



SATYAJIT

Renewable Engineering PVT. LTD.

PRODUCT CATALOGUE

GREEN
ENERGY

- By Us, Of The Nation, For The Earth



**SATYAJIT RENEWABLE
ENGINEERING PVT. LTD.**

www.satyajitmachineries.com

Email :- satyajit.sre@gmail.com

info@satyajitmachineries.com

Mo. 09712941920, 09099988080



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**.

यह देश का फ्यूल है और यह
हम सबकी जिम्मेदारी है कि
हम देश का फ्यूल शुद्ध एवं
सस्ता करें |





INDEX

S No.	Item	Page No.
1	RAW MATERIALS	1
2	SRE TURNKEY PROJECTS	2
3	SRDP LINE	4
4	SRE RING DIE PELLET MACHINE	6
5	SRE PB COMBO	8
6	X TYPE HAMMER MILL	9
7	HAMMER MILL UNIT	10
8	TURBO HAMMER MILL	11
9	DRUM WOOD CHIPPER	12
10	SHREDDER	13
11	ROTARY DRYER	14
12	FLASH DRYER	15
13	COUNTER FLOW COOLING SECTION	16
14	PACKING MACHINE	17
15	BAG FILTER	18
16	CONNECTING CONVEYORS	19
17	OTHER MACHINES	20
18	OUR PRESENCE	21
19	OUR MANUFACTURING SITE	22



RAW MATERIALS

जो बायोमास जल सकता है
वो सब चल सकता है |

- SATYAJIT
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

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

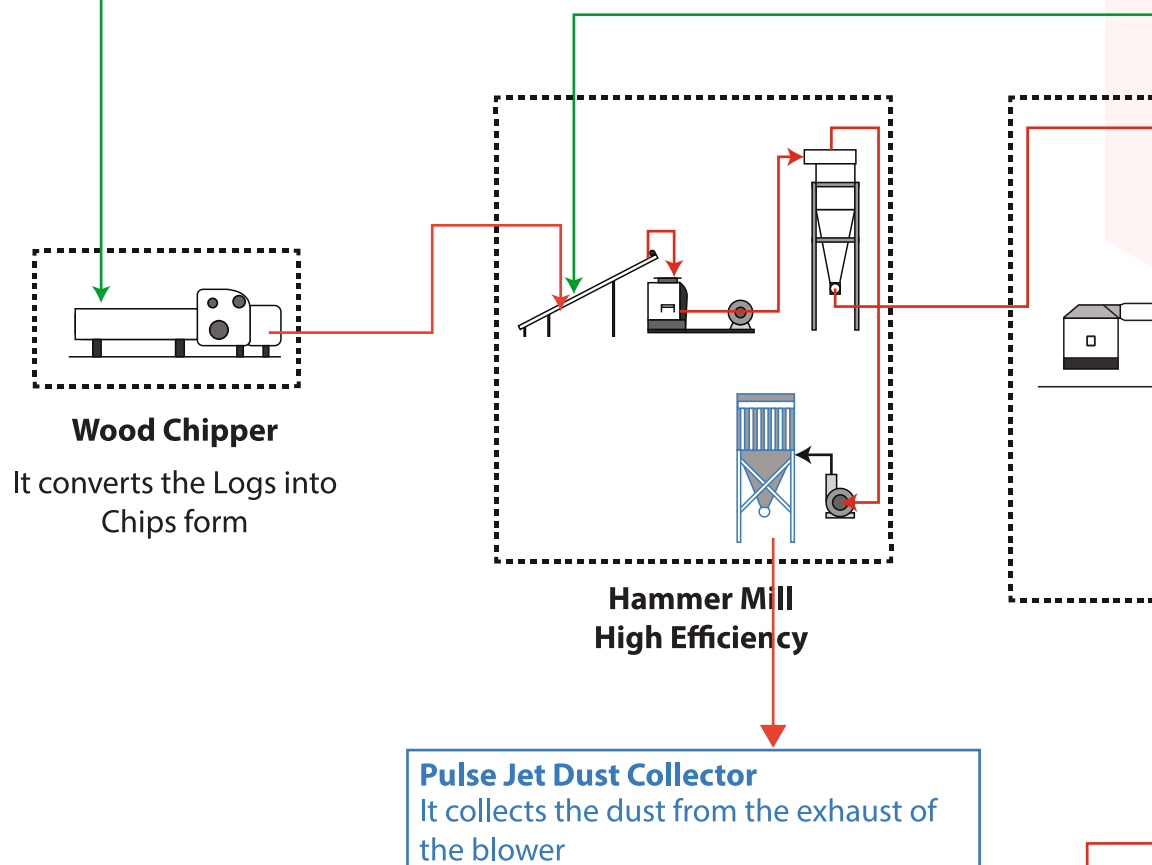
And Many More...

LOGS

Input Raw Material	
Biomass	Wood/Bamboo
Shape	Logs
Size	< 300 mm
Output	Chips (< 25 mm)

Example:

Wood Logs
Bamboo

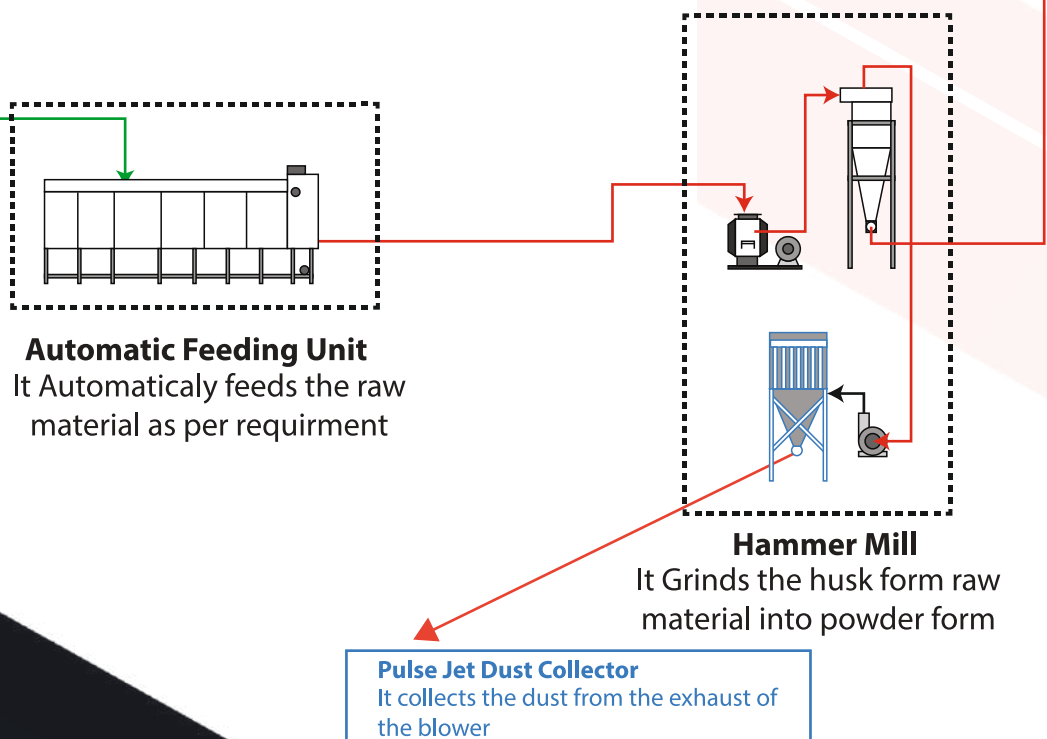


DRY HUSK

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

Example:

Mustard Husk
Rice Husk
Soyabean Husk
Toor Husk
Chickpea Husk
Coriander Husk
Maize Stalks (In cutting form)
Cotton Stalks (In cutting form)
Arhar Husk
Groundnut Shells



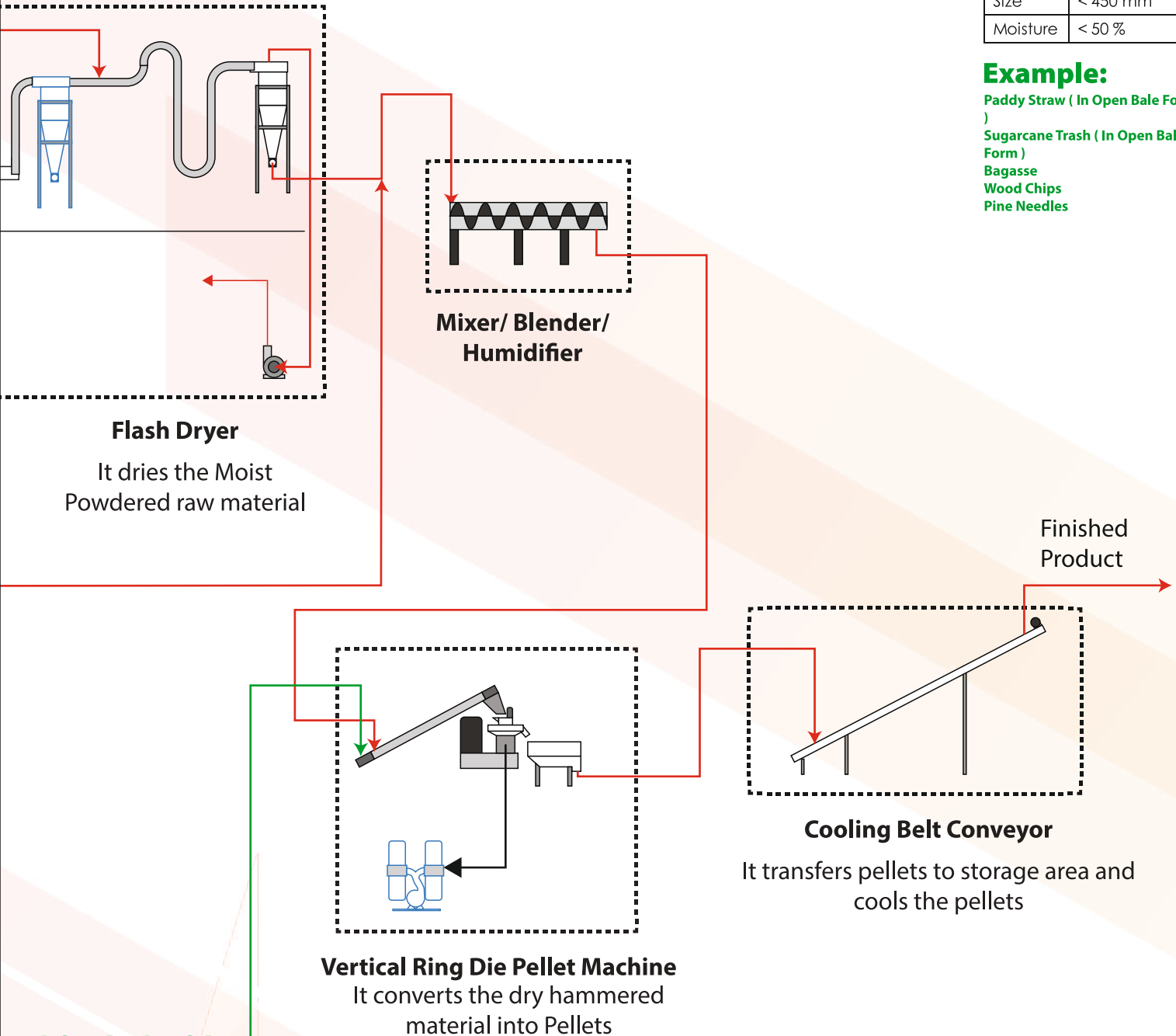
SRE TURNKEY PROJECTS

STRAW FORM / CHIPS / WET HUSK

Input Raw Material	
Biomass	Any
Shape	Straw form
Size	< 450 mm
Moisture	< 50 %

Example:

Paddy Straw (In Open Bale Form)
Sugarcane Trash (In Open Bale Form)
Bagasse
Wood Chips
Pine Needles



POWDER FORM

Input Raw Material	
Biomass	Any
Shape	Powder form
Size	< 8 mm
Moisture	< 10 %

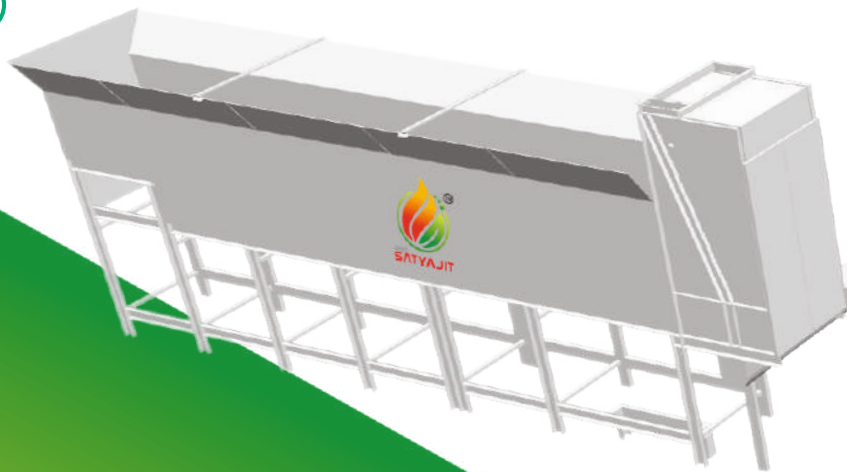
Example:

Sawdust
Pressmud
Rice Husk

OUR SERVICES

- Plant Design and Layout
- Equipment Supply
- Installation and Commissioning
- Training and Support
- Operation Guidance
- Raw Material Handling Solutions
- Market Guidance

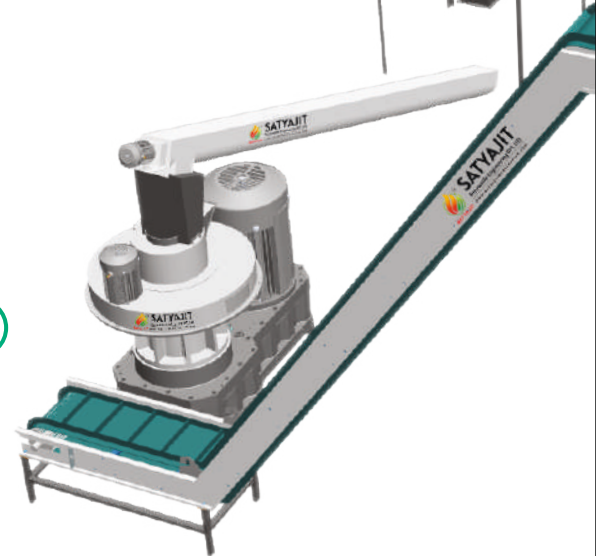
1



2



3



6 mm
Pellets



8 mm
Pellets



10 mm
Pellets

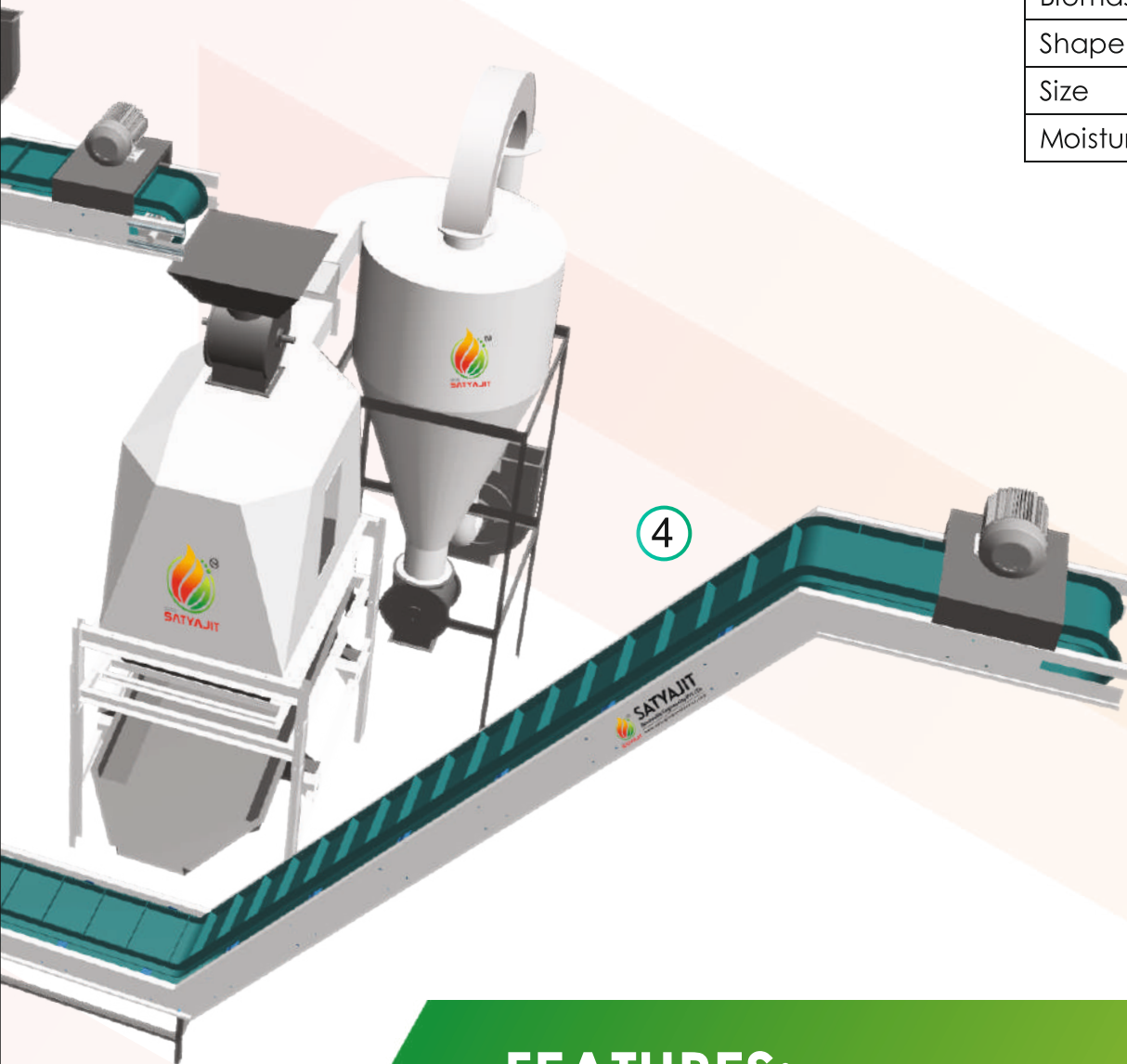
India's First Vertical Ring Die Pellet Machine Manufacturer

1. Automatic Feeding Unit
2. Hammer Mill (Including Cyclone)
3. Vertical Ring Die Pellet machine
4. Pellet Cooling Section (Optional)
5. Pellet Packing Section (Optional)

- 🔥 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.

SRDP LINE

Input Raw Material	
Biomass	Any
Shape	Husk Form
Size	< 50 mm
Moisture	10-15 %



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 VERTICAL RING DIE PELLET MACHINE



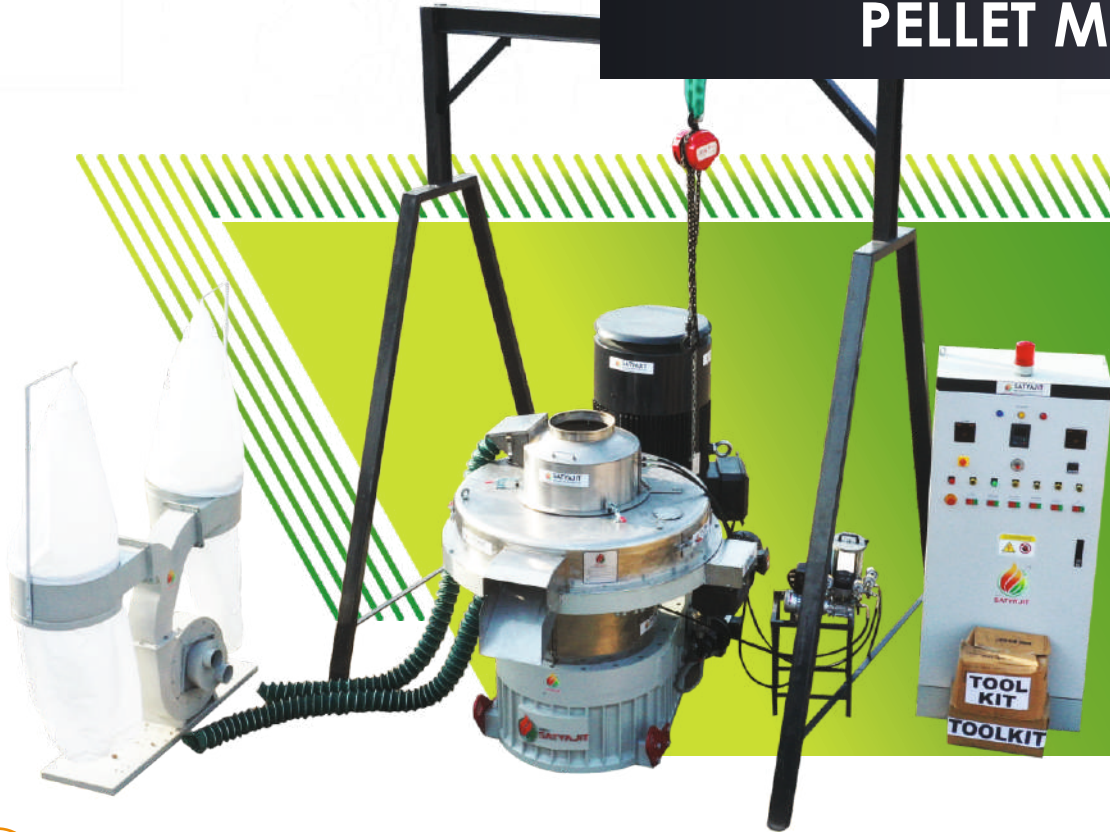
The SRDP series vertical ring die pellet machine is different from other horizontal ring die machines, this machine has a vertical structure, easy for biomass materials feeding, big pressure, big capacity and stable working. It is a high efficiency equipment for biomass pellet production.

This equipment is good at pressing both light density or hard materials, such as pressing the rice husk, hardwood sawdust etc.

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 8 mm
Moisture	10-15 %

Model	Power (HP)	Capacity (Kg/hr)
SRDP-560	123	900 -1200
SRDP-560P	185	1500 -2000
SRDP-780P	222	2000 -3000
SRDP-850P	345	3000 -4000

SRE VERTICAL RING DIE PELLET MACHINE



Real Time Oil Temperature Sensor



Air Radiator For Oil Cooling



Heat Exchanger For Oil Cooling



Oil Filter and Oil Pump Motor



Oil Flow Proxy Sensor

4 Bag Compact Dust Collector

Chain Block With Stand

Electric Panel

Tool Kit

Automatic Grease Lubricating Pump

Vertical Ring Die Pellet Machine





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%.

Input Raw Material	
Biomass	Any
Shape	Powder
Size	< 8 mm
Moisture	10 - 15%

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

X TYPE HAMMER



The X-type hammer mill is a groundbreaking innovation in paddy processing, transforming the way paddy is converted into powder. This high-performance machine combines efficiency, precision, and durability to deliver exceptional results. With its unique X-shaped rotor design, the hammer mill ensures even distribution of paddy throughout the milling chamber, resulting in consistent and uniform powder. The powerful impact force of the hammers efficiently pulverizes the paddy, producing fine powder suitable for various applications. The X-type hammer mill is also designed with a robust construction, ensuring long-lasting performance and minimal maintenance requirements.

Input Raw Material	
Biomass	Any
Shape	Straw
Size	< 1- 1.5 ft
Moisture	< 40 %

Model	Power (HP)	Capacity (Kg/ Hr)
SRE-HMX-3T	148	2,000 - 3,000
SRE-HMX-4T	183	2,500 - 3,500
SRE-HMX-5T	253	3,000 - 4,000



Hammer Mill Unit



The use of hammer mill technology to grind the bigger size husks (up to 50 mm size) into powder form. 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
Size	< 50 mm
Moisture	10 -15 %

Model	Power (HP)	Capacity (Kg/hr)		
		4 mm	6 mm	8 mm
SRE-G2400	81	1000 - 1500	1500 - 2000	2000 - 2500
SRE-G3000	103	1500 - 2000	2000 - 2500	2500 - 3000
SRE-G3600	153	2500 - 3000	3000 - 3500	3500 - 4000

TURBO HAMMER UNIT

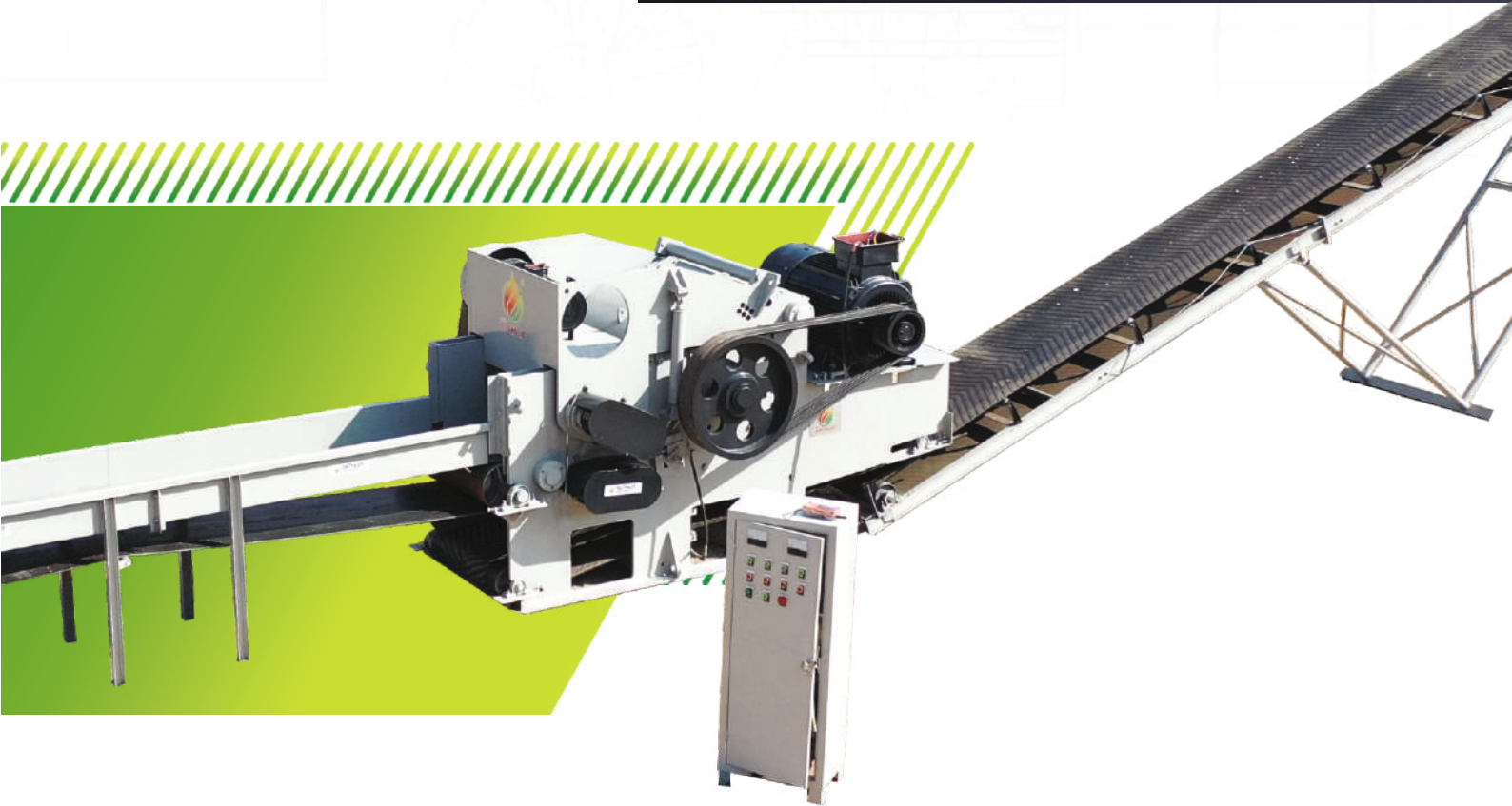


This series hammer mill has heavy structure, in order hammer hard materials. The machine is built to handle a lot of material and has a powerful motor. It's also made to last a long time, even when crushing hard stuff. The rotor has passed the dynamic balance test; it can rotate in both forward and backward direction. It has a heavy spinning rotor with special steel hammers that crushed the hard biomass.

Input Raw Material	
Biomass	Any
Shape	Husk/Chips/Straw
Size	< 200 mm
Moisture	10-15 %

Model	Power (HP)	Capacity (Kg/hr)
SRE-THM90	148	1500 - 2000
SRE-THM120	183	2000 - 3000
SRE-THM140	213	3000 - 4000

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	< 300 mm
Output	upto 25 mm

Model	Power (HP)	Capacity (Kg/hr)
SDC-S6000 (216)	90	2500 - 3000
SDC-S8000 (218)	175	6000 - 8000

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	2000 - 3000
SRE-SH42212	200	3000 - 5000
SRE-SH42216	300	8000 - 10000

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.

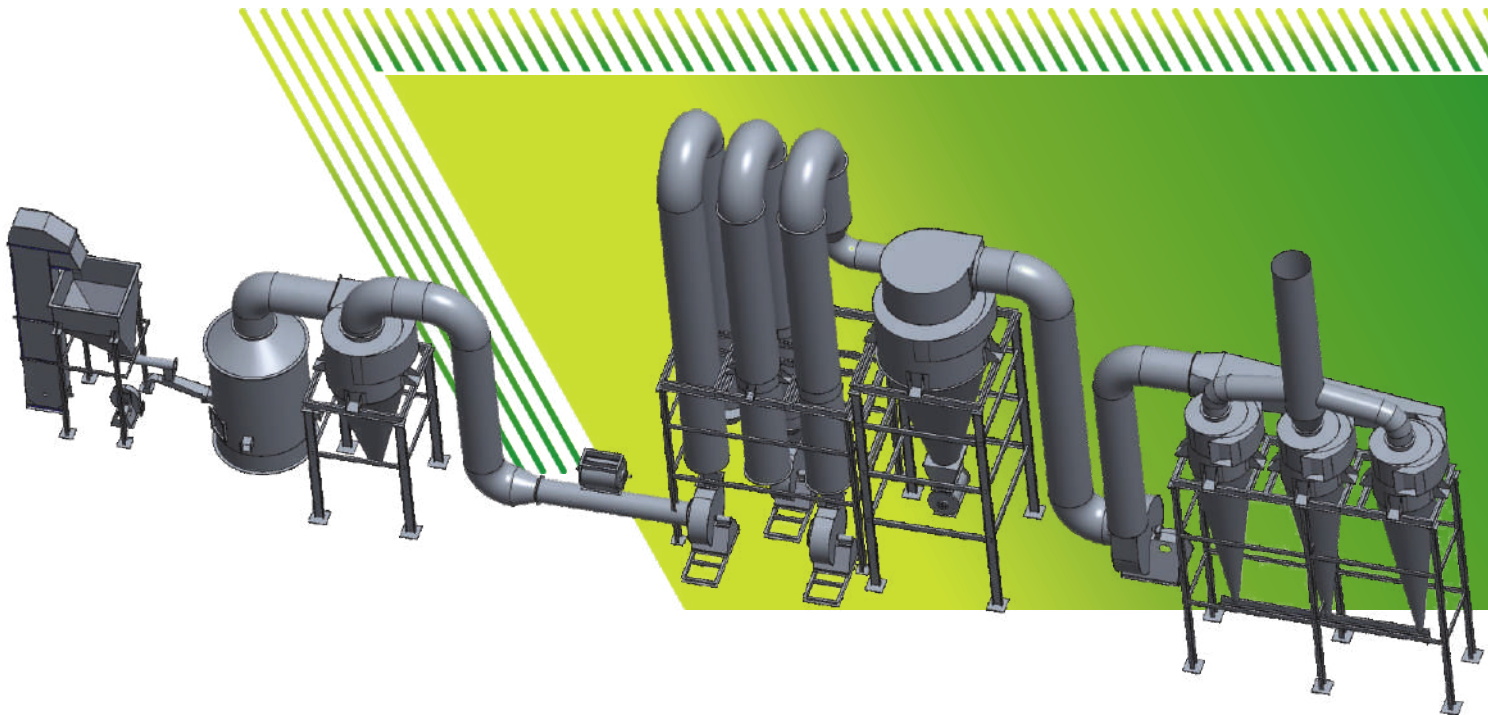
By introducing heated air into a rotating drum, the machine evaporates moisture from materials as they pass through, drastically reducing drying times. Its adaptability spans from grains to biofuels, ensuring even drying thanks to consistent heat and airflow exposure.

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 Output specification requirement. All the parameters like shape, size, weight, power requirement, fuel requirement etc. vary accordingly.

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.

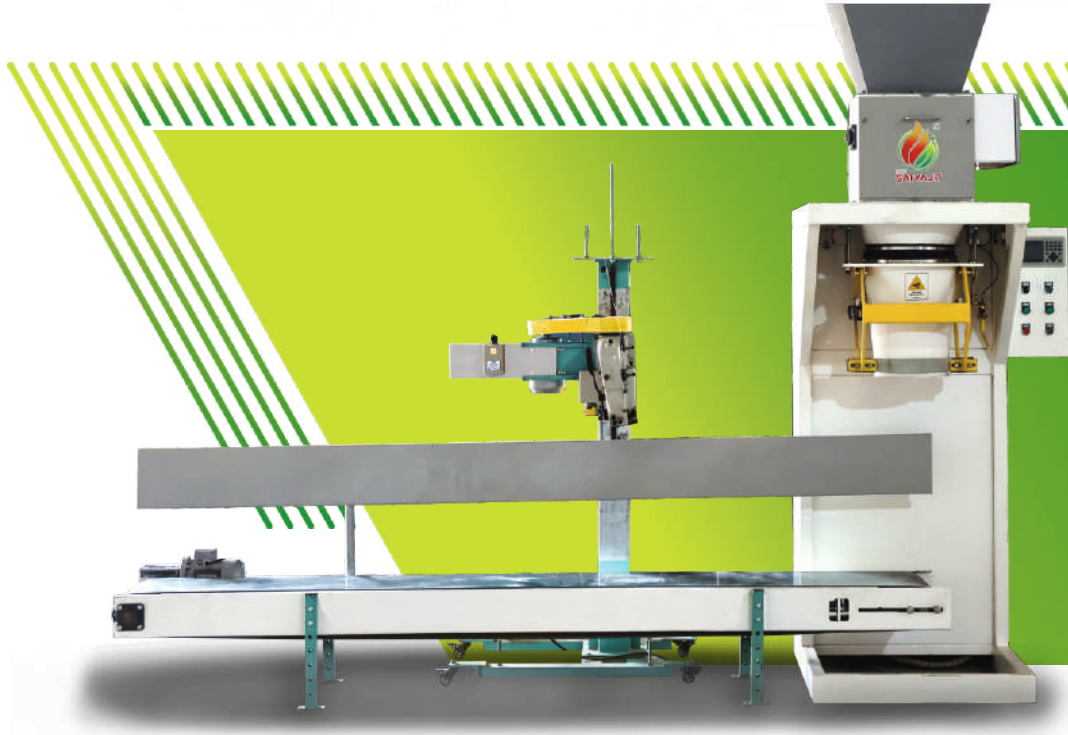
The pellets cooling machine adopts counter flow theory, cold air goes inside of cooler from bottom and then go out from top, hot pellets goes to cooler from top to bottom, as time goes on, pellets will gather at the cooler bottom, cold air will cool them at the bottom gradually, in this way will reduce 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

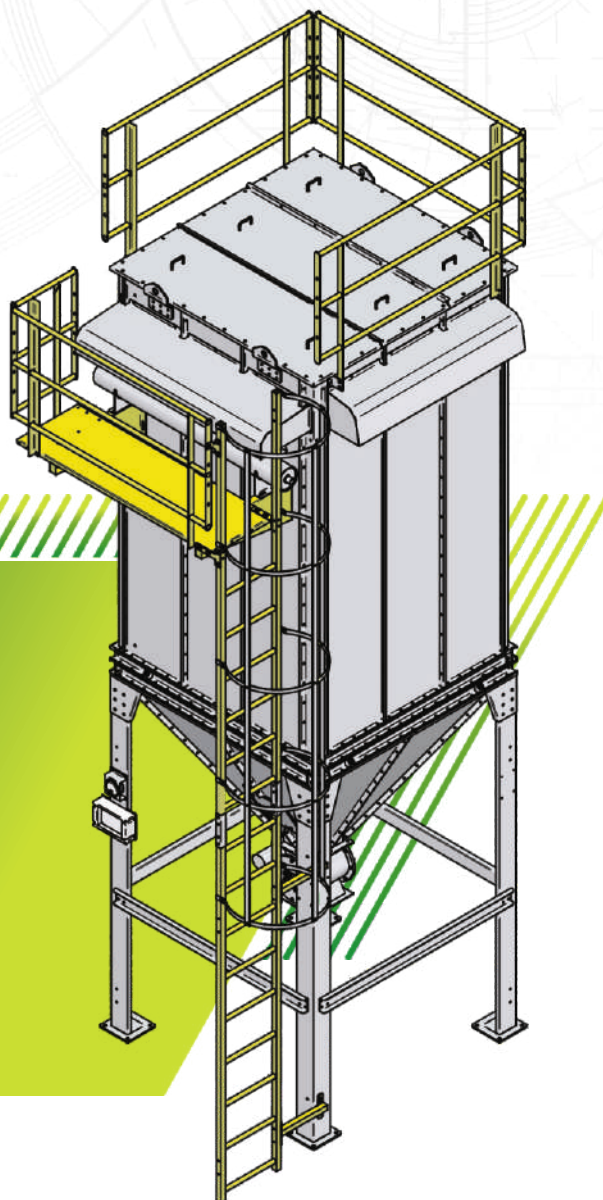


It is a semi-automatic pellet packing machine. It is widely used for packing different kinds of powders and pellets into small bags, the machine has an auto-weighting system, with an internal sensor and control panel, we can set the weight for each bag.

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



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)
SRE-BF01	1
SRE-BF02	8.5
SRE-BF03	9
SRE-BF04	11

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	-



AUTOMATIC FEEDING UNIT



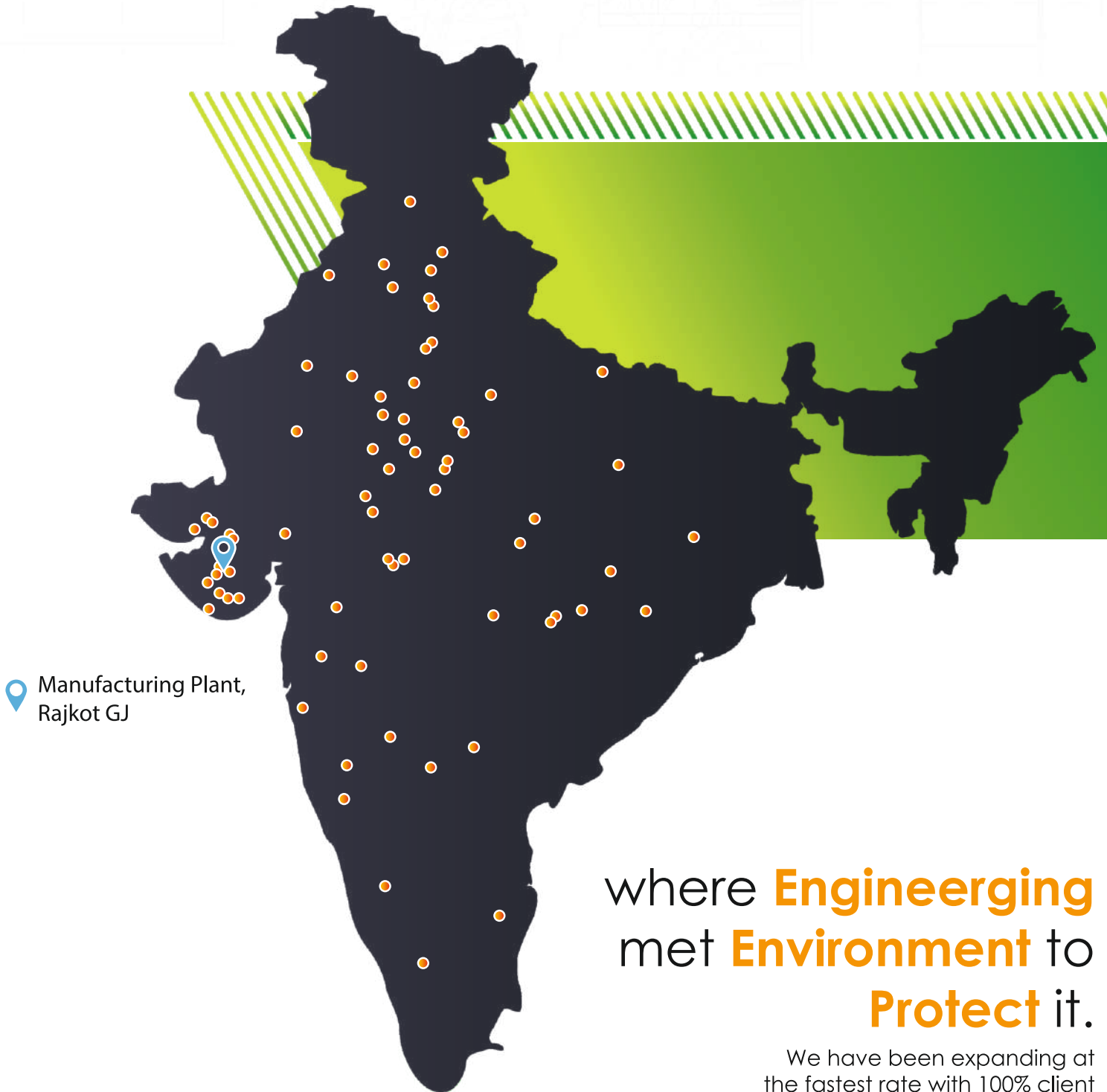
SAWDUST MACHINE

And Many More

*Rotary Screener
Vibrating Screener
Dewatering Machine
Buffer Storage Silos
Bale Breaker*



OUR PRESENCE



Manufacturing Plant,
Rajkot GJ

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

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

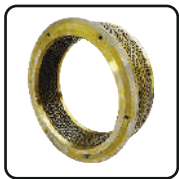


OUR MANUFACTURING SITE



VERTICAL RING DIE SPARE PARTS

Supplier of all types of all the spare parts of Vertical Ring Die Pellet machine



ROLLER SHELL



ROLLER ASSEMBLY



ROLLER SHELL (NORMAL)



ROLLER SHELL (WELDED)



ROLLER BEARING



OIL SEAL



ACENTRIC SHAFT



ROLLER UPPER FLANGE



ROLLER DOWN FLANGE



ROLLER BEARING BUSH



MAZE RING



ROLLER FLAP



DIE CLAMP



AUTOMATIC GREASE PUMP



ROLLER SHELL INNER SPACER



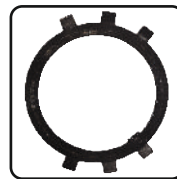
OIL FILTER



SOFT STARTER



RADIATOR



CIRSLIP



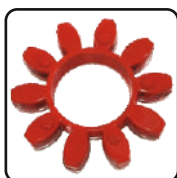
GREASE PIPE SMALL



GREASE PIPE BIG



MOISTURE METER



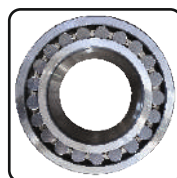
STAR RUBBER



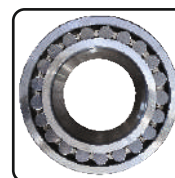
4 BAG DUST COLLECTOR



GREASE BUCKET



MAIN SHAFT BEARING



GEARBOX BEARING



OIL PIPE SET

For Spare Parts: +91 90990 88884, +91 89808 06767

PELETING CUM BRIQUETTING COMBO SPARE PARTS LIST



PELLET DIE



PELLET DIE
HOLDER



BRIQUETTE DIE



BRIQUETTE DIE
HOLDER



DIE FLANGE BOLT



COLLET



COLLECT FLANGE



COLLECT FLANGE
BOLT



RAM (SIMPLE)



RAM (SLEEVE)



RAM HOLDER



RAM HOLDER BOLT



RAM SLEEVE



TIKKI



TIKKI BOLT



VARAM



FEDER BOX BOLT



SPEED DIE



OIL PUMP



OIL PUMP
COUPLER



OIL PIPE SET



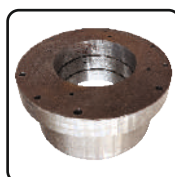
OIL FILTER



V BELT (C250)



CRANK



CRANK HOUSING



CRANK HOUSING
OIL SEAL



PISTON



PISTON HOUSING



CONNECTING
ROD



BRONZE AND
BRASS SET



GAZAN PIN



FEEDER BOX
PLATE



FEEDER BOX



CHAIN COUPLER

HAMMER MILL SPARE PARTS



BITTER



BITTER ROD



SCREEN



LINER PLATE



HAMMER MILL
VIBRATION PAD



BLOWER
VIBRATION PAD



BLOWER ROTOR



AIRLOCK
LEATHER



V BLET C-165



CLAMP



PILLOW
PEDESTAL S-164



BEARING 22314



PEDESTAL
P-204



PEDESTAL
P-208



PEDESTAL
T-208



PEDESTAL
F-211



PEDESTAL
F-209

EXTRA SPARES:



WOOD CHIPPER
BLADE



SAW DUST
MACHINE BLADE



ROTARY GRINDER
BITTER



SHREDDER
BLADE



NOTES



NOTES

Contact Us

Office Address

Plot No. P/212/A/2, Almighty Gate, Lodhika GIDC, Metoda Rajkot, Gujarat, 360021

Plant Address

"Jesadia Familia", R.S. No. 123-126-127, At/P Anandpar, Ta.- Kalavad, Dist.- Jamnagar, Gujarat, INDIA - 361162

For General & Sales Enquiry

- +91 97129 41920 (Whatsapp Only)
- +91 90010 44937
- +91 90999 88080
- +91 89808 04194
- +91 90999 21718

For Spare Parts

- +91 90990 88884
- +91 89808 06767

For Service And Technical Assistance

- +91 89808 04155, +91 97371 21031, +91 73597 72393, +91 89808 04141

Mail

- info@satyajitmachineries.com
- satyajit.sre@gmail.com

Website

- satyajitmachineries.com



SATYAJIT

Renewable Engineering PVT. LTD.

