



# LOCUS<sup>®</sup>

Innovation, Technology & Manufacturing

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Founder

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ISO 9001: 2015 ( IAS-USA)

Factory locations:



**LOCUS ENGG SOLUTIONS®**  
Innovation, Technology & Manufacturing

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GSTIN: 29AAIFL8178L1ZF



**LOCUS EXIM®**  
Innovation, Technology & Manufacturing

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**LOCUS TECHNOLOGIES®**  
Innovation, Technology & Manufacturing

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[www.LocusExim.com](http://www.LocusExim.com) | [www.Locus.co.in](http://www.Locus.co.in)

# LOCUS GROUPS OF COMPANIES

## ABOUT US

Our team conducts work on the core foundation of exceptional levels of client satisfaction. Their expertise and diverse outlook consistently provide us veracity, ingenuity and diligence in our business practices. Our team consists of highly experienced professionals including product development managers, trained technicians, quality assurance officers and sales and marketing personnel. Our differences indeed add values to the company and help us to unite towards our goal.

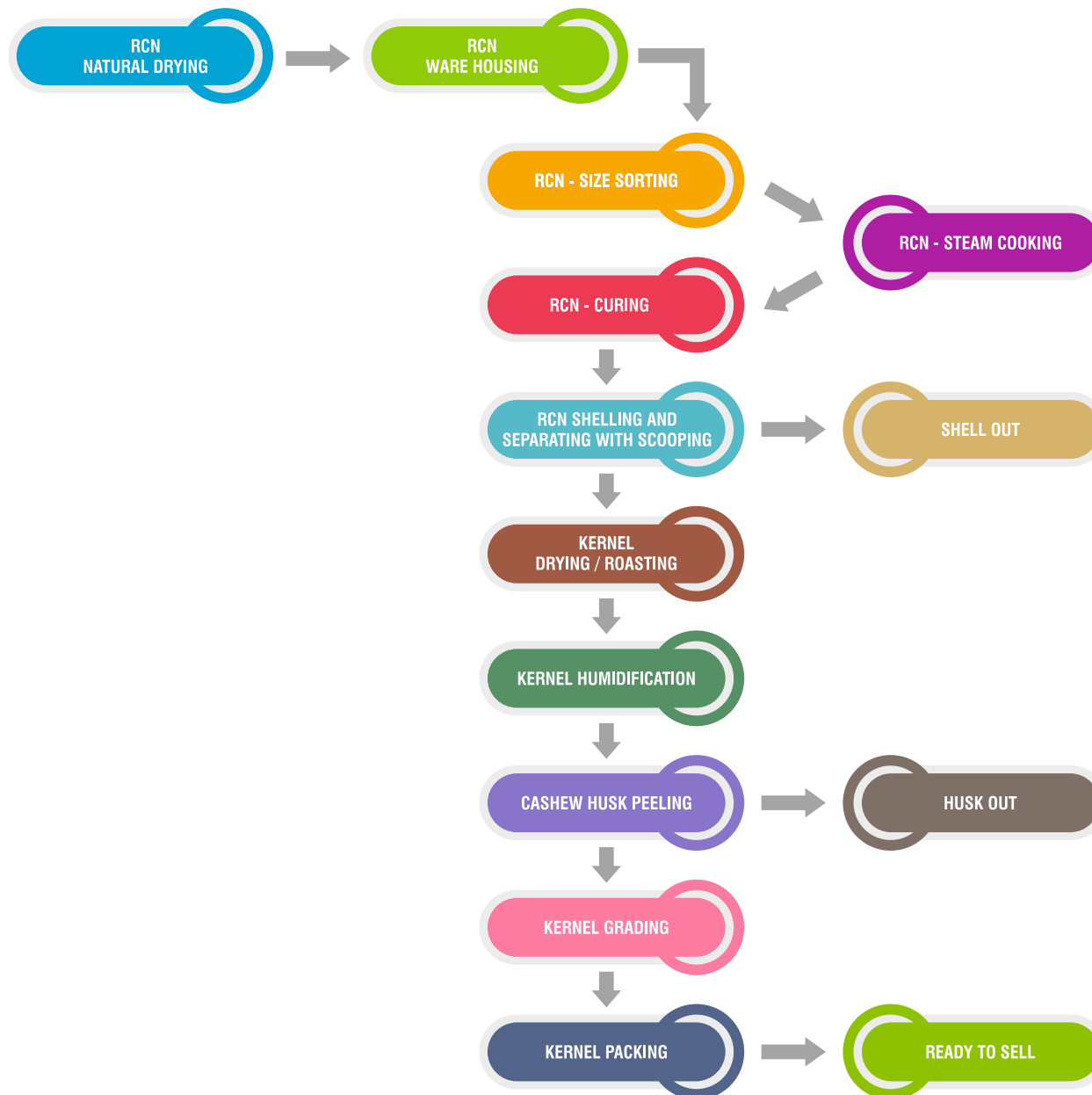
LOCUS EXIM Founded in 2010, we are reckoned among the prominent manufacturers, exporters and suppliers of Raw Cashew Nut processing entire range of machines and Supply of complete automated mechanised solutions. All our products are an amalgamation of avante-grade components and the advanced technologies. As a result, they are cost effective, durable and reliable. Our products are appreciated for their matchless features like ergonomic designs, rugged construction, efficiency, fine surface finishing and reasonable prices. Besides, as one of the reliable service providers, we are also providing the services of automated turn key solution consultation and after sales services. Manpower reduction is up to 70-75 % as compared to manual processing. Our mechanised technology is very unique, innovative and incomparable to others supplier in India.

With Locus exim scope of supply enables large capacity of raw cashew processing set-up can be done with minimum area, man-power and under a single roof. This is hard to achieve using other machinery suppliers in India, but can be achieved with our scope. Space requirement will vary approximately 2000- sq.ft. per metric tonne RCN processing( for machinery).

Project consultation will include layout preparation guidelines, customised supply of machines as per requirement of clients, execution of entire machinery installation and commissioning, and prompt after sales service.

ABOUT US

## RAW CASHEW PROCESS FLOW CHART

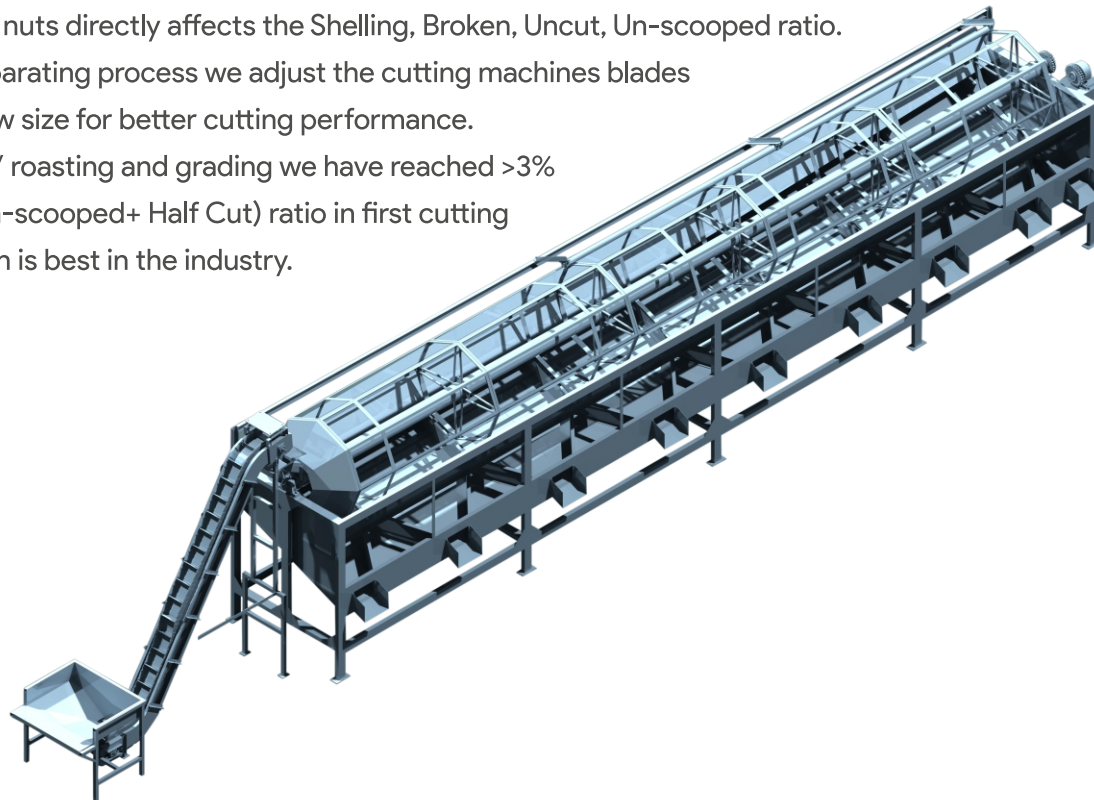




# RAW CASHEW GRADING MACHINE

## SPECIFICATION:

- **Capacity** : As per customers requirement. Example: 200 / 400 / 500 /1000 / 1500 kg / hour
- **Separates** :
  - 5 kinds of raw cashew with different sizes (A+,A,B,C,D) for below 800 kg/hr cap.
  - 9 kinds of raw cashew with different sizes (A+, A,A1,B,B1,C,C1,D,D1) for above 800 kg/hr cap.
- **Feeding System**: Automatic bucket conveyor with hopper.
- **Power**: 1 - 5 Hp: 3 Phase, 415 Volts **Process**:
  - In this process we separate different sizes of cashew nuts with the help of electric calibrator. This calibrator has holes of different dimensions, starts from 18 mm to 24 mm to separate nine differ grades. Screening of dirt, soil small stones, debris are separated during this process as well.
  - Grading helps to understand the quality of raw material present in the stock in advance, facilitate further for management to take processing decision based on finished product requirement as per market
  - Perfection in grading of nuts directly affects the Shelling, Broken, Uncut, Un-scooped ratio.
  - Later in shelling and separating process we adjust the cutting machines blades according to raw cashew size for better cutting performance.
  - Under perfect cooking / roasting and grading we have reached >3% broken & 10% uncut (Un-scooped+ Half Cut) ratio in first cutting / feeding attempt, which is best in the industry.



# RAW CASHEW COOKER

## RCN STEAM ROASTING/ COOKING PROCESS:

- **Capacity :** As per the customer's requirements.
- Example : 300 / 600 / 1000 kg/ 1200 kg per etc. batch cooker capacity
- Fuel : Steam from Boiler

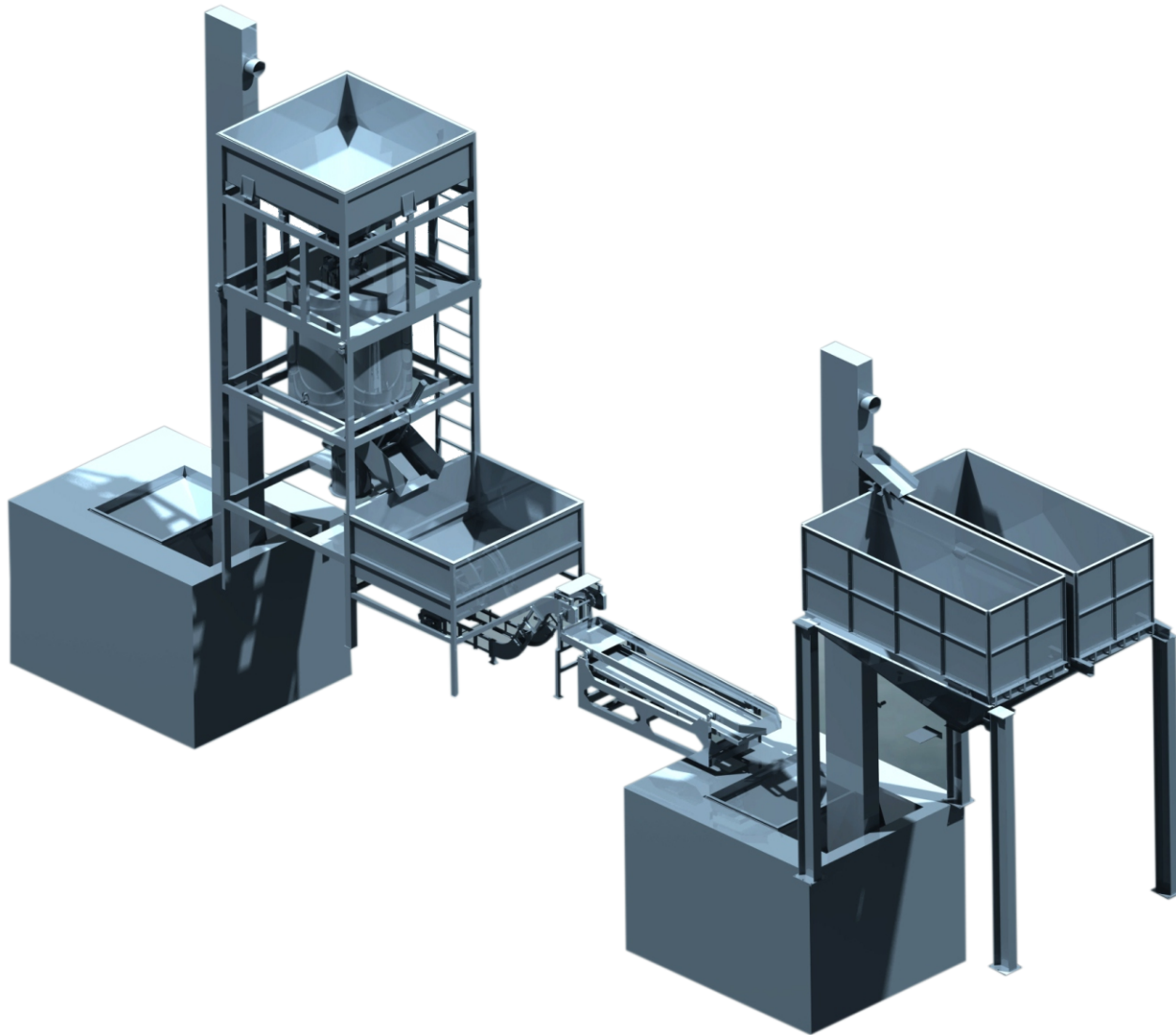
## APPLICATION & PROCESS:

- Cashew steaming / cashew roasting helps to cut /break and separate shell and kernel easily by making the outer shell hard and brittle.
- After steaming, the nuts are air cured by spreading out on the floor in the shade / gunny bags / curing trolleys / curing vertical bins. Vertical curing bins can be customized based upon project requirements.
- It can vary from 4 MT RCN to 32 MT RCN capacities depending upon project requirements.

## FULLY AUTOMATIC LOCUS COOKER OPERATIONS CONSISTS OF FOLLOWING FEATURES :

- Auto feeding by hopper and vertical conveyor.
- Overhead hopper with weighing automation and auto-cutoff system.
- Auto Cut off timer for steam input valve.
- All doors, Over head Hopper outlet, Cooker inlet and Cooker outlet pneumatically operated.
- PLC panel: Pressure and temperature sensors, touch screen, programmable auto operation and data log history.
- Auto-Unloading hopper and further conveyor transfer for curing section.
- Locus cooker design achieves more than 95% efficiency for uniform cooking through out the batch, which further helps in the quality and performance next stage machinery.

## RAW CASHEW COOKER



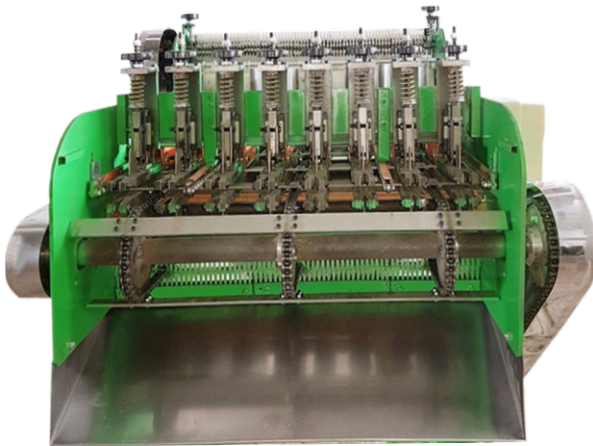
# RAW CASHEW SHELLING MACHINE

## SHELLING MACHINE MODELS

- 6 Horizontal cutting blade : Capacity 100-160 kg/hr
- 8 Horizontal Cutting blade : Capacity 180-260 kg/hr
- 10 Horizontal cutting blade : Capacity 240- 320 kg/hr
- 12 Horizontal cutting blade : Capacity 350 - 450 kg/hr
- Broken: < 8 % , - One go shelling : 85 - 95 %
- Each Shelling machine is set for two sizes either A/B or C/D

## SHELLING MACHINE FEATURES:

- Robust Desing with higher capacity shelling.
- High Speed Steel and carbide blades enables longer operations without sharpening.
- Horizontal guides eliminates any cross cut of raw cashew.



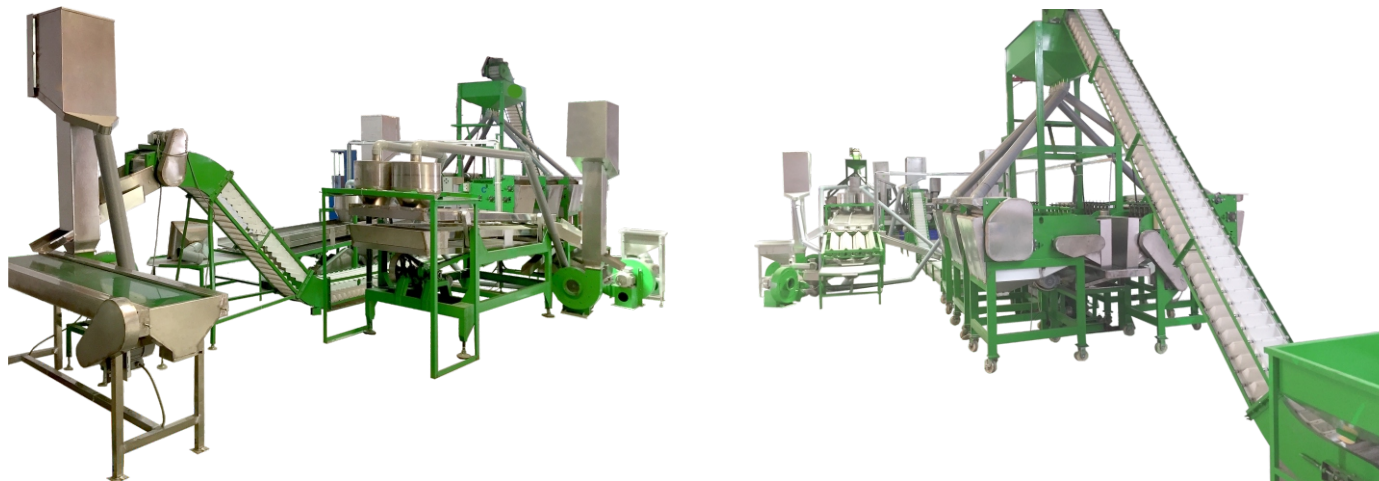
# RAW CASHEW SHELLING AND SEPARATING SYSTEM

## INCLUDES THE FOLLOWING MACHINES:

- |   |                                  |
|---|----------------------------------|
| 1. Feeding Hopper                         | 11. Roller Grader                |
| 2. Conveyor and Overhead Sharing hopper   | 12. Inspection Table             |
| 3. Primary Vibratory- Separator           | 13. Blower-2 Hp                  |
| 4. Kernel Separator                       | 14. Uncut & Un-scooped Separator |
| 5. Blower-2 Hp, 2 no's                    | 15. Kernel Carrying Conveyor     |
| 6. Blowing Grader for Shells & Un-scooped | 16. Input Hopper                 |
| 7. Inspection Table                       | 17. Inspection Conveyor          |
| 8. Scooping Machine-1                     | 18. Sharing Piping               |
| 9. Secondary Vibratory- Separator         | 19. Control Panel & VFD Unit.    |
| 10. Scooping Machine-2                    |                                  |

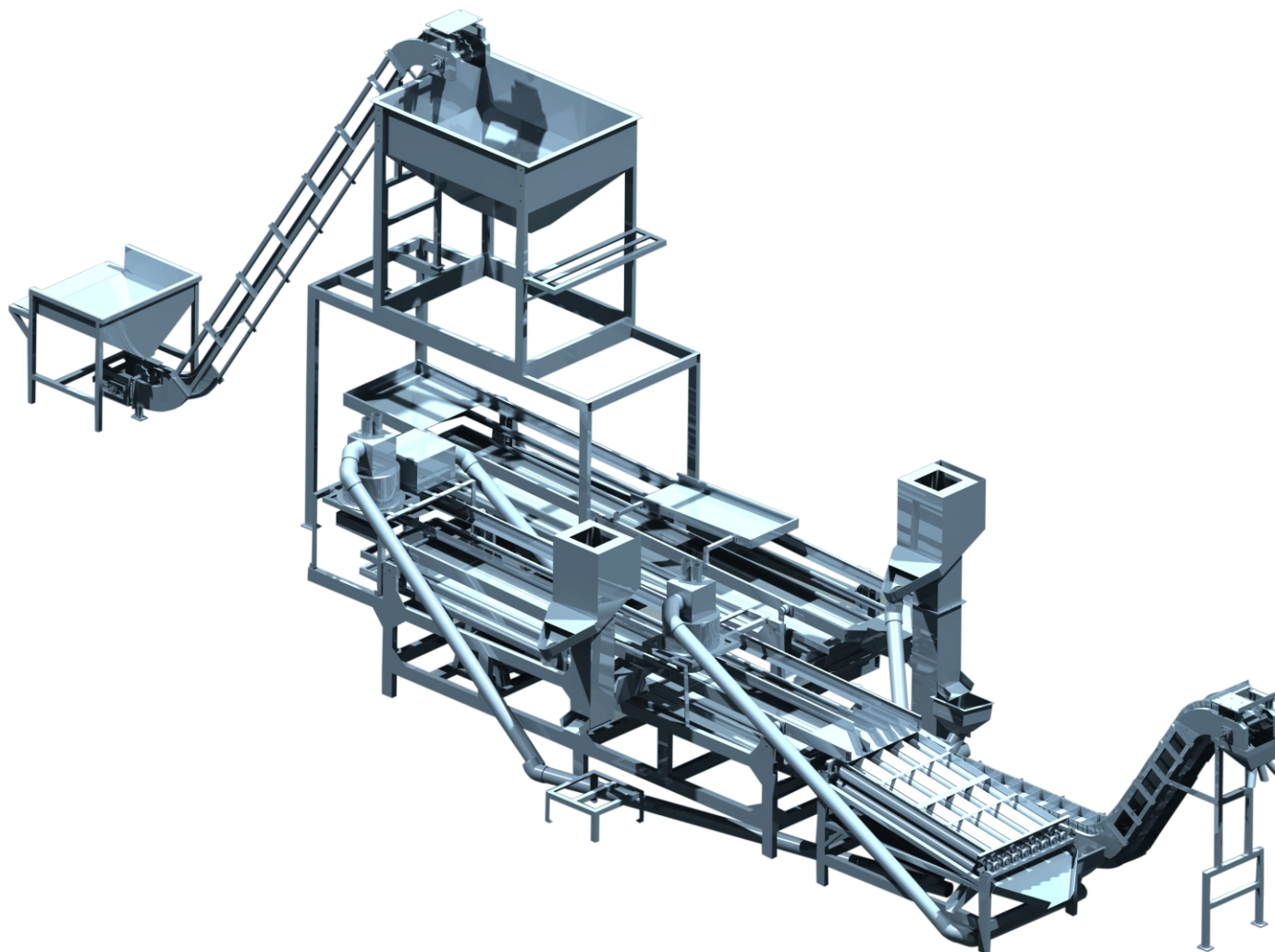
## FEATURES

- Cashew Shell, Kernel, Uncut, Half Cut, Un-scooped Material as separate output get by complete automation, with minimum labor intervention and in within very less time.
- Around 85-95% work will be done by machines, only 5-15% RCN and Machines error needs to be done manually.





## RAW CASHEW SHELLING AND SEPARATING SYSTEM



# CASHEW KERNEL DRYER

- The kernels after removed from the shells have to be dried in order to loosen the red skin (husk) adhering to the kernels for easy peeling.
- The kernels loaded in trays will be mounted on trolleys and will be kept in the dryer/hot chamber.
- The inside temperature of the chamber will be maintained uniformly to preserve the original color of the cashew kernels.

## **BATCH PROCESS & FEATURES:**

- Temperature: 60-90 c, depends on cashew quality & origin.
- Batch Duration: 6-9 hours. Capacity Kernels per batch: Ranges from 120kg - 1500kg / per batch.
- Fuel used: Steam from boiler through Fin tubes/ Electric through heating coils .
- With insulated body, Trolleys, trays, Heat Exchanger and air circulation fans at both sides with electronic temperature Controller.
- Design featuring uniform temperature manatainance throughout the batch.



# KERNEL HUMIDIFICATION PROCESS

- Capacity: As per project requirement. ( 200 / 500 / 700 / 1000 / 1500 Kg Per Batch)
- Power: 3-6 HP
- Power source: 380V-50Hz (3 phase) or 220V – 50Hz (1 phase)
- Time: 5-12 hours, depending upon surrounding air humidity & method used.
- Ideal Humidity: up to 3.5-4.5% before putting it into peeling machine.

## APPLICATION:

- This process is done to increase the moisture content of cashew kernel.
- It helps to control the broken percentage & peeling quality.
- This is done in humidification chamber, which is an enclosed chamber (cement and brick construction)having water even spreading and flowing alongside wall, the object is to increase surface area of water which enhances evaporation process boosted by forced circulation of air flow with the help of fans.





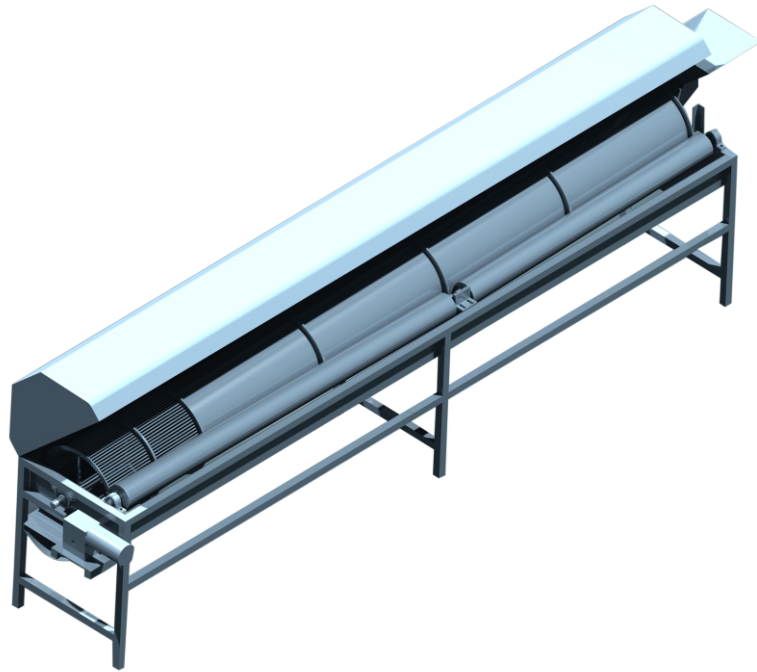
# CASHEW KERNEL HUSK PEELING MACHINE

- Capacity: 50 / 100 / 200 / 250 / 300 / 400 kg of kernel /hr.
- Percentage of clean kernel: from 75% - 90 %
- Percentage of broken: from 9% -. 16 % (Including inlet broken by shelling of 4-6%)
- Required moisture of inlet raw material: 3.5 - 4%
- Required electric power supply for one Units of peeling machine:5HP  
Requires Compressor Screw Type along with: Refrigerated Air Dryer, Oil Filter, Air Filter and Receiver tank.

## PROCESS:

- This process is used for removal of brown colour husk (testa) present on Kernel.
- After Drying & Humidification Kernels proceeded for peeling machine which uses air turbulence by timed nozzles to create Friction with Husk to loosen it.
- All material is SS 304 sheet with control panel.
- After peeling the kernels passes through piece separator which separates whole cashew kernels into broken nuts in four different grades.





## SPLIT GRADING MACHINE

- Capacity: 200/400 KG/hour
- All sheets and touching surface SS304
- Perforated sheets of different sizes grade different sizes of broken nuts such as (WB, WS, LWP, SWP).

## HUSK CLEANING MACHINE

- Sorts and separates all types of cashew kernel pieces from peeling husk.





## INSPECTION CONVEYOR

- Variable speed drive,
- Food grade belt drive.
- Aluminium extrusion frame.
- Divider and touching surface sheet is SS 304.
- Increases speed of manual inspection with half the Labour require.

## VITA TIN PACKING WITH BELL JAR ASSEMBLY

Includes Safety Valve and Pressure gauge, Vacuum pump, necessary pipe fittings, and accessories (with 3HP III phase 1440 RPM motor) for local wholesale Indian market.

Features: Pneumatic actuator for lifting bell jar assembly. Creates vacuum before flushing Carbon Dioxide / Nitrogen Gas for longer shelf life of packed cashew kernels.





## TIN FILLING MACHINE: VIBRO - PLATFORM MECHANISM WITH 4 TINS FILLING

## VACCUM PACKING MACHINE FOR EXPORT MARKET

- 25 lbs and 50 lbs brick form.
- Vertical Vacuum Packaging Machine.
- Input & Output Conveyors. Vibratory Settling Platform
- Co2 pre heater + regulator (ESAB).
- Platform digital weighing balance + roller conveyor.
- Set of Former + Sleeve – 25 and 50 lbs – SS304.
- Hopper, Vibratory feeder, Hair & light particle remover and Cyclone Separator



# CASHEW KERNEL SIZE GRADING AND COLOR SORTING MACHINES

## CASHEW KERNEL SIZE GRADING MACHINE:

### FEATURES :

- Camera Image based technology.
- Customizable Colour/size Grading in Single Pass.
- Capacity models available: 50, 75, 125, 175 and 200 kg/hr throughput whole kernels.
- 95% Accurate Size and Color Grading.
- 12 Camera Vision Technology.
- Less than 2 % broken
- **Program1:** Colour grading =W1, W2, Mild Defects (SW) , Major Defect (Spots), Husk (for Hand peel), Testa (Recycle to Peeling machine), Rejects
- **Program2:** Size grading=W180/W210, W240, W320, W400/W450, Defects, Husk, Rejects





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