



ReTech India

कचरा व्यवस्थापनाचे समाधान



RASPI INVENT
Powered by

<https://raspiinvent.com/>

What is Waste ?

- **Waste** is defined as any unwanted or unusable substance that is discarded after primary use.

Classification of waste

Wastes are commonly classified based on the physical state as solid wastes, liquid wastes and gaseous wastes.

SOLID WASTE



LIQUID WASTE



GASEOUS WASTE



Classification of Solid Waste

It is mandatory to classify solid wastes into groups that pose similar risks to the environment and human health for safe disposal. According to the modern systems of waste management, solid wastes are classified based on their source, type, properties and its effect on human health and environment.

Source based

Municipal solid waste

Industrial wastes

Commercial wastes

Agricultural wastes

Biomedical wastes

Type based

Garbage

Rubbish

Bulk waste

Ashes

Street wastes

Dead animals

Construction
and demolition
wastes

Plastics

Mining wastes

Radioactive
wastes

Sewage wastes

Property based

Biodegradable

Non-biodegradable

Hazardous wastes

Non-hazardous wastes

Status of Solid Waste Management

Overall Solid Waste Management Status The total quantity of Solid waste generated in the country is **160038.9 TPD** (Tons Per Day) of which **152749.5 TPD** of waste is collected at a collection efficiency of **95.4%**. **79956.3 TPD (50 %)** of waste is treated and **29427.2 (18.4%) TPD** is landfilled. **50655.4 TPD which is 31.7 %** of the total waste generated remains un-accounted. State-wise details of solid waste management is given in



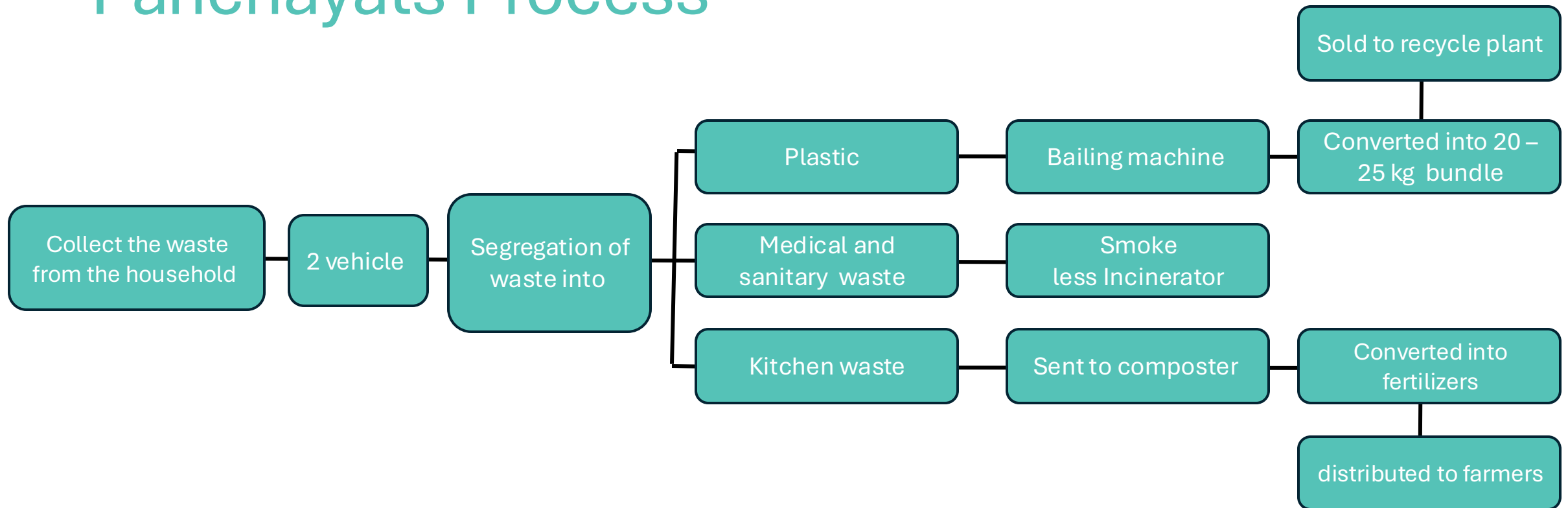
Maharashtra- Solid waste generated (TPD) 22632.71 - Collected (TPD) 22584.4 - Treated (TPD) 15056.1 - Landfilled (TPD) 1355.36 (Unscientifically disposed= 6221.5)

Current status of SWM in Nashik:

- The Nashik Municipal Corporation is collecting 300-350 Tons MSW per day. According to DPR for SWM, **2007 the average waste generation is only 218 gm/capita per day**. This situation is either due to collection inefficiencies or due to high proportion of agriculture/horticulture farming, which helps in utilization of green waste for in-situ composting. With better collection and transportation measures, the collection efficiency should increase.
- The city is registering almost **20% extra growth rate** compared to similar other cities in India. This is leading to rapid development of real estates, housing, complexes, shopping malls etc. Consequently the per capita MSW quantity has been estimated to reach 400 gm/day by 2011 as per DPR (2007). The population growth rate of the city during the last decade has been 63.98%. This type of growth rate may be witnessed in the current decade also. Keeping above factors in view the projected quantity of MSW is **750 TPD by the year 2015** and **1628 TPD by the year 2031**.



Solid waste management (SWM) in Gram Panchayats Process



Our solution

At ReTech India , we provide a comprehensive and integrated waste management solution designed to tackle the diverse challenges of modern waste disposal. Our ecosystem approach ensures efficient processing, recycling, and disposal of various waste types, including wood, plastic, organic matter, sanitary waste, and general solid waste. Our advanced machinery and innovative processes transform waste into valuable resources, promoting sustainability and reducing environmental impact. Through our complete waste management solution, we aim to create cleaner, greener communities while contributing to a circular economy.



In hose
manufacturing

Technology

Ecosystem

Affordable

Userfriendly

Robust

Scenario: Comprehensive Waste Management for a Municipal Facility



Waste Collection and Sorting:

1



Wood Waste Processing:

2



Plastic Waste Processing:

3



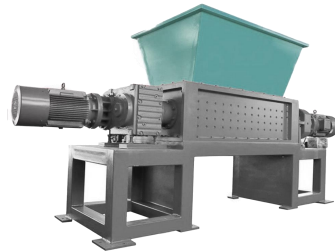
Organic Waste Processing:

4



Sanitary Waste Processing:

5



General Solid Waste Processing:

6

1 Wood Chipper

- A wood chipper machine is a device used to cut down twigs, limbs, branches, and other solid yard material into small chips. These chips can be used as mulch for a garden, kindling for a fire pit, or even as raw material for making pressed wood for furniture or other carpentry projects.
- Wood chippers come in various types, including electric models that are quieter and run on a home power supply, and gas or power take-off (PTO) models that are more powerful and can cut through more material at a faster pace.
- They are an essential tool for yard maintenance and cleanup, transforming large piles of branches and yard waste into manageable sizes





Specification

Motor Type	20 hp
Required Voltage	3 phase(430 V)
Machine Type	Automatic
Crush Time	1000 kg per hour
Machine Color	Black (Powder Coated)
Blade Material	Hardened Steel
Machine Weight	300 kg
Machine Material	Mild Steel
Crushing Mechanism	Stand type
Machine Installation	Roller with specialized design
Safety	Over Current & Voltage protection
Machine Dimensions	1700*900*1300 mm
Feed Opening	180 mm diameter

2 Plastic Shredders

- Shredders Plastic Shredders Are An Efficient And Effective Solution For Turning Scrap Materials Into Valuable Resources No Matter The Size And Shape Of Plastic.
- Shredders Are Extremely Useful When You Are Working With Plastic Products, Vinyl Materials And PVC Pipes. Plastic In Any Unwanted Form Can Be Transformed Into Manageable And Useful Material That Can Be Used For Making Various Products.
- If You Want To Ensure Efficient And Quality Plastic Shredding, It Is Important To Choose The Right Machine That Incorporates The Usability And Offers The Performance You Need.
- They Convert Plastic Waste Into Reusable Raw Material For Manufacturing Plastic Containers, PET Bottles And PVC Products. Plastic Shredders Also Help Recoup Waste Disposed From Commercial Units.





RASPI INVENT
Powered by

Specification

Motor Type	2hp / 3hp
Required Voltage	Single Phase (230 V)/ 3 phase(430 V)
Machine Type	Automatic
Crush Time	100 kg per hour
Machine Color	Black (Powder Coated)
Blade Material	Hardened Steel
Machine Material	Mild Steel
Lock type	Latch lack
Machine Weight	150 kg
Crushing Mechanism	Stand type
Machine Installation	Roller with specialized design
Safety	Over Current & Voltage protection
Machine Dimensions	1300*700*700 mm
Feed Opening	180 mm diameter
Time per cycle	5 sec

3 Plastic Bailing Machine

- We offer a comprehensive range of scrap baling presses to suit your specific needs.
- Our baling presses are renowned for their superior functionality, achieved through high-grade steel construction and cutting-edge technology.
- All Raspiinvent baling presses undergo rigorous quality testing to ensure they meet our exacting standards.
- We provide both vertical and horizontal baling press options to cater to your unique requirements.





Specification

Motor power	7.5hp
motor	Crompton
Vertical clamping force of bailing machine	hydraulic
Material of bailing machine	Mild steel
Bailing capacity of machine	15 ton
Number of ties of rope	2 no
Number of cylinder	1 no
Number of door	2 no
Size of bale	700x 500x 650 mm
Feed Opening	700x 500
Type of Pump	Hydraulic system gear cum plunger pump system.
-Electric Supply	3 phase

4 Single Shaft Shredder Machine

- **Cutting Mechanism:** It uses rotating knives on a shaft (rotary cutters) and fixed knives to tear, cut, and squeeze materials (extrusion) into smaller pieces.
- **Material Versatility:** It can shred various materials like plastic, wood, rubber, and paper.
- **Efficient Cutting System:** V-shaped rotary cutters grab material and cut it against angled fixed knives, ensuring consistent size reduction with minimal energy use and noise.
- **Easy Maintenance:** The V-shaped knives are easy to replace and install.

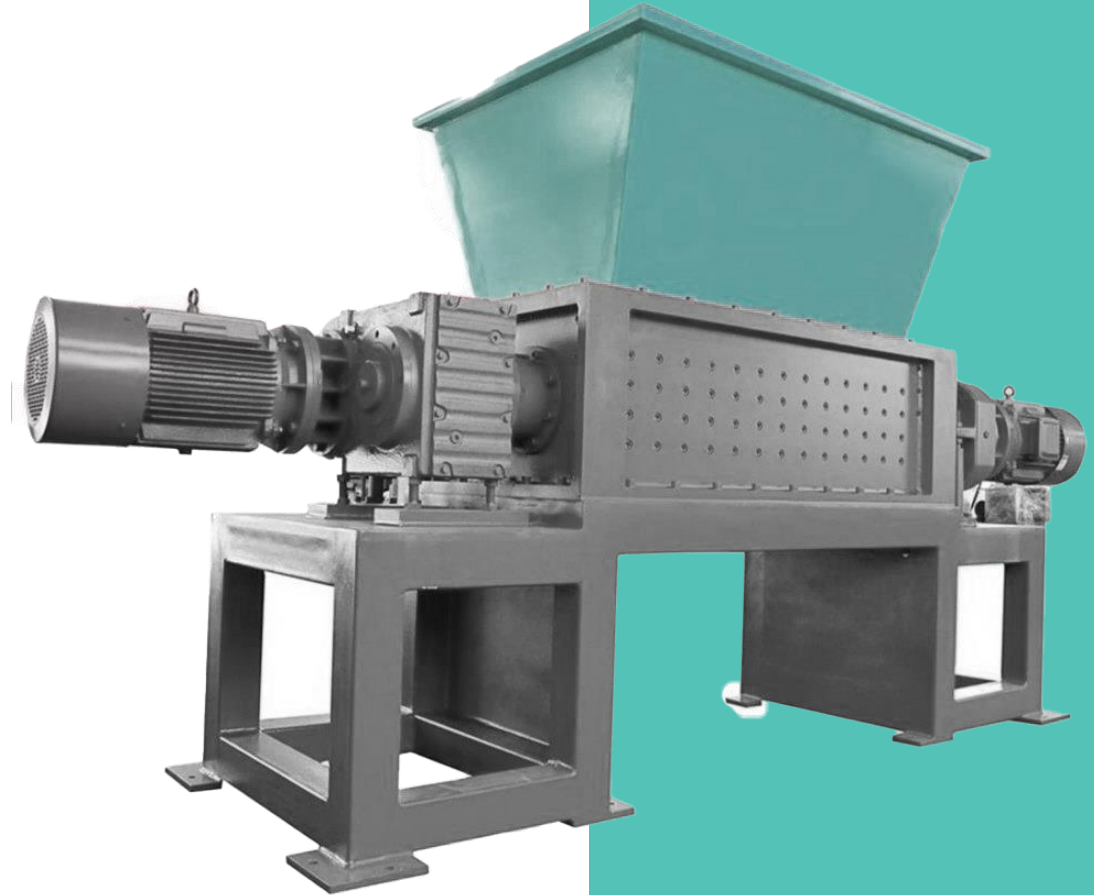


Specification

Motor power	1440RPM , 5 HP
motor	Crompton
Material of housing enclosure	Mild steel
Control panel	Manual based – Siemens make DOL starter with Reverse and forward switch
Electric supply	3 Phase
Inside dimension of shredder Chamber	(With tolerance-10 mm)- 300mm X 500 mm

5 Twin Shaft Shredder Machine

- Double Shaft Shredding Machine: Double Shaft Shredding Machine is popularly known among our customers owing to its high operational efficiency and performance.
- The machine is equipped with the ruggedized components and parts, which are responsible for its longevity and resilience.
- Double Shaft Shredding Machine does not degrade in quality or become inferior due to impacts, heat, and heavy loads.
- Therefore, the offered Double Shaft Shredding Machine is sure to last for an extended period of time.

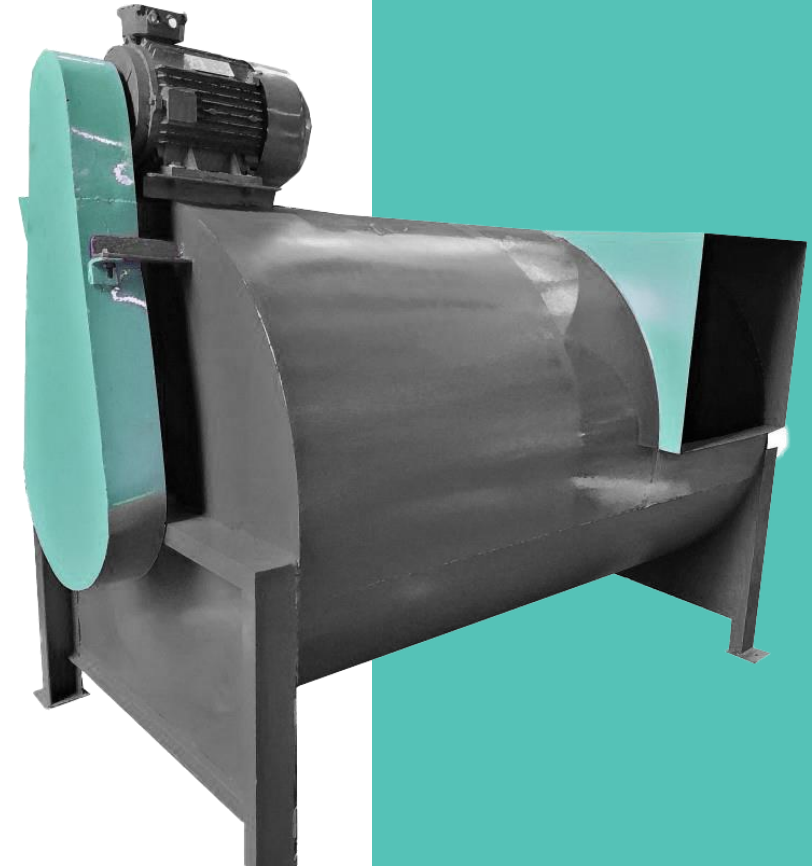


Specification

Mechanism type	Double Shaft with Rotating Blades
Capacity	Organic Waste: up to 800-1000 kg/hr ; MSW Waste:200-300 kg/hr
Blade moc	C45 (Harden)
Approx machine size	L-8ft * W-3.1ft * H-4ft
Working area	360mm * 600mm
Motor hp	10HP + 10HP
Total motor	02
Total power	20 HP
Shaft – hexagonal shaft	02 No
Structure and frame	MS
Motor make	Havells
Power supply	03 Phase-440V-50Hz
Panel function	Automatic: Auto and manual mode for operation in auto mode if machine get jam due to any reason, machine will stop and start rotating in reverse direction to remove jam and again start rotating in forward direction.

6 Plastic Dust Remover Machine

- Dust Remover Machine keeping track of the latest developments, we are offering a wide range of Fatka machines, that are used to remove the dust from plastic bags (Polyethene), these machines are manufactured using superior quality components, Sturdiness Light weight Corrosion resistance, and the latest technology.
- Our provided machines are examined against different quality parameters to ensure their quality.
- Furthermore, these machines are availed in variegated sizes, designs, and specifications for our patrons to choose from.

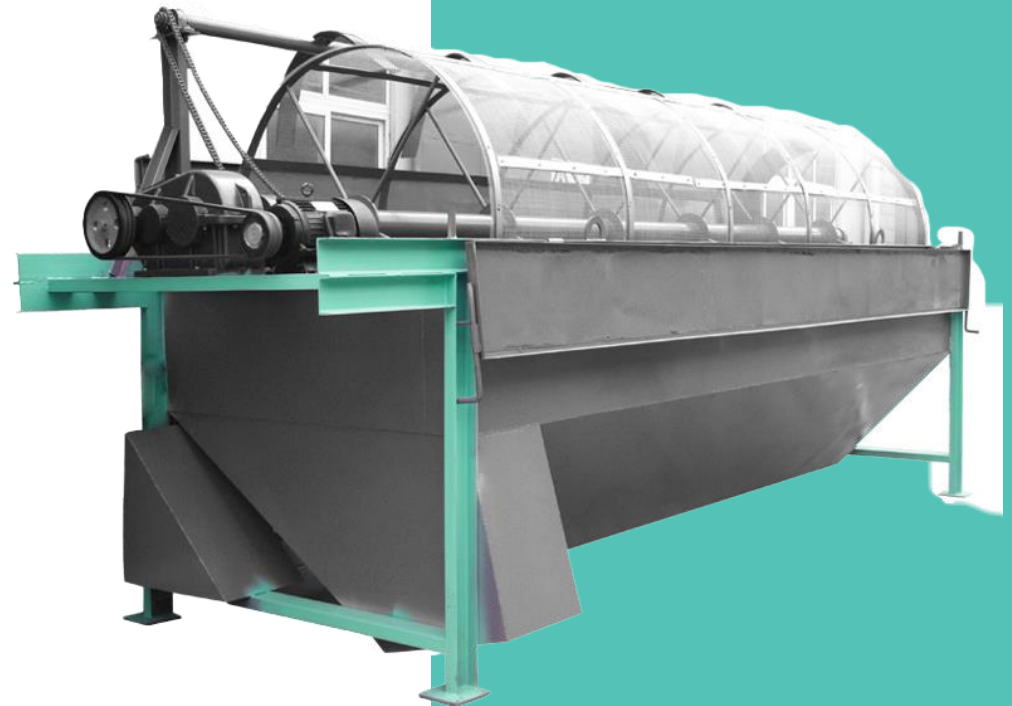


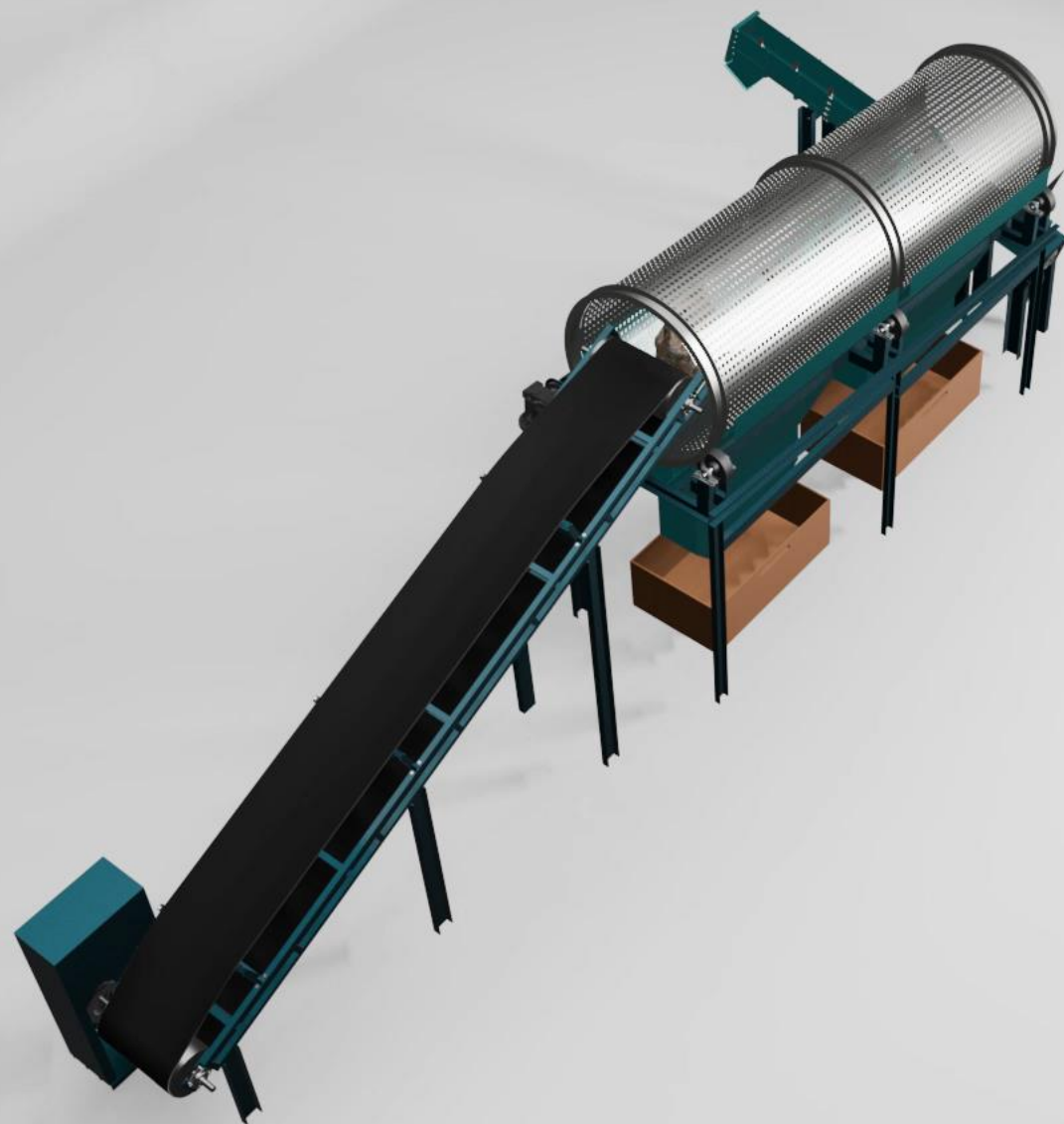
Specification

Size	1000 mm
Drum Length	1400 mm
Motor	3 hp
Motor Make	Super Mech / heypex
Output	100-200 Kg/ Hour
Length	6ft
Width	3.56ft
Height	4.5ft
Material	MS with paint
Electric Supply	3 phase

7 Compost Screening Machine

- The rotary drum screener is a new type of self-cleaning sieve special equipment after the relay vibrating screen and the common mesh roller screen.
- This series of roller-type sieving machines is a commonly used fertilizer production equipment or in commercial compost facilities, which is mainly used for separating the finished product and returning material, can also classify the product, to get a uniform classification of finished products.
- The machine adopts a combined type of screen mesh, convenient for servicing and changing.
- The rotary drum screen has the advantages of simple structure, convenient operation, and stable working, it is the ideal equipment for compound fertilizer, organic fertilizer, and powder fertilizer production





Specification

Feeding conveyor	Width-800 mm X Length-9000 mm, Motor-5 HP, Trough Type conveyor.
Trommel screening	Dia-1200 mm X Length- 4500 mm, Hole Dia- 4 mm, Shell Thickness- 1.5 mm, Perforation-4 mm, hole Ring Thickness-10 mm, End shell thickness-5 mm, Motor- 7.5 HP.
4 mm Output conveyor	Width-800 mm X Length-9000 mm ,Motor-5 HP ,Trough type conveyor.
RDF Conveyor	Width-800 mm X Length-5000 mm ,Motor-3 HP, Trough type conveyor.

8 Composting Machine / Decomposition Machine

- **Rapid Composting:** Converts organic waste into high-quality compost within 24-36 hours.
- **Automated Process:** Shreds waste for efficient decomposition and transfers it to a dedicated tank with automatic controls.
- **Optimal Environment:** Maintains ideal temperature and humidity levels using sensors and a thermic fluid heating system with dehydrator for micro-organisms to thrive.
- **User-Friendly Operation:** Doesn't require any specialized labor to manage.



Specification

Body of tank and its Dimension's	Stainless Steel 304
Thickness of tank	2.5 mm etc
Any Coating on internal tank	Tank are in SS 304 minimum life span 05 Year
Outer body type and Coating	SS 304
Gear box with motor	Tank 3 HP, Shredder 3 HP With G.B.
Air Circulation/Exhaust Device	Blower in Automatic System
Operation	Machine control by Fully automatic Panel
Programming	Fully panel are programmed us for the suitable data with machine
Heating System	Heating system available
Outer body Machine Dimensions	L 2350mm * W 1250mm * H 2000mm
Total Weight of machine	1200 kg

9 Sanitary Napkin Incinerator

- **Safe & Hygienic Disposal:** ReTech India's incinerators offer a clean and sanitary way to dispose of sanitary napkins, medical dressings, and other menstrual waste.
- **Customizable Solutions:** ReTech India caters to various needs, providing readymade portable incinerators or designing units to handle specific capacities (50, 100, 200, 300+ napkins).
- **Environmentally Friendly:** Designed for eco-conscious disposal, these incinerators are suitable for use anywhere.
- **Ideal for Various Locations:** Perfect for toilets in schools, offices, public spaces, and more.



Specification

Material Used	MS (Mild Steel)
Digital Display	temperature, client name, Timing cycle.
Coil	1000, 1200 Watt
Mounting	Wall Mountable
Chamber Capacity	30, 50, 100, 200, 500
Design	Compact Design
Insulation	Ceramic high-density insulation for external thermal protection
Warranty	1 year

10 Toilet Citizen Feedback Machine

- This is a scientific way for measuring customer satisfaction level.
- Instead of Paper feedbacks writing, This Machine can be used for feedback data with TIME, MONTH, DATE, and Customer Details For timely analysis of our Customers Satisfaction Level.
- Honest feedbacks are Possible.
- Saves paper writing, staff for keeping paper feedback record, manual writing and additions, saves customers time.



Specification

Input Voltage	AC/DC 110-240V 50/60Hz
Operating Voltage	DC 12V, 1A
Delay Time Customize	1, 2, 5 Minute
Dimension (in mm)	L 210 X W 210 X H 60
Weight	1 KG
Keypad	Dome Metal Switch
Audio Indicators	Buzzer / LED
Micro SD Card	Unlimited Data Storage Capacity
Body	Metal body with powder coating which is shock proof

11 Solid Waste Incinerator

- Solid Waste Incinerator Machine used to dispose general dry waste & medical waste such as used PPE kits, masks, cotton's, dry leaves papers & other dry waste.



Specification

Capacity	15-20 Diapers/Napkins/Mask
Power Source	Battery/Solar/Electricity
Dimensions	750 * 300 * 350
Operation	Fully Automatic Machine
Thickness of External Body	1.6 mm
Power Supply	220-240 W
Inner Chamber	1.2MM GI Pipe
Overload Protection	Yes
MCB Protection	Yes
Smoke Control Device	Yes
Door Lock	Latch Lock
Display	LED
Process Duration	20 Minutes
Temperature Controller	Yes
Auto Cut Off	Yes

12 Sanitary Napkins Vending Machine

- The ReTech India Sanitary Napkin/Pad Vending Machine provides a discreet and reliable solution for feminine hygiene needs.
- This fully automatic machine dispenses a sanitary napkin or pad upon coin insertion, ensuring convenience and accessibility whenever needed.



Specification

Operation Grade	Automatic
Usages	Schools and Colleges
Mounting	Wall Mountable/Floor Mountable
Machine Operation type	Coin Operated
Coin Accepted	1,2,5
Body Material	Mild Steel
Vending Mechanism	Spiral
Storage Capacity	25,50,75,100 Napkins



After the solution is implemented in an average village with 200 households

In 200 Households	waste generated in day	waste generated in year	Recyling rate	Waste recycled (present) annually	Recyling rate after the solution implemented	Waste recycled (present) annually after implemented
Wet waste	0.75 T	270 T	7.41%	20 T	Approx 40 %	108 T
Solid waste	1 T	360 T	20%	72 T	Approx 60 %	216 T
total	1.75 T	630 T	14.60%	92 T	Approx 51.43%.	324

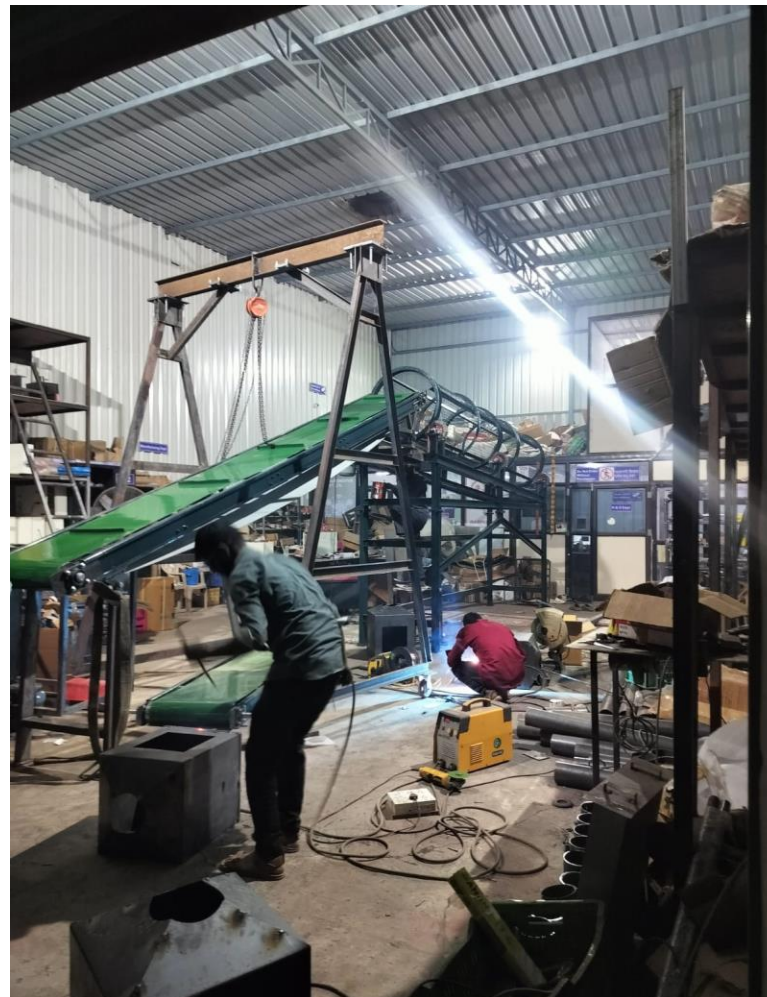
http://nirdpr.org.in/nird_docs/sb/doc5.pdf

<https://yourstory.com/socialstory/2024/03/cleaning-up-india-villages>

On Site Installation



Inhouse Development



“Waste is directly linked to wealth. The more prosperous a state is, the more wealth and waste it generates. As a society, Maharashtra is much more developed as compared to other states. However, the processing capacity of the state is very low,” said Swati Singh Sambyal, programme manager, environmental governance (municipal solid waste), Centre for Science and Environment, Delhi.

THANKYOU



9922894211



retechindia@gmail.com



RASPI INVENT
Powered by