

MANUFACTURER OF

AGRICULTURE WASTE

PROCESSING MACHINES

www.ronakeng.com

#### Welcom To

#### **RONAK ENGINEERING**

#### Our Story

Since its founding in 2003, Ronak Engineering has become the leading Manufacture & Exporter of briquetting machine in India. The company exports its products in various countries in the world.

Advance technology and processing have improved the quality of briquetting press. These include innovation in briquettes preparation.

## Visionary Leadership

Transforming Waste into Valuable Fuel with Expertise, Innovation, and Client Commitment.



# INFRASTRUCTURE FOR BIOMASS BRIQUETTING PLANT

- 1. Location Near biomass sources for easy access
- 2. Land Adequate space for production units and storage
- 3. Raw Material Handling Equipment for processing biomass i.e. tractor loader
- 4. Power Supply Reliable electricity for briquetting plant
- 5. Transportation Access Easy access for raw materials/Briquettes
- 6. Foundation for biomass briquetting machine
- 7. Maintenance Workshop Tools and spare parts for upkeep
- 8. Staff Facilities Worker rooms, operator rooms
- 9. Administrative Offices Manage operations and logistics
- 10. Monitoring Systems Oversight of production processes
- 11. Spare Parts Inventory Maintain a stock of wear and tear spares to minimize downtime during equipment maintenance
- 12. Training Facilities Provide ongoing training for staff on equipmen operation and safety protocols.

#### Setting Ourselves Apart:

#### What Makes Us Unique

INNOVATIVE TECHNOLOGY

QUALITY ASSURANCE ENVIRONMENTAL SUSTAINABILITY

CUSTOMER SUPPORT & TRAINING

GLOBAL REACH INDUSTRY EXPERIENCE

LONG-TERM VISION

CONTINUOUS IMPROVEMENT



TECHNICAL SPECIFICATIONS	JUMBO 90 MACHINE	SUPER 70 MACHINE
Briquette Diameter	90mm (Cylindrical)	70mm (Cylindrical)
Briquette Length	50-300mm	50-300mm
Production Capacity	1200 -1500kg	600 -800kg
Raw Material Size	Upto 25mm	Upto 25mm
Raw Material Moisture content	10% - 15%	10% - 15%

ELECTRICITY REQUIREMENT	Power Connection	Amp Load	Power Consumption
JUMBO 90 MACHINE	93.5HP/69.72Kw	86-102 AMP(APPROX.)	40-45 Unit/Hr
SUPER 70 MACHINE	59HP/43.99Kw	42-45 AMP(APPROX.)	25-30 Unit/Hr

#### **STAFF REQUIRE:**

Labours: 6(8 Hr Shift)

Skilled Operator: 1(8 Hr Shift)

#### **LAND REQUIREMENT:**

Total Land Required: 4000-4500 sq feet(Approx.)

Machine Room: 25ft X 70 ft(One Machine)

35ft X 70ft(One Machine)



### **Wood Chipper**

A wood chipper is a powerful machine designed to efficiently convert large pieces of wood, branches, and other organic materials into smaller wood chips or mulch. It typically consists of a feed chute, cutting blades, and a mechanism to propel the material through the machine. Wood chippers are commonly used in landscaping, forestry, and agriculture to process wood waste, trimmings, and tree limbs into manageable pieces for disposal, composting, or recycling. They come in various sizes and capacities to suit different applications, offering a convenient and effective solution for wood waste management.

TECHNICAL SPECIFICATIONS	
Production Capacity	800 To 100Kgs. Per Hr.
Size Of Particles	Dust (Upto 10mm)
Main Motor	60HP
Conveyor Motor With Gearbox	2Нр
Output Conveyor Motor	2Нр
Total Power Require	64Hp

#### **Hammer Mill**

A hammer mill is a versatile machine used for grinding various materials into fine or coarse particles by means of repeated hammer blows. It consists of a rotating shaft with free-swinging hammers that impact the material being fed into the chamber. These hammers pulverize the material against a screen, allowing for size reduction and uniform particle size distribution. Hammer mills are widely used in industries such as agriculture, food processing, and biomass processing for grinding grains, feed, wood chips, and other materials.



Conveyor Motor With Gearbox

Rotary Air Valve Motor

**Output Conveyor Motor** 

**Total Power Require** 

TECHNICAL SPECIFICATIONS	
Production Capacity	1000 To 1200Kgs. Per Hr.
Size of Particles	Dust (Less Than 10mm)
Main Motor (Hammer Motor)	40HP
Blower Motor	15Hp

ЗНр 2HP

ЗНр

63Hp

### Sawdust Flash Dryer

The sawdust flash dryer is new type design of biomass material drying equipment widely used in Wood Briquette Plant factory. Known as pipe dryer, it is good choice for solid raw material which has good flow ability. The suitable biomass material moisture content for making Wood Briquette and Biomass Briquettes is 8%-17%. This efficient wood dryer can process material with initial moisture content below 50%.

## Sawdust Flash Dryer



# Advantages Of Pipeline Drying Machine

- 1. Adopt the hot air jet self-priming device, automatic feeding
- 2. Fast heat flow velocity, material is fully mixed, excellent drying effect
- 3. Large intensity of drying, short drying time
- 4. Big capacity, high thermal efficiency, energy-efficient and labour saving
- 5. Simple structure, small occupation area, easy to install and repair

MACHINE SPECIFICATIONS	
Production Input Capacity	1400-1600 Kgs. Per/Hr.Dust (Upto 10mm)
Production Output Capacity	800 to 1000 Kgs. Per/Hr. (Depend On Moisture Content)
Total Power Requirement	39 HP Consumption

#### Horizontal Die Biomass Pellet Mill

A pellet mill plant is a comprehensive system designed to produce biomass pellets from raw materials such as sawdust, wood chips, agricultural residues, or other biomass feedstocks. It typically includes equipment such as a hammer mill for grinding raw materials, a dryer to reduce moisture content, a pellet mill to compress the material into pellets, and a cooler to reduce the temperature of the pellets for storage or transportation.



TECHNICAL SPECIFICATIONS	
Feeding Raw Material Size	Less than 6mm
Moisture Content of Raw Material	Up-to 10% moisture content required
Production Capacity	1200 to 1500 Kg/hr
Pellet Diameter	8mm & 6mm (Cylindrical)
Pellet Length	20mm to 50mm

### Electricity Requirement

Power Connection: 109Hp/81.28Kw

Amp Load: 90-100 Amp.(Approx.)

Power Consumption: **65-70 Unit/Hr** 

#### **Staff Require**

Skilled Operator: 1 (8 Hr Shift)

Labours: 6 (8 Hr Shift)

### **Land Requirement**

Total Land Required: 4000-4500 sq feet (Approx.)

Machine Room: 25ft X 70ft (One Machine) 35ft X 70ft (One Machine)



# Vertical Ring Die Pellet Machine

A vertical ring die pellet machine is a specialized equipment used to produce high-quality biomass pellets efficiently. It features a vertical design with a rotating die and stationary rollers, allowing for uniform pressure and consistent pellet density. The raw materials, such as sawdust or agricultural residues, are fed into the machine's chamber where they are compressed by the rotating die and rollers. This compression process creates pellets of uniform size and shape. Vertical ring die pellet machines are known for their high productivity, low energy consumption, and durability. They are widely used in biomass pellet production for applications such as heating, power generation automatic boiler industries etc.





TECHNICAL SPECIFICATIONS		
Feeding Raw Material Size	Less than 6mm	
Moisture Content of Raw Material	Up-to 10% moisture content required	
Production Capacity	1500 to 2000 Kg/hr	
Pellet Diameter	8mm & 6mm (Cylindrical)	
Pellet Length	20mm to 50mm	

#### **ELECTRICITY REQUIREMENT:**

**Power Connection:** 

181Hp /134.95Kw

Amp Load:

150-160 Amp.(Approx.)

Power Consumption:

65-70 Unit/Hr

#### Pellet Cooling System

As the pellets move through the cooling chamber, ambient air or water is used to absorb heat, effectively reducing the temperature of the pellets. This process prevents pellet degradation and ensures uniform cooling, making the pellets suitable for storage and transportation. Pellet cooling systems are crucial for maintaining pellet quality and optimizing production efficiency in biomass pellet plants.

## Pellete Cooling System



TECHNICAL SPECIFICATIONS	
Cooling Section Motor with Gear Box	2Hp
Blower Motor	7.5 HP
Elevator Motor with Gear Box	3 HP
Power Requirement	12.5Hp

# Raw Material's Can Be Used

























#### **Our Certifications**



ISO ENVIRONMENTAL



ISO HEALTH AND SAFETY



ISO HEALTH AND SAFETY



**ISO HEALTH AND SAFETY** 

#### **Our Purchase**





















## **Countries We Export**



**IVORY COST** 



**UNITED KINGDOM** 



**IRELAND** 



**ROMANIA** 



**UGANDA** 



**BURUNDI** 



**ZAMBIA** 



RWANDA



**TANZANIA** 



**KENYA** 





**SRI LANKA** 

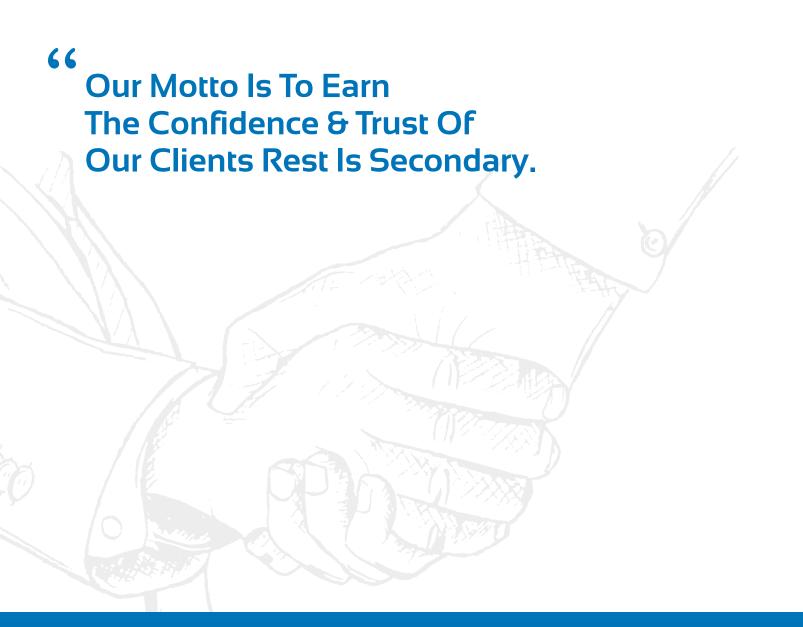


**BANGLADESH** 



**VIETNAM** 





#### **Our Clients**

















