INTEGRAL ENGINEERING

A -14D, PRIVATE Industrial Estate, Opposite to SIDCO - BSNL TELEPHONE EXCHANGE
Coimbatore –Tamilnadu State – India – 641021
Visit us: www.integralengg.com Write to us to our email id: info@integralengg.com

We Integral Engineering introduce ourselves as

- Manufacturer of Agricultural Machineries

➢ **(For Coffee , Maize / Millet /Cocoa)**

- **Plantation Processing Machinery**
- **Pre cleaning machinery**
- **Hulling and Polishing machinery**
- **Grading machinery**
- **Coffee Roasters and Grinders**

COFFEE PROCESSING:

I. WET PROCESSING:

a. In put – Ripe cherry Fruits coffee  Thro' Wet Pulping & Washing (Mucilage removing) operations with the usages of Pulper and Washer machinery & Fermented coffee the

= Output would be = Wet Parchment Coffee



= After Sundry the following type of the called as



Dry Parchment coffee – Washed Coffee (After Sundry).

b. In put – Ripe cherry Fruits coffee  Thro' SUNDRY only = the output would be



Dry Cherry Coffee – Unwashed coffee.

II. DRY PROCESSING:

The above Dry Parchment & Dry Cherry coffee used with Coffee Curing (or) Coffee Dry Mill Plant different type of Machinery = the output would be = Graded Green Coffee Beans – For Next operation as Coffee Roasting (OR) For Export.



GREEN COFFEE BEANS.

MINI COFFEE ROASTER PROCESSING DETAILS:

I. INPUT COFFEE:





Dry Parchment coffee – Washed Coffee **(or)** ***Dry Cherry Coffee – Unwashed coffee.***

To Hulling thro' *Peeler & Polisher Machinery* / To Hulling thro' *Coffee Huller Machinery*

THE OUTPUT COFFEE is = *Green Bean Coffee*



BULK GREEN COFFEE BEANS

mixed with all types of Grade coffee.

Integral Engineering

To use *VIBRO COFFEE GRADER MACHINERY*, the output is



Graded Green Coffee Beans – Uniform Sizes of beans.

To use *Coffee Roaster Machinery*, the output is



Roasted Coffee Beans

To use *Coffee Grinder Machinery*, the output is



Coffee Powder

Prepared By: R. Balamurugan.

About Integral Engineering

- **Introduction:**

- Integral Engineering Coffee Processing machineries are renowned worldwide for its quality and durability.
- We are manufacturing the machineries with the aid of unrivalled experience and knowledge.
- We are capable to forge both literally and metaphorically to the forefront of most competitive industry.
- We feel proud to introduce ourselves as a leading manufacturer specializing Coffee processing Machineries are being manufacture and sold, installed successfully globally in growing Countries, including India.
- We offer wide range of Machineries for the Wet, Dry and Roasters process of coffee, inclusive of Dry Mill Plant and Coffee Plantations side.
- Integral Engineering Dry Mill Plant area of its Design to ensure user friendly, flexible, Adaptable and the machine are being building to last for many years of trouble-free operation. Our system takes Care of the whole process efficiently and reliably.
- We conceptualize and design the supply of fully automated plant which will be laid out in such a manner that it will deliver green coffee beans, from parchment coffee input in such a form that they can be marketed in various Stages, all adding considerable value to the coffee through efficient processing and rendering high yields and Better monetary returns.
- Integral Engineering will undertake to supply all kind of machinery on turnkey basis .

I. COFFEE WET MILL PROCESS (PULPING)



- ✓ Pre-Cleaner for Ripe cherries,
- ✓ Green cherry (Bean) separations,
- ✓ Pulping, Ecological Coffee vertical Pulper,
- ✓ Drum Pulper / Mini Disc Pulper/ Disc pulpers
- ✓ Rotary sieve assembly,
- ✓ Re passer Pulper,
- ✓ Vertical Washer / (Aqua) Mucilage Remover,
- ✓ Integral Aagard Belt type Pre Grader,
- ✓ Siphon Type Aagard Pre Grader.
- ✓ Rotary Coffee Dryer for Cherry, Parchment & Green Beans Coffee.
- ✓ Storage silos, Elevators,
- ✓ Pulper Skin dispose Screw conveyors,

Integral's Mini Disc Coffee Pulper – Hand Operated Machinery





- The Pulper Disc is specially designed to pulp Arabica & Robusta coffee varieties.
- It builds made with Solid Cast Iron Pulper Disc having 13 inches diameter grey cast iron & special solid button in single Disc.

➢ Highest quality of M.S. Cold Roll sheets for all sheet metal components and are fully powder coated for good finish and high quality to Prevent rust also.

Integral's MINI Disc Coffee Pulping Machinery coupled with 1 HP Motor -SINGLE PHASE GEAR MOTOR Assembly COUPLED



- It made with chop rails, pulping knife assembly, Input Hopper assembly along with foundation bolts Etc.
- Mini Pulper Disc = 13" Diameter = 1 No.
- Chop rails & Pulping Knife Assembly = LH/RH = Each 1 No.
- 1 HP Gear Motor with Single Phases, 50 Hz, 215 Volts.

Integral's Mini Discs Coffee Pulper & Mini Horizontal Washer Machinery Coupled with 10 BHP

Self -Start Diesel Engine with Battery Supported and ON/OFF Switch options



MINI Discs Coffee Pulper machinery:

- The Mini Disc Coffee Pulper machinery made with Long Leg, Large Hopper with control assembly, Rigid Chop Rails with Pulping knife assembly.
  Horizontal washer machinery as Mucilage Remover machinery for wet Parchment Coffee: (To suit for the above Coffee Pulper Machinery):
- It removes mucilage from the wet parchment coffee sprightly from the Coffee Pulper output coffee.
- The mucilage is removed by the friction between the beans them self and the machine body in a gentle way with the help of pressure water to ensure the good quality of the final product.

Integral's Coffee Drum Pulper Machinery

DRUM PULPER





SPARE PARTS LIST OF DRUM PULPER

01. FEED ROLLER
02. FEED ROLLER BUSH -- 2 Nos
03.SS PERFORATED SHEET
04. BREAST PLATE
05. MAIN SHAFT
06. SHAFT BEARINGS- 2 Nos
07. HOPPER ASSEMBLY- 1 SET
08. SIDE PANEL - RH & LH - 1 SET
09. FRONT CROSS MEMBER - 1 SET
10. REAR CROSS MEMBER - 1 SET
11. BOTTOM PLATE
12. 36 T SPROCKET
13. 15 T SPROCKET
14. CHAIN

Features

- Integral Drum pulper is used for processing Ripe Coffee fruit. This will decorticate the outer skin and segregate the parchment separately. Used widely used in Coffee plantation to process the Cherry.
- Central Roller fitted with SS crescent shaped screen is the heart of this pulper does the pulping process
- The central roller is operated by a hand wheel fitted with handle and attached to the feed roller mounted inside the hopper with Chain and Sprocket assembly
- Consist of Breast plate which can be adjusted front and back according to size of the cherry so that cuts and bits can be eliminated.

INTEGRAL ENGINEERING

EQUIPPED TO BUILD EVERLASTING MACHINERY

COFFEE PULPER – DRUM TUPE

Hand-Operated and Motorised





Hand-Operated



Diesel Engine Coupled



Ripe Coffee Cherry



Parchment

COFFEE PULPER – DRUM TUPE

Hand-Operated and Motorised

PURPOSE

We developed of this model to for small farmers. Also to improve the export market.

APPLICATION

This machine is used for processing Arabis & Robusta Ripe coffee fruit. This will decorticate the outer skin and segregate the skin and wet parchment separately. Used widely in coffee plantation sector to process the cherry.

DESCRIPTION

This is a drum pulper machine consists a central roller made of aluminium with crescent shaped projection all over the drum. Rotating and wheel attached with this operates this drum. In order to uniformly feed the fruit, it is constructed with feed roller assembly. For which chain assembly is used.

Central chamber consists of breast assembly, which can be slightly moved inward pf outward to adjust according to the size of the incoming fruit. This fruit is being feed thought the inlet hopper, made of Sheet Matel. Then the fruit is uniformly passing through the inner chamber, with the help of feed roller. The fruit which enters the inner chamber has been squeezed between the central drum and the breast, in such a way that the fruit and the skin separates excellently.

Total central assembly is mounted on to side member RH and side member LH, which provide support to the entire assembly. Front cross member and rear cross member provide support to the breast assembly.

SPARE PARTS LIST

Sl.No	Description	Qty
1	Side Frame (L.H)	1
2	Side Frame (R.H)	1
3	Drum Assembly	1
4	Lower Cross Member	1
5	Rear Cross Member	1
6	Front Cross Member	1
7	Feed Roller	1
8	Bush	1
9	Aluminium Breast Plate	1
10	Adjuster plate L.H	1
11	Adjuster plate R.H	1
12	Sprocket 36T	1
13	Sprocket 15T	1
14	Chain (8mm)	1
15	Handle	1
16	Plastic Handle	1
17	Hopper	1



TECHNICAL SPECIFICATIONS:

Description	Power required in HP/BHP	Input Capacity of Ripe cherry fruits in Kg	Machine Net Weight in Kg	Water Consumption Kg/Lit	Gross Weight in Kg	Shipping Volume in Cu. meters.
Hand Operated	-	75-100	18	0.150	25	0.10
Motorised	1 Hp	400-500	78	0.150	100	0.30

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INTEGRAL ENGINEERING

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MINI DISC COFFEE PULPER



Hand-Operated



1 HP Gear Motor Coupled



1 HP single phase



Hand-Operated

MINI DISC COFFEE PULPER

GOAL:

Integral Engineering takes great pleasure in introducing Mini Disc Coffee Pulper machinery which is specially made for small coffee growers of the coffee world. We took special care while designing to give the coffee Growers high quality of coffee and the yield factory

APPLICATION & WORKING PRINCIPLE:

Pulping involves removal of outer red skin (exocarp), white fleshy pulp (mesocarp), separation of the pulp and wet parchment coffee. Two of our most common Pulpers which are most suitable for small-scale units are the down Pulper and the disc pulper

In the case of Disc Pulper, the cherries are being squeezed between a Pulper chopper knife and disc. Our pulper Disc is specially designed to pulp Arabia & Robusta coffee varieties. We use CNC technology while making master pattern's which ensures all the Pulper Disc "BULB PROFILES" are exactly the same in DIMENSIONS and Measurements in each segment. We have EXTENDED BULB PROFILE to achieve excellent results.

Our Pulper Disc's special feature of protruding bulbs on both sides is a unique segment pattern. Pulping is done with a squeezing action of disc bulbs and lateral pulping bars (Rigid Choppers). Gap between them can be adjusted as per the coffee variety. The Capacities on Robusta Coffee are slightly lower than Arabica coffee.

MACHINERY SALIENT FEATURES:

- Integral machines are having disc of 13'' diameter made of Gray Cast iron with solid button profile
- The Rigid choppers enable the machine for easy adjustment and are also very robust with rust prevention.
- The ripe cherry fruit's process dose not depend any more on the need for great quantities of water.
- We use highest quality of G.I. sheets for all sheet Matel components and are fully powder coated for good finish and high quality.
- Pillow block bearing are fitted to rotate the hand wheel freely.
- Common for Arabica/Robusta and other varieties.
- Dispatched in fully assembled condition for immediate usage. Advanced Engineering for long lasting, after sale support, spare parts supply to support continues and trouble-free operation.
- We manufacture and supply optimum quality of Mini disc pulpers in the market.

Technical Specifications:

Description	Input Capacity of Ripe Cheery Fruits Coffee in Kg/Hr	Power Required in HP/BHP	Net Weight in Kg	Gross Weight in Kg	Shipping Volume in Cu.Meters
Mini Disc Coffee Pulper-Head Operated	400-500	-	77.00	110.00	0.58
Mini Disc Coffee Pulper coupled with Motorised (or) Diesel Engine	800-1000	1 HP/3.5 BHP Diesel Engine	110.00	150.00	0.85

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I. COFFEE CURING as DRY MILL PLANT PROCESSING MACHINERY :



- ✓ Dry – De Stoner Machinery.
- ✓ Dry - Pre Cleaner Machinery.
- ✓ Africa Coffee Hullers Machinery: To Hull the Natural Dry Cherry Coffee as Mbuni Coffee.
- ✓ Huller with Peeler and Polisher Machinery : To hull exclusively Dry parchment Coffee.
- ✓ Pneumatic Separator as Catador as Winnower Machinery.
- ✓ Densimetric (Gravity) Table as Gravity Table Machinery.
- ✓ Vibro & Flat Deck Graders Size Grading Machinery for Green Bean Coffee.
- ✓ Peaberry Separator for Green Coffee.
- ✓ Coffee Colour Sorter machinery to sort out Black & Defective coffees.
- ✓ Green Coffee Storage Silos To store Coffee in Bulk Qty.
- ✓ Receiving Hoppers to Uniform feed to the coffee.
- ✓ Coffee Sorting & Inspection Table for Women Garbling Tables.
- ✓ Automatic Green coffee Bag weighing.
- ✓ Jute Bags Sewing & Stitching Machinery
- ✓ Green Coffee Belt conveyors

Coffee Lab Equipment's Machinery



a. Sample huller with Peeler & Polisher Machinery to exclusively Dry Parchment.
b. Small Cherry Huller for Dry Cherry Coffee & Dry Parchment Coffee.
c. Vibro Grader for Green Coffee Beans.
d. Sample Test Sieves with Wooden Rack Assembly.
e. Coffee Digital Moisture meter for 3 Types of Cherry, Parchment & Green coffee to check Moisture % before start for Next Processing.
f. S. S. Coffee Pokers for Samples Taken from Packed Coffee with Gunny Bags.
g. Sample Coffee Roaster : To check the Quality of Coffee Beans
h. Sample coffee Grinder: To be Grind the Roasted Coffee Beans.

I. Coffee Roasting Plant Machinery:

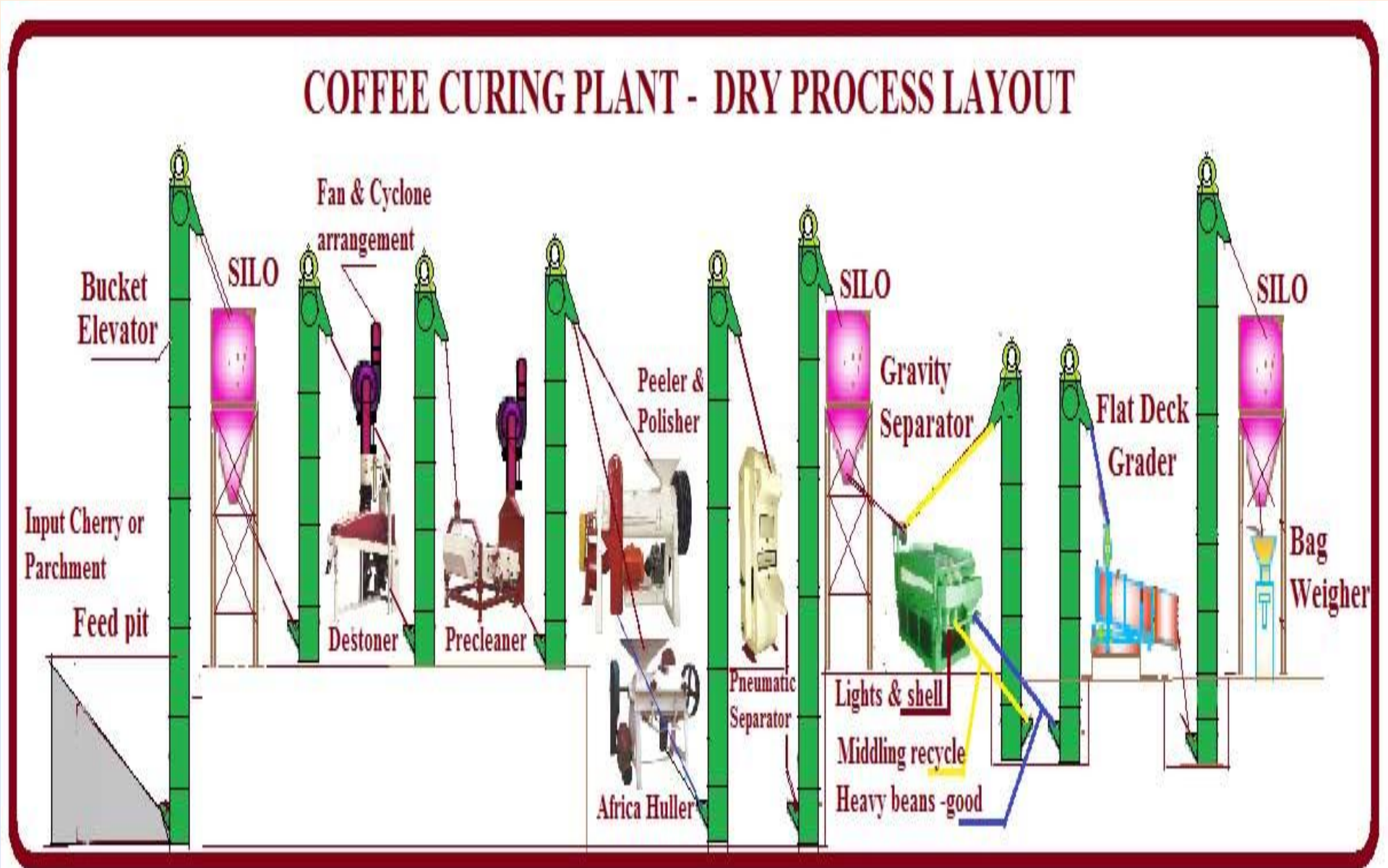
- ✓ Industrial Coffee Roasting machinery.
- ✓ Destoner for Roasted Green Coffee.
- ✓ Air Conveyor for Green Coffee Feeding.
- ✓ Coffee Grinder.
- ✓ S.S. Coffee Blender as Mixer.
- ✓ Coffee Powder Packing Machinery.
- ✓ Inclined S.S. - Screw conveyor Machinery.
- ✓ Semi Automatic & Automatic Powder filling machinery.
- ✓ Super Sealer as Continues Band sealing machinery.
- ✓ Suitable Control Panels assembly for the above machinery.

Integral Engg's Coffee Curing Plant as Coffee Dry Mill Plant Machinery

Integral Engineering Coffee Processing machinery details for the proposed NEW project

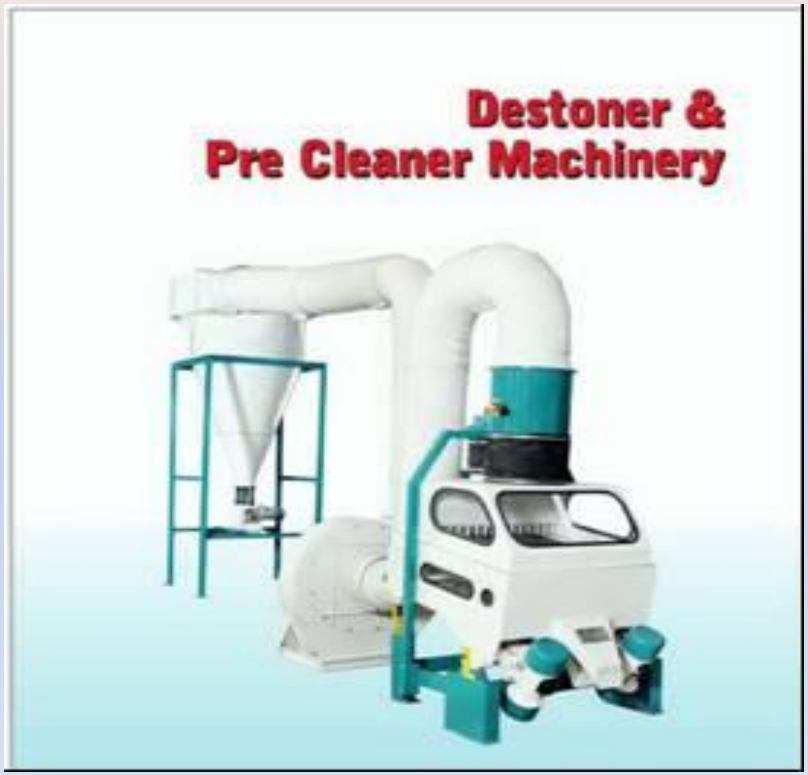
- **Vibro De Stoner with Pre Cleaner combined machinery consists of Cyclone aspiration, Airlock system to remove the foreign particles, stones & heavy impurities from raw dry parchment coffee.**
- **Huller and Peeler with Polisher machinery to process in exclusively Dry Parchment Coffee.**
- **Closed Circuit Catador as Pneumatic Separator machinery to separate dust, shells, immature beans, stones and extraneous matter.**
- **Densimetric table as Gravity separator machinery is using for separating the same size of products with different Specific weight & density.**
- **Flat Deck Size Grader to sort different grades of Green Bean Coffee .**
- **Elevators to convey dry parchment coffee /Green bean coffee between the machinery, towards continuous operations as uniform feeding.**

Integral Engineering – Coffee Curing Plant as Coffee Dry Mill Plant Layout - General Layout



Integral Classifier
Pre cleaner cum De-Stoner Machinery

Destoner Model



Features

- **Vibro De Stoner with Pre Cleaner combined machinery consists of Cyclone aspiration, Airlock system to remove the foreign particles, stones & heavy impurities and Iron Particles from raw dry parchment coffee.**

Pre cleaner cum De stoner with Cyclone



Integral Engg's – Hulling with Peeler and Polisher Machinery Details

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EQUIPPED TO BUILD EVERLASTING MACHINERY

PEELER & POLISHER MACHINERY



IE – PP1



IE – PP2



IE – PP3



IE – PP4



IE – PP5`

PEELER & POLISHER MACHINERY

SALIENT FEATURES

Integral peeler polisher is used to peel the parchment skin and polishes the green coffee bean and similarly for other agriculture products too.

Peeler polisher will provide best polish provided the moisture content should be less than 11%with high moisture content machine will be struck and with the lesser moisture content the coffee beans will get break

TECHNICAL SPECIFICATIONS:

SI.NO	Description	IE - PP1	IE – PP2	IE – PP3	IE – PP4	IE -PP5
1	Output of green coffee Kg/Hr	1800 - 2000	800 - 1000	450 - 500	90 - 100	10 - 25
2	Cone speed in RPM	60	80	120	150	180
3	Horse power of the machinery	40	20	10	2.5	1
4	Horse power of blower	5	3	2	1	0
5	Gross weight in Kg	2200	1250	1050	450	170
6	Nett weight in Kg	1500	850	600	250	100
7	Shipping volume in m^3	6	4.5	4	2.5	0.8

- Specifications are subject to change
- Output capacities are indicated at factory testing condition and it may vary at site condition
- The machinery may be despatched at dismantled condition as sub assembly



DRY PARCHMENT COFFEE



GREEN BEAN COFFEE

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Integral's Peeler Polisher Machinery to hull Exclusively the Dry Parchment Coffee





Special Features:

- ✓ The Dry parchment coffee at this stage has two skins, one outer parchment skin, and an inner, silver skin. These have to be removed.
- ✓ This machine consists of a barrel. Inside is a fluted cone, and inside the cover are two fluted liners.
- ✓ The machine revolves at very slow speed; thus, it is very kind to the coffee and does not generate any excessive heat or damage the coffee while processing.
- ✓ The coffee is feeding in one end of the barrel through the flutes move the coffee along, as it does, there is rubbing actions, which "peels" the outer skin from the bean and further along the barrel the loose skin acts as an abrasive to polish the coffee.
- ✓ The cone and liners can be made from cast iron or phosphorus bronze. The latter gives an added luster to the coffee, which should enhance the selling price.
- The husk is separate from the coffee as it exits the machine by means of an air pipe

CATALOGUE – Integral's Coffee Huller Machinery

INTEGRAL ENGINEERING

EQUIPPED TO BUILD EVERLASTING MACHINERY

COFFEE HULLERS FOR DRY CHERRY COFFEE & DRY PARCHMENT COFFEE



No.0-Africa Coffee Huller



No.1-Africa Coffee Huller



No.2-Africa Coffee Huller



No.5-Africa Coffee Huller



No.6-Africa Coffee Huller



Dry Cherry (mbuni) Coffee

Or



Dry Parchment Coffee

=



Green Bean Coffee

COFFEE HULLERS FOR DRY CHERRY COFFEE & DRY PARCHMENT COFFEE

COFFEE HULLER:

The machine consists of a cylinder fitted with feeding and hulling ribs, enclosed in a strong casting, the lower portion of which is perforated to allow the husks to pass into the husk chamber. The hulling is effected by means of the triturating action between the hulling blade (or) knife and the ribs on the cylinder. The cylinder at the feed end is provided with number of ribs set at angle for facilitating the feed and allowing the coffee to proceed from one end of the cylinder to the other. At the delivery end there are three angular pieces termed as 'Lifters' used for the purpose of lifting the coffee to the delivery spout. The fan fitted in the feed end frame of the machine then blows out the shells and dust from the coffee falling in the husk chamber.

TECHNICAL SPECIFICATION – ERECTION INSTRUCTION:

The machine is despatched in a fully assembled condition and only the following is required to be done at site. Mount the machine on a level base and tighten the foundation bolt nuts. To be assemble the feed hopper to the machine. Mount the fan pulleys / main pullets and fix the "V" Belts / Link belt etc., Mount main motor on the same. Depending on the type of coffee to processed, the screens to be checked for their correct Grease all the bearing and other lubricating points. Check for the correct setting on the relay of the motor and check all electrical connections. Check the direction of the motor, machine and fan.

TECHNICAL SPECIFICATIONS

Machine size	Electric Power Required in HP	Machine Speed in RPM	Blower Fan Speed in Rpm	Output Capacity of Green Coffee in Kg/Hr	Machine Net weight in Kg	Machine Gross weight in Kg	Shipping volume in Cu. Metres.
No: 0	40 - 50	340	1800	800 – 1000	1100	1325	5.15
No: 1	20 - 25	400	1500	400 – 475	950	1075	3.05
No: 2	10 - 15	450	1500	200 – 275	485	575	2.75
No: 5	5 – 7.5	550	1250	75 - 125	250	315	1.20
No: 6	1.5 – 2.0	250	1250	25 – 50	110	145	1.55

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Integral Engg's – Africa Type Coffee Huller Machinery

Integral's No: 6 - Africa Type- MNI - Coffee Huller Machinery to hull Dry Cherry as Natural Coffee: With Input Coffee moisture should be 10.50 % - 12.50 %.
It means **this machine Hulling the Dry Cherry coffee and Dry Parchment coffee as TWO-IN-ONE Machinery**. But' **it doesn't Polish the Green Bean Coffee.**





The machinery to be builds with the OUTPUT Capacity for 25 Kg (to) 50 Kg/Hour, hopper control assembly, Air Piping, Magnet, Hulling cylinder,
Blades, Ribs with Feeding Ribs, Base Frame assy and perforated screens to filter the coffee husk.

Drive System: 2 HP SIEMENS Motor (3 Phases) for machine & Blower, suitable V- Pulleys, Belts and necessary foundation bolts.

Integral Engg's Africa Type Coffee Hullers

No:2 Africa Coffee Huller Machinery





Features

- The Green Bean Coffee Output is 150Kg/hour (to) 200 Kg/Hour.
- No.2 Africa Huller consists of C.I base frame , MS body and Hulling plates mounted on top cover and bottom tray fitted with oven wire mesh to enable the hulling fan to remove the dry cherry broken covers through the air duct pipe
- EN 8 Hulling Blade is fitted in such a way that it can be adjusted in and out according to the size of cherry

Pneumatic Separator as Closed Circuit Catador



Features

- ✓ The coffee coming from the peeler polisher can be a little dusty and also if any damaged coffee beans have entered the machine, then they could be crushed into small pieces.
- ✓ The Catador will remove them from the good coffee along with any attached parchment skin, dust, and any “fine broken” before feeding to the Gravity Table.
-
- ✓ The Catador is a tall wind tunnel with a strong fan at the bottom. The coffee is feeding in at the top and the air separates all the light material from the heavier coffee beans.
- ✓ A lever on the side of the machine can easily adjust the amount of air.
- ✓ These fine broken can be recovering later by adjusting the air volume and re-feeding to now separate the fine coffee particles from the dust and husk.
- ✓ From the Catador to Storage silo through bucket elevator feeds the coffee. This allows controlled feeding to the Densimetric table.

Gravity Separator as Densimetric Table Machinery

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GRAVITY SEPARATOR



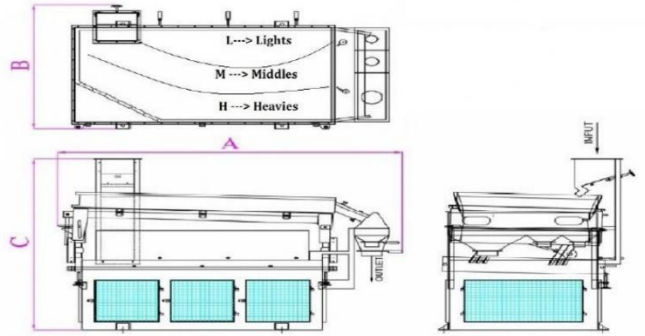




INTEGRAL ENGINEERING GRAVITY SEPARATOR

SALIENT FEATURES

Integral Gravity separator is used for separating the coffee bean / cereals and lot of grains with different specific weight of same lot. This ensures the quality of the product by separating it into three grades of lights, middle and heavies respectively. We can standardize for grains, pulses, seeds, spices, coffee wheat, dhal, peppers, millet, corn and for other engineering application wherever needed.



SPECIFICATION:

MODEL NO	A	B	C	Working Area Sq.M	HP of Blower/Deck	Capacity in Kg/Hr	Shipping Volume in CBM
IE-GS-025	1628	1000	1685	0.80	2 / 0.50	100 TO 250	3.00
IE-GS-075	2065	1145	1730	1.15	3 / 0.50	400 TO 750	3.50
IE-GS-125	2115	1321	1869	1.50	5 / 1.00	750 TO 1250	4.40
IE-GS-175	2477	1405	1942	2.25	5 / 1.00	1250 TO 1750	5.60
IE-GS-225	3076	1540	2090	3.00	7.5 / 1.00	1750 TO 2250	8.25
IE-GS-500	3720	1562	2206		10 / 1.50	3000 TO 5000	10.00
IE-GS-700	3752	1850	2254	4.70	15 / 2.00	5000 TO 7000	12.50

- Specification is subject to change
- Output capacities are indicated at factory testing condition and it may vary at site condition
- The machinery may be despatched at dismantled condition as sub assembly.

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FEATURES OF GRAVITY SEPARATOR

Densimetric Table with Green Coffee Storage Silo & Elevators



- Integral manufactures Gravity separator to separate the same size of products with different specific weigh.
  A uniform weight of coffee beans is important to coffee buyers and roasters
- It is used in removal of light particles, broken coffee beans and Immature beans (T-Grade) also.
- The machine consists of a slightly tilted deck, and several fans below. The coffee fed uniformly and the vibrating deck and air produce a cushion of air as the coffee travels down the deck. The heavier coffee comes to one side, “the middles”, come to the centre and the lights to the opposite side.
- The middle range of coffee is recycled back to the silo for secondary grading. The heavies (or) good coffee is feed by elevator to the Size Graders. The lights are bagging off for further process

Integral Flat Deck's Vibro Size Grader Machinery for Green Bean Coffee

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EQUIPPED TO BUILD EVERLASTING MACHINERY

FLAT DECK & VIBRO COFFEE GRADER MACHINERY



FLAT DECK & VIBRO COFFEE GRADER MACHINERY

INTRODUCTION

Introducing its wide range of Flat Deck Vibro coffee Grader machinery which will be used widely at coffee dry plant.

Graders are used to grade food grains based on their virtue of the size. These graders will be used for variety of grading applications. For many food grains including coffee. The grader is available in single and duck versions that depending on the number of grades and capacity required to process.

The entire coffee screens are being manufactured in CNC punching machines which maintains the accuracy of 0.05 + mm. All the screens framed by seasoned wood and in between the rubber balls provided to avoid the holes clogging. The entire specifications of the screens are according to the standard size of internationally proofed green coffee.

SALIENT FEATURES

- Adjustable screen inclination is provided. The angle of throe and stroke are also adjustable.
- A wide variety of round holes and slotted screens of any size are available as per requirement.
- The length of each deck section is determined according to the type of coffee being processed and the amount of each grade present in the input.
- The machine is very versatile as grades can be kept separate or certain grades can be mixed together, they can be bagged off directly or go on to silos waiting to be bagged and weighted or blended for roasting.
- Higher output with lower power consumption. These graders are suitable for Arabica & Robusta
- An operating manual will be provided with the machine that contains valuable operational and maintenance tips which will help for trouble free operation of the machine and easy to place the spares order.

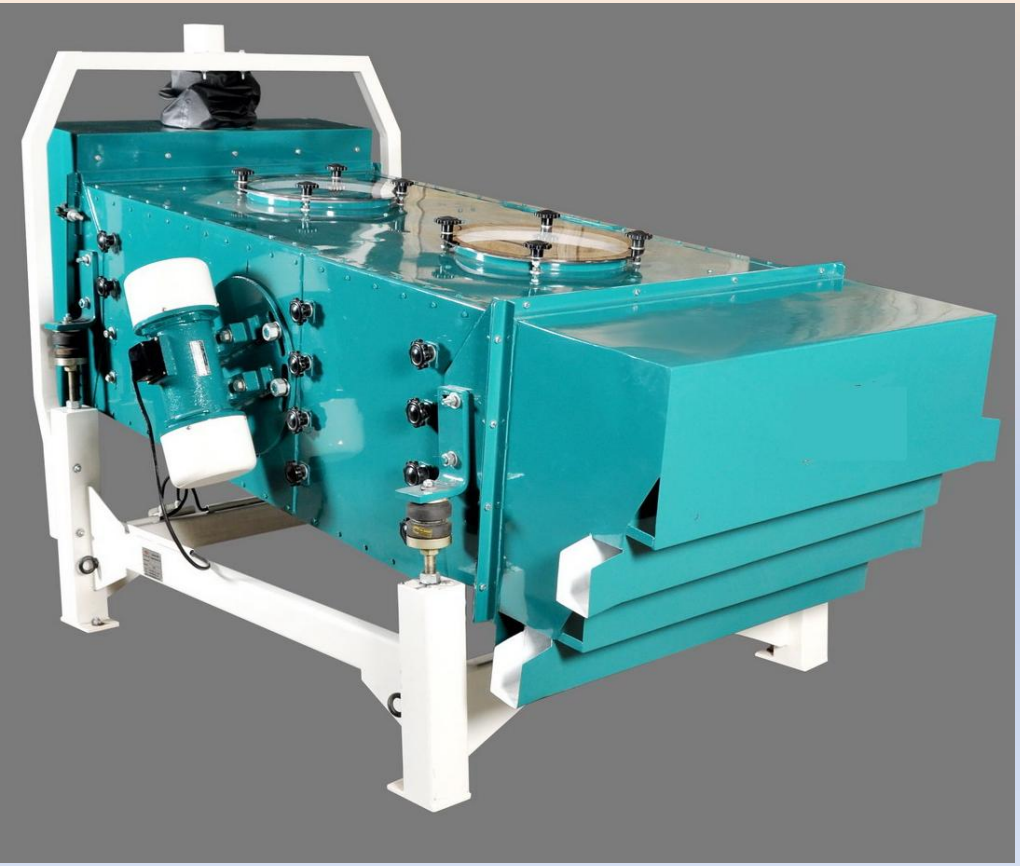
TECHNICAL SPECIFICATIONS

Model No.	Input capacity of green coffee in kg/Hr	Main Motor power in HP	Net weight in Kg	Gross Weight in Kg	Shipping Volume in Cu. Meters
IE-1 MT	750 - 1000	2.0	630	820	3.25
IE-2 MT	1750 - 2000	3.0	860	1085	5.65
IE-3 MT	2750 - 3000	5.0	1315	1680	7.25

INTEGRAL ENGINEERING
EQUIPPED TO BUILD EVERLASTING MACHINERY
(For Coffee, Multi Grain Processing and Conveying)
A-14D, SIDCO INDUSTRIAL ESTATE, OPPOSITE TO SIDCO - BSNL TELEPHONE EXCHANGE,
COIMBATORE- 641021-TAMILNADU-INDIA
Visit our website: WWW.INTEGRALENGG.COM Write to us to our Email id: info@integralengg.com

Integral Engg's – Vibro Size Green Bean Coffee Grader Machinery

Vibro Coffee Grader



Features

This Flat deck graders is working with the principle of uniform vibration created by two vibro motors mounted on both sides of the Grader.

Higher end model with different grades can be segregated from Screen No: 14 (to) Screen No: 18 in Five Different grades as per International Coffee standards

No Maintenance is required on Driven motors.

Noise less operation.

Integral Engg's Lab Model Sample Coffee Roasters Machinery – Analogue & Digital Type Models:





- Lab / Sample Coffee Roaster machine fitted with sight glass, Temperature Meter, LPG Burner, Thermal transfer method, Drum type.
- 0.25 HP Gear Motor, AC Single Phase I/P (240V) , 50 Hz, 20 Amps Plug with cable assy.
- S.S. Cooling Tray with coffee scooper, Chain and Sprockets assembly with safety guard.
- Hot air roasting with LPG fuel is required.

Integral's Coffee Roasting machinery = 1 Kg/Batch: 3 Kg/Hour = 24 Kg /Day = 144 Kg /week = 576 Kg/ Month:



- Coffee Roaster machinery fitted with sight glass, Temperature Meter, LPG Burner, Thermal transfer method, Drum type, S.S. Cooling Tray, coffee scooper, safety guard. **(Without LPG cylinder).**
- Coffee Roasting by drum and its front panel fitted with a Sample taker, Inspection Glass provisions are there.
- Roasting drum attached with a chaff-collecting bin.
- S.S. Round Cooling Tray worked by rotating drum with drive. It will help to do cool the Roasted Coffee Beans as quickly.
- • A cyclone unit attached to the roasting drum to trap the husk and chaff from the roasting drum. It has connected with a blower to suck in the hot air and dust.

Integral's Coffee Roasting machinery glad to supply: 5Kg/Batch = 15 Kg/Hour = For 7 Hours Production of 105 Kg /Day = In Five Working days of Production is 500 Kg /week = In Four Weeks of Production is 2,000 Kg/ Month



Electric motors Drive System: (Electrical Motors are 220 & 415 Volts ± 10 % Volts / 50 Hz / 1 Phase & 3 Phases):

a) Main Coffee Roaster Drum couple with 0.5 HP Gear Motor (3 phases).

b) Cyclone & Chaff collected by suction Blower assembly couple with & Smoke extractor by 1 HP 2880 RPM Flange Motor (1 Phase).

c) S.S. Cooling Drum assembled with Roasted coffee beans stirrer couple with COMMON COMBINED Motor = 60 WATT - 1300 RPM Per Minute - Cooling Drum Gear Motor (1 Phase) with Blower assembly.

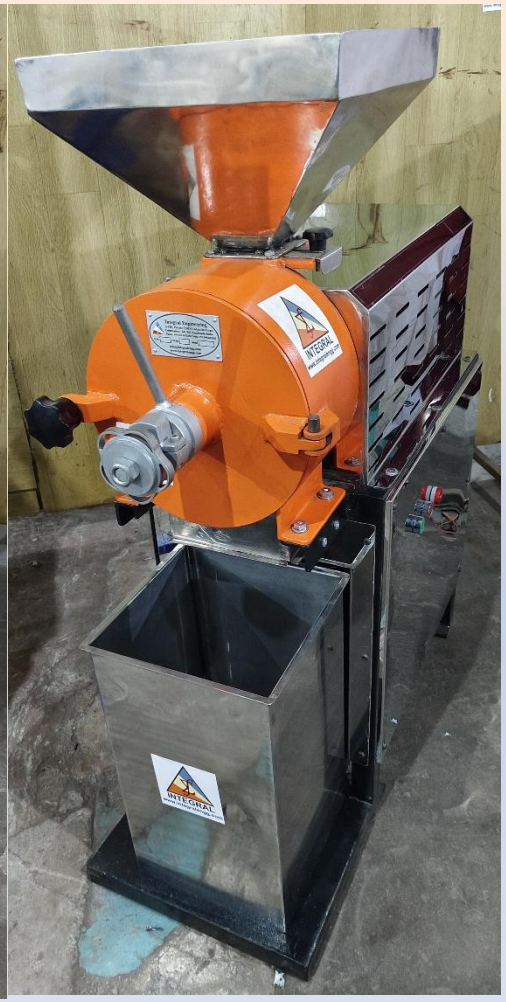
Integral Engg's Coffee Grinder



- Features:
- Coffee grinders are used to grind the roasted coffee bean from coarse to fine powder.
- Different variants are available from 2 Kg (to) 50 Kg per hour capacity
- Both stone type and metallic type discs are used to grind the coffee beans.

Integral's Coffee Grinder Machinery





- Coffee Grinding stone is best option to avoid heat while ground the powder and quality will not affect.
- Type with different quality of Coffee Powder adjustments with **1.5 HP Motor (Single Phase)** Coupled.
- The input hopper capacities are 2 Kg (to) 5Kg of Hopper assembly with Roasted beans capacity holding and control, support stand frame assembly.

INTEGRAL ENGINEERING

EQUIPPED TO BUILD EVERLASTING MACHINERY

COFFEE GRINDING MACHINE





Roasting Coffee Beans



Coffee Powder

COFFEE GRINDING MACHINE

Having 10-inch emery stone plate grinding, cost iron body and outer body panel are fabricated in M.S sheet metal and L angles, capacity is 15 kg to 20 kg per hour. With electrical motor 1.5 HP Single phase

Emery stone: The Grinder stones are of the best quality and possess the great advantage that they retain their unique grinding power to the end and they are almost everlasting.

The Grinders are provided with heavy, dust proof ball bearings to felicitate very smooth running. The Grinders have single outlets, The clearance between the stones can be instantaneously increased by the disengaging lever to prevent stalling of the Grinder's due to overload.

The rotary stone in the TGI Grinder, unlike in the most other types of grinders, is placed between the two bearings, which gives the stone the best support.





Having 12-inch emery stone plate grinding, cost iron body and outer body panel are fabricated in M.S sheet metal and L angles, capacity is 25 kg to 40 kg per hour. With electrical motor 2 HP single phase emery stone: the grinder stones are of the best quality and possess the great advantage that they retain their unique grinding power to the end and they are almost everlasting. The grinders are provided with heavy, dust proof ball bearings to felicitate very smooth running. The grinders have single outlets, the clearance between the stones can be instantaneously increased by the disengaging lever to prevent stalling of the grinder's due to overload. The rotary stone in the TGI grinder, unlike in the most other types of grinders, is placed between the two bearings, which gives the stone the best support.

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Semi-Automatic Coffee Powder, Granules of Weighing, Filling machinery:

Capacity 10 Gram /Pocket (to) 999 Gram/Coffee Pouches as One Pocket.



Drive System: 180 watts and Single-Phase AC 220 Volts/ 50Hz.

Coffee Powder Pouches Band Sealing with Semi-Automatic machinery

To sealing width 6 mm (to) 12 mm at 0 degree (to) 300 Degree Centigrade.

Drive System: **Single-Phase AC 220 VOLTS/ 50 Hz. Small Belt Conveyor in built assembly.**





INTEGRAL ENGINEERING

A -14D, PRIVATE Industrial Estate, Opposite to SIDCO - BSNL TELEPHONE EXCHANGE
Coimbatore –Tamilnadu State – India – 641021
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- We trust that our above information's are in line with your requirement and let us know if you wish any further details.
- Please feel free to contact us regarding any kind of clarification / discussion, we shall always be glad to be of assistance to your good self.

Thanks for your support and assuring our best services always.

Thanking You.

Many Thanks with kind Regards,