONDED WADDING PRODUCTION LINE ----- 72
- SCRUBBING PAD PRODUCTION LINE ----- 74
- FELT PRODUCTION LINE ----- 76
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- COMFORTER PRODUCTION LINE ----- 80
- AUTOMATIC INTERLING-FILLING PRODUCTION LINE ----- 81
- SPUN-BONDED NONWOVEN PRODUCTION LINE ----- 82

THERMAL-BONDING & HEAT SETTING



- Opening and blending with accurate control of fiber percentages in the blend.
- Carding machines with high output and excellent quality of design and engineering. Yingyang weight control systems ensure constant web weights with little weight variations. All cards are fitted with regulated air flow and dust control/extraction units.
- Yingyang cross lappers with advanced control system and are of various types to meet specific customer requirements.
- The controlled ducted blowing system ensures the uniformity of air circulation and consistent product quality;
- The internal heat circulation system and excellent machine insulation greatly reduces the energy consumption and thus lowers production cost;
- Multi - choice heating systems are available to meet the needs of customers in different regions and fuel types available;
- Siemens or Mitsubishi PLC and HMI systems are standard and other types possible if required.



▷ THERMAL BONDED WADDING PRODUCTION LINE

Application

This production line is mainly used to produce mattresses, cushion, and resilient felt needs utilizing low melt fibers in various percentages as the bonding medium.

Product net width: ≤3000mm

Product specification: 60 g/m²--8000 g/m²



▷ THERMAL BONDED SOFT WADDING PRODUCTION LINE

Application

This production line is mainly used to produce quilting and some clothing reinforcing with low-melt fiber as the bonding agent.

Product net width: ≤4000mm

Product specification: 40 g/m² --1000 g/m²



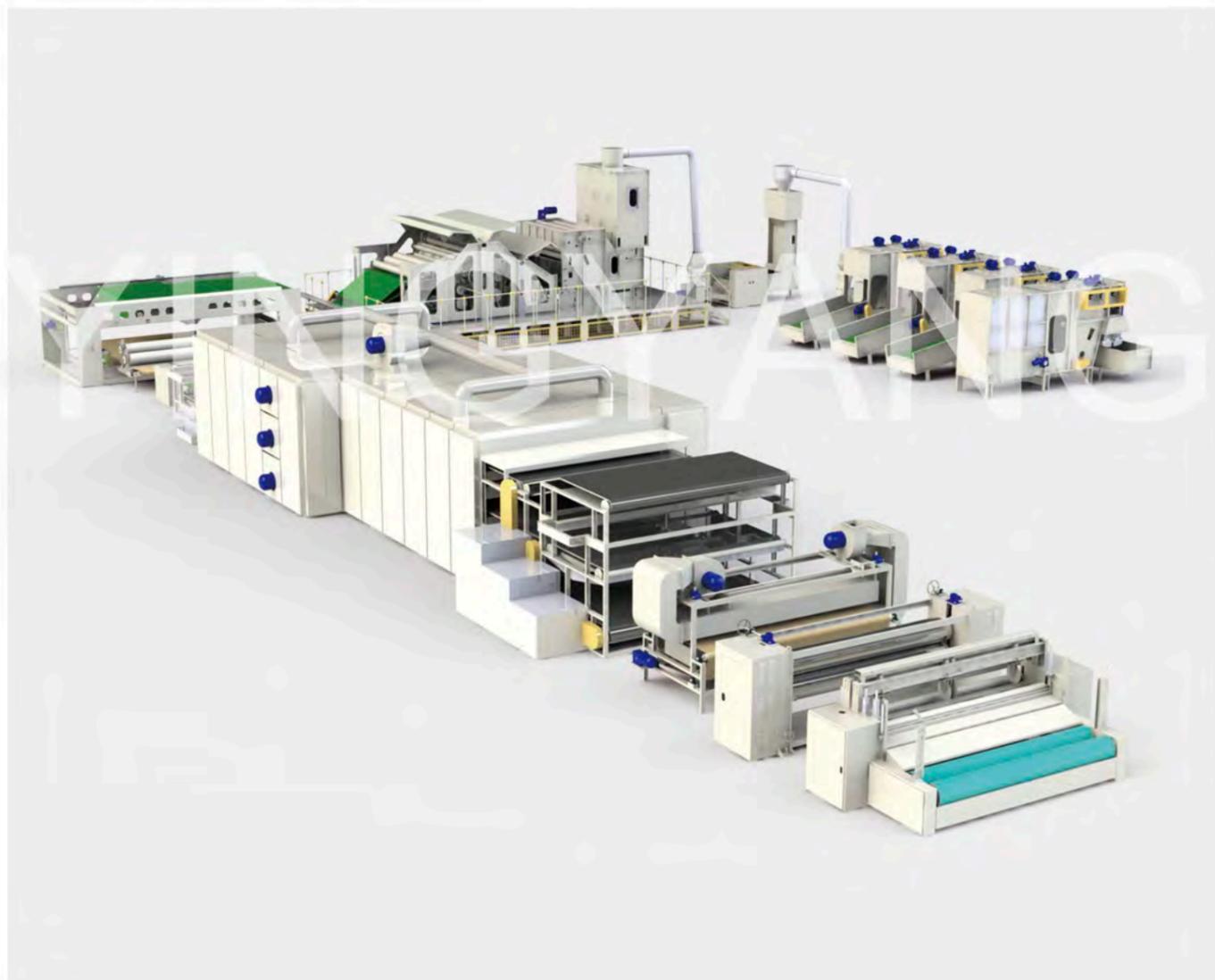
▷ CHEMICAL-BONDED WADDING PRODUCTION LINE

Application

This production line is mainly used to produce quilting and some clothing reinforcing with chemical bonding agents.

Product net width: ≤5000mm

Product specification: 40 g/m² --600 g/m²





▷ SCRUBBING PAD PRODUCTION LINE

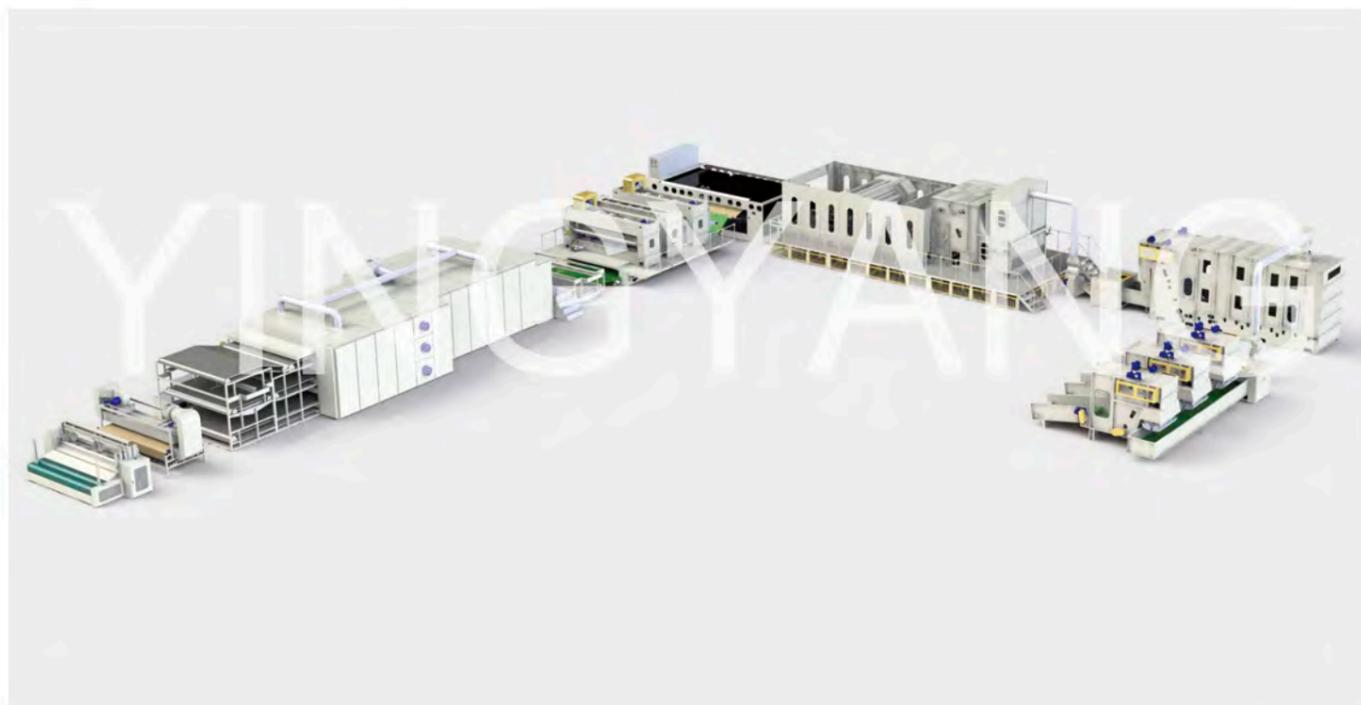
Application

This line is basically to produce scouring pads and coarse denier polishing products.

Raw material: polyester fiber, nylon fiber, low melting fiber, etc

Product net width: ≤2000mm

Product specification: 100 g/m² --800 g/m²



▷ FELT PRODUCTION LINE

Application

This production line is used for the manufacture of automotive interior felts, insulation material, packing material and also the protection of furniture and similar products in transit.

Raw materials: waste fiber, polyester fiber, low melting fiber, etc

Production net width: ≤2200mm

Production specification: 400g/㎡--2500 g/㎡



▷ VERTICAL LAPPING PRODUCTION LINE

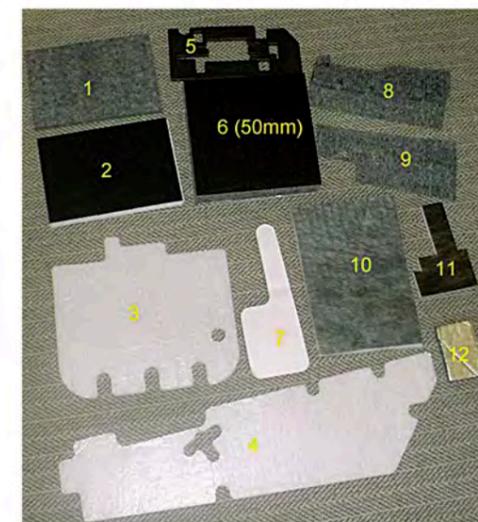
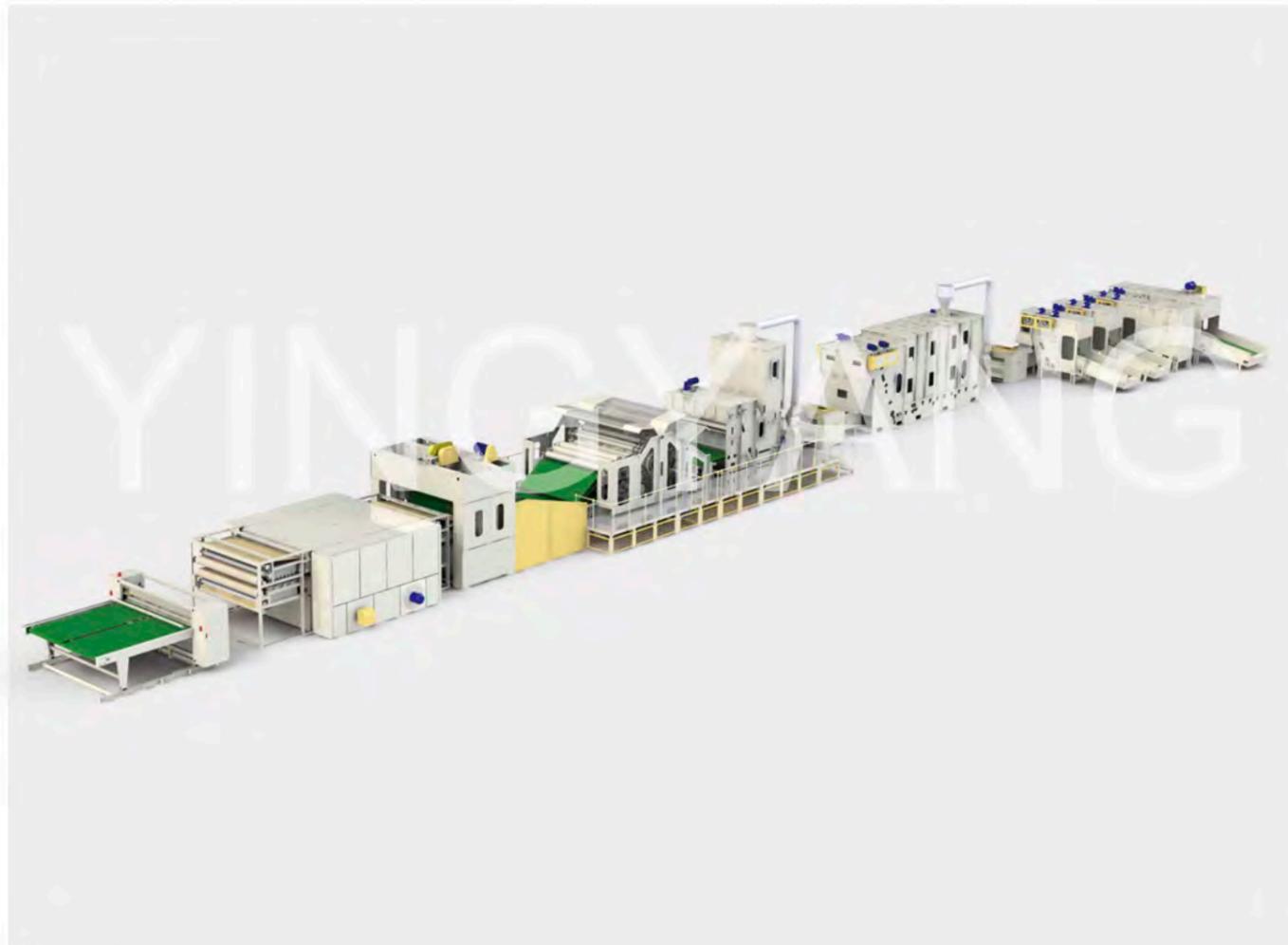
Application

The production line is used to produce the products for acoustic insulating material, automobile interlining, mattress, etc.

Product net width: $\leq 2200\text{mm}$

Product thickness: 15mm-100mm

Product specification: 250-4000g/m²





▷ COMFORTER PRODUCTION LINE

Application & techniques

For the production of wider width of staple fiber batt use in the production of comforter and other fiber filled products. Length cutting, metering and filling is automatic and can be required with coiling device if necessary. It can make 120 pieces per hour.

Main specifications

Raw materials Synthetic Fibers such as Polyester fiber, acrylic fibers, and also natural fibers such as cotton, wool, bamboo fiber, soybean fiber etc

- Product net width (1500-3200) mm
- Product weight (60-500) gram/m²



▷ AUTOMATIC INTERLING-FILLING PRODUCTION LINE

Application & techniques

Basically these are pearly fiber ball machines, double roller openers, automatic filling machines and a fiber collector cabinet etc. Also automatic interlining-filling line can be made up of various machine types based on the products to be made, fiber types and capacity etc. For those requiring high production of fiber fill pillows, the system of carding, cross lapping and metering of fiber can be provided. It can make 1) pearly fiber ball 2) opened fiber 3) carded fiber with a high degree of resiliency and recovery allowing it to be used for not only pillows but such items as soft toys etc.



▲ Electronic weigh pan to control the accurate stuffing of each pillow



▲ Wired opener



▲ Safe and efficient vacuum filling station

▷ SPUN-BONDED NONWOVENS PRODUCTION LINE

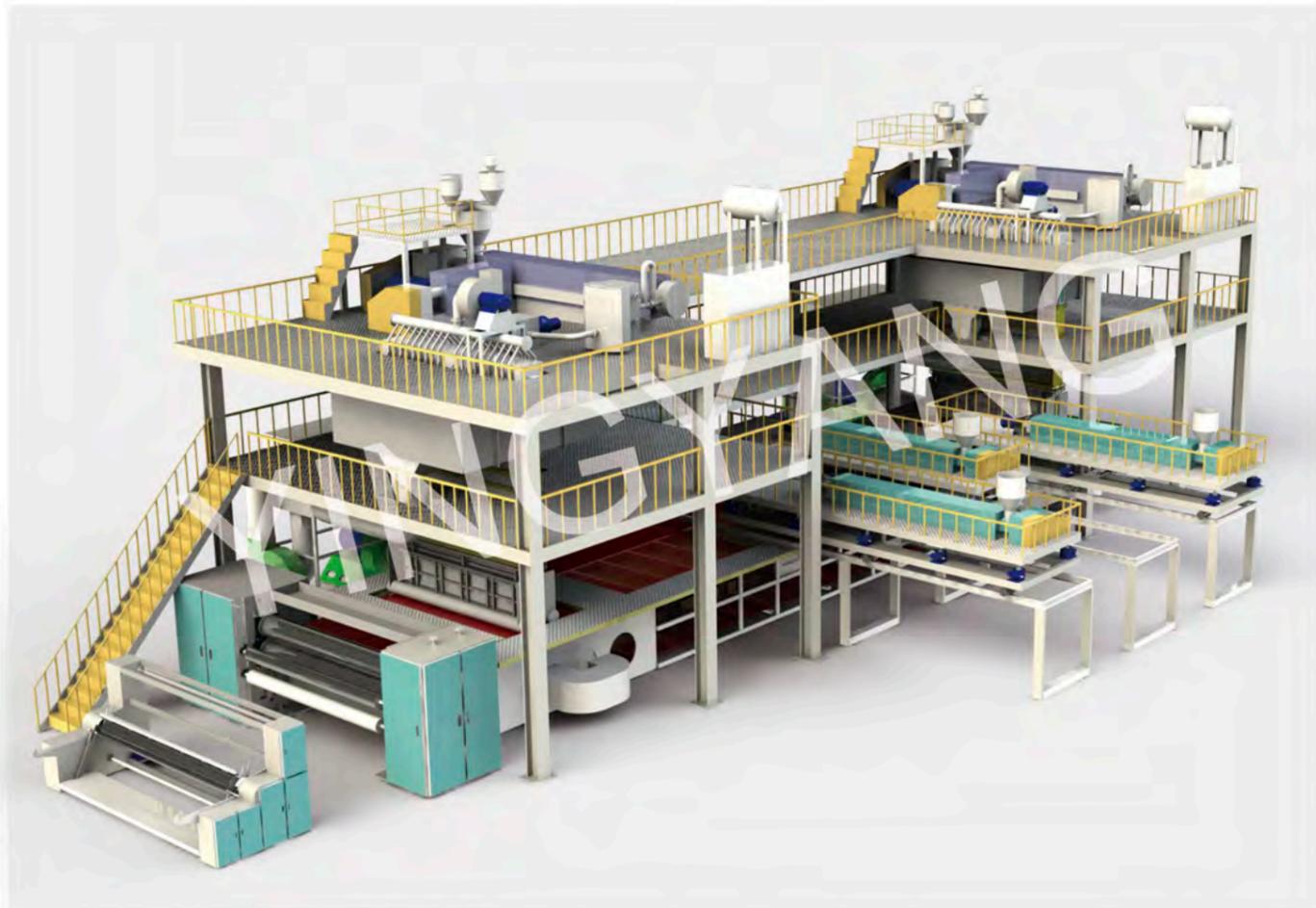
Application

The production line has the features of stable and reliable quality, high speed, high capacity and low energy consumption. The products produced from this line are widely used in different fields, such as medical, nursing, health, agriculture, construction, sanitation, earthwork, etc.

Main Specification

Machine width: 1.6m 2.4m 3.2m

Structure form: S SS SSS SMS (according to the products)



▷ PROFESSIONAL DUST EXTRACTION AND FILTER SYSTEM

The whole production line adopts professional dust extraction system and filter unit to recycle and reuse the trimmed edges and collect the suction fiber from opening and feeding and carding to save cost and keep clean production environment.

Second class dust extraction are applied for the filter, all the inlet entrance is set up with condenser to separate fiber and air. The dust will be packed and stored for recycling. Second class filter applies new filament filtration materials with low resistance and high filtration. The filtration felt are bracketed by steel frame.



- Use the centrifugal effect of rotary air flow to remove the short fiber and dust from the fiber.
- Remove the stripping roller from the condenser to clear up bundles of fiber, and to improve the quality of the product.



▲ Dust filter units



▲ Condenser

▷ ELECTRICAL CONTROLLING SYSTEM

Yingyang has an international and professional team of electrical technicians, who are good at catering the requirements of customers and adapting to the international market. They take full advantage of Siemens, AB and other international brand, to provide the whole production line, overall solution and consistent integration for the high production capacity for customers.

For safety, we can provide the product meets CE and UL standard, according to customers' requests.

For the service, we take advantage of the global network to solve the problems at the first time.

Full integrated automation, informatization, and networking of Yingyang machine are the core strength for customer to participate in the competition, and also is the direction which Yingyang people struggle for.

PROFINET is standard Ethernet

Standard exchange Use existing network

More directly and more expedite

Based on the expedite of web's physical structure

PROFINET -Connect site equipment with enternet

- ◆ Have Ethernet interface and can proceed PROFINET communication
- ◆ Adopt existing I/O module, no need to change
- ◆ Equipment section adopt known way
- ◆ PLC user program command adopt known instruct

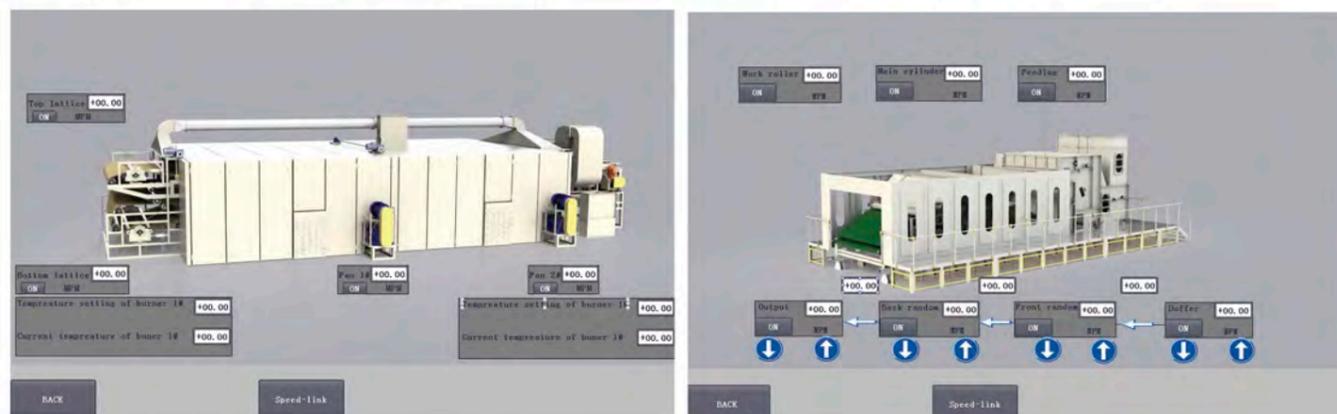
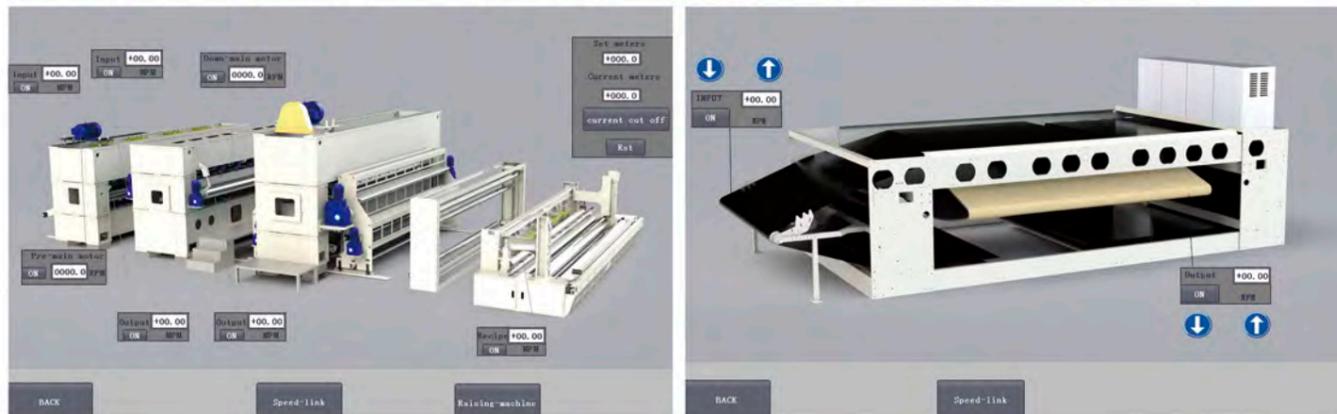
- ▼ Remote monitoring is applied on the whole production line which can provide technical support, problem solution, and necessary modification on line at the first time for high efficiency. It is accessible on computer or mobile.





▷ ELECTRICAL CONTROLLING SYSTEM

Operation interface combined with exquisite 3D figure, which is more convenient and intuitive for customer.



▷ ELECTRICAL CONTROLLING SYSTEM

The standard of cable connecting between electrical cabinet and equipment indicates the excelsior working attitude.



Double safety device



Electronic interlock

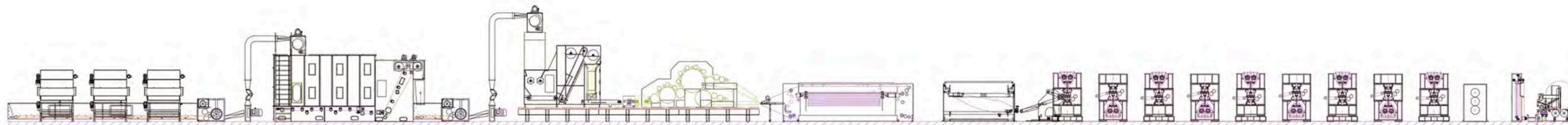


Emergency stop



Wiring by junction box

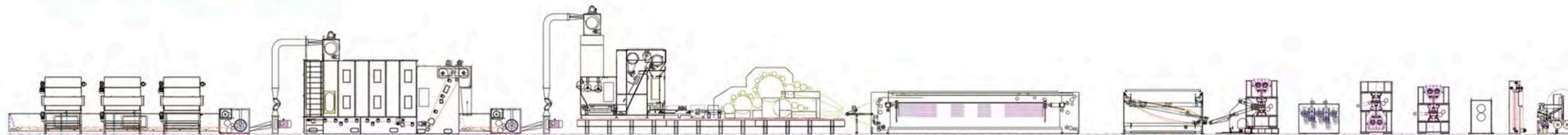
▷ Synthetic Leather Substrate Production Line



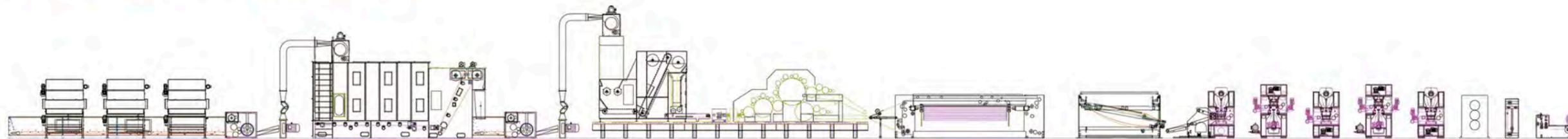
▷ Automotive Interior Nonwovens Production Line



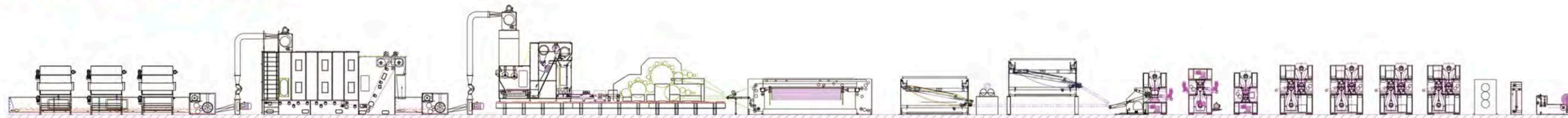
▷ Geotextile Production Line



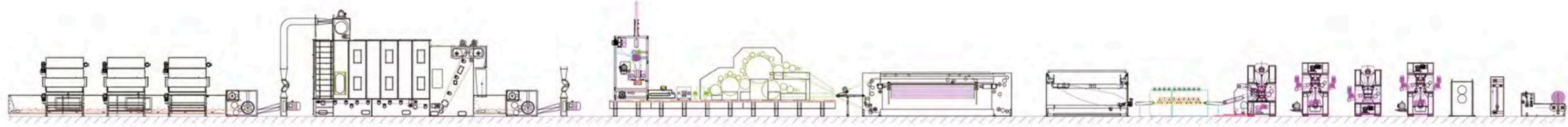
▷ Asphalt Substrate Production Line



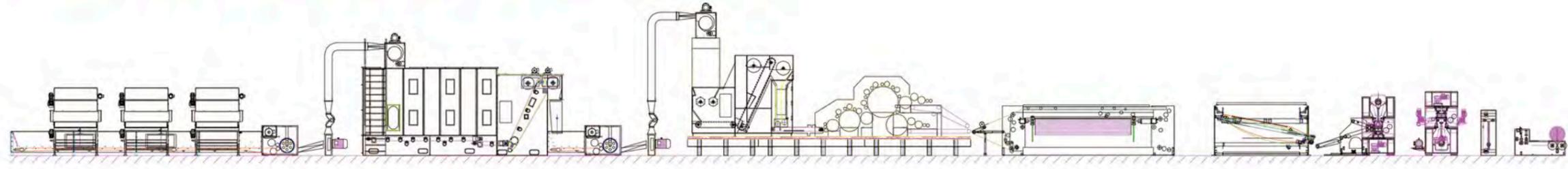
▷ Filter Felt Production Line



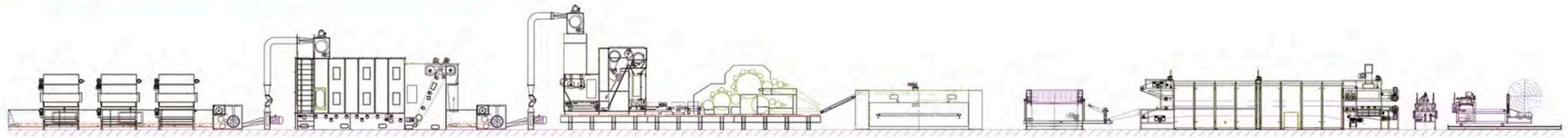
▷ Needle Punching Cleaning Cloth Production Line



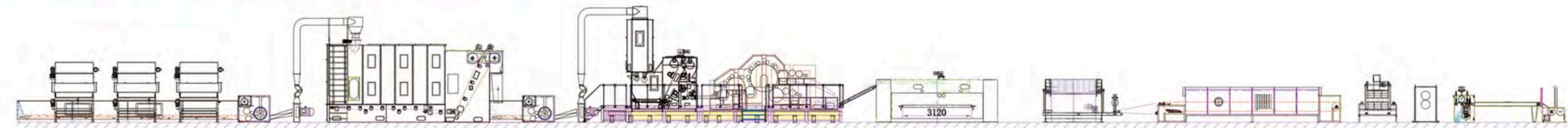
▷ Needle Punching Jute Felt and Glass Fiber Felt Production Line



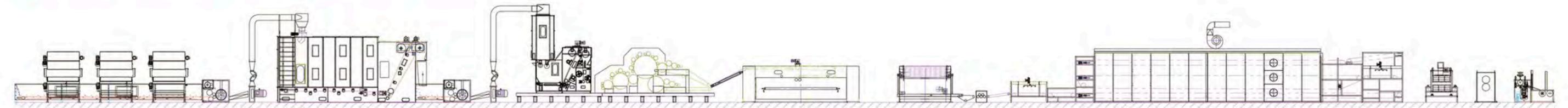
▷ Thermal-bonded Wadding Production Line



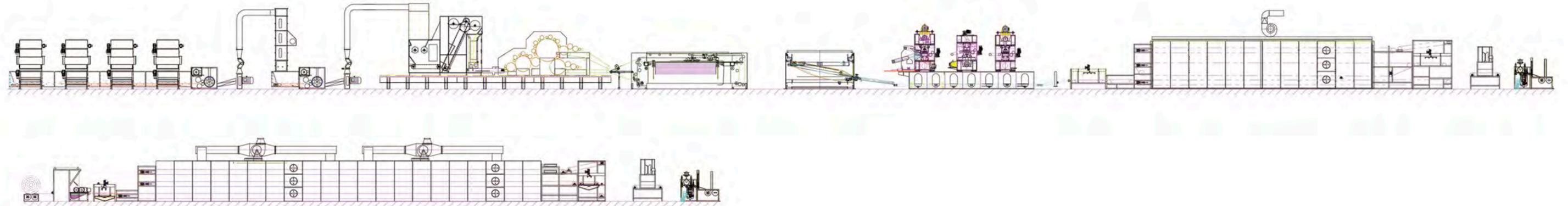
▷ Thermal Bonded Soft Wadding Production Line



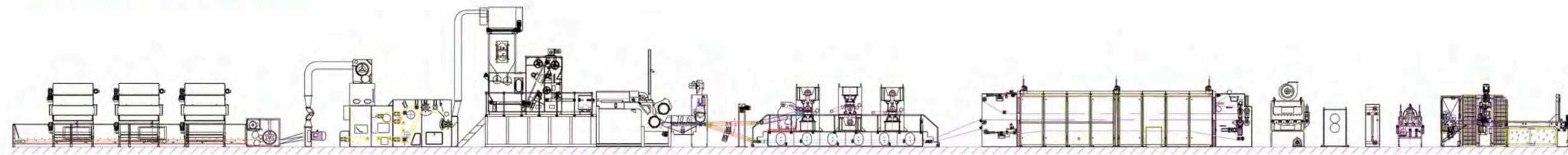
▷ Chemical Bonded Wadding Production Line



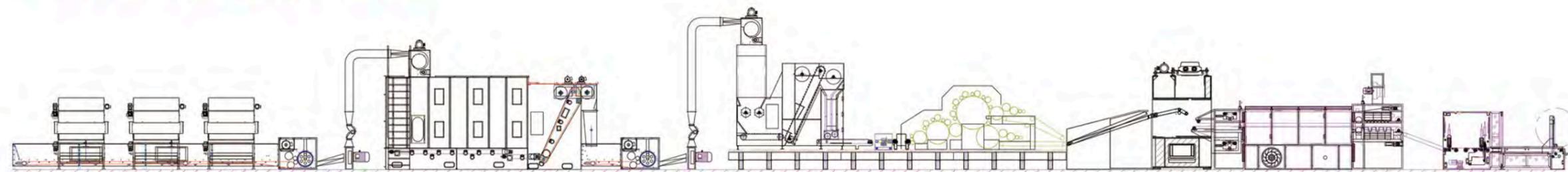
▷ Scrubbing Pad Production Line



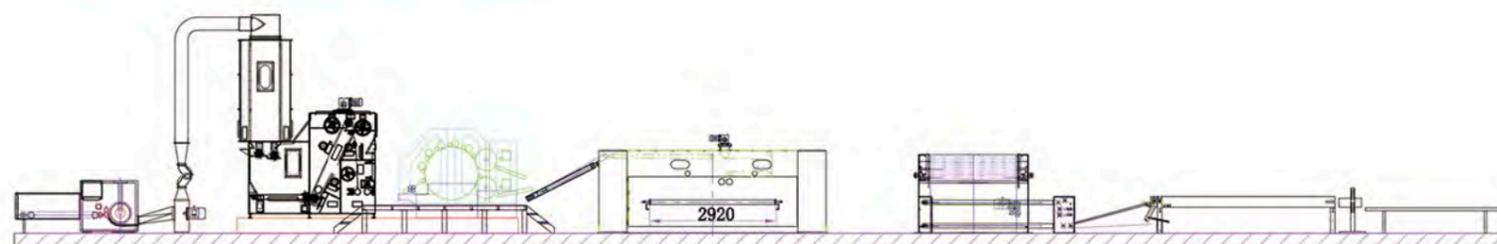
▷ Felt Production Line



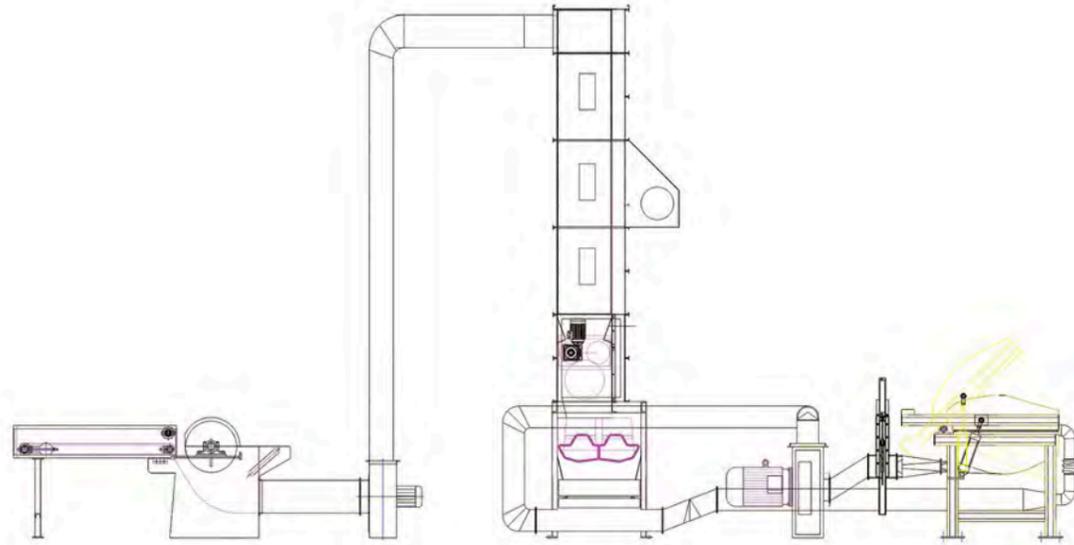
▷ Vertical Lapping Production Line



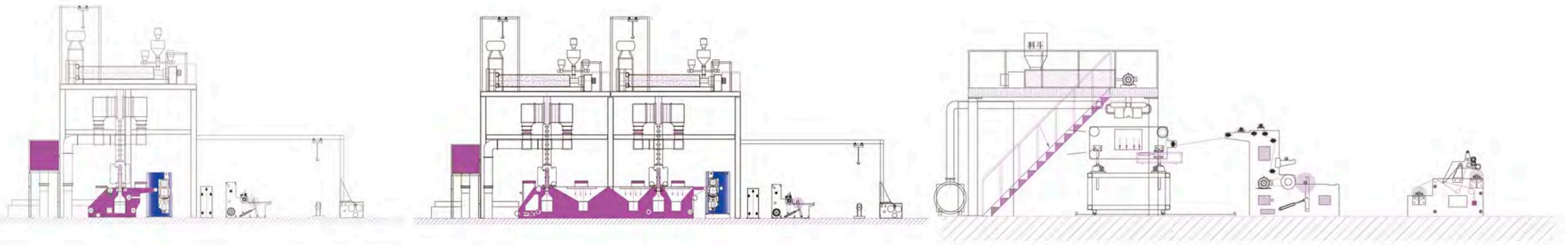
▷ Comforter Production Line



▷ Automatic Interling-Filling Production Line



▷ Spun-Bonded & Melt-Blowing Nonwoven Production Line



Yingyang Nonwoven Machinery, located in Changshu-International Garden City, is near to Shanghai and has the advantage of convenient transportation. Shanghai Hongqiao International Airport is only 45 minutes and Pudong International Airport is less than 2 hours by car to our factory.

Where's Yingyang?


**JIANGSU YINGYANG
NONWOVEN MACHINERY CO.,LTD**
 Add:Zhitang Town Renyang Industrial Park,
 Changshu,Jiangsu,China • P.C:215539
 Tel:+86-512-52587768 • Fax:+86-512-52588372
 E-mail:yingyang@china-nonwovens.com/webmaster@yingyang.cn
 Website:www.yingyang.cn/www.china-nonwovens.com

