



SINCE-1996

# TEA ENGINEERING WORKS

“Innovation in motion”



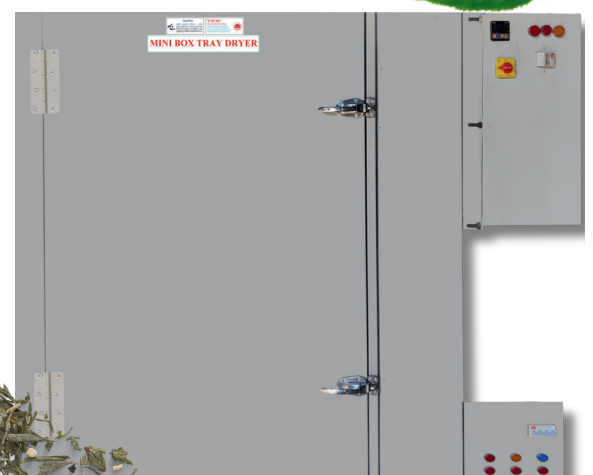
## TEA PROCESSING MACHINERY CATALOGUE



“Excellence in Machinery since-1996”



WHITE TEA    YELLOW TEA    GREEN TEA    OOLONG    BLACK    POST -FERMENTED





# Who are we ? What we offer ? & What we deliver ?

## Who are We?

Tea Engineering Works, founded in 1996 by Mr. Suren Baruah, is a leading manufacturer and service provider of tea processing machinery based in Assam, India. With over two decades of expertise and the backing of the National Innovation Foundation India, we specialize in empowering both small tea growers and large-scale producers. Our mission is simple — to deliver quality, reliability, and innovation in every machine we build. With a client base of over 1000 tea producers across India and abroad, we are proud to be one of the most trusted names in the tea industry.

## What We Offer?

We provide a wide range of specialized tea processing machinery and services for CTC, Orthodox, Green, and Specialty teas, including:

Mini Tea Factory Plants, Dryers & Dehydrators, CTC Cutters, Rolling Table, Tea Breakers, Ghooghie, Arnott & Hamilton Type Sorters

Customized Fabrication & Assembly

Installation, Commissioning & Operator Training

Annual Maintenance & On-call Support Services

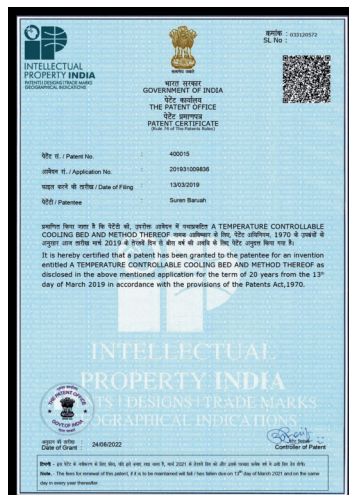
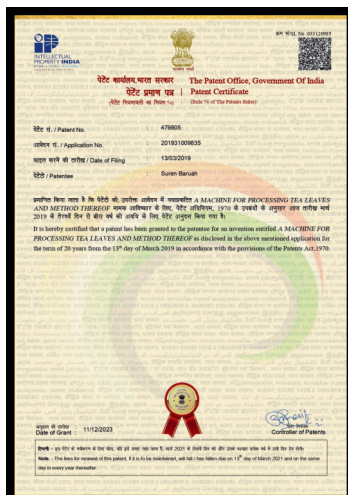
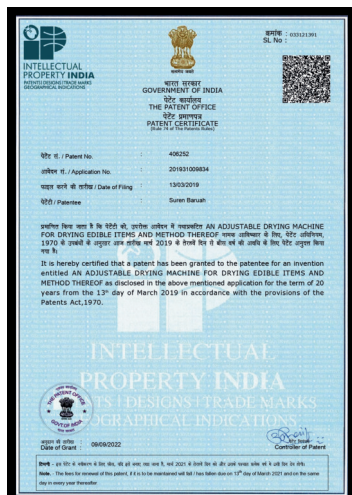
Our machinery is designed to enhance productivity, minimize waste, and maintain the natural flavour and quality of tea.

## What We Deliver?

At Tea Engineering Works, our delivery goes beyond machines:

- High-Performance Machinery – Built for durability, fuel efficiency, and ease of maintenance.
- Complete Project Execution – From consultation to installation and trials.
- On-Time Delivery – Machines and support services delivered as promised.
- After-Sales Service – Reliable assistance and prompt issue resolution.
- Customer Satisfaction – Quality craftsmanship and long-term partnerships.

## AWARDS & PATENTS



# Our Products and Specifications



## STEAMER

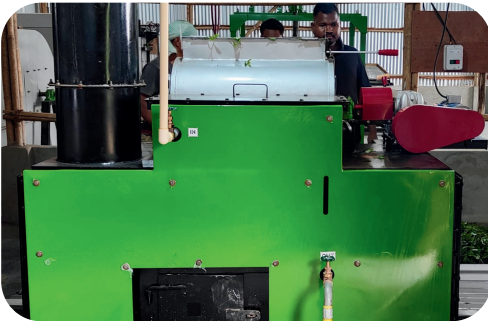
### BRAND : TEW

The Steamer machine is specifically designed for the efficient processing of green tea by steaming, a crucial step in halting oxidation to preserve the tea leaves' green color and delicate flavor.

#### Key Components and Functionality

##### 1. Water Tank with Seamless Pipe:

- The water tank is equipped with a seamless pipe that efficiently transfers heat from the heat chamber where fire is maintained. As the water heats up, it quickly reaches boiling point, generating steam.



##### 2. Stainless Steel (SS) Drum:

- The steam generated from the boiling water is directed into a stainless steel drum. This drum is where the tea leaves are placed for steaming. The use of stainless steel ensures durability, resistance to corrosion, and prevents any reaction with the tea leaves, preserving their natural quality.



##### 3. Comb-like SS Shaft:

- Inside the SS drum, a comb-like stainless steel shaft is installed. This shaft plays a crucial role in shuffling the tea leaves to ensure they are evenly exposed to the steam. The shaft is connected to a gearbox and motor, which drive the shuffling mechanism.



##### 4. Steaming Process:

- The process is designed to be quick and efficient, taking only about 2 minutes to steam the tea leaves thoroughly. The rapid steaming, combined with the consistent shuffling action, ensures that all tea leaves are uniformly processed, leading to a high-quality final product. This machine is ideal for Small & large-scale green tea production, where maintaining the natural characteristics of the tea leaves is essential. The efficient design ensures that the tea is processed quickly and uniformly, preserving its flavor and color.



### Available Colors





# Our Products and Specifications



## ROLLING TABLE

### BRAND : TEW

The Rolling table is an essential piece of machine in both green tea and orthodox tea processing. Its primary function is to shape and refine tea leaves, which is essential for enhancing the quality, flavour, and appearance of the final tea product.

#### Uses in Green Tea Processing:

In green tea production, the rolling table is used to form the tea leaves into specific shapes, such as spirals or balls. This process involves applying pressure to the tea leaves, which helps to break down cell walls, releasing essential oils and enzymes that enhance the tea's flavour and aroma. Additionally, the rolling process aids in reducing moisture content, which is vital for the preservation of green tea. Maintaining the vibrant green colour of the leaves is also a key outcome of this rolling process, as it ensures the tea meets high-quality standards.

#### Uses in Orthodox Tea Processing:

In the orthodox tea processing method, the rolling table is used after the withering stage. The primary goal during this stage is to twist the leaves, breaking their cell walls and allowing the juices to coat the surface. This action is critical for initiating oxidation (often referred to as fermentation), which greatly influences the tea's final flavor, color, and strength. The rolling process also plays a significant role in determining the different grades of tea, such as whole leaf, broken leaf, and fanning's, based on how the leaves are rolled and subsequently cut.

Overall, the tea rolling table is indispensable in tea production, as it directly contributes to the development of the tea's shape, texture, flavour profile, and overall quality.

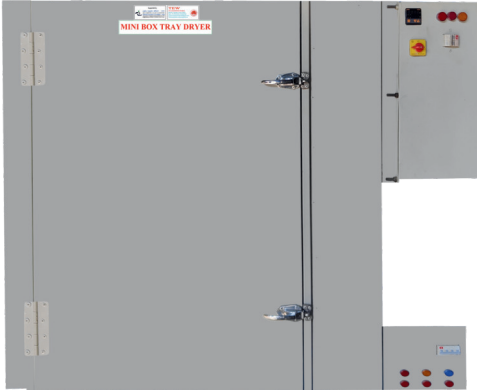


### Available Colors





# Our Products and Specifications



## MINI BOX TRAY DYER

### BRAND : TEW

The Mini Box tray dryer is a cutting-edge drying solution designed for efficiency and versatility. With 7 trays accommodating up to 20 kg, this machine is meticulously crafted to cater to the needs of small tea production units, specifically for orthodox and green tea. Its multipurpose design extends beyond tea leaves, allowing for the drying of various items such as vegetables, fruits, spices, Herbs and many more.

#### Key Features:

1. Tray Capacity: 7 trays, capable of handling up to 20 kg of tea leaves or other items in a single drying cycle.

#### 2. Dual Power System:

- IR Heating Technology: Consuming a mere 10 kW of electricity, it dries tea leaves efficiently in just 50 minutes, ensuring quick turnaround times.

- LPG Gas Integration: In Gas mode, it utilizes 1kg of gas per hour and approximately 1 kW of electricity, achieving effective drying in 45-50 minutes.

3. Combination Mode: The innovative combination mode allows simultaneous use of IR heater and LPG gas, reducing power consumption to 1kg of gas per hour and 6 kw of electricity. This mode ensures optimal efficiency and flexibility, with drying times ranging from 45 to 55 minutes.

4. Weather-Resistant Operation: Powered by both IR heating and LPG gas, ensures consistent and reliable performance in any weather condition.

5. Multipurpose Functionality: Beyond its primary use in tea production, this dryer proves to be a versatile asset for drying various items, making it an indispensable tool for diverse applications.



## Available Colors





## Our Products and Specifications



### EXT- GHOOGHIE

#### BRAND : TEW

The Ghooghie machine is used in Orthodox and Green tea manufacturing, specifically used for the sorting process after the tea leaves have been rolled. This machine is designed to handle the delicate task of separating tea leaves into different grades based on size, which is essential for maintaining the quality and consistency of the final tea product.

#### Key Features and Functionality:

1. Sorting Mechanism: The Ghooghie operates at an inclined position, and as it rotates, tea leaves fed from the feeding point to the discharge end. The machine's rotation, typically powered by a motor and gearbox operating at 25 to 30 RPM, ensures the gradual movement of leaves through various separating zones. Each zone is designed to filter leaves according to their particle size, thus performing the crucial grading task.

2. Efficiency in Operation: The design of the Ghooghie allows it to efficiently separate and sort the tea leaves, which is vital for producing high-quality Orthodox and Green tea. The controlled speed and inclined positioning enable an even distribution of leaves, minimizing the risk of damage and ensuring precise sorting.

3. Role in Tea Manufacturing: This machine is integral in the final stages of tea processing. By ensuring that the leaves are sorted accurately, it helps maintain the standard of the tea grades that go into the market. This is particularly important for premium teas, where consistency and quality are non-negotiable.

The Ghooghie, therefore, not only enhances the efficiency of tea processing but also plays a pivotal role in the overall quality control process in Orthodox and Green tea production



#### Available Colors





## Our Products and Specifications



### BSD DRYER

#### BRAND : TEW

The BSD Dryer, is a highly efficient drying solution catering to the diverse needs of both small and large-scale operations in green tea and orthodox tea processing unit. With its conventional design, this dryer incorporates conveyors fitted with perforated sheets, ensure ample drying capacity. Beyond tea processing, its adaptability extends to drying paddy items or other products as per market demands, making it a comprehensive solution suitable for a wide range of drying applications, affirming its versatility as an effective and adaptable drying solution for almost any drying requirement. With the flexibility of utilizing gas, coal, Electric or wood as a heating source, designed with focus on minimizing energy consumption while maximizing the output,

#### Key Features:

1. Fuel Flexibility: Easily operate with gas, wood, or coal, Electric providing versatility to accommodate your fuel preferences and availability
2. Tailored for Tea Processing: Specifically designed for green tea and orthodox tea processing, this dryer guarantees proper and effective drying, preserving the essence and flavor of your tea leaves.
3. Versatility in Application: Beyond tea, the BSD Dryer showcases its adaptability by efficiently drying spices and paddy items, offering a versatile solution for various processing needs.
4. Reliable Performance in Any Weather: Engineered to deliver consistent and efficient drying results, this dryer is resilient in all weather conditions, ensuring reliable performance regardless of external factors.



#### Available Colors





## Our Products and Specifications



### COMPACT HEATER

#### BRAND : TEW

The COMPACT HEATER is a versatile and efficient heat-generating machine designed to produce heat from burning various materials such as timber, wood, coal, and bamboo, etc. Featuring a robust MS (mild steel) body, this machine ensures durability and optimal heat production and transfer. It is equipped with a chimney for effective exhaust management and can be customized to fit for any drying chamber.

#### Key Features:

##### 1. Full MS Body:

Constructed with a sturdy mild steel body in a square shape, the COMPACT HEATER offers durability and high-temperature resistance.

##### 2. Seamless Pipe Integration:

Seamless pipes are fitted within the MS body to enhance heat absorption and distribution.

These pipes ensure uniform heating, maximizing the efficiency of the heat generation process.

##### 3. Versatile Fuel Options:

The COMPACT HEATER can burn various materials such as timber, wood, coal, and bamboo, providing flexibility in fuel sources.

##### 4. Efficient Heat Transfer:

An induced draft (ID) fan is incorporated to facilitate the flow of hot air from the heater to the drying chamber.

The ID fan ensures consistent and controlled airflow, optimizing the drying process in the connected chamber.

##### 5. Chimney for Exhaust Management:

Equipped with a chimney, the COMPACT HEATER efficiently manages exhaust gases, ensuring safe and clean operation.

The chimney directs smoke and combustion by-products away from the workspace, maintaining a healthy environment.



#### Available Colors





# Our Products and Specifications



## MYDDLETON SORTER

### BRAND : TEW

The Myddleton sorter is a primary Machine for Tea Sorting, The Myddleton Stalk Extractor, commonly known as the Myddleton Sorter, is an essential machine in the processing of orthodox tea. specifically designed to separate stalks, Fibers, before the grading process begins. This machine plays a crucial role in ensuring that the tea is free from unwanted stalks.

The Sorter operates with a simple yet effective mechanism. The machine consists of twin main frames, which can be constructed from either seasoned wood or steel, depending on the customer's preference. These frames are fitted with aluminium dimpled-perforated sieves that have small bosses with perforations at the top. The sieves are designed to separate the fine teas from the stalks and other larger particles through a controlled oscillating motion.



#### 1. Trays and Sieves:

Trays are made of thick aluminium sheets with perforations that vary depending on the sieve specification.

#### 2. Operation:

Tea is fed into the machine at a thickness of approximately 1.3 to 1.9 inches.

The oscillating motion, driven by a crankshaft revolving at 200 rpm, causes the tea leaves to move down the sloped trays.

As the tea moves, the fine leaves pass through the perforations, while the stalks, fibers, and larger particles slide over the bosses and are discharged at the end of the tray.

Available Colors



## Our Products and Specifications



### ARNOTT SORTER

#### BRAND : TEW

The Arnott Tea Sorter is a specialized machine used primarily in the tea industry to grade and sort tea leaves according to size. It is based on the Filtrate/Arnott principle, where the trays move back and forth at high speed through a short throw of the crank. This oscillating motion enables the efficient sorting of tea leaves as they pass through multiple decks of the machine, each equipped with s.s wire meshes of varying sizes.

#### Functionality

1. Tea Sorting and Grading: As tea passes through the machine's hopper, it moves forward due to the tray's oscillating motion. During this process, the tea passes through decks, each fitted with a ss wire mesh that filters the leaves according to size, ensuring accurate grading.

2. Adjustable Decks: The trays can be fitted with either Galvanized Iron (GI) or Stainless Steel (SS) wire meshes, depending on the user's requirements. Stainless steel is often preferred for its durability and ability to provide precise grading. The angle of the trays is adjustable to control the flow and sorting efficiency.

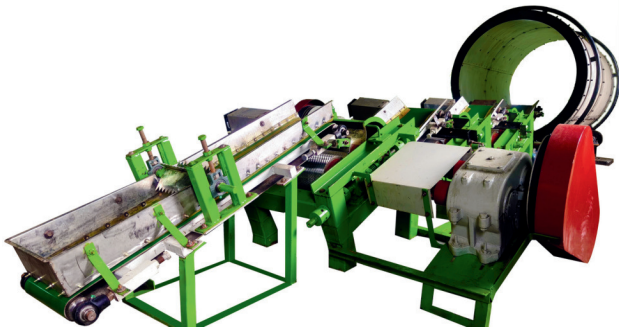


#### Available Colors





## Our Products and Specifications



### CTC MINI

#### BRAND: TEW

The Mini CTC (Crush, Tear, Curl) machine is a specialized tea processing equipment designed for the production of black tea. It efficiently crushes, tears, and curls withered tea leaves into uniform granules, facilitating enhanced oxidation and flavour development. Ideal for producing strong, brisk teas suitable for tea bags and loose-leaf packaging, this machine is widely used in commercial tea factories for its high output and consistent quality.



Cutting Capacity (CPT): 100-220 kg/hr (withered tea leaves, varies by model and configuration)

Dimensions: Length: 17 ft Width: 5 ft Height: 2.5 ft

Roller Specifications: This machine features cylindrical rollers with sharp teeth that rotate at different speeds to effectively break down the leaf structure, ensuring uniform granule formation. Roller Size: Outer Diameter: 8.5 inches, Length: 252 mm (varies as per CPT requirements)

Roller Material: Stainless Steel (SS 304, 8-18 optional)

Roller RPM: High Speed: 700 RPM (optional) Low Speed: 70 RPM (optional)

Roller Features: Easily detachable for maintenance and cleaning Simple to fit, run, and adjust for optimal performance



Conveyor Specifications: The machine is equipped with a conveyor system to ensure smooth and efficient movement of tea leaves during processing.

Conveyor Width: 300 mm, Conveyor Motors: variable Speed Range: 0-120 RPM (optional)

Power: 90 watts × 5 units (can be increased based on load requirements)

#### CTC Machine Motor Specifications

Motor Power: 3 HP × 3 units (for three pairs of cutting rollers)

Customization: Motor power can be increased based on load and production requirements

#### Key Features:

High Output and Consistency: Capable of processing 100-220 kg/hr. of withered tea leaves, delivering uniform granules for high-quality black tea production.

User-Friendly Design: Easy roller detachment, fitting, operation, and settings adjustment for seamless use. Robust construction with stainless steel rollers for durability and hygiene.

Versatility: Suitable for producing teas for both tea bags and loose-leaf packaging, meeting diverse market demands.

Customizable Configuration: Model size, roller length, motor power, and other specifications can be tailored to meet specific CPT requirements through their official channels.

Note: Specifications are subject to change based on advancements in design or specific customer requirements.

### Available Colors





## TEA ENGINEERING WORKS (TEW)



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