

UNMATCHED QUALITY
OPTIMUM PRODUCTIVITY

Wide-bodied Continuous Fermenting Machine

Convenience of
Mechanisation



matrix PVB

CONTINUOUS FERMENTING SYSTEM

UNMATCHED QUALITY
MAXIMUM PRODUCTIVITY
World's best Continuous Fermenting Machine

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CONTINUOUS FERMENTING SYSTEM

THE NEW-AGE CFM

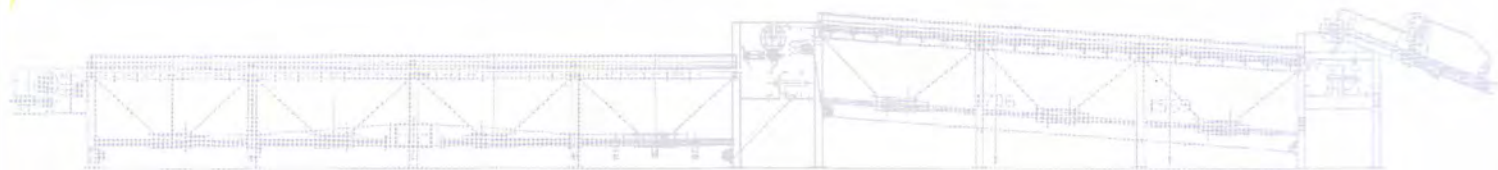
TIGL's **Matrix PVB** Magic Mesh CFM is the answer to all fermentation needs. It's individual air control design, imported Magic Mesh and Centralised Control Console ensure the best possible hygiene, high output and uniform fermentation. The 'modular' concept allows for enhancement in capacity. The Matrix is supplied with individual modular dampers for complete flexibility in air control. Humidified air from a specially designed Mist Chamber completes the system...



TWO STAGE MATRIX CFM

The concept of two stage fermentation has gained wide popularity in the Tea Industry due to better results. The orientation of two stages can be arranged in different ways to suit individual requirement and preference.

The first stage and the second stage have independent fermentation time setting arrangement and provide much more flexibility to the user to achieve desired results. The bed thickness can also be varied in two stages depending on the fermenting needs. The Dhool dropping from the first stage to second stage allows better aeration & the cascading effect avoids caking of the tea bed, resulting in more uniform fermentation across the width and length of the machine. The use of upturner and /or plough is eliminated, resulting in better liquor character.



ADVANCED FEATURES OF THE NEW, IMPROVED CFM



Magic Mesh

The heart of **Matrix PVB** CFM is the specially imported Magic Mesh with 46% open area. This Magic Mesh provides several advantages:

- Open area nearly 80% more than SS trays/belts, which ensures even fermentation across the tea bed thus improved cup characteristics and infusions
- Availability of the Magic Mesh in upto 10ft. width, which is space saving and enables wider machines and thus shorter lengths.

- Specially designed idlers and SS skid plates are provided to support the Magic Mesh conveyor

Modular Air Control Arrangement

Each module is fitted with an Individual Damper to draw only the required quantum of humidified air. The common duct runs parallel to the machine and specially designed air chambers with perforated pressure plates are used to feed humidified air to each module. This design eliminates accumulation of tea in ducts.



Construction

The machine is designed for maintaining the highest standards of hygiene and uses stainless steel Aerodynamic Hoppers. All parts of the machine coming in contact with tea are also made of stainless steel. The heavy duty rectangular tube section framework adds to the strength of the machine. The Matrix is low in height making it convenient to monitor and easy to clean.

Stainless Steel Air Ducts

Circular SS Tapered Air Supply Ducts are provided to maintain uniform air pressure throughout the length of the machine. The circular design improves hygiene and air flow into the machine.

Compact Shaft-Mounted Drive

This advanced mechanism eliminates the need for a drive pedestal.

No obstructions in floor space.

Low power consumption.

Longer, trouble-free life.

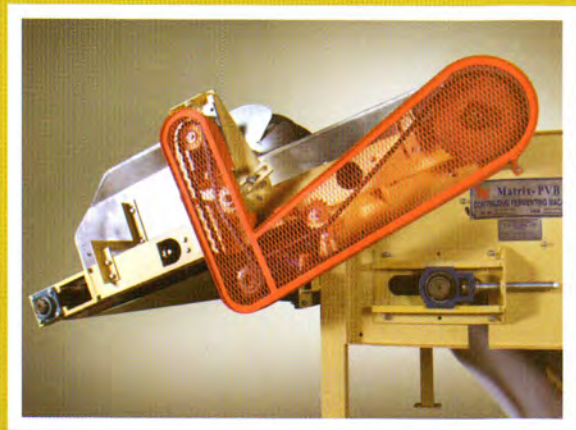
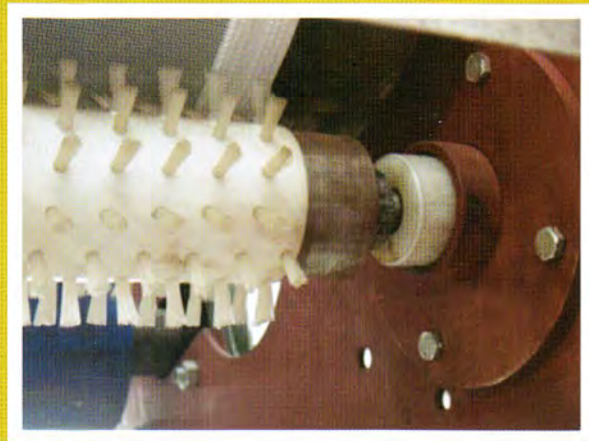
No V-Belts used.

Centralised Operating Control Console

This console has an inbuilt AC Variable Speed Drive, Temperature Indicators, busbar arrangement with MCBs, Ammeter, Voltmeters and push button motor on/off switches. These are all enclosed in a dust proof, powder coated, two door panel.

Nylon Cleaning Brush

Unique simple detachable design which allows changing and cleaning brush even when machine is in use.



Humidification

For continuous supply of fresh humid air into each module, a Centrifugal Blower is connected to the Mist Chamber or Y-Duct to suit the site conditions. Two humidifiers are provided with the Humidification system.

Feed Conveyor

A full width (10'8"/6'4") PVC Feed Conveyor with Spiral spreader ensures regulated feed and even spreading of 'dhool' on the machine. An extended belt can be provided to reduce feed height and enable direct feed from the CTC or Googhie.

OPTIONAL ACCESSORIES

Oscillating Conveyor

This is a new feeding device. This helps to spread the tea uniformly at the feed end of the CFM and eliminates use of the full width feed conveyor and spreader. This is also more suitable and convenient for online processing.

Effective Upturner

To ensure even fermentation through the cross section of the bed, a slow speed, specially designed upturner is provided with the SS blades. The design ensures that grades are not disturbed in the process.

Discharge Conveyor

These can be the standard type or twin type, which are used to discharge teas at either end of the machine or in the centre, to suit factory layout.

Ball Breakers

Stainless Steel full width ball breakers can be provided with independent drive arrangement and easy cleaning system.

TECHNICAL SPECIFICATION

Machine Widths : 10', 8', 6' & 4'

Overall length W/O Feed Conveyor	10076	12100	14124	16148	18172
Overall length with Feed Conveyor Extn.	13426	15450	17474	19498	21522
Std.	11460	13484	15508	17532	19556
Overall Width	3590	3590	3590	3590	3590
Height till tip of side spillage gaurd	1450	1450	1450	1450	1450
Effective Tea Bed length	8991	11015	13039	15063	17087
Effective Fermenting Width (8" Wide Machine)	2250	2250	2250	2250	2250
(6" Wide Machine)	1925	1925	1925	1925	1925
Effective Fermenting Area (8" Wide Machine)	20.23 m ²	24.78 m ²	29.34 m ²	33.89 m ²	38.45 m ²
(6" Wide Machine)	17.31 m	21.20 m ²	25.10 m ²	28.99 m ²	32.90 m ²
*Feeding height of Feed Conveyor Extn.	590	590	590	590	590
Std.	1225	1225	1225	1225	1225
Discharge Height from Floor Level	700	700	700	700	700
Time Range	37 mins. to 143 mins.				
Withered Leaf kg*/hr (8" Wide Machine)	1250	1550	1850	2150	2450
(6" Wide Machine)	1050	1300	1550	1800	2050

*At 4" bed thickness and 60 minutes fermentation time. Outputs would vary with changes in these parameters. Due to a continuous process of product development, design is subject to change without prior notice.

POWER REQUIREMENT

Main Motor	1.5/2.3 HP, 720/1440 RPM
Upturner	1 HP/1000 RPM
Feed Conveyor	1 HP/1440 RPM
Cleaner	1 HP/1000RPM
Discharge(Optional)	1 HP/1440 RPM

Humidification Fan

For 6' Wide Machine		For 8' Wide Machine	
4&5 Module	5 Hp	3&4 Module	5 Hp
6 to 7 Module	7.5 HP	5 to 6 Module	7.5 HP
8 and above Modules	10 HP	7 and above Modules	10 HP
Humidifiers	0.75 HP x 2	Humidifiers	0.75 HP x 2

At TIGL, innovation in engineering has helped us meet the changing requirements of the tea industry. Each new project has been for us a fresh opportunity to explore, learn and widen our horizons. Today each machine that rolls out from TIG is backed by solid experience, an impeccable track record and by years of R&D. We at TIGL are committed to providing our customers with solutions which are cost effective, energy efficient and result oriented, and backing it all up with the very best customer support.



T & I GLOBAL LIMITED
PARTNERING THE TEA INDUSTRY WORLDWIDE

TIGL, an engineering conglomerate and ISO 9001 organization is a leading manufacturer of Tea Processing Machinery with an established user base in every tea growing area of the world. Our manufacturing units are located in the engineering hubs of Coimbatore and Kolkata. Together they offer the following latest range of machinery.

- KaizenNova** The Trailblazing CTC Machine
- Matrix PVB** Fermenting Machine
- Everest** Vibro Fluid Bed Dryer
- Conquest** Combination Tea Dryer
- Blaze** Zero Casting Steel Heater
- Shola** Efficient Air Heater
- Axis** Auto Milling Machine
- Smart Axis** Auto Chasing Machine
- Rollomax** The New Generation Rolling Table
- Tivane** The Ideal Pre-conditioner for Quality Teas
- Falcon** Energy Efficient Axial Flow Fans
- Tea Colour Sorter**
- Tea Harvesting Machine**

We at TIGL are committed to provide our customers with processing solutions which are cost-effective, energy efficient and result oriented, and, above all, backing it all up with the very best customer support.



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