



*integrated
solutions provider*



www.jyotigroup.net

Paddy Parboiling & Steaming Solutions



High Strength

From angles to beams and sheets to stiffener of complete plant is designed and developed with great strength and good resistance to corrosion, high temperature and wind pressure.

Non-Toxic & Non-Corrosive

Soaking in Stainless Steel tanks is non-toxic, non-corrosive, environmentally friendly, user friendly and especially formulation used in our Tank system. Together our workmanship and non-reactive stainless steel will not allow any toxic and corrosive material in the grain processing.

Long life span

Stainless steel does not fade or become discolored over time. It's also a rust-proof and stain-resistant material, so it will maintain its shine and preserve all of the aesthetic qualities of your Parboiling for several years as compared to hot deep galvanized and enamel coated tanks.

Erection

Since all the connections of the different components are standard and 90% material is manufacture in our factory, the erection time is faster.

Flexibility of Expansion

Par-boiling Plant can be easily expanded in length by adding additional bays. Also, expansion in width and height is possible by pre-designing for future expansion.

Does not affect flavor of grain

Stainless steel is one of the most hygienic surfaces available, so any grain that come into contact with the surface or material do not attract dirt or germs. Stainless steel also does not react with any chemical composition in metals during cooking.

JYOTI Parboiling

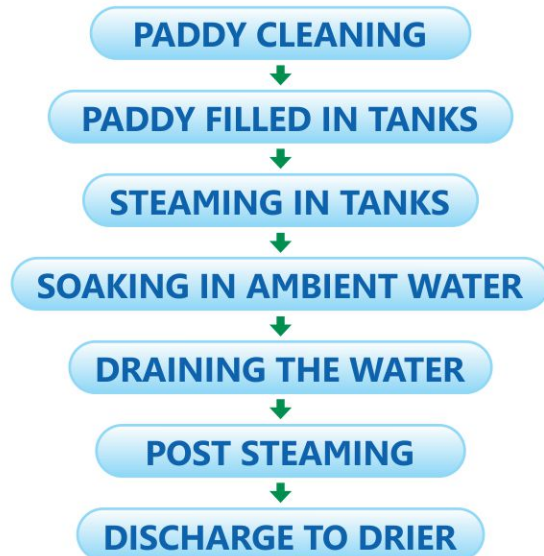
Parboiling of paddy is a hydrothermal treatment on which rice is produced by a process of soaking, heating, steaming and drying of paddy prior to milling. Parboiled Rice is "Par"-tially" boiled" (i.e. partially cooked rice) modified the starch which drives natural vitamins & minerals from brans into the grain.



Parboiling Processes



SINGLE STAGE DOUBLE STEAMING



THREE STAGE DOUBLE STEAMING



Technical Solutions

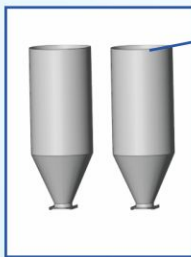
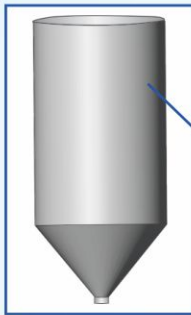
Raw Paddy Storage Bins

Raw Paddy bins are generally made of stainless steel to ensure the strength and makes the bins more suitable for long term storage. These bins consist of panels which are bolted, Hoppers can be delivered in square and round outlet, and the roof is designed with two side inclinations.



Soaking Tanks

Stainless Steel soaking tank is made professionally for commercial soaking of paddy in the huge water-filled vessels at a particular temperature for a specific period of time. Our tanks have been designed to obtain a homogeneous soaking quality of the paddy, equally important for the soaking time of paddy, water quality and soaking temperature. These tanks are non-toxic and non-corrosive, meaning a safer, cleaner and more hygienic in nature.



Steaming Tanks

Stainless Steel Steaming Tanks made up with free-circulation steam system, Stainless steel Filters protect the grain, maintain processing efficiency. Steaming in tank is evenly distributing precisely moving and reach every single part of grain.

Material

The Material is delivered in parboiling complete with Nut-bolts, support construction, hoppers, Platform, roof construction, Plant decks, ladders, etc. for outdoor or indoor installation. Due to the modular design and construction, the parboiling allows easy extension in case of later demands for higher processing volume.

Structure

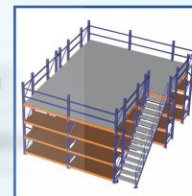
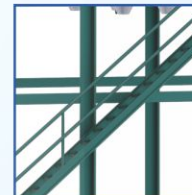
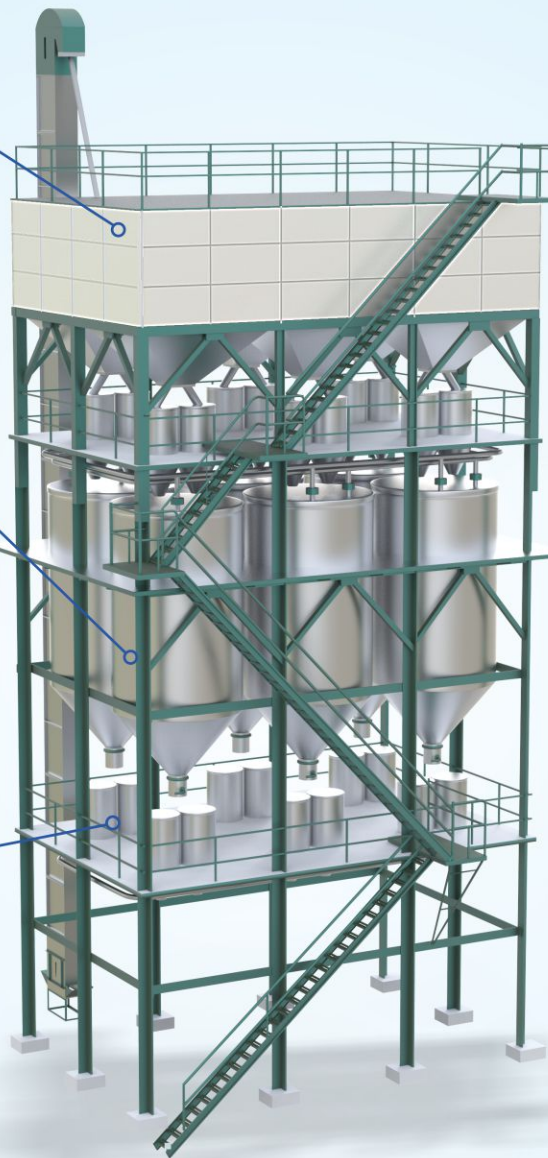
Normally, the Parboiling are installed on a certified steel construction according to the plant design. Structural analysis and design for new/existing according to parboiling process and storing facility of grain with civil and wind pressure parameters.

Ladders

Our Parboiling Plant Ladders and cages are assembled from the floor to row section. Provided easy access to the each section of parboiling unit.

Platform

We used non Slippery Stainless Steel in both external and internal stages of parboiling.





**PARBOILING PLANT
SUCCESSFUL INSTALLATIONS**



Paddy Drying Solutions

We are experts in Grain Dryer technology. No matter what crop you are growing or where you are farming we can provide a solution that will work for you. We provide professional service and installation on a variety of setups including custom-designed permanent installations models in numerous sizes.

1. Minimum Maintenance
2. Low Energy Consumption
3. Flexible Modular Constructing
4. large volume capacity available
5. Easy access throughout for inspection purposes
6. Extremely user-friendly controls
7. Remarkably gentle processing of the grain
8. Optimum energy savings by circulating air and heat recovery
9. Scientifically fitted finned tubes provides, no heat loss
10. Suitable for drying larger quantities of grain
11. High performance fans and air heating technology
12. Highest quality material ensuring long life
13. Uniform product moisture by modern discharge technology
14. Fitted with high performance bucket elevators.
15. Quick and steady moisture removing without hurting paddy quality.



Customised Drying Solutions

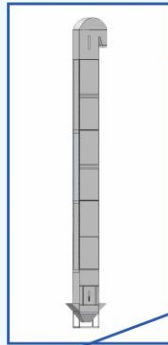
Jyoti is manufacturing a wide range of dryers from small batch dryers to high capacity commercial large batch dryers. In all of our dryers we are using the highly efficient flow of hot air principle to assure gentle and even drying. The drying product is conducted through the dryer by gravity from above to below. The grain slowly zigzags its way through the drying chamber and each grain is dried with air hitting it alternately from above and below. All of our dryers are constructed in high quality Stainless Steel or can be tailored to meet specific customer demands by use of our standard components



Technical Solutions

Elevators

The efficient and silent rectangularly profiled bucket elevator guarantees fast operations and loading/unloading of the dryer. The elevator will give many years of service: all its structures are manufactured from Stainless steel. The elevator comes equipped with a shaft-mounted geared motor, High tensile HR grade belting, Stainless Steel Buckets and Bolts, Heavy Duty Top and Bottom and delivery pipe all are specially designed for wet paddy circulation.



Storage Bins

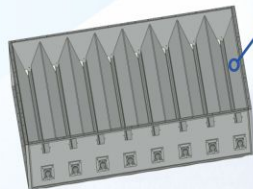
Maximum no. of Tied Rods Supports higher peak loads and allowing more grain to move into storage faster than ever before. The design of storage bins increases the strength, allowing you to go taller with your grain drying system and have more flexibility in design.

Sturdy Construction

The driers consist of High grade Stainless steel, and Heavy duty Steel Structure which ensures a great strength and concise structure. Heavy-duty construction makes durability for longer operation and minimal maintenance. Drier leg extensions are available and can be easily installed as needed for added clearance under the dryer.

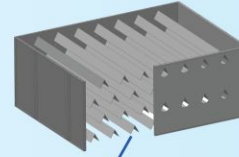
Discharge Section

A heavy duty Multi rotors discharge gates provide work for the first-in-first-out of grain flow. Provided variable-speed motor, the unloading system's speed can be automatically adjusted. This discharge system gives a homogeneous flow, easy to clean and gently deliver it to the unloading point at the perimeter of the dryer.



Drying Section

Homogeneous Grain Flow as number and thickness of baffles in chamber is more for smooth drying without formation of cracks in grain. All heated air must pass through the grain column resulting in total use of heated air. The dryer sections are designed to eliminate the rapid contact of the drying grain column with incoming hot air which reduces excessive grain breakage. Air baffles are Zig-Zag from row to row to maximize grain turnings during drying stages.

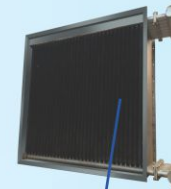


Air Ducts

Air Ducts for the grain and finest airflow through the dryer. The Stainless Steel air duct designed in such way which provides equal and even hot air towards drier turnings during drying stages.

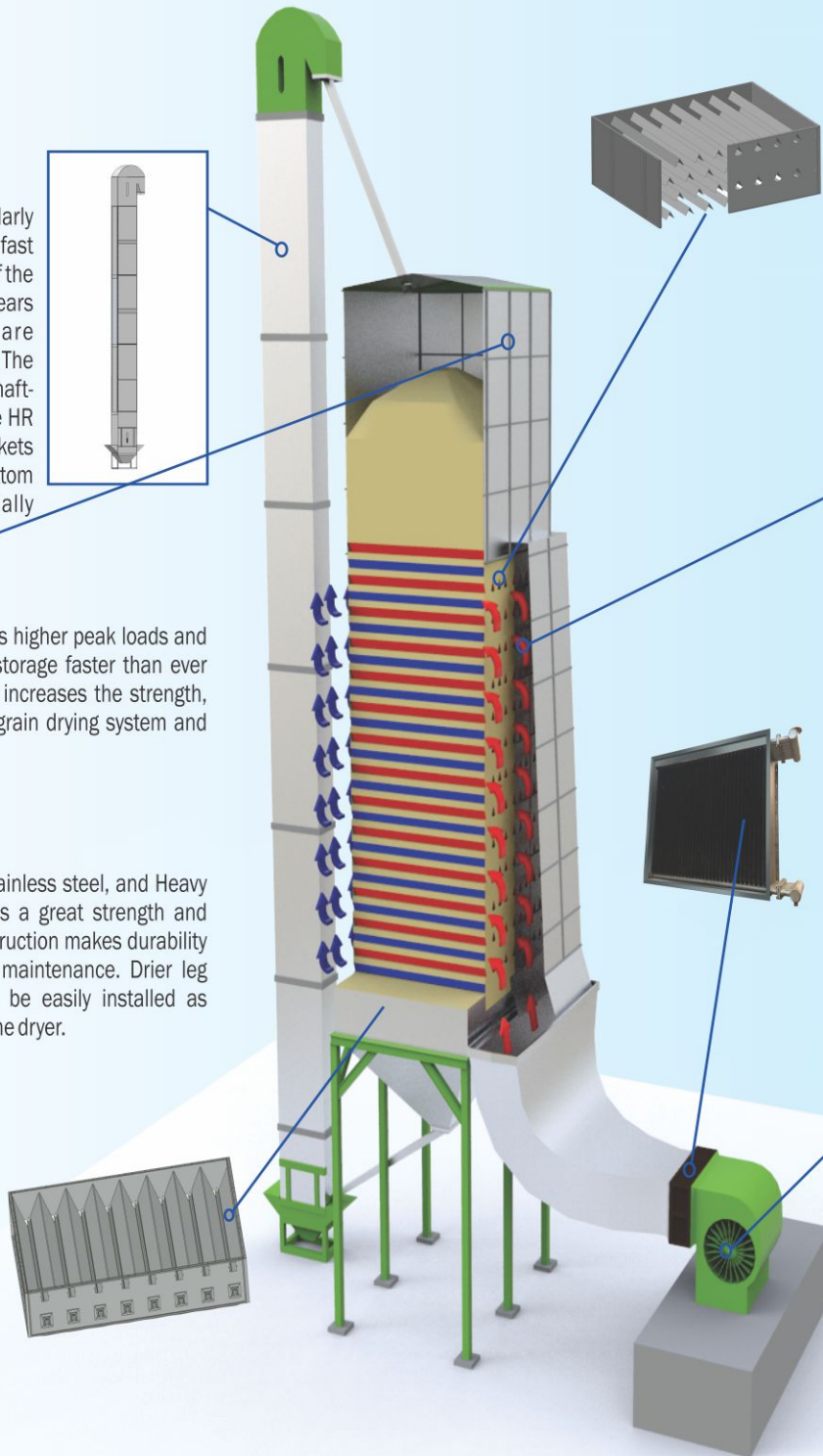
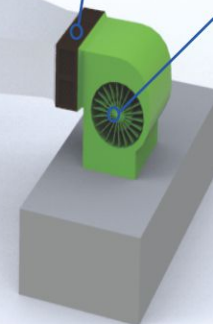
Steam Heat Exchanger

To reach the drying temperature level a steam heat exchanger is applied according to the source of steam (either Boilers or Rice Husk Furnace). The Heat Exchanger made of seamless Carbon Steel tube with Aluminum extruded Fins. Steam pressure should be around 7kg/cm.

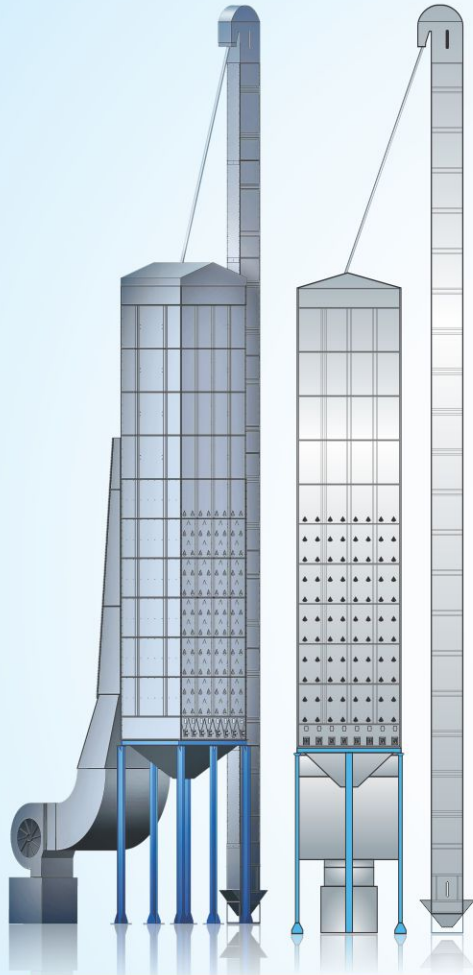


Centrifugal Fan

Immense air volume enables the use of low drying temperature thus minimizes internal breakage of grain. A high competence, back-ward curved centrifugal fan with low revolution speed ensures trouble free operation and long service life. Power is economically and fully utilized to produce the best yield.

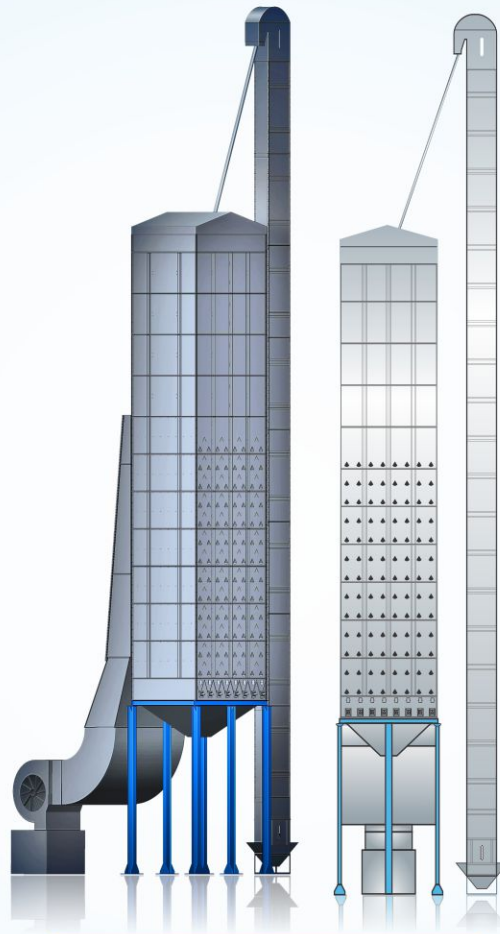


24 Tons Drier



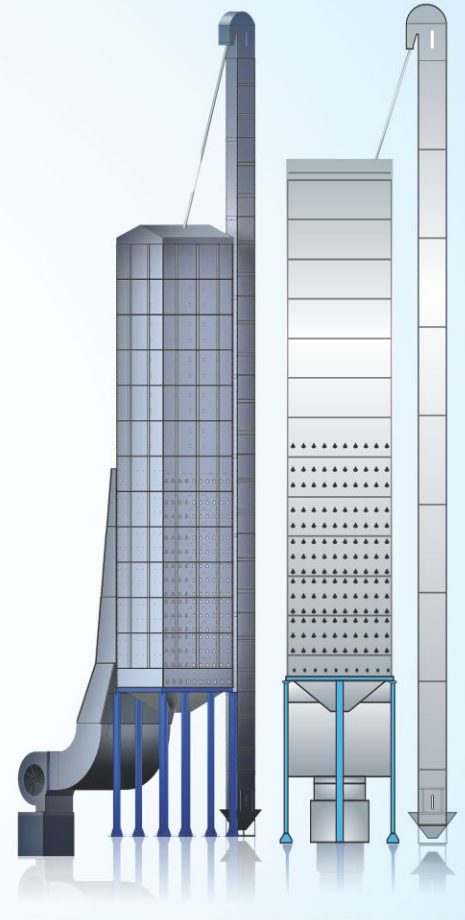
Space Requirement	13x30 fts.
Power Requirement	25 HP
Steam Kg/Hr.	800
Blower CFM	25000
Height of Elevator	70 fts.
Buckets in Elevator	10"
Height of Drier	55 fts.
Loading Time	60 min.

32 Tons Drier



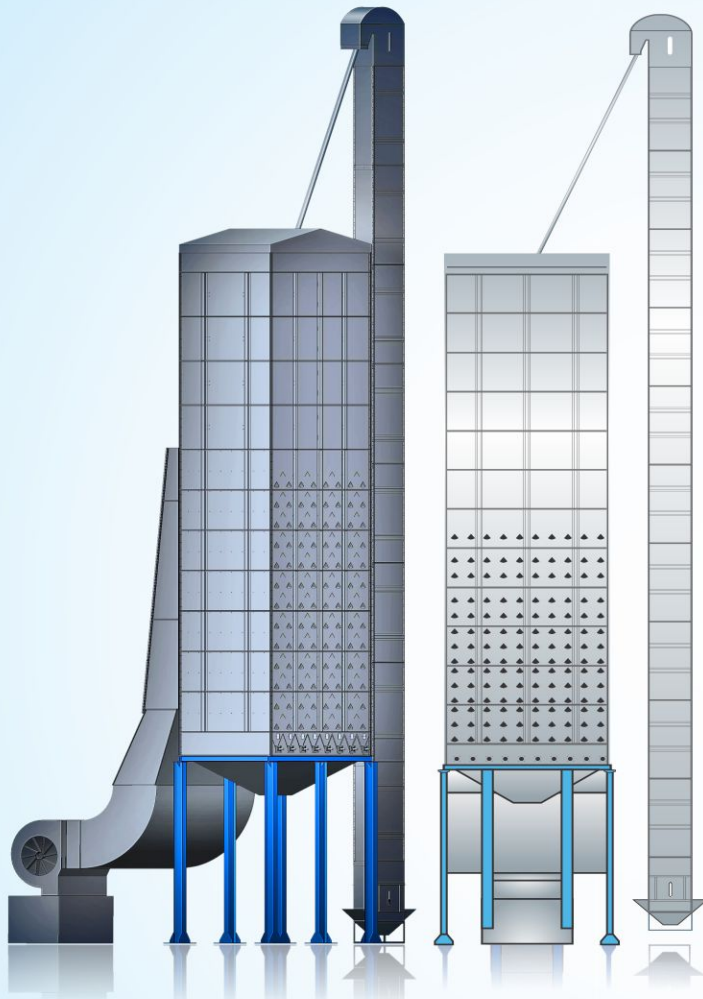
Space Requirement	13x30 fts.
Power Requirement	28 HP
Steam Kg/Hr.	1100
Blower CFM	34000
Height of Elevator	75 fts.
Buckets in Elevator	12"
Height of Drier	60 fts.
Loading Time	75 min.

40 Tons Drier



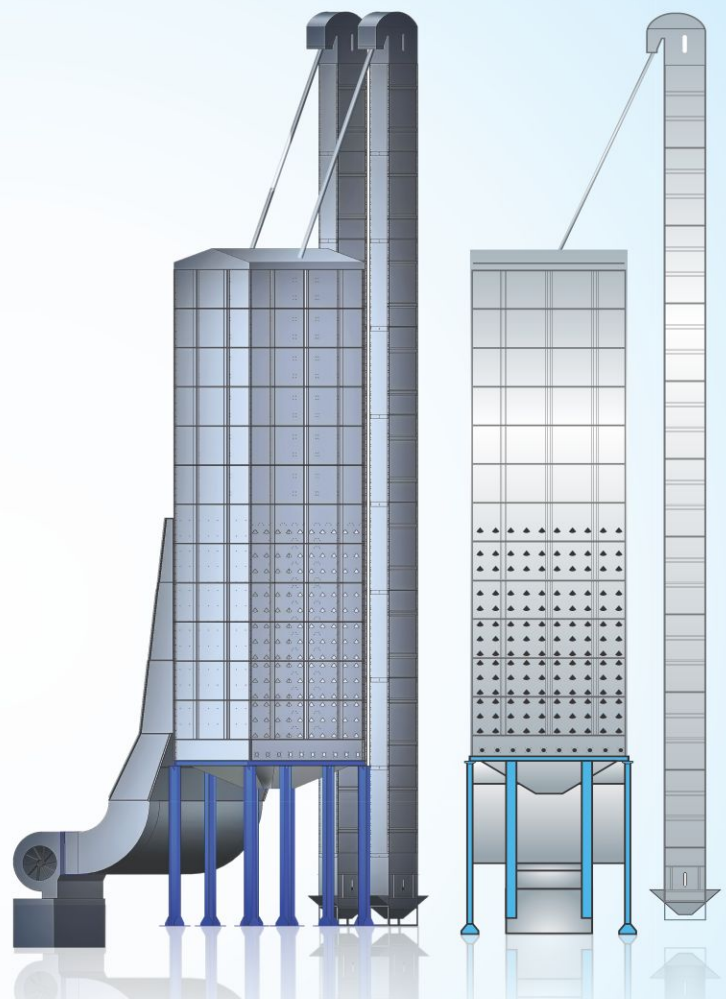
Space Requirement	13x30 fts.
Power Requirement	35 HP
Steam Kg/Hr.	1600
Blower CFM	46000
Height of Elevator	82 fts.
Buckets in Elevator	12"
Height of Drier	67 fts.
Loading Time	90 min.

50 Tons Drier



Space Requirement	22x37 ft.
Power Requirement	55 HP
Steam Kg/Hr.	1900
Blower CFM	52000
Height of Elevator	82 ft.
Buckets in Elevator	14"
Height of Drier	67 ft.
Loading Time	110 min.

60 Tons Drier



Space Requirement	24x37 ft.
Power Requirement	55 HP
Steam Kg/Hr.	2250
Blower CFM	62000
Height of Elevator	82 ft.
Buckets in Elevator	14x2"
Height of Drier	67 ft.
Loading Time	130 min.



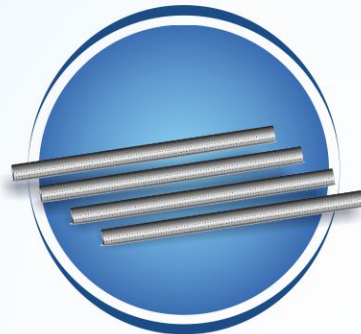
**DRIERS
SUCCESSFUL INSTALLATIONS**



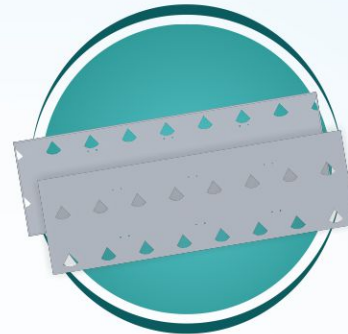


Rebuilding your Existing Parboiling & Dryers

Now customer will get their individuals and customised requirements in their existing dryers & parboiling plants.



Stainless Steel Steam Filter



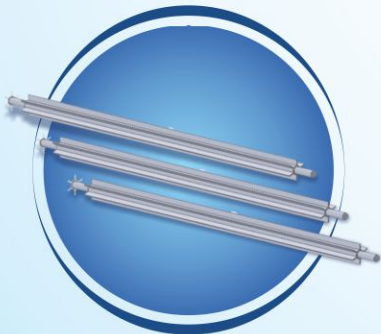
Stainless Steel Drier Panels



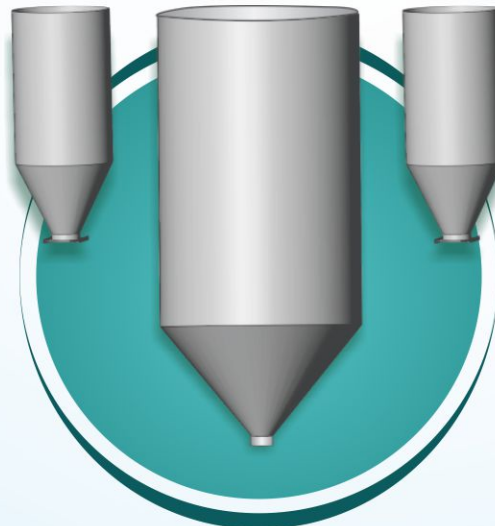
Elevator Belts & Buckets



Stainless Steel Baffles



Stainless Steel Worm Shaft



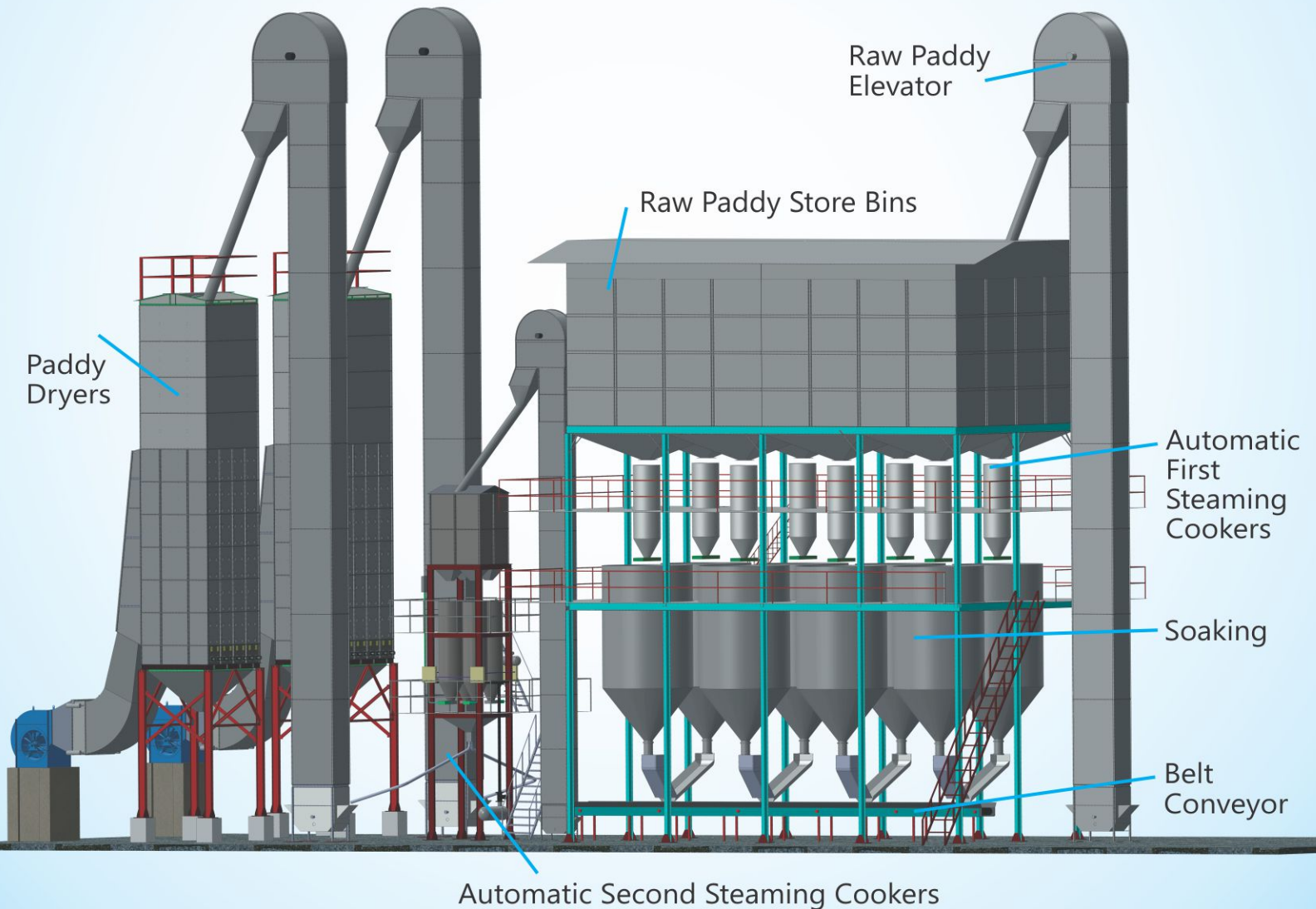
**Stainless Steel Soaking Tanks and
Kachi-Pakki Tanks**



**The Steam Heat Exchanger made of Seamless
Carbon Steel Tube with Aluminum extruded fins.**

Automatic Online Cooking System

For Precise and Fast Cooking Available in Both Pre Steaming & Post Steaming Section



JYOTI ONLINE COOKER ADVANTAGES

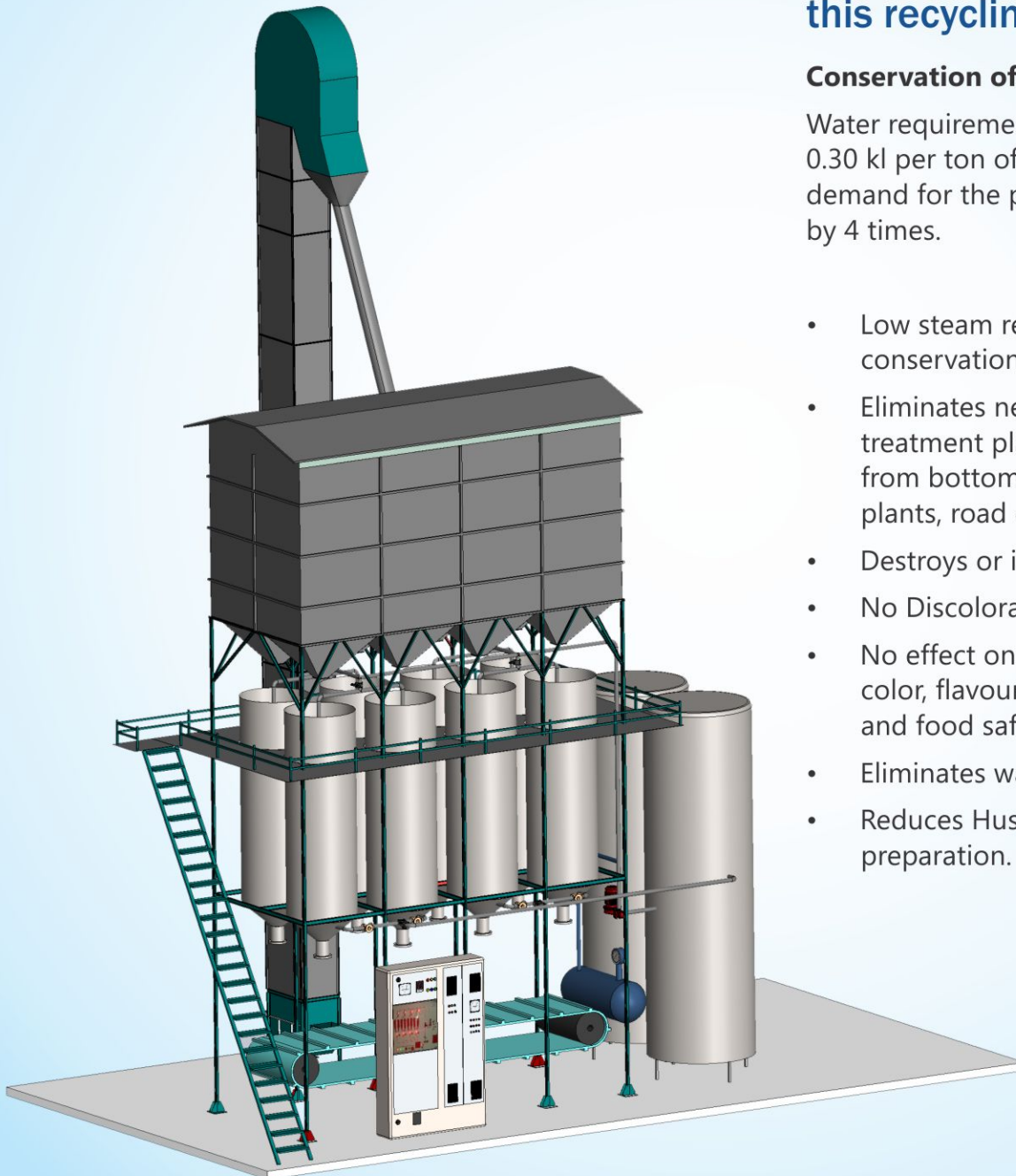
- Completely automatic continuous cooking system to increase productivity.
- Suitable For All Verities Paddy.
- Uniform Cooking and even Color Rice.
- Man power Not Required.
- Less Steam Requirement.
- Can be easily retrofitted to existing Par boiling and drying plants.
- Hygienic Process.
- Stainless Steel construction.
- Less Broken as compare to Manual Traditional Cooking.

HOW ARE WE BETTER THAN OTHERS

- The only company which have great success in both Basmati and non-basmati solutions
- Metal knowledge - Quality and thickness of material (S.S/M.S) is superior than others i.e. certified material used.
Whole drier and parboil (including ducting, store bin, nuts and bolts) except structure is made of only SS.
- Our Drier is erected completely with the help of Stainless steel nuts and bolts, No welding used in Driers.
- Bought out parts like bearing, belts, valves, motors etc. are purchased from well reputed companies.
- Some major suppliers are : Jindal Steel, Sant, Superon, Janatic Automation, Bharat Bijli, Kirlosker.
- We eliminate all types of Human Errors using best CNC machines laser cutting, shearing, and bending of Stainless steel sheets.
- We are the only company who delivered India's biggest plant.
- We are the only company whose customer repetition is more than 90% because we believe in providing best after sales service and building a family type relations with our customers.
- We provide service if there are quality issues during different types of grain processing.
- We say one thing to all our customers ,Grow your business, Elevate your business by Focusing on your sale and let us handle the Technical aspect of your plant.



Automated Hot Water System



The Advantages of this recycling are:

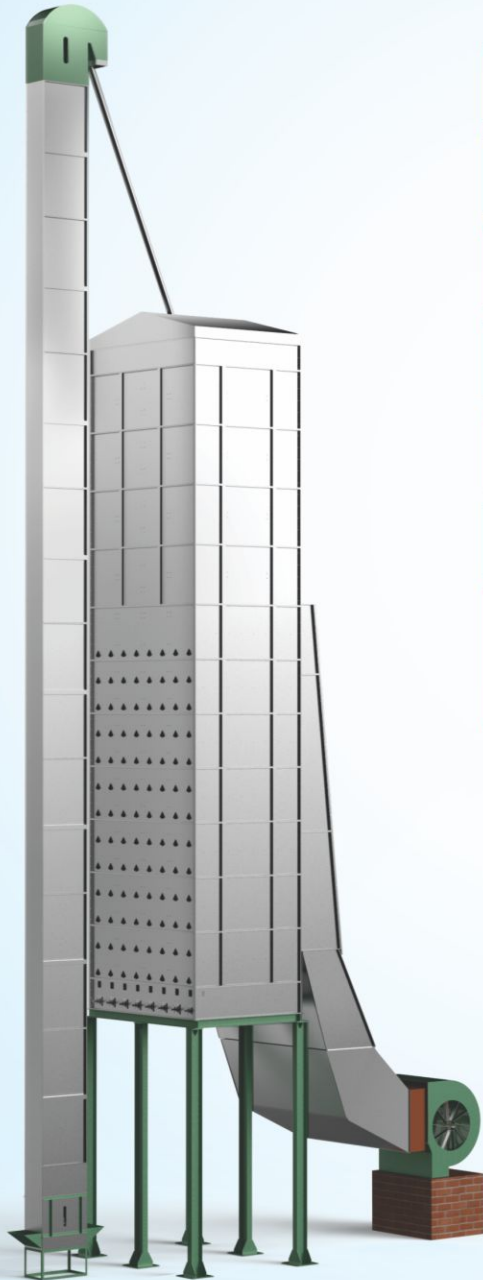
Conservation of water

Water requirement is reduced from 1.20 kl to 0.30 kl per ton of paddy processed. Water demand for the parboiling process is reduced by 4 times.

- Low steam requirement - Energy conservation.
- Eliminates need for expensive waste water treatment plant. The 5% water discharge from bottom of tank can be used for plants, road cleaning etc.
- Destroys or inactivate micro organisms.
- No Discoloration, offensive flavour.
- No effect on quality of rice including color, flavour, broken and food quality and food safety.
- Eliminates water pollution.
- Reduces Husk consumption in hot water preparation.

Pressure Reducing Station Hot Air Automation

We Specialize in the design, manufacturing and supply of various configurations depending on the customer's requirement of flow rate, Pressure rate, Temperature and other parameters.



Minimum Maintenance

Low Energy Consumption

Flexible Modular Constructing

large volume capacity available

Extremely user-friendly controls

Remarkably gentle processing of the grain

**Optimum energy savings by circulating
air and heat recovery**



Decoiler & Cut to Length Machine



Sheet Bending Machine



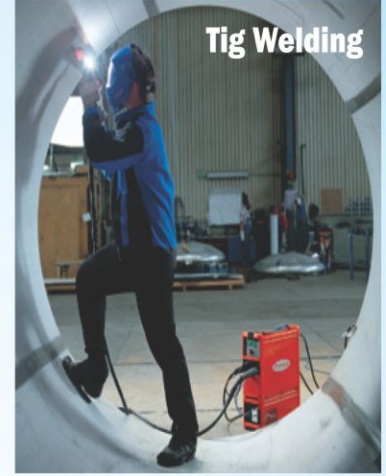
Mig Welding



TRUMPF High Precision- Laser Cutting Machine



Tig Welding



I N F R A S T R U C T U R E



CNC Sharing Machine

CNC Press Break



After-Sales Service Support

TRAINING

1. Detailed training on the operation and maintenance is provided for each machine
2. Jyoti is providing training either in the plant of customers or in Jyoti facility.
3. Training is provided by expert personnel.

CONSULTANCY

Jyoti is providing consultancy services both to its own customers and customers of other manufactures.

SPARE PARTS

Quality and effective spare parts management is one of the subject Jyoti gives priority. The main object is to ensure that the plant has minimum down time. Therefore, optimum stock of spare parts is available at any given time with the fastest possible delivery around the world.

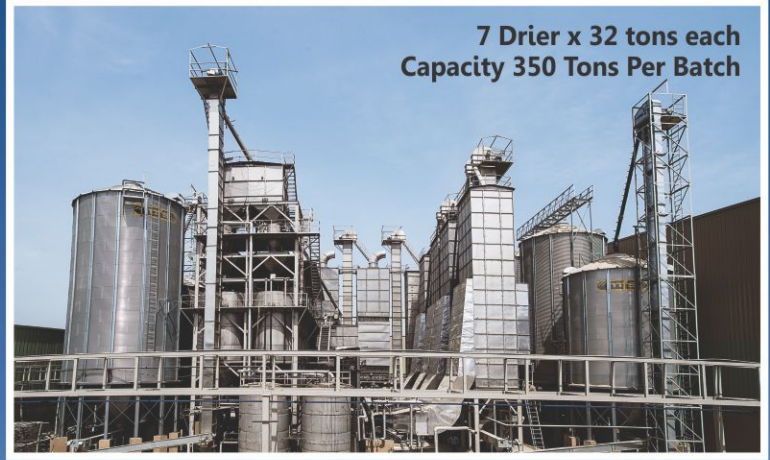


Turnkey Projects

**8 Drier x 24 tons each
Capacity 300 Tons Per Batch**



**7 Drier x 32 tons each
Capacity 350 Tons Per Batch**



**12 Drier x 32 tons each
Capacity 576 Tons Per Batch**



Clientele

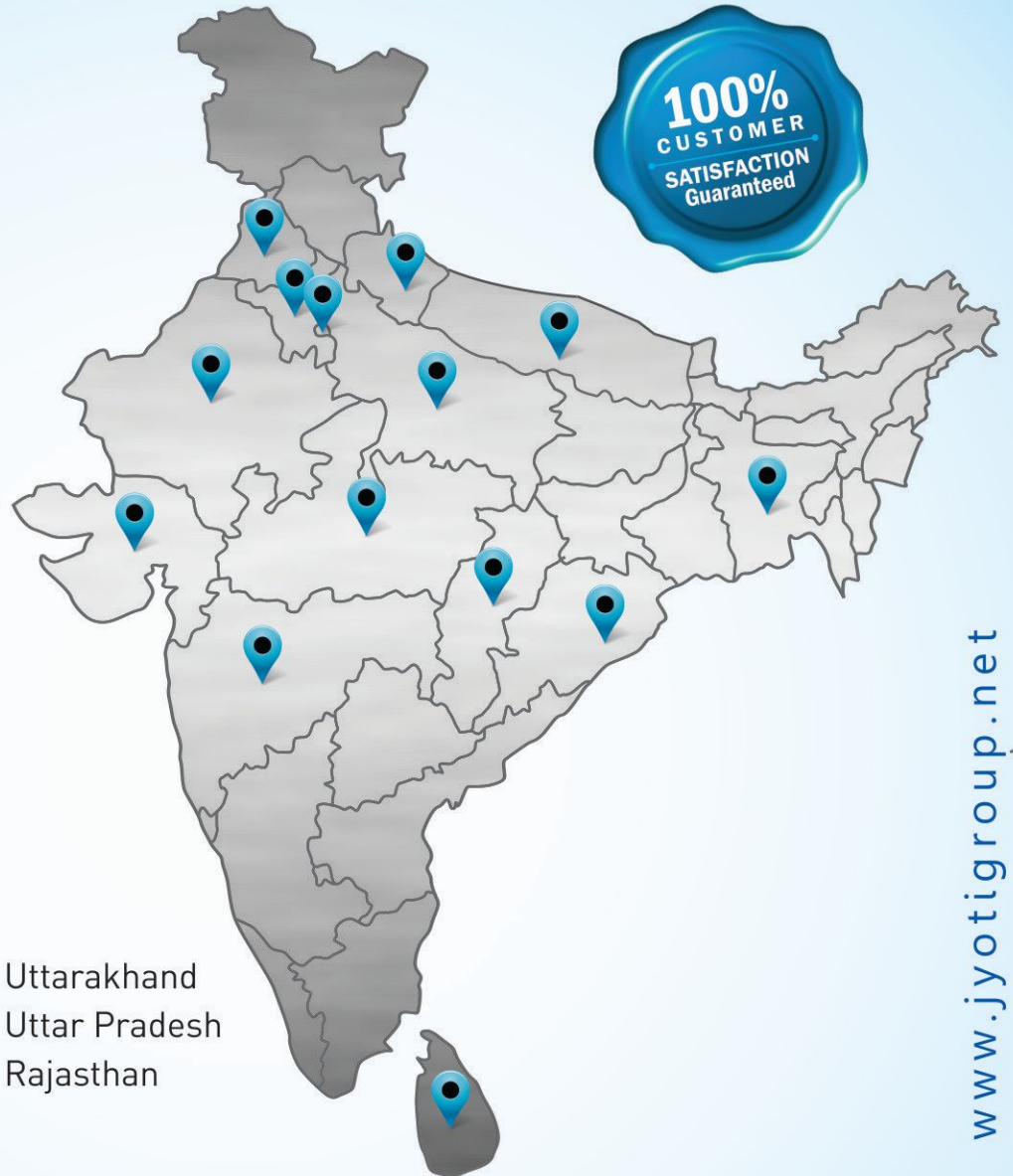


Global Presence

- Nigeria
- Bangladesh
- Nepal
- Sri Lanka

India Presence

- Haryana
- Punjab
- Delhi
- Orissa
- Chattisgarh
- Madhya Pradesh
- Gujarat
- Maharashtra
- Uttarakhand
- Uttar Pradesh
- Rajasthan



www.jyotigroup.net



Shri Vinayaka Rice Techno

Railway Road, Taraori (Karnal) Haryana - 132001 India

Contact : +91 92158 11055 (Neeraj Gupta), +91 99963 94001 (Vibhor Gupta)

Email : info@jyotigroup.net, neeraj@jyotigroup.net, svricetechno@gmail.com

PARBOILING

DRYING

HANDLING

PROCESSING

TURNKEY

