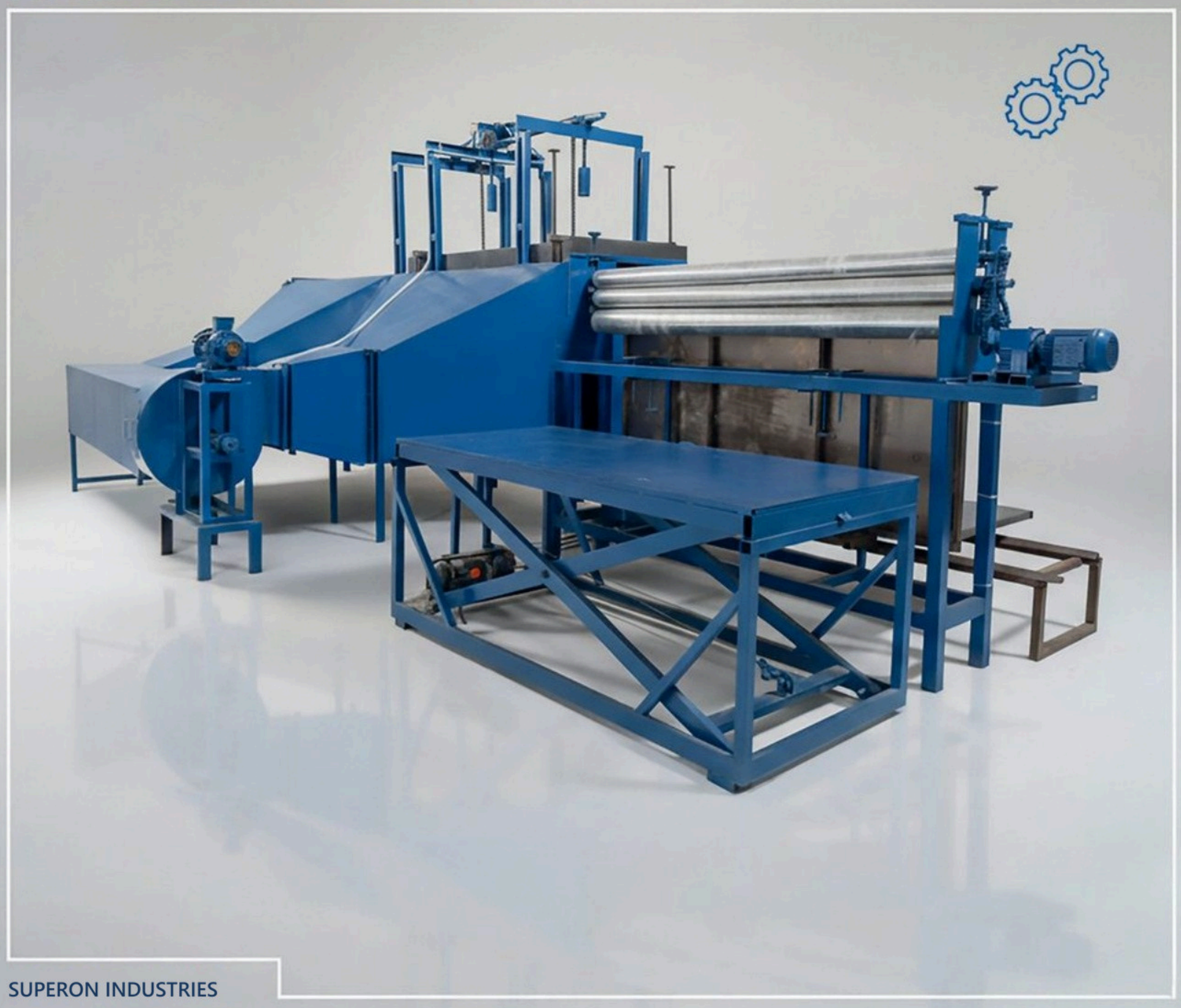
INDUSTRIAL MANUFACTURING SOLUTIONS

SUPERON
INDUSTRIES PVT LTD

ENGINEERING EXCELLENCE
GLOBAL HONEYCOMB TECHNOLOGY



SUPERON INDUSTRIES

SUPERON INDUSTRIES PVT. LTD.

ESTABLISHED 2016

Company Profile

Established in 2016, Superon Industries is a trusted manufacturer of Honeycomb Cooling Pad Making Machines and complete evaporative cooling pad production solutions. With strong engineering expertise and continuous innovation, we design and manufacture machines that ensure precision bonding, consistent quality, and high production efficiency.

Our commitment to quality, reliability, and customer satisfaction, supported by dependable after-sales service, has enabled us to build long-term relationships with cooling pad manufacturers across India and international markets.



Our Vision

To become a globally recognized manufacturer of cooling pad production machinery through continuous innovation, uncompromised quality, and customer satisfaction.

Our Expertise

- 9+ years of manufacturing experience
- Advanced machine design with robust MS / SS construction
- Focus on accuracy, durability, and productivity
- Machines suitable for small, medium, and large-scale production
- Customized solutions as per customer requirements

Why Choose Us

- Proven industry track record since 2016
- All machines quality-tested before dispatch
- Competitive pricing with superior build quality
- On-time delivery and reliable service support
- Complete end-to-end honeycomb pad production line

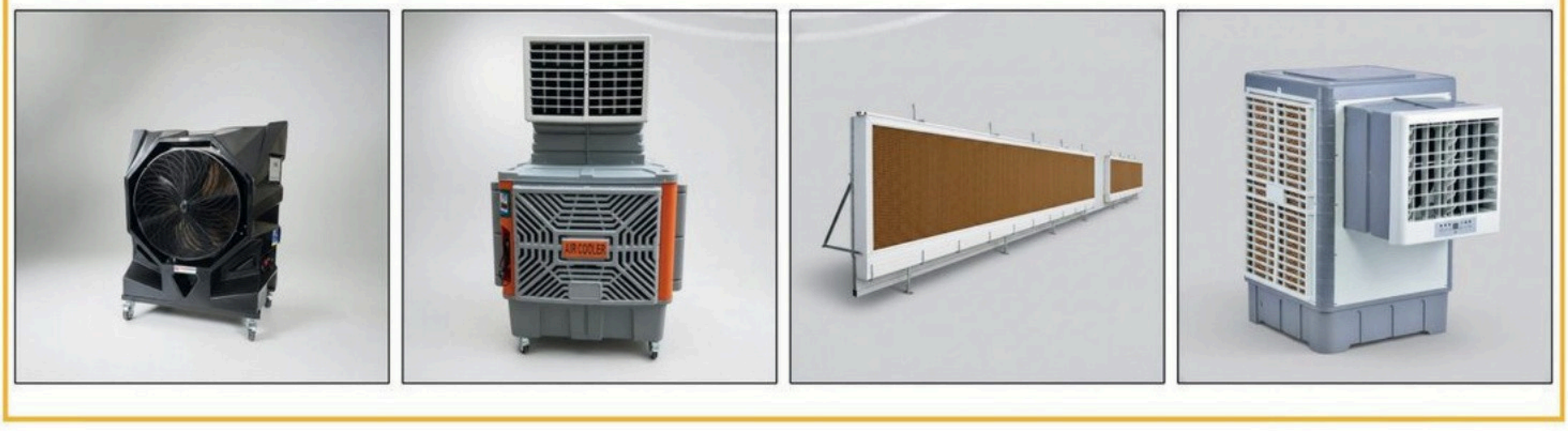
Production Process Flow

A comprehensive turnkey solution for high-efficiency cooling pad manufacturing.

1. **Resin Machine**: Kraft paper chemical treatment
2. **Paper Sheet Cutting**: Precision sizing of treated paper
3. **Corrugation:** Precise flute formation
4. **Foaming/Solidifying:** Forms and solidifies foam through controlled chemical reaction.
5. **Gluing:** Strong interlocking of corrugated layers
6. **Heating Oven:** Final drying and curing of blocks
7. **Saw Machine:** Slicing and sawing to required size

Primary Applications

Desert Air Coolers | Industrial Cooling | Poultry/Greenhouse | Residential Pads



1. Resin Machine



Heating Options: LPG / PNG / Natural Gas / Electric Heater

Technical Specifications

Parameter	Details
Model	1100 mm – 8 Roller Flat
Heating System	8 Roller Flat Heating
Motor Power	2 HP
Fuel Options	LPG / PNG / Natural Gas / Electric Heater
Machine Body Material	Steel
Drying Roller Material	Stainless Steel
Power Transmission	Motor Driven
Temperature Control	Controlled Heating System
Machine Weight	Approx. 1500 kg
Dimensions	L4292 × W1702 × H1220 mm
Application	Resin Coating & Drying of Cellulose Kraft Paper

The Resin Machine is a key unit in the honeycomb cooling pad manufacturing process. It is designed to apply a uniform, water-resistant resin coating on cellulose kraft paper, improving paper strength, durability, and long-term performance of cooling pads.

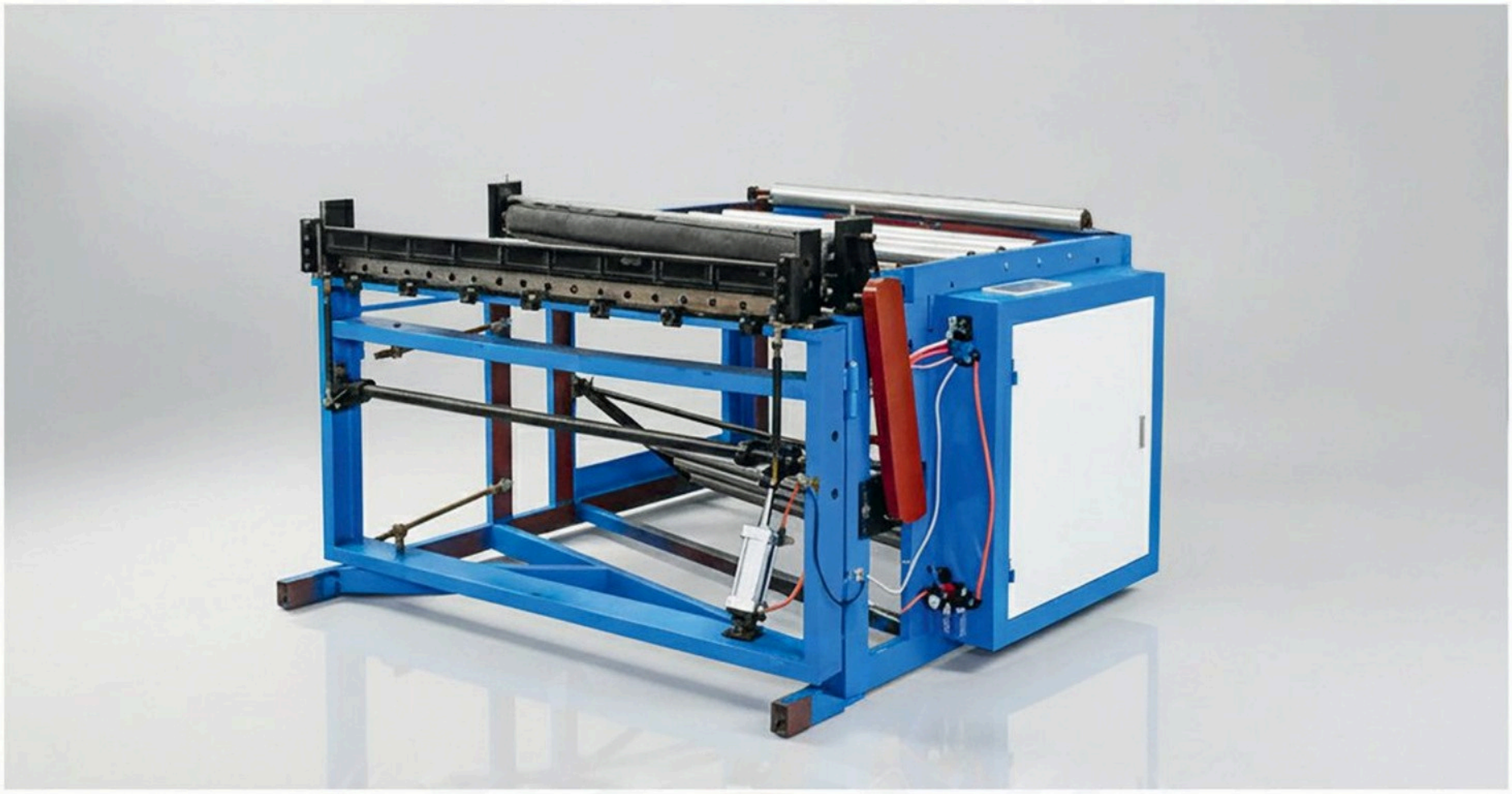
Uniform resin application and controlled curing ensure stable paper quality, strong bonding, and consistent pad structure.

Process Description

- Kraft paper passes through precision resin coating rollers or a dipping system
- Resin is applied evenly on both sides of the paper
- Coated paper moves through an 8-roller flat heating section
- Controlled temperature removes moisture and cures the resin uniformly
- Proper drying prevents sticking and maintains paper stability

Special Feature: Drying rollers are manufactured from high-grade stainless steel, ensuring corrosion-free performance even under high-temperature operation.

2. Paper Sheet Cutting Machine



The Paper Sheet Cutting Machine cuts resin-treated kraft paper into uniform sheets of required length before corrugation.

Process Description

- Resin-treated kraft paper is fed into the machine
- Paper advances automatically to the preset cutting length
- Cutting blade operates automatically at the set length
- Cut sheets are collected on a table or conveyor
- LED smart display enables easy and user-friendly operation

Construction & Reliability

- Heavy-duty carbon steel body for long service life
- Precision cutting mechanism for clean and accurate cuts
- Designed for continuous industrial operation
- Low maintenance and easy to operate

Technical Specifications

Parameter	Details
Model	1100 mm
Working Width	1100 mm
Motor Power	1 HP
Operation Type	Automatic
Control System	LED Smart Display
Cutting Method	Automatic Length-Based Cutting
Material	Steel
Sheet Collection	Table / Conveyor
Power Source	Electricity
Machine Weight	Approx. 800 kg
Dimensions	L2210 × W1710 × H1345 mm
Application	Cutting Resin-Treated Kraft Paper into Uniform Sheets

3. Corrugation (Flute Forming) Machine



Heating Options: LPG / PNG / Natural Gas / Electric Heater

The Corrugation Machine is the core unit of honeycomb pad manufacturing. It forms precise corrugations essential for airflow and cooling efficiency.

Process Description

- Resin-treated and pre-cut paper sheets are fed into the corrugated machine
- Paper passes through precision corrugation rollers
- Rollers form uniform flutes at preset angles (45°, 60°, or 90°)
- Controlled pressure and heat help retain flute shape
- Consistent flute depth and pitch are maintained throughout the process
- Formed corrugated sheets exit ready for gluing and pad assembly

Key Features

- Uniform flute height and pitch
- Wear-resistant bushings made of special high-temperature material
- Long service life and stable performance

Technical Specifications

Parameter	Details
Model	1100 mm
Working Width	1100 mm
Motor Power	3 HP
Flute Angles	45° / 60° / 90°
Heating / Fuel Options	LPG / PNG / Natural Gas / Electric Heater
Machine Body Material	Steel
Bushings	Wear-resistant, high-temperature grade
Machine Weight	Approx. 1100 kg
Dimensions	L3328 × W458 × H1270 mm
Application	L3328 × WCorrugation & Flute Forming of Resin-Treated Paper458 × H1270 mm

4. Forming / Solidifying Machine



Heating Options: LPG / PNG / Natural Gas / Electric Heater

The Forming / Solidifying Machine is a continuous drying system designed to remove moisture from paper products as they move through a controlled heated chamber. Installed after the corrugation machine, it stabilizes the structure, strengthens bonding, and permanently fixes the shape of the paper.

Process Description

- Material is placed onto the conveyor belt
- Conveyor passes through a closed hot-air drying chamber
- Heated air circulates above and below the material
- Moisture evaporates gradually and uniformly
- Fully dried and stabilized material exits the machine

Technical Specifications

Parameter	Details
Model	1100 mm
Motor Power	2 HP
Fuel Options	LPG / PNG / Natural Gas / Electric Heater
Machine Material	Steel
Machine Weight	1500 kg
Dimensions	L3352 × W1397 × H1117 mm

Drying Control: Drying time is precisely controlled through a combination of temperature settings and conveyor speed, ensuring consistent quality and uniform solidification.

Available in multiple chamber lengths, conveyor widths, and heating capacities.

5. Gluing Machine



The Gluing Machine applies adhesive uniformly on corrugated paper sheets and bonds them accurately to form a strong honeycomb structure.

Core Functions

- Uniform adhesive application on flute tips
- Accurate bonding of corrugated sheets
- Maintains proper honeycomb cell alignment
- Ensures strong interlocking of paper layers

Technical Specifications

Parameter	Details
Model	1100 mm
Motor Power	1 HP
Machine Material	Steel
Machine Weight	800 kg
Dimensions	L33032 × W508 × H2210 mm

Ensures consistent bonding, dimensional stability, and long-lasting pad performance.

6. Oven Machine (Heating / Drying Oven)



Heating Options: LPG / PNG / Natural Gas / Electric Heater

The Oven Machine dries and cures glued honeycomb pad blocks using hot air circulation, ensuring strength and dimensional stability.

Process Description

- Freshly glued honeycomb pad blocks are placed inside the drying oven
- Hot air is circulated evenly throughout the chamber
- Temperature is controlled as per paper and adhesive requirements
- Moisture is gradually removed from the pad blocks
- Adhesive cures uniformly
- Fully dried pads are removed from the oven

Technical Specifications

Parameter	Details
Model	1100 mm
Motor Power	2 HP + 3 HP + 7.5 HP
Machine Material	Steel
Fuel Options	LPG / PNG / Natural Gas / Electric Heater
Machine Weight	Approx. 6000 kg
Dimensions	L10363 × W4270 × H3480 mm

Performance Benefits

- Stabilizes pad shape and structure
- Improves strength and durability of cooling pads
- Ensures reliable performance under continuous water flow

7. Sawing Machine



The Sawing Machine is the final cutting unit used to cut dried honeycomb blocks into required sizes with high accuracy.

Process Description

- Large dried honeycomb pad blocks are fed into the machine
- Pads are cut to required length, width, and thickness
- Uniform and smooth cutting edges are achieved
- Finished pads are ready for packing or installation

Performance Benefits

- Ensures dimensional accuracy
- Improves production speed and consistency
- Delivers clean, professional-quality finished pads

Technical Specifications

Parameter	Details
Model	1100 mm
Motor Power	7.5 HP
Machine Material	Steel
Machine Weight	900 kg + 700 kg
Big Unit Dimensions	L3145 × W3048 × H3276 mm
Small Unit Dimensions	L1219 × W2438 × H2590 mm

8. Heating System

The heating system in a honeycomb cooling pad making machine plays a crucial role in paper corrugation, adhesive activation, and strong bonding. Heating can be provided either through **Electric Heating** or **Gas Heating (LPG / PNG / Natural Gas),** depending on production scale and operating cost preference.

A. Electric Heating System

The Electric Heating System uses electric heating elements to generate hot air, which is circulated by blowers or applied as direct heat. This system offers precise control over temperature and process parameters, ensuring consistent pad quality.



Electric Panel



Corrugation/Resin Heater

Working Principle

- Electric heating elements heat the air
- Hot air is circulated using blowers or direct heating
- Accurate control of temperature, speed, and pressure
- Ensures uniform honeycomb structure and strong bonding

Electric Heating Plant – Key Details

- Total connected electrical load: Approx. 300 kW
- Electricity is used for:
  1. Heating elements
  2. Drive motors
  3. Control systems and auxiliary components

Requirements

- High-capacity transformer
- Heavy-duty electrical cabling
- Strong electrical infrastructure

B. Gas Heating System (LPG / PNG / Natural Gas)

The Gas Heating System uses **LPG, PNG, or natural gas**-fired burners to generate heat required for corrugation, drying, and bonding. This system is highly efficient and cost-effective for large-scale and continuous production.



Resin/Corrugation Burner



Oven burner



Gas System

Working Principle

- Gas burners generate heat directly or via a heat exchanger
- Heat is supplied for paper forming and adhesive curing
- Electrical power is used only for machine operation and controls

Gas Heating Plant – Key Details

- Electrical load: Approx. 20 kW only
- Electricity is used for:
  1. Motors and drives
  2. Control panels and automation
  3. Ignition and safety systems
  4. Key Advantage

Benefits

- Lower operating cost where gas is available
- Fast and uniform heating
- High thermal efficiency

Key Advantage

1. Heat is supplied by gas, not electricity
2. Electrical power consumption is drastically reduced

Heating System Comparison

Aspect	Electric Heating System	Gas Heating System
Energy Source	Electricity	Natural Gas / LPG / PNG
Installation Cost	Simple installation	Requires gas piping and proper ventilation
Operating Cost	Higher due to electricity cost	Lower where gas is economically available
Efficiency	Very high (≈100% at point of use)	High (≈85–95%)
Heating Speed	Moderate	Fast
Suitability	Small to medium production setups	Large-scale and continuous heating
Maintenance	Minimal	Regular inspection and maintenance required
Safety	Very safe, no combustion	Very safe with proper installation
Environmental Impact	Clean at point of use	Produces CO_2
Power Dependence	Fully dependent on electricity	Can operate during power outages (system dependent)

Quality & Service Support

Each machine undergoes strict quality inspection to ensure smooth performance and long operational life. We believe in building long-term relationships through dependable support.

Installation

Comprehensive installation guidance provided by our expert engineering team to ensure your production line is set up for success from day one.

Training

In-depth operator training to ensure your staff can manage the machinery efficiently, maintaining high productivity and safety standards

Technical Support

Ongoing technical assistance to resolve any operational queries and ensure minimal downtime for your manufacturing facility.

Spare Parts

Immediate availability of genuine spare parts to maintain machine longevity and consistent production quality.



Precision Machinery & Complete Production Solutions

End-to-end machinery engineered for high-efficiency honeycomb cooling pad manufacturing.







Final product from our Machine(Honeycomb Pad)

Engineered for Reliability | Built for Continuous Production

COMPLETE TURNKEY SOLUTION

YOUR PARTNER IN EVAPORATIVE COOLING TECHNOLOGY

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