

RESIN LINE LINE POLISHER





A SNAPSHOT

Established in 1984, by the vision of Mr. Bitthal Maheshwari, BM Techno Machines Pvt. Ltd. has grown to be a name that stands for excellence in precise automation technological solutions. Harbored in Chittorgarh, Rajasthan (India), BM Techno Machines is a leader in manufacturing machines catering to Marbles & Granites Industry, assisting accomplishment of various roles and processes from mining to processing. Adding to the glorious legacy of BM Techno Machines are several accolades, medals, awards and certifications earned against the robust Marble Machinery Operations. BM Techno is also the pioneer in automated Marble and Granite Processing with the deployment of state-of-the-art machinery, in Rajasthan.

With the advanced most technologies at disposal and imported machinery supplements, BM Techno Machines employees some of the finest talents in the industry with unmatched experience and expertise, making us, one of the most sought-after brands across the country. With a dedicated R&D Team, connected with some of the best brains across the globe, institutes such as IITs, Education and Research bodies across the country and in-house panel of scientists and researchers; we boast of having paved the roads for several path-breaking innovations in the industry.

As an industry leader, we believe in sharing the knowledge and excellence in a collaborative manner in order to achieve a smarter and brighter tomorrow.

In the course of its robust history, BM Techno Machines has had the privilege to have successfully supplied and installed turnkey projects in countries across the globe.



VISION, MISSION & CORE VALUES



ACCOMPLISHMENTS

Supplied more than 100 machines across the globe for processing of natural stones. India's first automated RESIN LINE manufactured by BM TECHNO MACHINES, dated 2nd April 2010.



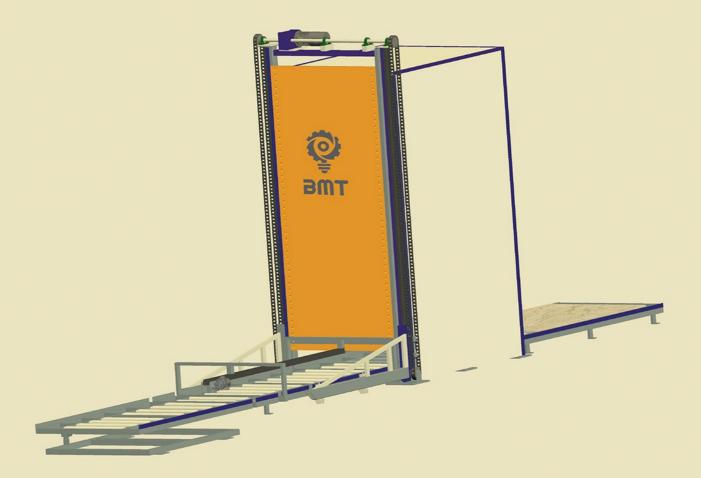


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India's First Automatic Resin Line Machine



RESIN MARVEL



- This machine is unique in its type & layout, as the name suggests
- Optimum Height (6.3 mtr), Maximum Productivity & High Efficiency
- Yet another unique feature includes having maximum productivity in 40 tray layout
- Productivity upto 20 slabs / hour for gang saw size slab & 40 Slabs / hour for block cutter slab



Salient features of RESIN LINE

Curing/Polymerization Chamber

Curing chamber is heated by L.P.G. & electric heater.

This chamber has been realized with puff panels that reduces heat losses.

Duct line followed by HVAC system has been designed for same air distribution on each slab.

Low pressure 5HP blowers used for maximum air change in oven, causing proper heating of slab

Opening of chamber is by flap mechanism. It opens only when the tray has to be pushed and pulled in and out of the chamber, this reduces heat losses from the chamber.

Tilting Trolley

It is used for loading and unloading of slabs.

It is hydraulically operated.

Conveyor of the Plant

Roller conveyor is used in machine that gives long life, low maintenance compared to chain wear & tear and jamming by filling of chemical.

Higher speed can be achieved by roller conveyor instead of chain mechanism.

Lift of Plant

It works on a higher speed up to 20m/min with soft start and stop by Variable Frequency Drive.

Lift is operated by chain mechanism.

Lift motion is controlled by close loop system for reading physical position.

Robotic Arm

LM guide way and Variable frequency drive is used for faster and smoother operation of arm.

Rotary Actuator does the operation for arm engaging and disengaging with tray.

Lift conveyor is operated by Variable frequency drive.

Vacuum Chamber

It is used for high penetration of epoxy and filling a chemical to fill up minute cracks and pin holes.

It is constructed by ribs structure to sustain high vacuum pressure. It is controlled on vacuum pressure basis.

Control of Resin Line

Sequencing of the tray from loading to unloading is controlled automatically through PLC control panel.

Because of our unique design and perfect automation program we achieve an o/p of 20 slab per hour.

We are using non contact sensor feedback for long life and maintenance free operations.

Automatic control of this line accomplishes filling process in the most effective way reducing time, cost, and manpower and at the same time giving best quality finished slab.

Tray

We provide two types of tray.

- With expanded metal mesh
- Without metal mesh

Technical Specifications

No. of trays in drying oven - 10

No. of tray in polymerization oven - 30

Slab thickness can be processed - 30 mm

Heating mechanism - Electrical/L.P.G

Total power required - 100 KW

Production Capacity - 20 tray/hr

M/c size - 16000*4500 mm

Slab Size - 3.5*2.15 mtr



Technical Specifications

- No. of trays in drying oven 20
- No. of trays in polymerization oven 45
- Slab thickness can be processed **30 mm**
- Heating Mechanism Electrical/L.P.G.
- Production Capacity 20 slabs/hr
- M/c Size 18700*6700 mm
- Slab Size 3.5*2.150 mtr







Special Features

- Slab removal option
- Bridge holding time on both sides
- Additional/individual brick-out for each head
- Hydraulic operated tilting
- Photoelectric sensor for profile sensing
- Slabs horizontal & vertical profile visualization



Salient features of LINE POLISHER

About Polisher

Automatic slab polishing machine is used to obtain reflective polish for different kind of natural stones like marble, granite, travertine, onyx with high polishing quality. It is controlled by control panel with an appropriate mechanical and electrical arrangement. Polisher unit includes loading, unloading, inward and outward station. That gives cost effective solution and optimizes the production cycle, reducing manpower & time saving. The complete unit is available in different models.

Polishing Spindle

it is a complete removable unit which can be replaced by the another one. Its bearing house is filled with lithium greaves which acts as a lubricant for spindle and increases its life. The outer shell of spindle is hard chrome plated which eliminate the rubbing action between spindle and its housing. Spline shaft & phosphors bronze nut is provided for smooth motion in order to get a long life cycle.

Polishing Spindle supporting Bridge

it moves on sliding roller which is submerged in oil bath chamber that help in smooth movement of bridge, a special designed metal structure of bridge provided via FEM method for less bending and torsion movement. Spindle mounted in the centre of bridge to eliminate the cantilever effect that enhances stability of bridge.

Slab Conveying Unit

It is driven by planetary gear box for position drives and maintenance free operation. A toothed type belt is used for better stability of slab. Bed is precisely machined by planner machine. An anti corrosion resistance plate is used to maintain the life of bed and prevent it from corrosion.

Automation

It is controlled by PLC system, speed of bridge & conveyor are controlled by VFD system. Slab profile is identifying by non contacting sensing system. An operator can set its parameter by touch screen panel also individual control panels are equipped for each head. It is equipped with abrasive consumption alarming systems that give indication for replacing of abrasive. All operations indicated by the indicator system.

Auto Lubrication System

It helps in lubrication for all sliding and rotating parts. Lubricant is fed to every lubricant point after some fix operation cycle by automatic control with the help of lubrication pump.

Water System

Each polishing head has sub water line that is connected with the main water supply line, water flows from up to down through the spindle and jet of water spreads and covers the polishing region.

LINE POLISHER

Polish Line for Granite/Marble slab

No.	Characteristics	9-head	12-head	16-head
1	Maximum working width	1300/2200	1300/2200	1300/2200
2	Maximum polishing width	1250/2150	1250/2150	1250/2150
3	Maximum thickness	50 mm	50 mm	50 mm
4	Minimum thickness	14 mm	14 mm	14 mm
5	Total power required	115/118 KW	145/148 KW	190/193 KW
6	Motor power for each head	11 KW	11 KW	11 KW

Type of Head	Fickert	Frankfurt
Abrasive unit per head	6	9
Material	Granite	Marble

OTHER PRODUCTS











PRE ENGINEERED BUILDINGS









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