




~ Core Competency.

-  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

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UNISURFACE

Micro-Surfacing & Slurry Seal Equipment

— Road Construction & Maintenance



www.alltech-group.com



Microsurfacing / Slurry Seal Advantages



A MODERN SOLUTION FOR ROAD MAINTENANCE

Micro Surfacing and Slurry Seal are cold-mix paving technology that restore existing road surfaces. They improve skid resistance, waterproofing, and sealing. These systems use a mix of selected aggregate, including gravel, sand, and filler, to provide the necessary mechanical strength. A bitumen emulsion is used to bind the mixture, with unmodified bitumen for Slurry Seal and polymer-modified bitumen for Micro Surfacing. The application process involves machinery that doses, mixes, lays, and levels the mortar. No compaction is required.

ALLTECH, a pioneer in slurry machinery manufacture, offers the innovative UNISURFACE paver line that meets all the technical requirements.

Technology Benefits:

- Completely waterproofs the top layer to road
- Improves skid resistance to enhance road safety
- Seals thin cracks and allows minor profile corrections.
- Prevents pothole occurrences and patches.
- No disturbance to underground utilities and thermoplastic marking
- Being cold applied requires less energy for application
- Short road closures allow faster reopening of traffic
- Cost effective compared to hot mix asphalt overlay
- Reduces lifecycle costs and increases the road lifespan

Machine Features:

- Ergonomic and easy access to the rear platform.
- Practical positioning of operator console for clear view of paving.
- Bi-directional joysticks and hand levers for easy and comfortable operations.
- Instant display of materials consumption rates
- Fully expandable hydraulic spreader box for flexible width laying.
- SCADA based automation for precision controls and reporting mechanism

Safety & Environment:

- Environment friendly cold application
- Reduced energy consumption
- Zero emissions target

Specifications Sheet:

AGGREGATE HOPPER

- 8.5 m³ at level capacity
- 6 mm thick steel aggregate hopper
- Breaking vault beam with electric vibrator

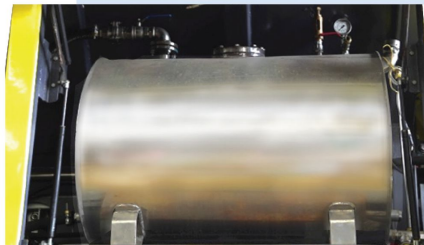
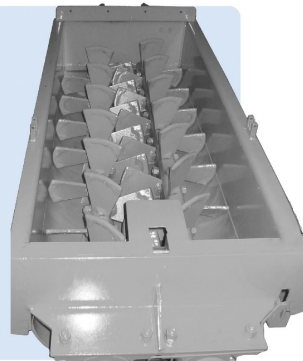


AGGREGATE FEED CONVEYOR BELT

- Adjustable belt speed
- Removable frame for easy maintenance
- Limit switch for saving of materials

MIXER

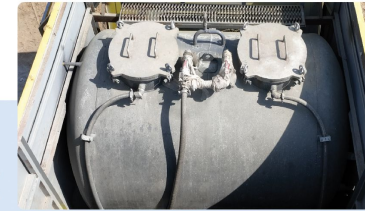
- The twin shaft mixer guarantees the perfect mix.
- Each shaft equipped with 30 screwed-on paddles
- Slope compensation is provided using a hydraulic cylinder.
- The mixer blades have 3 different angles (ingredient intake, mixing, extraction towards the spreader box).



LIQUID ADDITIVE TANK

- Pressurised tank for additive
- Made in stainless steel for corrosive additives
- Digital level indicator

EMULSION TANK



WATER TANK

- Pressurised tanks for emulsion and water
- External level gauge
- Digital level indicator



MINERAL FILLER (CEMENT)

- Grid and cutter for cement bags
- Divided in two to accommodate color granules
- Integrated agitator for filler feeding

AUXILIARY ENGINE

- Kirloskar Engine
- 6 cylinders Air Cooled
- 110 HP at 2300 RPM



Digital Flowmeters

- High precision electronic flow meters
- Precise dosing of all the liquids
- Flowmeter display on the computer



HYDRAULIC DEVICE

- Oil temperature surge protection device
- Cooling system for hydraulic oil
- Auto cut off for saving critical components



FIBER DOSING UNIT

- Metered dosing of pre cut glass fibers
- Dosage in proportion to aggregates
- Feeding directly in the mixer



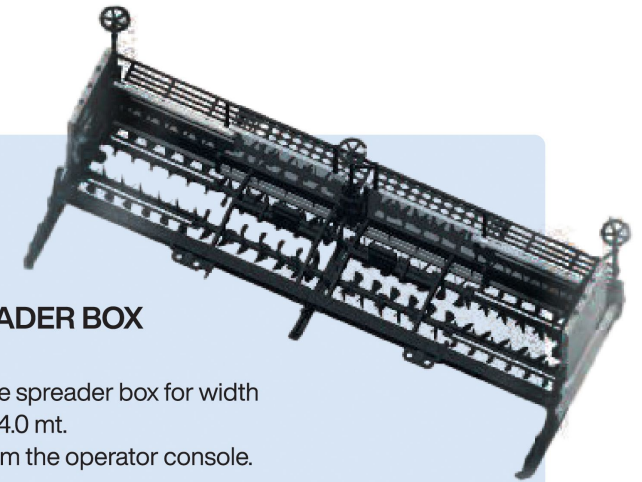
WATER SPRAYING SYSTEM

- High-pressure water gun for cleaning spreader box
- Front mounted sprayer for cooling of road surface



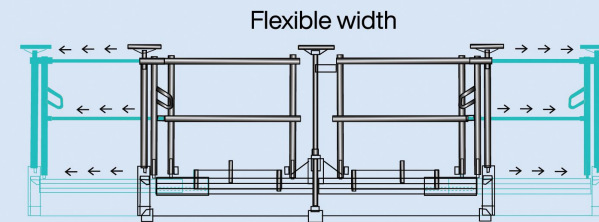
UNIPROSYS (IOT ENABLEMENT)

- Intuitive display, easy to train and operate
- Detailed material consumption report
- Mix recipe information for each run
- 5G enabled quantities tabulator
- Remote access of machine utilization
- Smart service alerts for operators and equipment owners

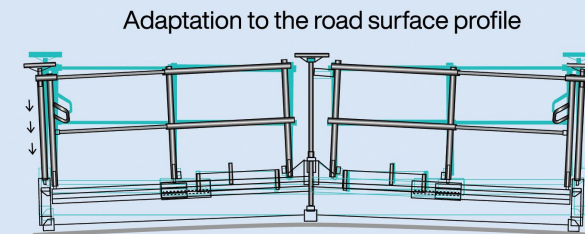


HYDRAULIC SPREADER BOX

- Hydraulically expandable spreader box for width changes from 2.5 mt to 4.0 mt.
- Spreaderbox controls from the operator console.



Flexible width



Adaptation to the road surface profile



WHEEL PATH RUT BOX

- Rut Application Box with integrated augers to fill wheel path rutting.
- Flexible working width from 1.2 mt. to 1.6 mt.

Benefits of Micro Surfacing on Rigid Pavements:

- Seals the open surface of concrete pavement
- Helps maintain structural integrity of the pavement
- Increases skid resistance and hence improves the road user safety
- Improves road geometry by making profile corrections
- Prevents pothole occurrences due to cracking in concrete surface
- Allows better application and visibility of thermoplastic road marking
- Reduces lifecycle costs and increases the pavement lifespan

UNISURFACE: Power of Smarter Pavement Solutions!

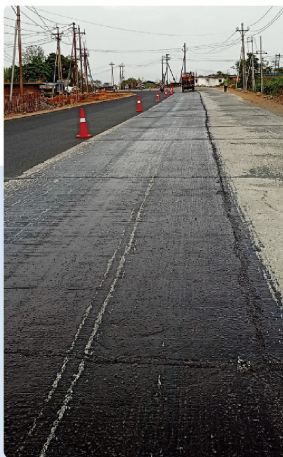
Joint & Crack Filling



Step 1



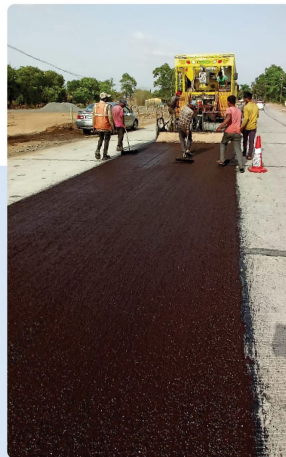
Tack Coating



Step 2



Micro Surfacing



Step 3

Special Application:

• Micro Surfacing using Steel Slag Aggregates

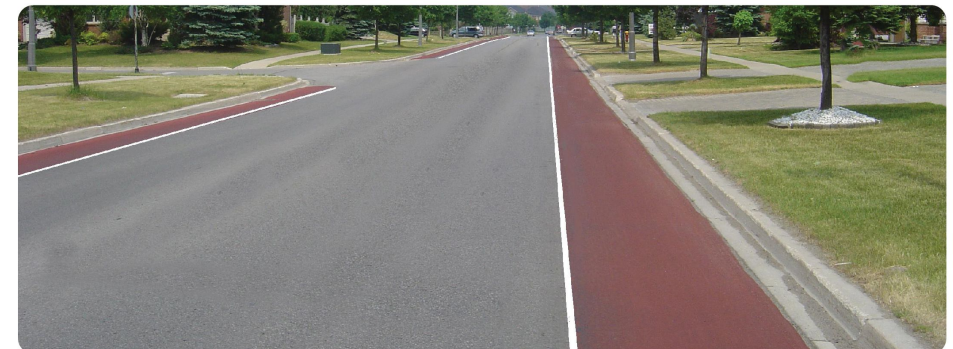
Steel slag is a byproduct of the steel manufacturing process, which occurs when iron ore is melted to produce steel. It is a durable and sustainable material that possesses several beneficial properties when used as an aggregate in micro surfacing.

- Microsurfacing on cement concrete roads can be done to improve the skid resistance of the pavement.
- A tack coat of microsurfacing emulsion is done at rate of 3.0 to 3.5 Kg/10 m²



• Coloured Micro Surfacing

Microsurfacing for dedicated pavement routes is done with color granules and colored emulsion. Electric vehicle lanes, rapid bus transit systems, commuter walkway passages are done using color microsurfacing. Reflective glass powder is added to increase night visibility for such colored microsurfacing.

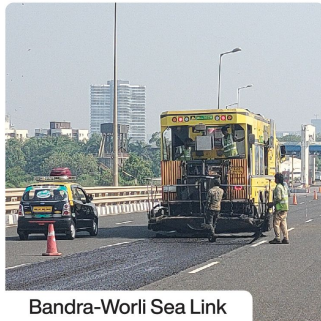




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Thanks to the Alltech's extensive experience and expertise in this technology, ALLTECH can provide technical support at various stages of customer projects. This includes assisting with preliminary research on raw materials, formulating mix designs, evaluating technical specifications, and offering guidance during the organisation of job sites. Our skilled and professional team ensures that clients receive the support they need to meet their requirements and expectations effectively.