



SATYAJIT

Renewable Engineering PVT. LTD.

PRODUCT CATALOGUE

GREEN ENERGY

- By Us, Of The Nation, For The Earth



**SATYAJIT RENEWABLE
ENGINEERING PVT. LTD.**

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Why us?

Our India is full of varieties in all the senses i.e. place, cluster, people, agriculture, biomass varieties, atmosphere etc. Our technomachinery is successful amongst all various clusters of India. We develop the line according to all type of places and biomass raw materials, so it can run at any place, in any state, with any type of agriculture biomass. Making few changes in the line we can run it easily at anywhere.

Our technology is a simple and unique, known in the national and international cluster of biomass briquette and pellet manufacturing machinery, in which we have made many changes according to our 20 yrs experience of **Manufacturing** biomass briquette and pellets and 40 yrs. of **Engineering** and **Innovation**.

We can say it

- a masterpiece of combination of experience and engineering together!

India's **only** and **100% inhouse manufacturer** of Vertical Ring Die Pellet Machine and it's spare parts, give us an advantage of parameter modification for quality improvement.



**COST
EFFECTIVE**



**LESS
MAINTENANCE**



**EASY
OPERATION**



**LOW COST
PROCESSING**



**INHOUSE
PRODUCTION**



**FULLY
AUTOMATIC**



**AFTER
SALES SERVICE**



**SPARES
AVAILABILITY**



**QUICK
REPAIR**



**LESSER
DROP DOWNS**



Our Motto

We are adamant about providing the **Most Advanced, User-friendly** and **Cost effective** technology.

After Sale Service and **Technical Guidance** should be provided to anyone in need.

We believe that our should be **easy to operate** for any new person also.

Expense to convert the biomass into pellets from our machine should be **minimum**.

Each and Every Spare Parts is manufactured by us and provided at **reasonable rate**.



ये हम सबकि जिम्मेदारी हे की हम देश का फ्यूल
शुद्ध और सस्ता करें!!!!



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RAW MATERIALS

“Jo jal sakta hai,
Vo sab chal sakta hai”

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RENEWABLE ENGINEERING PVT LTD

- Musturd Husk
- Ground Nut Shells
- Soya Bean Husk
- Chick Pea Husk
- Juliflora

- Press Mud
- Bagasse
- MSW
- RDF
- Cotton Dust

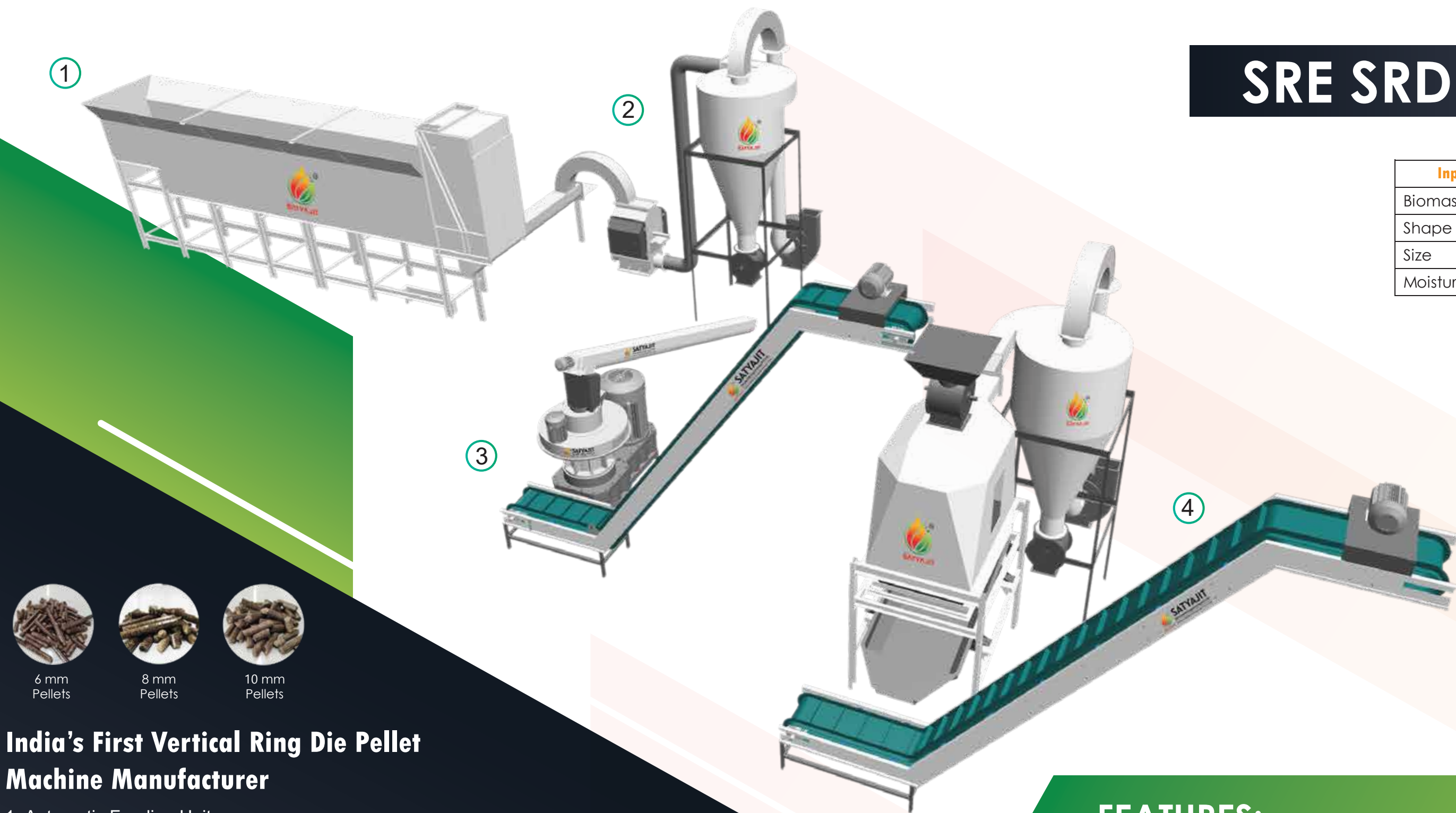
- Rice Husk
- Sawdust
- Wood Chips
- Wood Shavings
- Tree Bark
- Pine Needles
- Napier Grass
- Bamboo
- Veneer Waste

- Almond Shells
- Cotton Stalks
- Rice Straw
- Arhar Stalks
- Maize Stalks
- Sugarcane Leaves
- Wheat Straw

And Many More...

SRE SRDP LINE

Input Raw Material	
Biomass	Any
Shape	Husk Form
Size	< 50 mm
Moisture	< 10 %



6 mm Pellets



8 mm Pellets



10 mm Pellets

India's First Vertical Ring Die Pellet Machine Manufacturer

1. Automatic Feeding Unit
2. Hammer Mill (Including Cyclone)
3. Vertical Ring Die Pellet machine
4. Cooling Conveyor Belt

- Ring Die Pelleting Machines presents a range of cutting-edge gear driven, highly efficient, and durable machines designed to revolutionize pellet production processes.
- With a focus on precision and customizability, these machines are suitable for various industries and raw materials.
- Key features include state-of-the-art technology, robust construction, energy-efficiency, and user-friendly interfaces.
- Benefits include increased productivity, enhanced pellet quality, and reliable maintenance plan.

FEATURES:

- Chassis with Anti Vibrating Pad
- Cyclone with stand
- Airlock
- Blower
- Ducting Line
- Feeding Drive
- Stone Separator
- Hopper with Airlock
- Screener with Airlock
- RTD sensor system
- Cooling air fan
- 4 bag small dust collector
- Auto lubricating grease pump
- Electric panel with remote
- Standard company made motors
- Inbuilt cooling motor with pump
- Infeed and outfeed screw conveyor
- Tool Kit
- Chain with stand
- Double Cooling System

SRE PB COMBO LINE



4



3



2

1

- As a pioneer with experience of more than 20 yrs in this sector, **Automation** is a key feature of the Automatic Pellet Cum Briquette Production Line.
- SRE offers production with **different output sizes** (ranging from 16 mm to 90mm) depending on the customer requirement.
- Its **Advance engineering, Reliability** and **User friendliness** makes it a completely **affordable** production line with lowest production cost as a bonus feature.
- Complete in-house** production makes the quality control and independent R&D easier.
- Every type of biomass line ground nut shell, soya bean husk, pine needle, cotton stalk, Juliflora, rice husk, etc. can be used as raw material
- It does not require any binding substance.

This Production line is a complete procedure of **Pellet** as well as **Briquette** Production line for dry and husk form raw material.

It is a completely **Automated, User Friendly** with **Low cost production** as a bonus feature.

It is customisable as per clients requirement and their raw material.

India's First Fully Automatic Biomass Pellet/Briquette Plant Manufacturer

1. Automatic Feeding Unit
2. Hammer Mill (Including Cyclone)
3. Pellet cum Briquetting COMBO machine
4. Cooling Conveyor Belt

Input Raw Material	
Biomass	Any
Shape	Husk Form
Size	< 50 mm
Moisture	< 10 %



16-18 mm Pellet



90 mm Briquette

FEATURES:

- Cooling line for Briquette
- Cooling belt for Pellet
- Infeed Screw Conveyor
- Chain Block with Stand
- Briquette Die Holder
- Heat Exchanger
- Electric Panel with Remote
- Standard Company motors
- Chassis with foundation bolts
- Oil Supply System with oil pump motor
- Stone Separator
- Feeding Drive
- Ducting Line
- Compact Bag Filter
- Blower
- Airlock
- Cyclone with stand
- Chassi with Anti Vibrating pads
- Infeed and Outfeed Conveyors

SRE VERTICAL RING DIE PELLET MACHINE



The SRDP series vertical ring die pellet machine is different from other horizontal ring die machines, this machine has a vertical structure, easy for biomass materials feeding, big pressure, big capacity and stable working. It is a high efficiency equipment for biomass pellet production.

This equipment is good at pressing low adhesive and hard molding materials, such as pressing the rice husk, hardwood sawdust, sunflower seeds husk, peanut shell, wood bark and other wood waste, it also can press different kinds of straw and agriculture waste. This pellet machine is widely used in the biomass pellet making industry and other pellet forming industries

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 8 mm
Moisture	< 12%

Model	Power (HP)	Capacity (Kg/hr)
SRDP-560	123	900 -1200
SRDP-560P	185	1500 -2000
SRDP-850	307	2000 -3000
SRDP-850P	345	2500 -3500

SRE PB COMBO



The SRE-PB pellet cum briquetting combo unit is made of metal alloy which can withstand huge force from an oscillating piston. Piston press type machine uses a high efficiency motor to provide enough power to produce both pellets and briquettes by mechanical punch. SRE offers products with different output sizes (ranging from 16 mm to 100 mm) depending on the customer requirement. Moisture content should be below 10%.

Every type of biomass like groundnut shell, soya bean husk, pine needle, bagasse, cotton stalk, Juliflora, paddy straw etc. can be used as raw materials. It does not require any binding substance.

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 8 mm
Moisture	< 12%

Model	Power (HP)	Capacity (Kg/hr)
SRE-PB2000	87.5	1500 - 2000

Hammer Mill Unit



The use of hammer mill technology to grind the bigger size husks and chips of biomass (up to 50 mm size) into powder form. The rotor has passed the dynamic balance test; it can rotate in both forward and backward direction. There are symmetrical operation doors and safety interlocks on both sides. It is smaller in size but efficient enough to meet the customer requirements. Output size of the raw material can be changed by changing the sieve used for screening. The operation doors are helpful to renew the sieve plate and hammers, also helpful for checking up and debugging.

This series hammer mill has reasonable structure, sturdy and durable use, safety and dependability, simple installation, easy operation, least vibration, high efficiency etc

Input Raw Material	
Biomass	Any
Shape	Husk or chips
Size	< 50 mm
Moisture	< 20 %

Model	Power (HP)	Capacity (Kg/hr)		
		4 mm	6 mm	8 mm
SRE-G2400	78	1000 - 1500	1500 - 2000	2000 - 2500
SRE-G3000	98	1500 - 2000	2000 - 2500	2500 - 3000
SRE-G3600	123	3000 - 3500	3000 - 3500	3500 - 4000

Automatic Feeding Unit



The Auto Feeding unit is a 24-30 ft long container with rotating belt which can be filled with raw material to maintain constant supply to various other succeeding units. It also separates stones and other bigger particles which are harmful to other units.

Pros: Removes Labour used for feeding
Saves Time
Adjustable Output Speed
Constant input to machines
Fully Automatic Setup

Input Raw Material	
Biomass	Any
Shape	Husk or Chips
Size	< 50 mm
Moisture	< 30%

Model	Power (HP)	Capacity (Kg/hr)
SRE-F2000	11	2000-2500

COUNTER FLOW COOLING SECTION



SPC pellets cooling machine is mainly used for cooling 6 - 10 mm diameter pellets, pellet from the outlet are a temperature of 60°C, after using the pellets cooling machine, the temperature is not higher than room temperature 25°C.

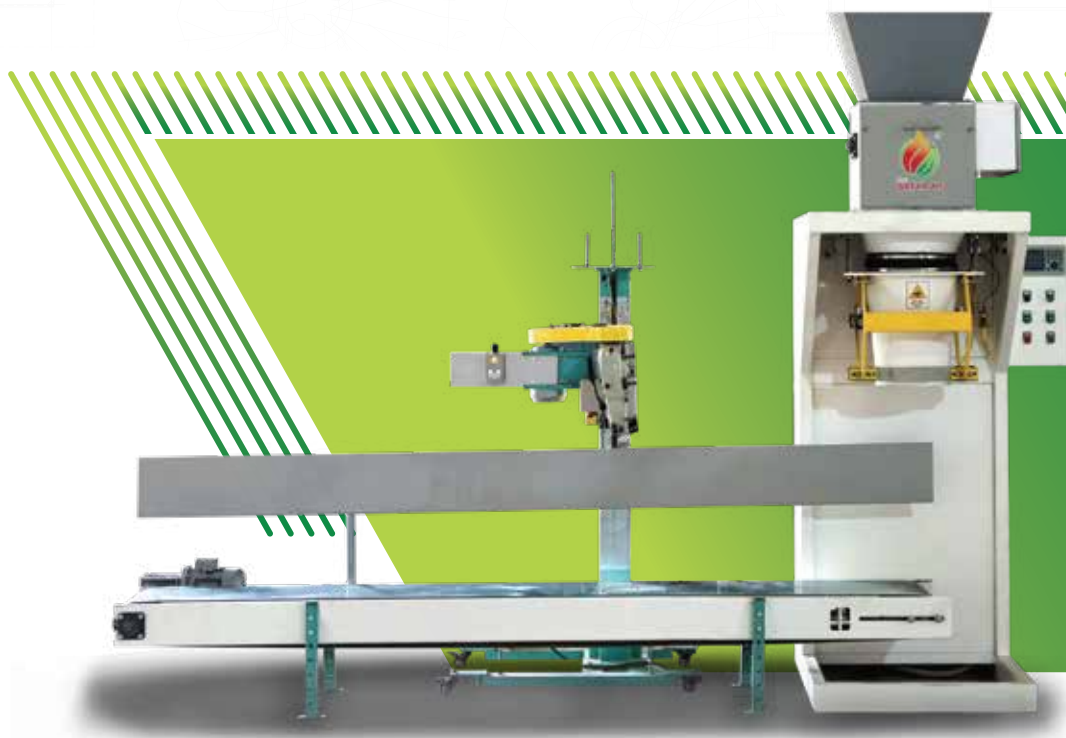
The pellets cooling machine adopts counter flow theory, cold air goes inside of cooler from bottom and then go out from top, hot pellets goes to cooler from top to bottom, as time goes on, pellets will gather at the cooler bottom, cold air will cool them at the bottom gradually, in this way will reduce pellets breaking, if cold air also go to cooler from top, which same as pellets, then hot pellets will meet with cold air suddenly, then pellets will easily break. So, the pellet cooling machine can cool fully and equally, pellet breaking rate is less than 0.2%.

The SPC pellets cooling machine generally works with a cyclone and air fan, air lock. which is used to clean dust, also it can install a screener at the cooler bottom, which can separate dust and achieve good pellets after cooling.

Input Raw Material	
Biomass	Any
Shape	Pellets
Size	< 10 mm
Moisture	< 12 %

Model	Power (HP)	Capacity (Kg/hr)
SPC-560P	20.5	2000 - 2500
SPC-850P	25	3500 - 4000

PACKING MACHINE



It is a semi-automatic pellet packing machine. It is widely used for packing different kinds of powders and pellets into small bags, the machine has an auto-weighting system, with an internal sensor and control panel, we can set the weight for each bag.

After weighing, the bags can be sealed by a sewing machine or by hot sealing machine.

The SBM-1000 jumbo bag packing machine is good for packing the biomass pellets, animal feed pellets and other powder materials into bags for large quantities.

Input Raw Material		Name	Model	Packing Range	
Biomass	Any	Pellet Packing Machine	SRE - BM50	25 - 50 Kg/Bag	With Auto Pneumatic Weighing system
Shape	Pellets				With Sewing Machine
Size	6 mm - 25 mm	Jumbo Packing Machine	SRE - BM100	200 - 500 Kg/Bag	With Auto Pneumatic Weighing system

ROTARY DRUM DRYER



The rotary drum dryer machine is a vital solution for efficient moisture elimination from a diverse range of materials. With its cylindrical design and rotating mechanism, this tool excels in industrial drying processes across sectors like agriculture and manufacturing.

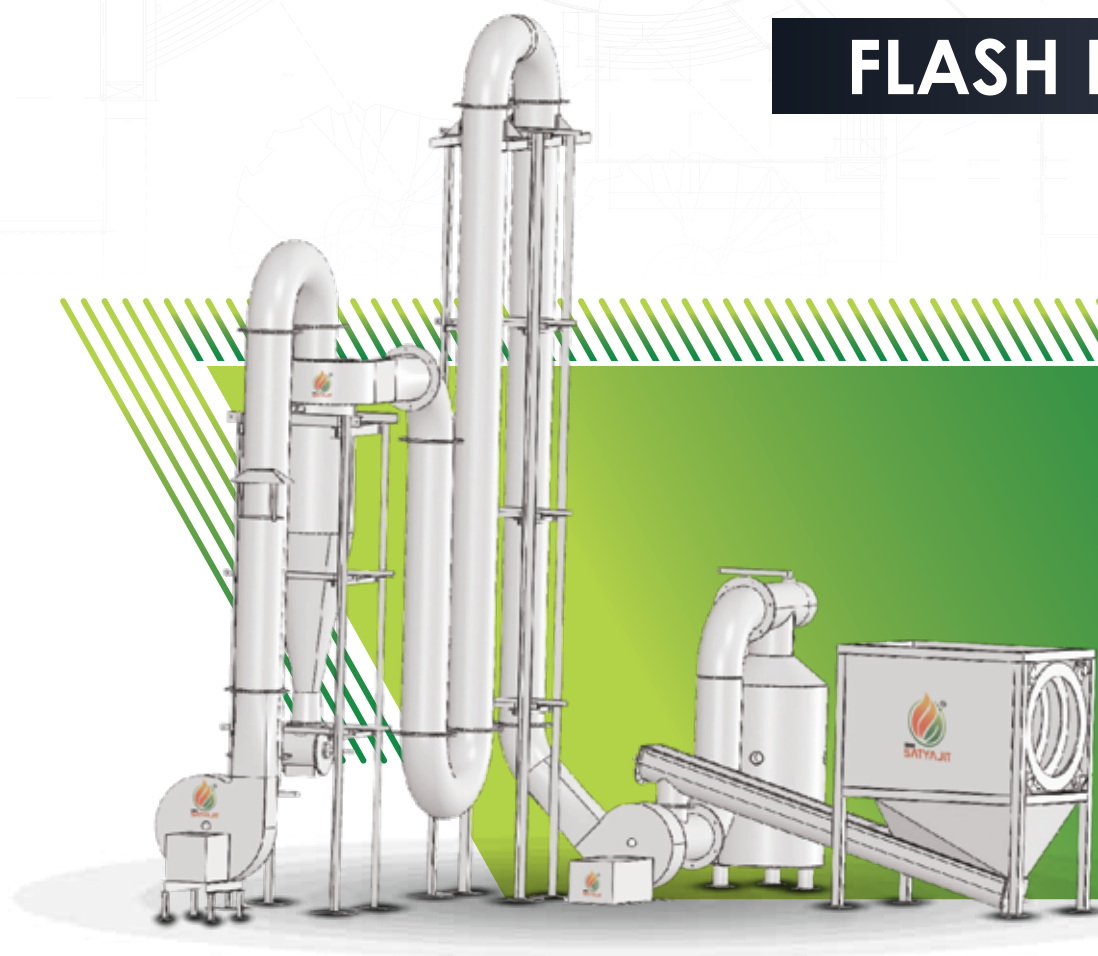
By introducing heated air into a rotating drum, the machine evaporates moisture from materials as they pass through, drastically reducing drying times. Its adaptability spans from grains to biofuels, ensuring even drying thanks to consistent heat and airflow exposure.

Temperature and speed controls are pivotal, allowing fine-tuning for specific materials. Safety features prevent issues, and prevention mechanisms curb material buildup.

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 20 mm
Moisture	< 65 %

Fact: Rotary Drum Dryer is always designed and simulated according to the Input Raw Material, it's shape, size and moisture content and Output specification requirement. All the parameters like shape, size, weight, power requirement, fuel requirement etc. vary accordingly.

FLASH DRYER



SRE-FD dryer with heating furnace, feed port, rotating drum/ cyclic nodes, delivery pipe, dust collector and discharge port. Wet material is continuously sent to the drum tube by a conveyor. Hot air makes full contact with the material. Being delivered and scattered by the high-speed hot air, water in the wet material evaporates. The material gets fully dried in the rotating drum / cyclic nodes. The dryer is widely used in industries like biomass fuel, wood pellet fuel, sawdust briquette, farming etc.

Pros: Economical
Low conversion cost
Suitable for Low moisture content

Basic Design
Easy to operate
Low Lenergy Requirement

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 10 mm
Moisture	< 40%

Fact: Flash Dryer is always designed and simulated according to the Input Raw Material, it's shape, size and moisture content and Ouput specification requirement. All the parameters like shape, size, weight, power requirement, fuel requirement etc. vary accordingly.

DRUM WOOD CHIPPER



SDC series Drum Wood Chipper is one kind of special equipment for producing wood chips, widely used in the raw material preparing process in the factories of flakeboard (shaving board/particle board), fiberboard, papermaking and wood chips making plant.

Easy operation, simple maintenance, lifelong and the low noise. This wood chipper would be the best choice for factories and families which deal with wood scraps.

Drum wood chipper is composed of a base, blade roller, upper and nether (below) feeding organization, feeding equipment, hydraulic press cushion system and electric control system.

Input Raw Material	
Biomass	Wood
Shape	Logs
Size	< 175 mm
Output	Chips

Model	Power (HP)	Capacity (Kg/hr)
SDC-S2000	90	2500 - 3000
SDC-S6000	142	4000 - 6000
SDC-S8000	170	6000 - 10000
SDC-HL(LCWC)	219	8000 - 12000

SAWDUST MACHINE



Saw Dust machine consist of heavy duty motor equipped with sharp blades, rotor rotates at a high speed, which chip the wood into small chips as come in contact with the rotor. The blades are made of high quality steel or alloys for durability and efficient cutting.

It can process materials with varying diameter. It is best suitable for logs, branches, and scraps woods/veneer waste.

The Feeding mechanism includes belt conveyor that automatically feeds the raw material. It is designed to minimize noise and vibration levels during operation, ensuring a comfortable working environment.

It is designed for ease of maintenance, with access points for blades replacement, cleaning and general oil/greasing.

Input Raw Material	
Biomass	Wood, Bamboo
Shape	Logs
Size	75 mm - 175 mm
Ouptut	Saw Dust

Model	Power (HP)	Capacity (Kg/hr)
SRE-SDM210	60	1000 - 2000
SRE-SDM2/10	90	4000 - 4500
SRE-SDM21/50	110	4500 - 6000
SRE-SDM3/50	202	9000 - 11000

ROTARY GRINDER



The rotary straw crusher machine is a crucial tool in biomass processing, designed to efficiently crush large straws for biomass utilization. Its robust rotary mechanism effectively breaks down substantial straws, making them suitable for energy production, composting, and industrial processes.

Powered by a strong motor, it adapts to various straw sizes, prioritizing operator safety with integrated guards and protection. Its durability suits the demanding nature of biomass crushing, finding applications in bioenergy, agriculture, and more.

In essence, this machine enhances sustainable biomass resource utilization and industrial efficiency.

Input Raw Material	
Biomass	Any suitable
Shape	Straw, Straw, Bale
Size	Variable
Output	upto 50 mm

Model	Power (HP)	Capacity (Kg/hr)
SRE-RG30	220	800 - 1500
SRE-RG50	245	1500 - 2500

SHREDDER



Industry leading designs and automatic reversal system for load protection makes it the best Twin shaft shredder. It is completely made of high grade steel to provide wear resistant and energy efficient operation. Its innovative cutter locking design provides high torque at low speed.

Along with User friendly operation and robust design it has low maintenance cost and operation cost. For the best performance, a triple reduction gearbox box is aligned with the body on a single fabricated base.

It can be used for several materials like wood, biomass, industrial waste etc.

Input Raw Material	
Biomass	Any suitable
Shape	Straw, Straw, Bale
Size	Variable
Output	upto 50 mm

Model	Power (HP)	Capacity (Kg/hr)
SRE-SH42210	150	3000 - 4000
SRE-SH42212	200	9000 - 10000
SRE-SH42216	354	10000 - 12000

BAG FILTER



Bag filters are devices that remove particulate matter from a air stream by passing the gas through a porous fabric that traps the particles.

Bag filters consist of a number of cylindrical bags made of various materials, such as woven or felted fabrics, that are attached to a tube sheet in a housing. The air enters the housing and flows through the bags, leaving behind the dust on the inner surface of the bags. The clean gas exits through the outlet. The dust is periodically removed from the bags by a cleaning mechanism, such as reverse air, pulse jet, or shaker, depending on the type of bag filter. The dust is then collected in a hopper and disposed of or recycled.

Bag filters have high collection efficiency, low operating costs, low maintenance requirements, and can handle a wide range of air temperatures and dust characteristics.

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 1 mm
Output	Clean Air

Model	Power (HP)	Capacity (Kg/hr)
SRE-BF01	2	2500 - 3000
SRE-BF02	22	4000 - 4500
SRE-BF04	30	8000 - 12000

CONNECTING CONVEYORS



Connecting conveyors link two or more conveyor systems together, allowing for the continuous and efficient transport of materials. Connecting conveyors can be used to bridge gaps, change directions, or merge or split conveyor lines. They are often adjustable in height, angle, and speed, and can be customized to suit different applications and environments.

Connecting conveyors are essential for optimizing the workflow and productivity of various industries, such as manufacturing, warehousing, logistics, and packaging. They can reduce labor costs, improve productivity, enhance safety, and optimize space utilization.

Input Raw Material	
Biomass	Any
Shape	Any size
Size	Any size
Ouput	-



OUR PRESENCE



where **Engineering**
met **Environment** to
Protect it.

We have been expanding at
the fastest rate with 100% client
satisfaction in past years.

OUR MANUFACTURING SITE



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