

Workson Industries



www.workson.in

Making Tea is an Art, We provide the Science behind it..

Workson Industries is one of the renowned names engaged in manufacturing and supplying a distinctive array of Tea Processing Machinery. Our Tea Machineries are widely acclaimed across the country for properties like robust construction, easy installation, high accuracy and safe & noise-free operation. Developed at par with the set industry standards.

We have gained expertise in designing and developing a superior range of Tea Processing Machinery for our clients as per the requirements stated by them. It is because of our specialized manufacturing unit that we are able to fabricate a world-class Tea Machineries in varied specifications. Furthermore, with the assistance of our meticulous team of experts, we are capable of attaining highest level of quality. This practice helps us to offer an impeccable range of products for our clients. Owing to our commitment to succeed and prosper in the respective field, we have been able to garner a rich clientele in the domestic market.

We are continuously progressing under the proficient and dynamic leadership of our mentor, Mr. Inderpal Singh, who hails from a family having over 60 years of experience in Manufacturing Tea Machinery. His sharp business acumen and visionary approach have helped us in winning the trust of our clients spread across the domestic market.

WORKSON INDUSTRIES
(KOLKATA, INDIA)



WITHERING TROUGH FAN



The range of Quality Axial Flow Fans offered by us is widely known for their high efficiency which is in accordance with air Flow and static pressure requirements. These fans are available in an exclusive range of air quantities and for low/medium/high pressure applications in industrial ventilation systems. Our range consists cast aluminum alloys impellers with high efficiently section blades and mounted either directly on motor shaft 'or on fan shaft supported by bearings and the fans are robust in construction

ROTARY SHIFTER



Ghoogie shifter machine fitted with aluminum blank conical / parallel shell with absolute also finish in all joints for bacteria free surface also providing 2 different speed systems for better liquor etc.

ROTORVANE



We offer a comprehensive range of Rotor Vanes which is designed using high quality raw material. These Rotor Vane Machines are ideal preconditioner for the present day requirement of the tea Industry. In order to improvise the performance of the machine, a great deal of developments have been made for its smoother and trouble free operations.

VIBRO GREEN LEAF SIFTER

Our range of Green Tea Leaf Sifter is available with the following features and specifications:



For quality control it is necessary to have a constant feed to the Rotor Vane and then to the CTC Cutting Rollers. Piling of leaf behind the Spreader of the feed Conveyor does not ensure this fully and it is necessary to have a regulated feed to the Rotor Vane.

For this purpose we have developed a unique machine which gives a controlled feed and also removes any foreign matter and dust from the Withered Leaf before it goes for processing.

CUT TEAR CURL (CTC) MACHINE



CONSTRUCTION

- 100% alloy graded casting
- 16.50 inclined frame design
- Known for rigid construction
- Vibration free

LOW HEIGHT

- Reduced height for clear view
- Better and accurate roller setting
- Easy maintenance

CONVEYOR BELT & DRIVE

- Traditional full proof chain and sprocket drive- No Slippage- Minimum maintenance cost
- Imported PVC zero tracking belt
- Durable hygienic

CARTIDGE BEARING

- Sealed within steel case to ensure longer life of bearing
- Doesn't require to remove bearing at the time of sharpening
- Increase roller shaft life

ZERO SPILLAGE

- Specially designed and synchronized for "ZERO" spillage



CENTRALISED COOLING ARRANGEMENT

- Twin discharge duct :- For slow speed roller: low volume High pressure: For conveyor : High volume low pressure
- Unique system which keeps the main areas cool, when heat is generated .

MICRO DIAL & AUTO DE-JAMMING SYSTEM

- Heavy duty- located in both sides
- Fine graduation for correct engagement.
- Easy synchronized bearing cum CAM mechanism
- Separates rollers automatically and re engages in previous settings

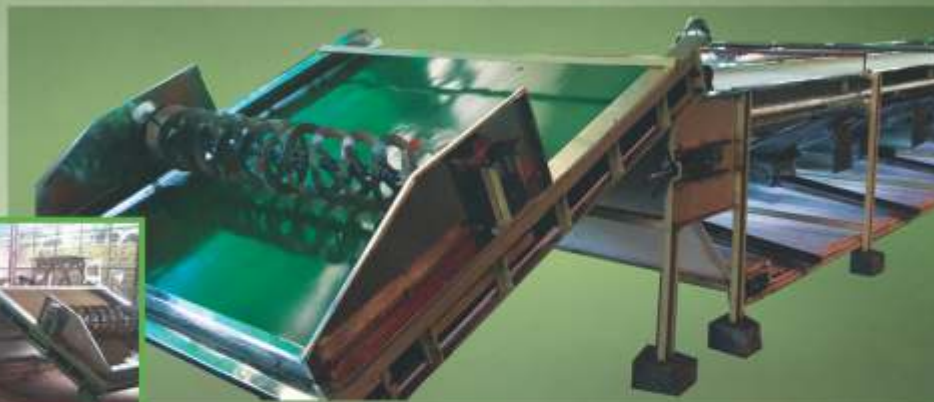
MICROMESH CONTROLLER

- Inbuilt synchronized mechanism
- Capable to adjust up to 0.3 mm
- Graduation control led from one side
- Finer cut

Model	Jumbo 13"	Jumbo 13"	9/2" & 8/2"	9/2" & 8/2"
	Legionnaire 1067-42"	Legionnaire 914-36"	Legionnaire 1067-42"	Legionnaire 914-36"
Output W/L	900-1000 kg	700-900 kg	800-900 kg	600-700 kg
Normal C.T.C. Used with 8/10 T.P.I Rollers				
Normal	25-20-20-20	25-20-20-20	20-15-15-15	20-15-15-15

CONTINUOUS FERMENTING MACHINE

A continuous fermenting machine for Oxidation of dhool, specially designed to give even and complete fermentation throughout. The machine helps to enhance brightness, infusion, liquor quality and pungency.



PANEL BOARD.

- Steel fabricated power coated dust proof enclosed control panel and Suitable for 415 V / 3 phase 50 hz supply Inclusive of digital drive for mesh belt speed control, main switch, voltmeter, star delta, DOL Starters, overload indicators, MCB Digital display of R.H Temperature.

BLOWER.

- M.S Heavy duty blower, dynamically balanced impeller, centralised air controlling damper, gives desired CFM with 2"-2.5" WG Pressure, Mist chamber with humidifiers having one air washer, allows only humid air and arrests water connected with the suction of the blower.



SS PLENUM CHAMBER

- SS plenum chamber with an as heavy section fabricated modules and each module Has a damper to control desired air pressure.

ROTARY BRUSH & UPTURNER MECHANISM & FEED UNIT.

- At the discharge end with drive assembly to clean CFM main mesh belt during operation.
- At the middle of the CFM with independent drive facilitates upturning of dhool to avoid uneven fermentation.
- The feed is inclined conveyer, having helical spreader with combined drive and the conveyor belt provided is zero tracking device with stainless steel side gaurds for spillage with heavy duty structure.

MODULAR TYPE : 2m x 2m Width

All Dimension are in meter

Model	Machine Length	Feed Conv. Length	Total Length	Blower Motor (HP)	Main Drive Motor (HP)	Capacity W/L (KGS)
6	12.3	2	14.8	5	3	950
7	14.2	2	16.7	5	3	1100
8	16.1	2	18.6	7.5	5	1200
9	18	2	20.5	7.5	5	1350
10	20	2	22.5	10	5	1500

MODULAR TYPE : 2m x 2.5m Width

Model	Machine Length	Feed Conv. Length	Total Length	Blower Motor (HP)	Main Drive Motor (HP)	Capacity W/L (KGS)
6	12.3	2.5	14.8	5	3	1150
7	14.2	2.5	16.7	7.5	5	1300
8	16.1	2.5	18.6	7.5	5	1500
9	18	2.5	20.5	10	5	1650
10	20	2.5	22.5	10	5	1800



CFM BLOWER

VIBRO FLUID BED DRYER

Workson's Vibro Fluid Bed drier works on the principle of vibrating fluidized bed. The fermented tea is dried very efficiently by a controlled, uniform flow of hot air. The tea leaf is carried to the drying chamber through a feed conveyor system into the stainless steel perforated plate which is fixed on the chamber. The plenum chamber vibrates where a mixture of cold air and hot air is introduced to the leaf through a perforated stainless steel grid plate.

The tea leaves are effectively fluidized by a combination hot air and mechanical vibration of the grid plates. The hot air removes the moisture from the wet tea and make the particle bubble like fluid. This way we achieve best quality of tea and bloom and blackish colour teas which are in demand after drying.



CONSTRUCTION

The drier has a feed conveyor system which delivers the wet tea leaves into the drying chamber. The vibrating chamber is fitted with a perforated grid plate under which hot air is forced through the grid plates in a uniform manner from the plenum chamber. The hot air duct is aerodynamically designed to force air through the bed in a controlled manner. The vibration is created from an eccentric drive transmitting to the drying chamber which rests on a number of specially designed spring blades. The vibration is smooth, giving uniform flow of air through the grid plate and the wet leaf moves forward in a fluidized manner and is dried in the process. The drier is constructed very strongly and fabricated base frame and carbon steel plenum chamber which is well insulated to give maximum thermal efficiency. All contact parts of the fermented tea is on stainless steel of high grade.



CONTROL PANEL

The electronic control panel with high sensitive tripping system for the protection of the equipment is supplied with the machine. IIRC fuses are used, indicator lamps are provided for overlapping tripping. Temperature indicators and single point controller are introduced through sensors to see the temperature inside the drying chamber.

GRID PLATE

Stainless steel 304 grade sheet of heavy gauge is carefully perforated to make the air flow through this in a controlled manner and gives forward direction of fluidization. This determines the quality of the product from the drier.



SALIENT FEATURES

- Perfect fluidization
- Operational longevity: rigid construction.
- High fuel efficiency. Savings in fuel consumption.
- Superior quality of tea; Blacker teas, Brighter infusion, Longer shelf life
- Negligible maintenance.
- Environmentally Sustainable and Friendly: No fly off
- Flexible Design: Compatible with different grades of teas.
- Centralized control and monitoring.
- Adaptable to any kind of heater.
- Negligible inventory of spares parts.
- Contact parts of stainless steel.

MODEL	WORKSON-100	WORKSON-200	WORKSON-300	WORKSON-400
Capacity of Made Tea	85-100kg/hr.	180-200kg/hr.	270-300 kg/hr.	370-400 kg/hr.
Water Evaporation	200 kg/hr.	405kg/hr.	690 kg/hr.	1030 kg/hr.
Size of Drying Chamber	5450x1000 mm.	5700x1070 mm	8535x1070 mm.	8535x1650mm.
Drying System	10KW(13.5 HP.)	17.25KW(23HP.)	21.75 KW (29 HP.)	38.25KW (51 HP.)
Dust Collection	5.2 KW(7 HP.)	9.37KW(12.5HP.)	13.5KW(18 HP.)	13.4KW (18 HP.)

SORTING MACHINERY



Jumbo Pre Grader Cum Fibre Extractor

- Unperforated dimple sheet helps in easy floating of fibre for easy pick up by fibre roller.
- Pre grading through 10 mesh stainless steel screen.
- 6 PVC Rollers take their drive from the speed reduction system.
- Quality roller chains and sprockets ensure a smooth drive for PVC rollers.
- Power required-2 HP



Slow Speed Fibre Extractor

- Designed to remove fibre in CTC teas.
- Fitted with 4 x 30 cms diameter rollers moving at very slow speeds for effective picking of fibre.
- The remains untouched by the rollers.
- The PVC rollers are easily adjustable and have a locking arrangement.
- Low cost maintenance.



Trinick Sorter

- Designed for Sorting of Tea.
- Single deck with 5 stainless steel meshes.
- Meshes available as per your requirement.
- Easily changeable meshes to adjust to your seasonal needs.
- Noiseless and steady operation.
- Minimum foundation work required as the machine has inbuilt chassis.
- One machine may sort about 400 Kgs per hour for smaller factories.
- Power required – 1 HP



Trinick Sorter Cum Fibre Extractor

- Designed for Sorting of Tea along with fibre cleaning
- Single deck with 5 stainless steel meshes.
- Easily changeable meshes to adjust to your seasonal needs.
- 4 x 300mm (12") PVC rollers running at Slow Speed.
- Ensures absolutely clean teas without loss of bloom
- Requires only 1 HP as compared to over 3 HP required by conventional models.

CTC ROLLER SHARPENING MACHINERY

Milling Cum Grooving Machine

- Machine is suitable for one-man operation.
- Requires minimum maintenance.
- It gives trouble free service with high efficiency throughout its life.
- It is capable of circumferential grooves as well as milling of Standard 8" upto 13" dia CTC roller.
- It has an automatic cutter traverse from 2-speed special gearbox, one forward and one rapid return.
- It comprises of heavy duty roller, fitted with 3 pairs of roller bearing and 4 jaw dog – chunk.
- Machine is complete in all respects, fitted with motor, starter, limit switches, coolant pump 380/440 Volts.



Milling Machine

- The machine are constructed with the latest production methods & satisfy the highest demands as regards quality precision of geometry & function are, therefore, granted.
- Dividing head is provided for milling 40, 50, 60, 70, 80, 95, 100, 120, & 130 Nos. of helix.
- Capable of cutting helical groove on 8" to 13" Dia segments at 600, 650, 680 & 700 angle.
- Supplied with electric motor, starter, gear box & coolant pump 380/440 V.



General Purpose Lathe With Chasing Attachment

- Specially designed for continuous light and heavy duty jobs.
- Fitted with 3 speed semi Norton Gear Box, Head stock Fitted with taper Roller bearing.
- Machine having bed length 10 feet, width 18" and height of centre 16" fitted with chasing attachment and Independent chuck.
- Complete with electricals.



Tool Cutter Cum Chaser Grinder

- Sturdy & Simple to operate.
- Suitable to grind Cutter & Chaser separately
- Supplied with 440 V 3 Phase A.C. Motor & Starter.
- Limit stops are provided to avoid fouling of grinding wheel.
- Accurate grinding of sides & face.
- Supplied with Grinding wheel & Diamond Dresser .
- Cutter mounting spindle fitted on Taper Roller Bearing for smooth rotation.
- Unique indexing arrangement for cutter.
- Fine feed adjustments for minimal loss of metal during grinding.



OTHER MISCELLINIOUS MACHINERY



CTC Roller Inspection Bench

- Specially designed for proper meshing of High Speed and Slow Speed CTC Rollers.
- Suitable to inspect CTC Rollers of diameter Ranging from 8 ½ " to 13" and length from 24" to 52".
- Easy viewing through illuminated fluroescent tube .
- Mounted on 4 swivelling castor wheels for easy movement in workshop.
- Provision for sideways movement through 2 lead screws.
- Provided with Ball Bearing for easy rotation



Arnot Sorter

- Machine is supposed on a heavy and Sturdy MS Structure.
- Double acting crank shaft is mounted on heavy MS frame with robust bearing housing pulley and fly wheel, suitable for motor drive.
- All wooden frame are made of high quality seasoned wood.
- Wire mesh tensioning system to facilitate smooth flow of tea particles.
- Provided facility to change inclination of Deck to control grade.
- Power required 2 HP



Tea Roller (Rolling Table)

- Special asymmetric well and ledge battern table.
- Free floating pressure cap.
- New methods of guiding the pressure cap.
- Tilting pressure cap to facilitate reading.
- Large capacity bearings to ensures long trouble free life.
- Permanent location of bevel gears.
- Mechanical devices for operating the pressure caps.
- Standard components throughout there by covering the whole range of rollers with one set of spares.
- Its two tone finish will greatly enhance its look.
- Rack & Worm one piece door.



CONVENTIONAN DRIER.

- Circuit Tray type Tea Dryer for CTC, Orthodox and green tea.
- Optimise production.
- Maintain liquor Quality.
- High Evaporation per kg of tea.
- Lower Fuel Consumption.
- Give higher output.
- Back side of the drier with hot air fan.
- Drive arrangement.

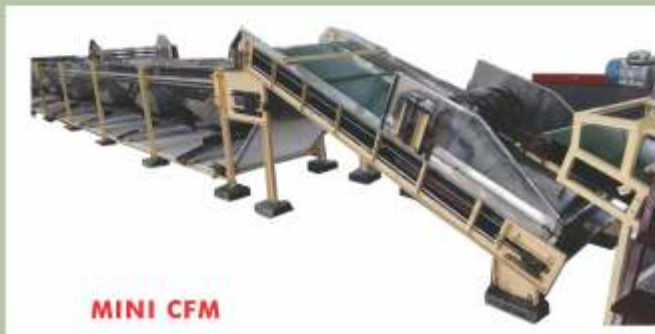
MINI CTC PLANT MACHNIRY



MINI ROTOVANE



MINI CTC LINE



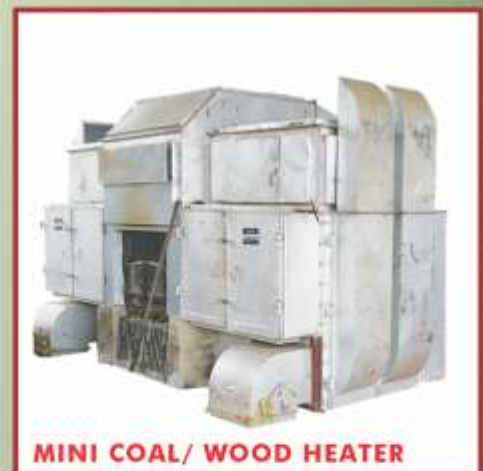
MINI CFM



**CONVEYOR
SYSTEM**



MINI VFBD DRIER



MINI COAL/ WOOD HEATER



**MINI FIBRE
EXTRACTOR**



VIBRO SCREEN SORTER



CTC SEGMENT



SPOT HUMIDIFIER



CHASER



CUTTER

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