KERONE
Kerone Engineering Solutions Limited

48+ Years
Of experience

COATING & **IMPREGNATION PLANTS**

In Association with SVCH-Technologii, Moscow (Russia)

ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018

ABOUT US

KERONE is now renowned for serving the specialized needs of customers with the best quality and economical process of application engineering solutions and industrial heating products manufactured in a high-quality environment by a trained and qualified workforce (special purpose machinery)

- KERONE is a pioneer in application and implementation engineering with its vast experience and team of professionals.
- KERONE is devoteded to serve the industry to optimize its operations both economically and environmentally with its specialized process engineering solutions.
- KERONE is having immense expertise in manufacturing and implementing various types of engineering solutions.
- KERONE is possessing employee strength of more than 280+ experts continuously putting efforts for happy industrial engineering solutions

WHY CHOOSE US

"Choose Kerone for innovative solutions tailored to your unique product needs, ensuring efficiency, reliability, and unmatched quality."

With decades of expertise, cutting-edge technology, and a customer-centric approach, Kerone Engineering offers tailor-made Applications Engineering solutions that prioritize quality, flexibility, and cost-effectiveness. Benefit from our commitment to excellence, post-sales support, and innovative solutions for your unique Applications Engineering needs. Choose Kerone Engineering for reliability, performance, and unmatched value.

MISSION

- To enhance the value of customer operation through our customer need centric engineering solution.
- We are committed to providing our customers with unique and best-in-class products in the industrial thermal processing segments. Through strategic tie-ups for technical know-how with renowned leaders in industry-specific segments, we ensure that our offerings meet the highest standards of quality and innovation.

VISION

- Turn into a world leader in providing specialized, top-notch quality and ecological industrial heating, cooling, and drying solutions across the globe.
- To attain global recognition as the best of quality and environment-friendly engineering solution company.

> Enhance the value of customer operation through our customer need centric engineering solution.

TRUSTED PARTNERS

TÜV ISO 14001:2004

AFCONS

Technip

EIL

TOYO ENGINEERING

ZEPPELIN WE CREATE SOLUTIONS

Reliance Engineering Associates Pvt. Ltd.

TATA TATA CONSULTING ENGINEERS LIMITED

LLOYD'S

SC Shroff Consultants

STERLING & WILSON

Coating and Impregnation Plants

A coating and impregnation plant is an industrial facility designed for applying coatings and impregnating materials onto various substrates. These plants are integral to several industries, including automotive, aerospace, electronics, construction, and more.

Here is a comprehensive overview of their functionality, processes, equipment, applications, benefits, and importance:

Functionality

Coating and impregnation plants serve the purpose of modifying surface properties of substrates to enhance their performance, durability, and aesthetic appeal. They achieve this through the application of coatings or the impregnation of materials into the substrate.

Coating Process

The coating process involves applying a thin layer of material onto a substrate. This material can include paints, polymers, metals, ceramics, or other specialty coatings. The coating may serve several purposes:

- **Protection:** Against corrosion, wear, chemicals, UV radiation, or other environmental factors.
- **Functional Enhancement:** Improving conductivity, thermal insulation, or surface hardness
- **Aesthetics:** Providing color, texture, or gloss.

Impregnation Process

Impregnation involves injecting a liquid material, such as resin or polymer, into the pores of a substrate material. This process is particularly useful for porous materials like wood, ceramics, or certain metals. Impregnation serves purposes such as:

- **Sealing:** Making the substrate impermeable to liquids or gases.
- **Strengthening:** Enhancing mechanical properties like strength, stiffness, or durability.
- **Functionalization:** Adding properties like electrical insulation or thermal conductivity.

Equipment Used

Typical equipment found in coating and impregnation plants includes:

- **Spraying Booths:** For applying coatings evenly using spray guns or automated systems.
- **Dipping Tanks:** Immersing substrates into coating materials.
- **Curing Ovens:** Heating chambers to cure coatings or impregnants, often through heat or UV light.
- **Vacuum Chambers:** For impregnation processes requiring controlled atmosphere or pressure conditions.
- **Conveyor Systems:** Transporting substrates through different stages of the coating or impregnation process.

Automation and Control

Modern plants often incorporate automation technologies for:

- **Precision Control:** Ensuring consistent coating thickness and quality.
- **Process Monitoring:** Monitoring parameters such as temperature, humidity, and curing times.
- **Quality Assurance:** Checking for defects or irregularities in the coating or impregnation process.

Application

- **Automotive:** Coating vehicle components for corrosion protection or aesthetic enhancement.
- **Aerospace:** Applying coatings to aircraft components for thermal insulation or anti-corrosion purposes.
- **Electronics:** Coating circuit boards or electronic components for protection against moisture and environmental hazards.
- **Construction:** Impregnating wood or concrete for water resistance or durability.
- **Industrial Machinery:** Coating machine parts for wear resistance and extended lifespan.

Benefits

- **Enhanced Product Performance:** Improved durability, reliability, and resistance to environmental factors.
- **Cost Savings:** Extending the lifespan of components and reducing maintenance costs.
- **Environmental Sustainability:** Using coatings that are low in volatile organic compounds (VOCs) and promoting eco-friendly practices.
- **Customization:** Tailoring coatings to meet specific technical requirements of different industries and applications.

Importance

Coating and impregnation plants are crucial for advancing manufacturing capabilities and ensuring that products meet stringent performance and quality standards. They enable manufacturers to innovate in product design, improve efficiency, and deliver reliable solutions to market demands.

In conclusion, coating and impregnation plants play a vital role in enhancing the functionality, durability, and aesthetics of materials across diverse industries, contributing to technological advancement and sustainable manufacturing practices.

Types of Coating & impregnation plants

- Gravure Coating
- Reverse Roll Coating
- Fabric Coating
- Air Knife coating
- Knife-Over-Roll Coating
- Slot Die Coating
- Curtain Coating
- Immersion/Dip Coating
- Hot melt Coating
- Web Coating
- Metering Rod (Mayer Rod) Coating

Gravure Coating

Gravure coating is an industrial process used to apply a uniform layer of coating material onto a substrate. It uses a gravure cylinder with engraved cells to pick up and transfer the coating. This method is known for its precision, consistency, and ability to handle high-speed applications. Commonly used in printing, packaging, and manufacturing, gravure coating achieves high-quality finishes on films, foils, paper, and other materials.

Reverse Roll Coating

Reverse roll coating is an industrial process that applies a uniform coating using two counter-rotating rollers. One roller picks up the coating material, while the other controls thickness and transfers it to the substrate. Known for precision, this method is ideal for creating thin, even coatings on films, foils, paper, and other materials, making it popular in packaging, printing, and manufacturing industries.

Air Knife coating

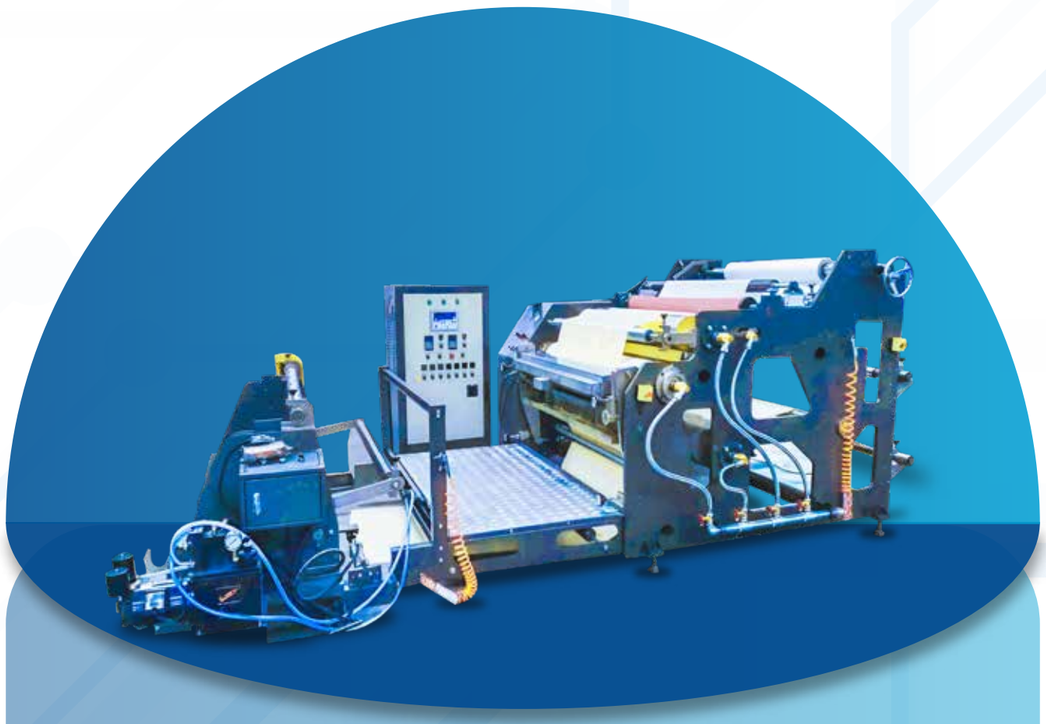
Air knife coating is a process used in industrial applications to apply a uniform layer of coating material onto a substrate, such as paper, fabric, or metal. In this method, an air knife, which is a high-velocity air jet, is used to precisely control the thickness of the coating by blowing off the excess material.This technique ensures a smooth, consistent finish and is widely used in printing, packaging, and textiles for high-quality applications.

Knife-Over-Roll Coating

Knife-over-roll coating is an industrial technique used to apply a uniform layer of coating material onto a substrate. In this process, a coating is applied to the substrate as it passes over a backing roll, and a blade or "knife" precisely meters the thickness of the coating. This method is highly effective for achieving consistent and controlled coating thicknesses, making it suitable for applications requiring precise film thickness.

Metering Rod Coating

A metering rod (Mayer rod) coating machine is used to apply a controlled, uniform layer of coating material onto a substrate. The rod, wound with fine wire, meters the coating thickness as it rolls over the material, ensuring precision and consistency. This method is popular in industries such as textiles, paper, and packaging for its ability to produce high-quality finishes.

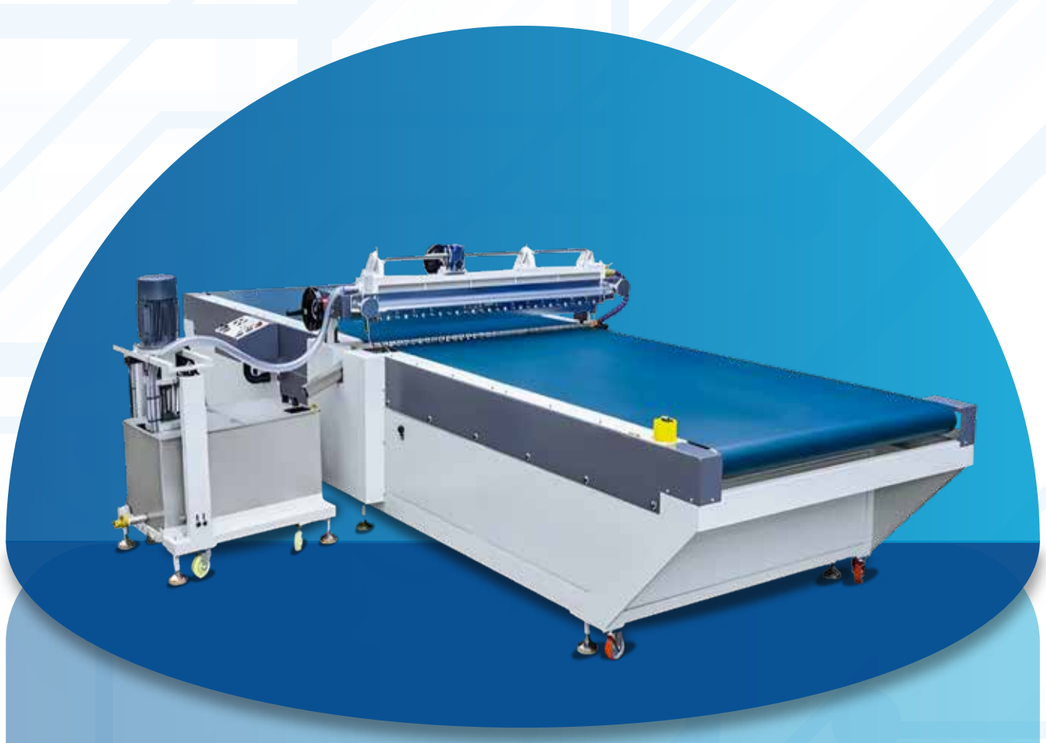


Slot Die Coating

Slot die coating is an advanced and precise coating technique used to apply a uniform layer of liquid material onto a substrate.The process involves dispensing the coating material through a narrow, rectangular slot die onto a moving substrate, allowing for highly controlled and consistent coating thickness and width. This method is valued for its accuracy, efficiency, and versatility, making it ideal for electronics, photovoltaics, and batteries.

Immersion/Dip coating

An immersion/dip coating machine is used to apply a uniform layer of coating material onto a substrate by immersing it into a coating solution and then withdrawing it at a controlled speed. This technique ensures an even coating thickness and is suitable for a variety of materials, including metals, ceramics, and polymers. Immersion/dip coating is widely used in electronics, medical devices, and optics for applying high-quality protective, conductive, and optical coatings.



Curtain Coating

Curtain coating is a technique used to apply a continuous, uniform layer of liquid coating onto a moving substrate. In this process, the coating material is dispensed from a slot die to form a free-falling curtain that impinges onto the substrate as it passes underneath. This method allows for precise control of coating thickness and is capable of applying coatings over a wide range of viscosities. Curtain coating is commonly used in the paper, textile, and packaging industries

Hot melt Coating

A hot melt coating machine is used to apply a layer of molten adhesive onto a substrate, typically using a heated applicator. This method is employed in various industries such as packaging, automotive, and textiles, where the adhesive solidifies upon cooling to form a strong bond. Hot melt coating machines are valued for their efficiency, speed, and versatility in bonding different materials, making them ideal for applications requiring rapid production and secure adhesion.

Web Coating

A web coating machine is used in industrial processes to apply a thin layer of coating material onto a continuous web of substrate material, such as paper, plastic film, or metal foil. This coating process enhances the substrate's properties or adds functionality, such as barrier properties, adhesion, or aesthetics. Web coating machines can utilize various methods including gravure, flexographic, or slot die coating, depending on the application requirements.

Fabric Coating

A fabric coating machine is used to apply various coatings onto textiles to enhance their properties such as water resistance, flame retardancy, or aesthetics. It typically involves passing the fabric through rollers or brushes that apply the coating material evenly onto its surface.This process can be crucial in industries like apparel manufacturing, automotive textiles, and outdoor gear where functional coatings are necessary to meet performance standards.

OUR CLIENTS

United Surgical – experience the difference
Tetra Pak – PROTECTS WHAT'S GOOD
Products
Thermic Edge – Europe GmbH
AIS
الشركة الدولية للمواد الكيماوية ذ.م.م – Global Chemical Company L.L.C.
Sefton Farms
AERO FIBRE
KELVIN
TTCL
apicom automation pvt. ltd.
Essence of Africa – AGRICULTURE COMPANY
KAFFE BUENO
BOTANIK SOURCE
AMERICANPRECOAT – SMILE WITH SCIENCE
RADIANCE – COMPANY LIMITED
ACG
MELCHERS – EST. 1806
Mahina-TST
Arora GROUP
ACG Worldwide
ACE – HEALTHY BITES
ABB
TENNECO
SVI
SENSACORE
ADITYA BIRLA – HINDALCO
SCION – INDUSTRIAL ENGINEERING Pvt. Ltd.
MULTIMETALS
KANCOR MANE
JK Cement LTD.
HitechMica
HITACHI – Inspire the Next
ALSTOM
General – Where Growth with Excellence is a way of Life
GEEKAY – INDUSTRIAL ENTERPRISES
GE
FPI – FUTURE PIPE INDUSTRIES
FUNSKOOL
FOSECO
ADITYA BIRLA GROUP
Ford
Fleetguard
Flamingo Pharmaceuticals Ltd.
Firmenich
FIAT
EXIDE – INDUSTRIES LIMITED

Vestas

heubach
COMPETENCE IN COLOR

HADEN
International Group

Hindustan Unilever Limited

Hitec
Pump

PREMIER SEALS
(INDIA) PVT LTD.

HP Pelzer
Automotive Systems, Inc.

GLAND
GLAND PHARMA LIMITED

MEDREICH

IFF

meil
Megha Engineering & Infrastructures Ltd

MTR
PURE AND PERFECT
SINCE 1924

TOP
Anil

SCR ELEKTRONIKS

Godrej

wipro

WOCKHARDT

ChemDist
PROCESS SOLUTIONS

Frontier
Alloy Steels Limited

DeVats

genix
automation INDIA

ADEPT IMPEX PRIVATE LIMITED
SPECIALITY INGREDIENTS AND ARTICHOKE SUPPLIER

GM

इंडियनऑयल
IndianOil

INDORE

inventia

IOT
IOT Infrastructure & Energy Services Limited

ISF

Jasubhai
ENGINEERING
AN ISO9000-2008 CERTIFIED COMPANY

Jay
JAY AGRO INDUSTRIES

JSW

Camlin
KOKUYO

SINCE 1947
KETKO
Engineered to perfection

komal

LARSEN & TOUBRO

LAVINO-KAPUR
BOTTOM FOR SURE - PRIME OF SPICES

m&m's

Marvel

REAL INSTANT FOODS

SAMSON

ADAMAS

Air Vision
Technologies Pvt. Ltd.

Amol Pharmaceuticals
PRIVATE LIMITED

Arvind

ATUL

BANCO
BANCO PRODUCTS (I) LTD.

CYBERNETIK
TECHNOLOGIES

Bharat
Petroleum
BHARAT PETROLEUM CORP. LTD.

DEEPAK FERTILISERS
AND PETROCHEMICALS
CORPORATION LIMITED

ESSAR

ENDURANCE
Complete Solutions

envirocare labs
Analysis and Beyond....

Dynetics

Dr.Reddy's

DPCL
Dujodwala Paper Chemicals Ltd

25 YEARS
DORF KETAL

deccan

Datt Mediproducts Pvt. Ltd.
Delivering Next-Gen Healing Solutions Globally

DAIKIN

DATWYLER

CUMI

CRANE

Cipla
Caring for life

CENTURY FOODS INTERNATIONAL

Camlin

Callisons

CAIRN
Energy for India

BSN medical

BKT
GROWING TOGETHER

BHUSHAN

हिन्दुस्तान पेट्रोलियम
HP

TATA
TATA STEEL BSL LIMITED
(Formerly known as Bhushan Steel Limited)

RALLIS INDIA LIMITED
A TATA Enterprise

Panda treats

TAKASAGO

Kento
Beyond The Boundaries of Taste

Materials Magic
Hitachi Metals

arbanox
Inspired from nature

Zydex
Innovating for Sustainability

JKCement

TENNECO

GFL
GUJARAT FLUOROCHEMICALS
VALUE THROUGH GREEN CHEMISTRY

PUROSIL

MIDHANI

tega
PARTNERSHIPS IN PRACTICE

SAFEWORLD

SOLARA
Active Pharma Sciences

RS
RudraSagar Silk Limited

KOEL
KOEL COLOURS PRIVATE LIMITED

safepack
SOLUTIONS
100 YEARS

SHI
Sunita Hydrocolloids Inc

SPECTRUM

RATIONAL LAB SOLUTIONS

SHAKTI POLYWEAVE PVT. LTD.

deccan
Fine Chemicals (India) Pvt. Ltd.

KOH-I-NUR

THANK YOU

UNIT 1

4 & 5, Marudhar Indlustrial. Estate, Gas Godown Lane, Goddev Fatak Road, Bhayander (E), Dist. Thane - 401105. (India)

Contact Us
+91-22 48255071, 48255072

UNIT 2

Plot No. B-47, Addl. Midc Anandnagar, Ambernath (E), Dist. Thane (India)-421506

Contact Us
+91(0251)26205 42/43/44/45/46

KRDC

Plot No K2, Industrial Gala F4A, D- Wing, MGN Properties, Opposite Godrej Co., Addl MIDC Anand Nagar, Ambernath (E)- 421506 (India)

Contact Us
+91-2512620543/44

UNIT 4 (EUROPE)

Kerone Engineering Solutions LTD. (EMitech) Viale della Palma, 7, 70033 Corato BA, Italy (Europe)

UNIT 5 (THAILAND)

Thailand Representative: 163 Rajapark Building, 18th floor, Sukhumvit 21 Road (Asoke), Wattana, Bangkok - 10110, Thailand

Contact Person
G.Vivekanand
+6689 500 9821

Uzbekistan / Kazakhstan (Office)

TIT Company LLC: 100060, 2, A. Kahhar, Tashkent, Uzbekistan

Contact Person
Mr. Slava
+998 903540963

Israel (Office)

Ornatus Industrial Tech Ltd: Dam Hamacbim 36, 7178602 Modiin, Israel

Contact Person
Omri Fabian
+972 584844887

Australia & New Zealand (Office)

Linetech Pty Ltd:
Po Box 3046, Browns Plains, Qld 4118. Australia

Contact Person
Eric Quevauvilliers
+61 (0)418 871 005

Bangladesh (Office)

House-10, Road-5 Priyanka City, Sector-12, Uttara, Dhaka-1230, Bangladesh

Contact Person
Md. Emtiaz Morshed
+8801747762200

SCAN HERE

Our Mails

info@kerone.com
sales@kerone.com
marketing@kerone.com

Website

www.kerone.com
www.kerone.net
www.keroneindia.com