



Engineering Tomorrow's Roads

With New-Age Bitumen Emulsion Plant Technology



**MOST
RELIABLE**

LOW MAINTENANCE



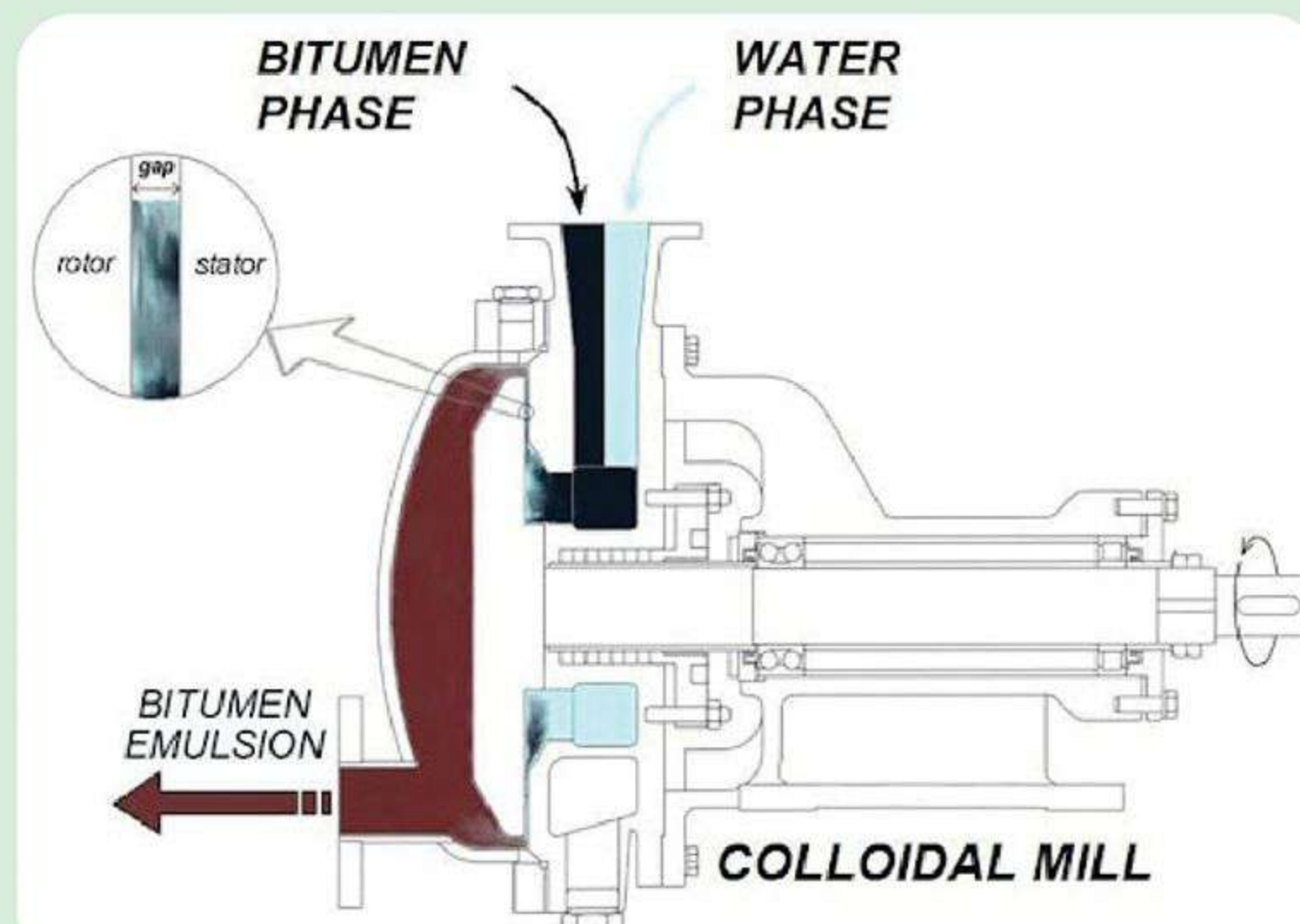
For Better
Sustainable Future

www.alltech-group.com



Build with Confidence

Introducing Emultec 10 from Alltech: Your ultimate ally in road maintenance. Compact, powerful, and modular, enabling the production of Cationic, Anionic, Soil Stabilized, Modified Bitumen Emulsion, and Micro-surfacing Emulsion as per IS/ASTM Standards. The user-friendly design and cutting-edge technology make Emultec 10, the ultimate solution for road maintenance challenges. Join the Alltech Group Featuring an Automatic batch-type Emulsion Plant with a capacity of 7-10 MT/Hour, and revolutionize your road construction journey with Emultec 10.



Working Principle:

Bitumen, water, and chemicals are controlled individually through Mass flow meters which can be controlled as per predetermined formulation. The mixture is fed through a high-shear colloidal mill which disperses the bitumen into fine particles which with the help of the emulsifying agent produce a stable emulsion strong enough to be pumped and transported over long distances in tanker lorries or in packed drums.

Bitumen System:

The bitumen system consists of pump inlet filter, pressure relief valve and mass flow meter. Pump is heat jacketed with speed of the bitumen pump controlled via a frequency converter for ability to produce emulsion with variable bitumen content.

Water System:

The soap solution system consists of a soap solution tank with a dosage pump, agitator and flow meters. Complete and fully equipped soap solution line including inlet filter and magnetic flowmeter with pneumatically operated valve for control of flow. All chemicals can be mixed in the soap solution tank and then fed into the milling system. Pumps and flow meters are manufactured in materials resistant to chemicals for longevity.

Solvent System:

The solvent system for in-line dosage of solvent into bitumen flow through a static mixer, with speed control of the solvent pump by a frequency converter allowing for the production of Precise bitumen emulsion.

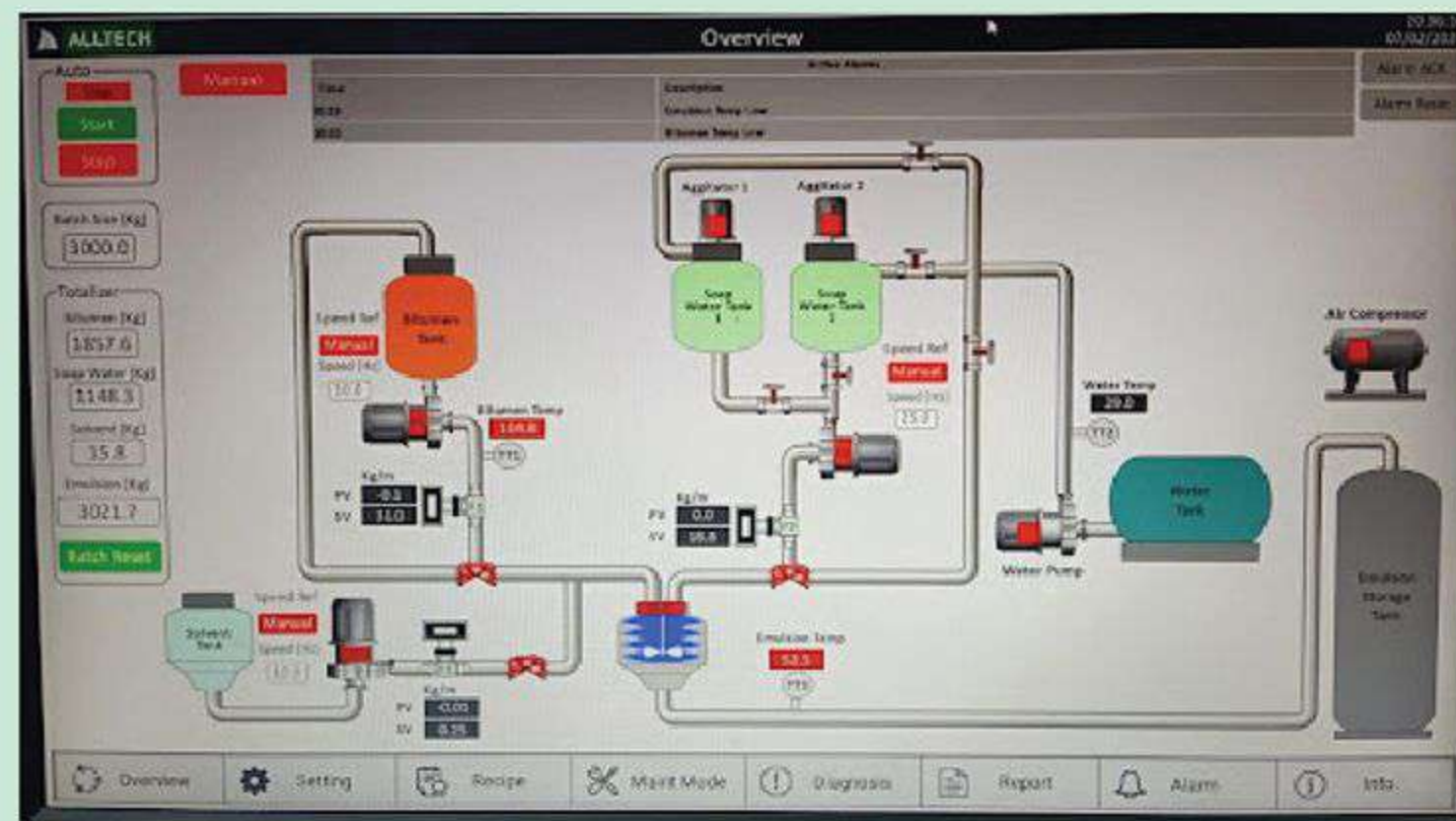
Mill & Emulsion System:

The emulsion plant consists of the High Shear Colloidal mill of Denimotech, Denmark, which has a global reputation for producing very high-quality emulsion because of the special design of the tooling and extra-long life because of the mill construction steel with Special Corrosion Resistance & Strength, developed through long years of research and development and trail in the field.



Process Control System:

A fully computerized PLC based automatic Process control system is a sophisticated network of hardware and software components that work together to regulate and optimize production operations. By integrating advanced automation, instrumentation, and control strategies, the system enables manufacturers to achieve reliable, efficient, and high-quality emulsion production processes.



- **Warning Alarms:**
Motor Overload, Low Temp, Valve Issues
- **Tracks Production:**
Mill Hour Meter or Production Hour Meter
- **Bypass Facility:**
Auto/Manual Switch For Manual Operation

- **Automatic Plant Operation:**
Start/Stop, Batching, Pump Control
- **Real-Time Monitoring:**
Flow Rates, Temperatures, Valve Positions
- **Data Tracking:**
Production Figures, Mill/Production Hours

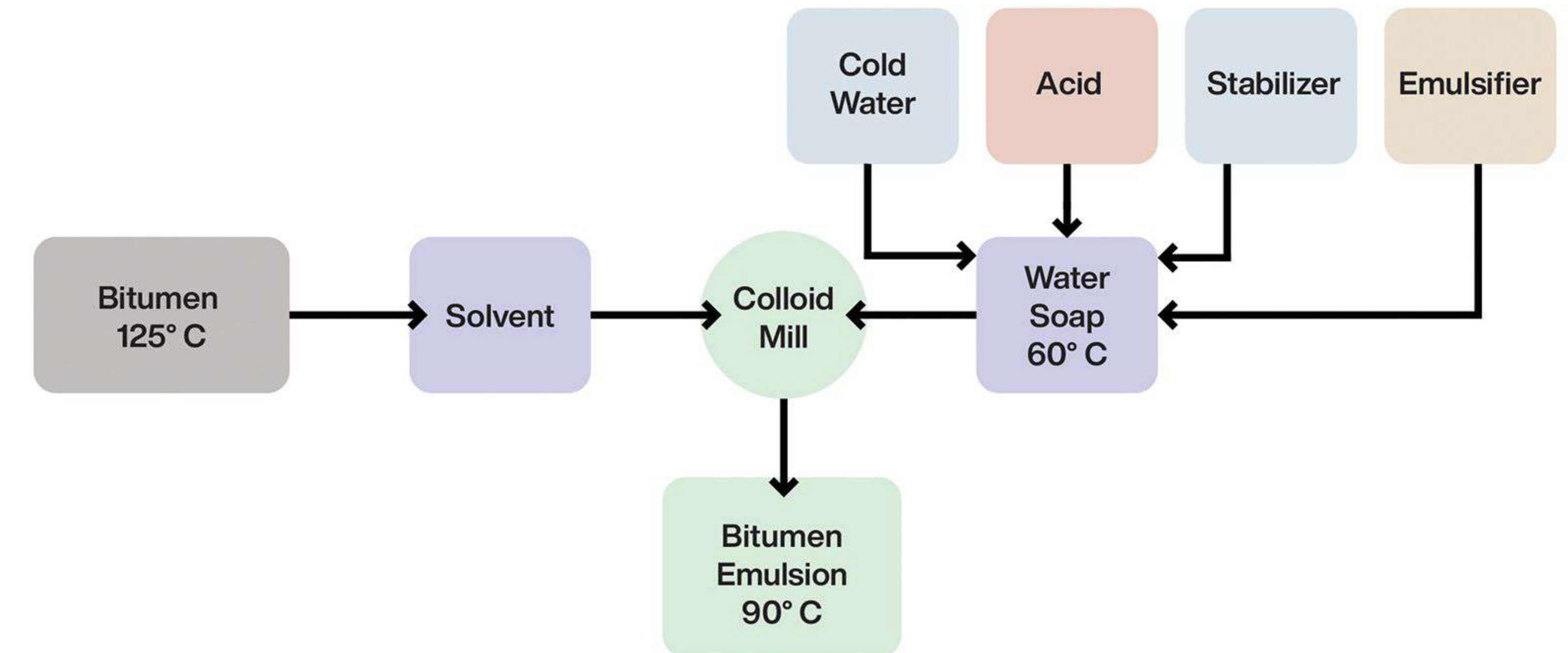


Effortless Modified Bitumen Production with Maximum Efficiency.

Component of Bitumen Emulsion:

Bitumen emulsion is a complex mixture comprising several components that work together to form a stable dispersion of bitumen in water. The Main Components of Bitumen Emulsion Are Bitumen, Water, Emulsifying Agents, Stabilizers, Acid/Alkali, Special Additives & Hydrocarbon Solvents.

Raw materials are carefully selected and combined in precise proportions to formulate bitumen emulsions tailored to specific construction applications, such as road paving, sealing, or waterproofing. The quality and compatibility of raw materials are critical factors influencing the performance, stability, and durability of the final emulsion product.



**Optional Components:

Bitumen Storage Solution:

Bitumen Storage solutions play a crucial role in the efficient & Safe handling of Bitumen, key component in road construction and maintenance.



Cylindrical Tank

- High Level of flexibility: 20/30/50 m³ Bitumen tanks (useful dimension)
- Energy Efficient: 50 mm or 60 mm insulation



Cuboidal Tank

- Container sized, easy & cost-effective transportation
- Temperature monitoring, product and periphery protection
- Fill level monitoring (Pressure measurement Probe)



Emulsion Storage Tank:

An emulsion storage tank is to store bitumen emulsions safely and efficiently. Emulsions are typically stored in these tanks before they are transported to construction sites or industrial facilities for application.

- Emulsion Tank is equipped with the circulation/Bulk Loading/Drum Filling Line and Pump.
- Available in various sizes:
Vertical: 20/30 MT, Horizontal: 25 MT/35 MT



Chemical Tank:

FRP tanks equipped with agitators and level gauges provide essential functionality for soap preparation processes, offering durability, versatility, and ease of maintenance. By incorporating the raw components into soap manufacturing facilities, producers can achieve efficient production workflows and ensure quality and consistency

Solvent Tank:

Solvent tanks are equipped with pumps or dispensing systems to transfer the solvent to the emulsion production process. These systems are designed for efficient and controlled dispensing of the solvent, minimizing waste and ensuring accurate dosing.

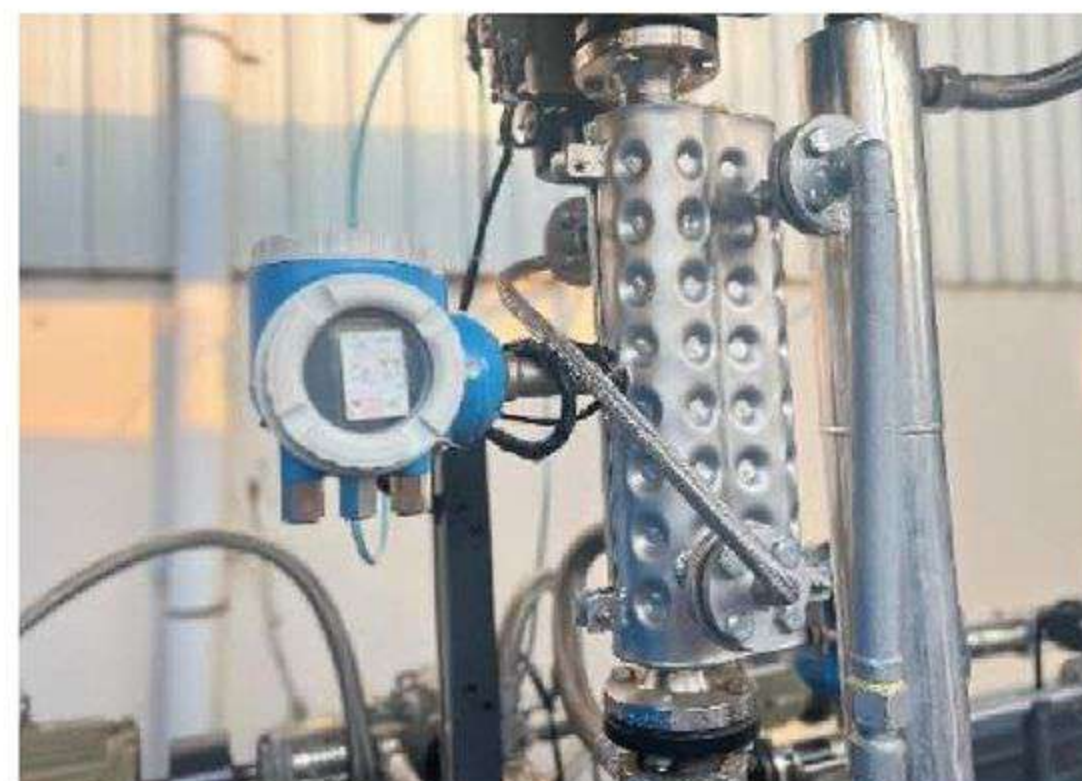


Water Tank:

A water tank with an inside heating coil is a critical component in bitumen emulsion production plants, ensuring the optimal temperature of water for efficient emulsification processes. By maintaining precise temperature control, these tanks contribute to the production of high-quality bitumen emulsions used in various construction and industrial applications.

EHT Heating Line for Bitumen Pipeline

An EHT heating line for a bitumen pipeline is a critical infrastructure component for maintaining the temperature of bitumen during movement from the storage tank to the Plant. By effectively controlling the temperature of the bitumen, the EHT system ensures smooth and reliable operation of the pipeline, minimizing downtime and optimizing product quality.



Thermic Fluid heater with Organic Solid Fuel Burner

Wood-fired (Solid Fuels) heater equipped with Furnace, ID-fan Suitable for MDC, Expansion tank with structure, Thermic fluid circulating pump with Motor., Refractory for furnace, Internal thermal oil piping, Drain tank & make-up pump, Chimney (20 feet height), Internal air & flue gas ducting, Internal cabling, Multi cyclone dust collector.



Thermic Fluid Heater with Diesel/LDO Burner

Thermic fluid heaters with LDO/diesel burners (Reillo – Italy) are versatile heating systems used in a wide range of industrial applications. They offer efficient and reliable heat generation using liquid fuels, making them suitable for processes requiring high-temperature heating with precise temperature control.

Bitumen Emulsion Drum Filling Machine:

This specialized drum-filling machine offers manufacturers a compact and efficient solution for automating the packaging of bitumen emulsions into drums. With its fully automatic operation, precision filling capabilities, and user-friendly interface, it enhances productivity and ensures consistent product quality in bitumen emulsion production processes.



Benefits of Emultec-10:

- Increases efficiency and productivity
- Precise process control & Imported Colloidal Mill ensures Consistent quality
- Minimum Dependency on skilled Labour
- Reduces Risk or hazard during plant Operation
- Faster production cycles by reducing setup time
- Saves Transportation and Value for Money
- Remote Monitoring and Control with Real time data analysis

Trusted by



Committed to Excellence

Through Rugged, Robust & Reliable Solutions.



Asphalt Batch Mix Plant (80-240 TPH)



Counter Flow Drum Mix Plant (60-120 TPH)



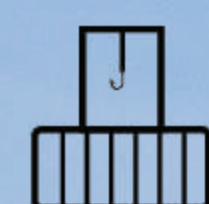
Bitumen Drum Decanter (2-8 TPH)



Emulsion, CRMB, PMB Plants



Microsurfacing Machine



Bitumen Bag Decanter (4-8 TPH)



RDSO Steel Girders (Heavy Engineering)



ALLTECH INDUSTRIES INDIA PRIVATE LIMITED

Mfg. of Road & Civil Construction Equipment

Head Office and Factory:

At. Geratpur Patiya, Near Saffrony Resort, Meh-sana-Ahmedabad Highway, At.& Po Ditasan, Dist. Mehsana 382710, Gujarat, India.

North India Operating Office (Delhi) :

Flat No.100, Pink Apt., Sec. 18B, Dwarka, New Delhi-110078, India