



GRAIN TECH MATERIAL HANDLING

SPECIALISTS IN THE DESIGN, MANUFACTURE
AND INSTALLATION OF PROCESS EQUIPMENT

INFO-TECH

BIOMASS PROCESSING SYSTEMS



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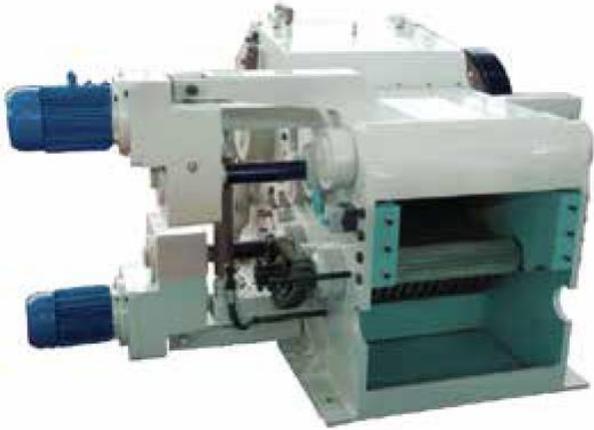
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Biomass is one of the most attractive resources for generating sustainable energy. This is a very large, renewable reservoir of energy and an assured market of the future.

Grain Tech Ltd is specialized in and fully dedicated to supplying biomass energy equipment and facilities for pelletizing various renewable loose biomass materials including crop waste, straw, sawdust, wood chips, bark, wood shavings and other industrial and household wastes etc., which can be used for household and industrial applications instead of fossil fuels with significant advantages of increased bulk density and energy efficiency, lower transport costs, reduced storage volumes, easier handling and greater environmental protection features.

Grain Tech's experience and engineering capability provides advanced equipment, technological solutions and turnkey installations for the Biomass sector that are both technologically advanced and future proof in providing the improvement of people's living environment and the best service to agricultural production through incorporation of advanced equipment and technology.

The Grain Tech program for equipment supply for the Biomass Industry includes the following:



WOODCHIPPER

- Excellent quality and efficient cost performance.
- Suitable for wood log, bamboo, brushwood, board etc.
- Customizable product size to suit application.



Data \ Model	LYGX215/5	LYGX216	LYGX218	LYGX218D	LYGX2110
Rota Dia.	300	650	800	800	1000
Number of Knives	2	2	2	2	2x2
Feed Opening Size	120x300	180x500	225x680	240x780	330x1050
Knife Rotor Speed	730	590	650	650	550
Feed Speed	38	37.2	37	38	33
Max Dia. Of Raw Material	Cutting bark	120	160	160	190
Wood Chips Length	26	30	30	30	30
Capacity	8-16	10-18	15-20	38	75
Main Motor Power	45	55	110	132	220
Feed Roller Motor Power	2x1.1kW	2x3kW	2x4kW	2x5.5kW	2x7.5kW
Oil Pump Motor Power	/	/	/	/	/
Weight	1200	4070	7000	8000	12500
Overall Dimension (LxWxH)	3681x870x900	4348x2056x1258	4670x2150x1500	4670x2250x1515	2850x2799x1497

HAMMERMILL



HIGH PRECISION DYNAMIC BALANCING

Every rotor is dynamically balanced which ensures stable running of the equipment, reduced wearing of bearings as well as hammer holders and other relative parts. This results in higher reliability with longer service life and lower maintenance costs.



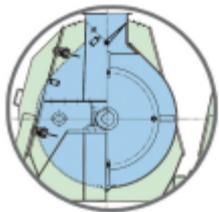
INTERLOCKED SCREEN PRESSING MECHANISM (PATENTED)

Unique two-step or multi-step screen changed into a one-step process eliminates the uneven screen edges due to multi-step operation, ensuring the absolute tightness of the chamber.



OPERATION FRIENDLY ACCESS DOOR

Equipped with rollers the door can be pushed aside to fully open. Featuring easier operation, maintenance and the reduction of labour for the operator.



GENUINE WATER-DRIP TYPE GRINDING MACHINE

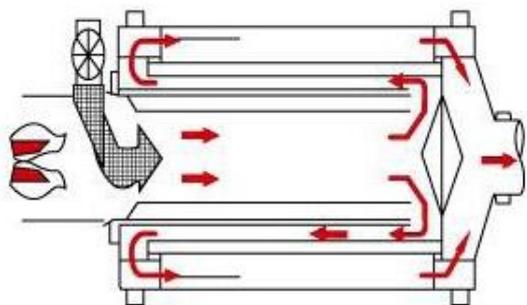
The design of the grinding chamber makes sense not only in its shape as a water-droplet but also in its real performance function.

- Suitable for sawdust, chip products and shavings.
- Extra-large inlet for sawdust, chip and shavings grinding with high capacity and low power consumption.
- Matched with multiform type feeder.
- Fitted with an interlock system to protect operators.



Model	Capacity (T/h)	Power (kW)
SFSP132x36C/A	12-20	75 / 90 / 110
SFSP132x50C/A	22-30	110 / 132 / 160
SFSP132x75C/A	36-45	200 / 220 / 250
SFSP132x102C/A	46-65	250 / 315 / 355

DRYERS



Based on years of application experience and project cases, Grain Tech Biomass can provide multiple special industrial dryers in accordance with material characteristics to meet, and most often exceed, customers' expectations. This includes triple-pass rotary dryer, single-pass rotary dryer, rotary tube bundle dryer, vibratory fluidized bed dryer (cooler), flash dryer and so on. They are proven to be effective and successful in a wide range of industries for the dehydration of alfalfa, sludge, palm fiber, coconut shell fiber, wood chip and saw dust, wood shavings, distillers, grain paper pulp and citrus and potato by products.

Model	HTG-900			HTG-1800			HTG-3600			HTG-4800			HTG-5400			HTG-8000		
Moisture Reduction	900			1800			3600			4800			5400			8000		
Raw Material Moisture	70	60	50	70	60	50	70	60	50	70	60	50	70	60	50	70	60	50
Final Moisture	10%			10%			10%			10%			10%			10%		
Capacity (dry)	300-800			600-1500			1200-3000			2400-6000			2700-6000			4000-10000		
Power Consumption	25			30			53			60			75			105		
Coal Consumption	400	250	200	400	250	200	400	250	200	400	250	200	400	250	200	400	250	200
Installed Capacity	37			54			75			100			128			150		
Dimensions	24x6x5			26x8x7			30x9x8			32x10x9			36x12x10			40x12x12		

PELLET MILLS

MUZLM SERIES WOOD PELLET MILL



Highly Efficient

- Single-motor V-belt driving transmission systems features ideal driving torque and running efficiency.
- Dies in many thicknesses and die hole diameters. Specifications are available ranging from ϕ 6mm to ϕ 12mm according to customers' requirements.

Intelligent

- Feeding by an advanced frequency-conversion motor, equipped with an overload protection device and a magnetic separator.
- High capacity, low noise, convenient operation and low maintenance.

Model	Capacity (T/h)	Power (kW)	Pellet Size (mm)
MUZL420M	0.5-1.2	110	6-12
MUZL610M	1-2	160	6-12
MUZL1610M	3-5	280	6-12

STABILIZING & COOLING EQUIPMENT



SNLF SERIES TIPPING TYPE COUNTERFLOW COOLER (TYPE A)

- On the principle for advanced counterflow cooling the cooler is equipped with a tipping type discharging device driven by a hydraulic system. This is characterized by its smooth material flow, adjustable discharge rate and discharge speed as well as uniform discharging.
- The octagonal cooling bin eliminates dead cooling corners which is beneficial in the cooling of materials.
- The new rotary spreader ensures the material is uniform and is completely cooled with minimum breakage. It also features an adjustable range of material distribution and lower power consumption.
- The temperature of material after cooling is not 5°C higher than ambient temperature while the moisture removal rate is not lower than 3.8%, extending the storage life of high-grade pellets.

Model	SNLF14x14A	SNLF16x16A	SNLF19x19A	SNLF22x22A	SNLF24x24A	SNLF28x28A
Power (kW)	1.5	1.5	1.5+0.75	3+0.75	3+0.75	3+0.75
Capacity (T/h)	5	7.5	10	15	20	20

SKLN SERIES COUNTERFLOW COOLER (TYPE A)

- On the principle for advanced counterflow cooling the cooler is equipped with a reciprocating type discharging device. This is characterized by its smooth material flow and uniform discharge performance.
- There are pressure relief plates provided above the discharge device which greatly improves the load of discharging, reduces the torque while extending the service life of the components parts.
- Power transmission is via a camshaft driven by a geared motor featuring smooth driving motion reliability, lower noise as well as easy installation and maintenance.
- The temperature of cooled materials is not 5°C higher than ambient temperature which extends the storage time of high-grade pellets.

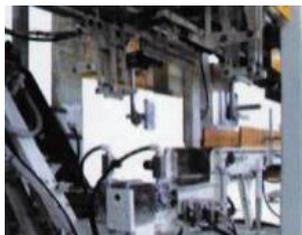


Model	SKLN14x14A	SKLN16x16A	SKLN19x19A	SKLN22x22A	SKLN24x24A	SKLN28x28A
Power (kW)	0.75	0.75	1.5	1.5	1.5+0.75	1.5+0.75
Capacity (T/h)	5	7.5	10	15	15-20	20-25

FULLY AUTOMATIC PACKING SYSTEM



- The complete and integrated packaging lines are suitable for bags of any type (paper, plastic, woven, pp, etc.) and various applications such as chemical feed, food and grain and the like, and for 10-50kg bag sizes with the maximum rate of 1200 bags/h.
- The system features the control system and safety device for each operating unit to enable fully automatic running. The servo motor drive arrangement results in higher performance efficiencies.



SEMI-AUTOMATIC PACKING SYSTEM



HY CAPACITY PACKING MACHINE

- Unique anti-vibration design ensures excellent weighing accuracy.
- Real-time weigh-track with internal digital adjustment and checking as well as automatic zero setting.
- Suitable for packing granular and powder materials.

Weighing Range (kg)	Static Precision	Dynamic Precision	Bagging Speed (bags/hr)
10, 25, 50	0.1% FS	0.2% FS	300-400



AUXILIARY EQUIPMENT

TDTG SERIES BUCKET ELEVATOR

- Fire-proof and anti-abrasive rubber head pulley to prevent belt slip.
- Equipped with an anti-explosion vent which can effectively avoid dust explosion while ensuring safe and reliable operation.
- Backstop fitted to efficiently prevent material from chocking due to machine stoppage.
- Special cramp folding technique is applied in trunking manufacturing hence high strength and good sealing performance are ensured.
- Belt take-up used is either gravity type or thread rod type.
- Alignment alarm and speed monitoring devices are optional.

Model	TDTG36/18	TDTG36/23	TDTG36/28	TDTG50/23
Capacity (T/h)	5-8	10-15	15-20	25-35

Model	TDTG50/28	TDTG60/30	TDTG60/33
Capacity (T/h)	25-45	35-65	50-100

TGSU SERIES U-TROUGH DRAG CONVEYOR

- Self-cleaning type mainly used for horizontally conveying powder and granular materials.
- 'U' shape trough scrapers made of industrial plastic with excellent wear resistant performance.
- Low noise, little material residue and long service life.
- Simple structure, good sealing performance, flexible process layout and lower power consumption.
- Widely applied in grain, feed and pre-mix processing as well as light industrial and chemical industries.



Model	TGSU16	TGSU20	TGSU25	TGSU32	TGSU40	TGSU50
Capacity (T/h)	4-8	8-15	15-30	30-50	50-80	80-120



TGSS SERIES EN MASSE DRAG CONVEYOR

- Equipped with an alarm device for material blockage.
- Devices for speed monitoring and chain breakage protection are optional.
- Stable running, low noise and long service life.
- Flexible for multi-point feeding and discharging.
- Thread rod type take-up (tensioner) is fitted to the tail assembly.

Model	TGSS16	TGSS20	TGSS25	TGSS32	TGSS42	TGSS50
Capacity (T/h)	5-20	10-30	20-50	30-100	80-250	100-300

Model	TGSS63	TGSS80	TGSS100	TGSS120	TGSS160
Capacity (T/h)	200-500	300-800	500-1000	800-1350	1000-2000



TLSS SERIES SCREW CONVEYORS

- Variable adaptability, flexible inlet and outlet arrangement, low noise, convenient operation, installation and maintenance.
- Widely used for the horizontal transfer applications include ($\leq 15^{\circ}\text{C}$) or vertical conveying for all kinds of powders/granules.

Model	TLSS16	TLSS20	TLSS25	TLSS32	TLSS40	TLSS50	TLSS63	TLSS80
Capacity (T/h)	3-5	5-8	8-15	15-30	30-50	50-80	80-100	100-150



TWLLS SERIES DOUBLE SCREW FEEDERS

With feeding inlet and flights having constant diameter and differential pitch, the machine features large capacity, low residue and more even feeding. This is suited to be used at the discharge of batching bins in a proportioning system.

Model	TWLLS16	TWLLS20	TWLLS25	TWLLS32	TWLLS40
Capacity (m ³ /h)	10	18	30	55	70

TCXT SERIES PERMANENT MAGNETS (Rare Earth Type)

Powerful iron removal performance without power consumption

- Magnetic field intensity $\geq 3000\text{GS}$
- Iron removing efficiency $\leq 99\%$



Model	TCXT15	TCXT20	TCXT25	TCXT30	TCXT40B
Capacity (T/h)	10-15	20-30	30-50	50-70	80-100



TBLMD SERIES HIGH PRESSURE JET FILTER DUST COLLECTORS

- Mainly used at intake pit and large volume dust collection applications.
- Dismountable socks with cages and unique reverse jet device for easy maintenance.
- Up to 1m² filtering area for each sock greatly reduces the space needed.
- The series includes the models TBLMD4, 10, 18, 26, 39, 52, 78, 104.



TBLMY SERIES HIGH PRESSURE JET DUST COLLECTORS

- Equipped with a high-pressure solenoid valve. Dust laden air enters the collector tangentially where the dust is separated by cyclonic action and settles out in the discharge hopper.
- There are flat bottom and conical dust discharging options.
- The series includes the models TBLMY10, 12, 18, 26, 39, 52, 58.5, 78 and 104.



SFJZ SERIES VIBRATING SIFTER

- Minimum vibration and low noise.
- Simple and convenient screen hold-down mechanism enables fast screen changing.
- Suited for separation of fines and coarse over tails.

Model	SFJZ80x2	SFJZ100x	SFJZ125x
Capacity (T/h)	3-5	6-10	10-15
Power (kW)	0.2x2	0.2x2	0.2x2

LNGM SERIES HIGH PRESSURE JET FILTER DUST COLLECTOR



- Equipped with high pressure solenoid valves, the air inlet is located in the dust hopper, preventing dust-laden air from directly impacting the filter bags which results in increased service life of the bags.
- The series includes the models LNGM18A, 24, 30, 36, 45, 54, 63, 72, 81, 90, 117 and 228.



MFJH SERIES ROTA-SHAKE SIFTER

- Balance weight drive system ensures minimum vibration and low noise.
- Belt transmission arrangements eliminates oil lubrication and oil leakage.
- The support system for the sliding tail arrangement results in greatly reduced noise and improved sifting performance.
- Quick sieve changing due to simple and convenient sieve clamping mechanism.
- Double-deck, triple-deck or double-deck with dual inlets available as options (tailored supply).
- Suitable for grading pellets and powder materials.

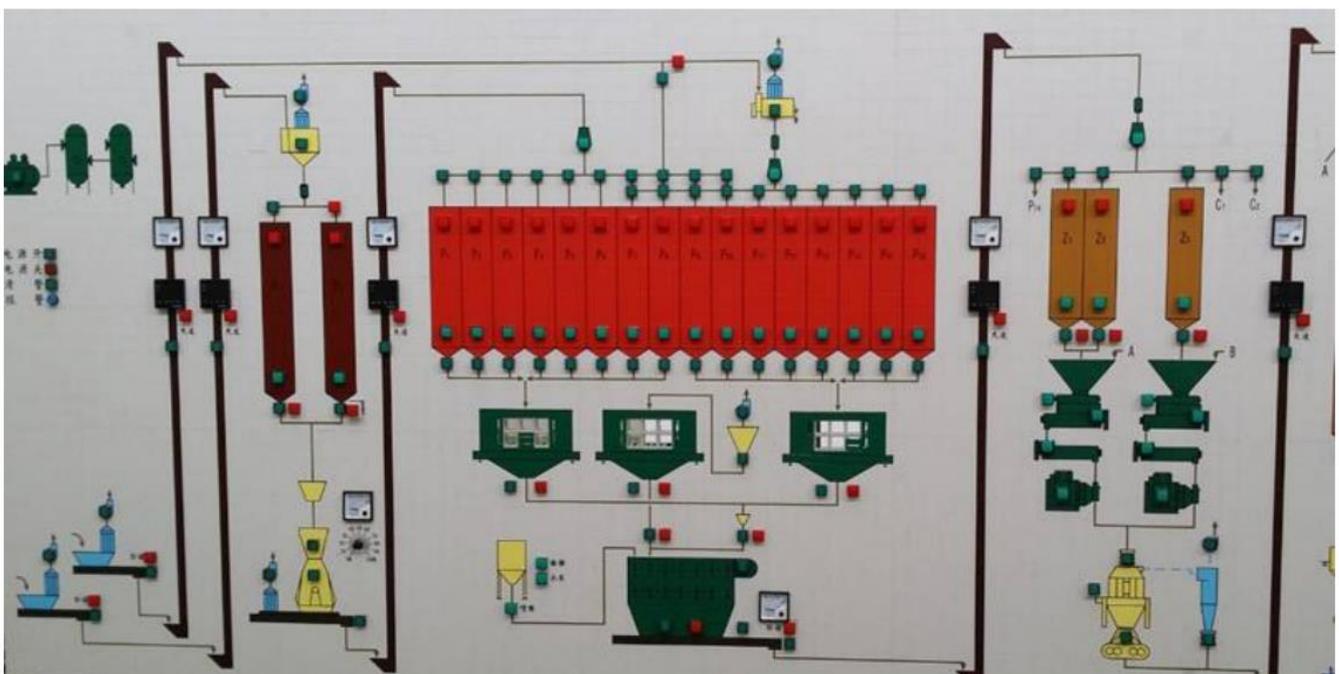
Model		MFJH80x1C	MFJH110x1C	MFJH130x1C	MFJH140x1C	MFJH150x1C
Capacity (T/h)	Mash Feed	4-6	6-8	8-13	12-16	16-18
	Pellet Feed	5-8	8-10	10-15	14-18	15-20
Power (kW)		1.5	2.2	4	5.5	5.5

AUTOMATIC CONTROL ENGINEERING

Optional arrangements may be provided to suit the equipment installation and process application.

Alternatives include:

- Control System with Conventional Switching Interface Cabinet incorporating etched panel process arrangement and push button operation.
- Control System with PLC Memory Programmed Control where the control functions and interlocking of the individual machines is achieved not with relays but by means of a PLC.
- Process Computer Operational Control where complete integrated system control is provided incorporating a PC based software enabling a high degree of reliability, high accuracy and practically operator free working.



RING DIE & PRESS ROLLER

ADVANCED MANUFACTURING TOOLS SUPPLY ALL BRANDS OF DIES



HIGH FIBRE HAMMER MILL

SFSPM SERIES HIGH FIBRE GRINDING HAMMER MILL

- Super wide grinding chamber.
- Laterally installed inlet makes it easier for high capacity to be fed into the grinding chamber.
- Offset screen design improves screen utilisation ratio and grinding efficiency.
- Highly developed configuration contributes to steady running and low maintenance costs.



Model	Capacity (T/h)	Power (kW)
SFSP66x100M	2-5	55
SFSP66x200M	6-12	110

HAMMER MILL

SFSPM SERIES HIGH FIBRE FINE-GRINDING HAMMER MILL

- Classical type of grinder for processing fibre materials and proven by decades of experience.
- Perfect safety design.
- Easy operation, convenient maintenance.

Model	Capacity (T/h)	Power (kW)
SFSP132x75M	4-10	110/132



Model	Capacity (T/h)	Power (kW)
MYKC800	4-8	55x2

BRIQUETTING | CUBING MACHINE

MYKC SERIES HIGH FIBRE BRIQUETTING | CUBING MACHINE

- Classical double-motor drive contributes to stable running.
- Frequency conversion speed control feeder with anti-bridge design.
- Furnished with a speed monitor warning device that ensures operational running that is safe and reliable.
- Liquid addition is available for this machine.
- Suitable for briquetting/cubing bulk materials like Lucerne and straw/hay, etc.

STABILIZING & COOLING EQUIPMENT

TYPE MJCC20 FIBRE STORAGE CONDITIONING STABILIZER

- With horizontal transfer layout, simple and pleasing appearance.
- With a specialized conveying chain, the discharging speed is adjustable.
- An access door is furnished on the end of the machine, facilitating convenient maintenance.
- Adaptable for conditioning, stabilizing and storing milled high fibre materials.



Model	Volume (m ³)	Power (kW)	Dimension (mm)
MJCC20	18	17.5	17.5

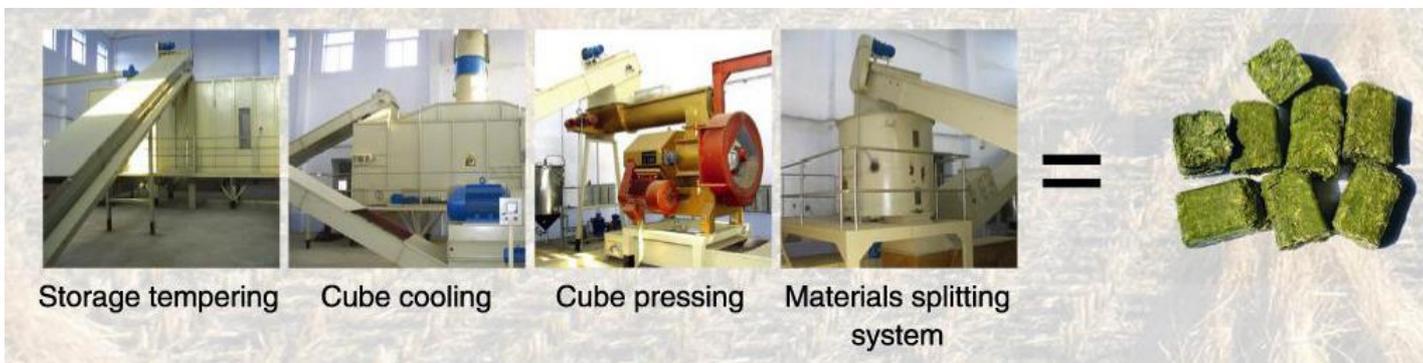


TYPE MLWG160 BRIQUETTE | CUBE COOLER

- Two independent axial-flow fans are installed on top of the cooler for exhaust air from cooling.
- Sight glasses are furnished in the side walls and on top of the machine for convenient inspection and maintenance.
- An access door is set in the front end to facilitate daily maintenance and repair.
- Mainly used for cooling high temperature cubes and briquettes after compressing.

Model	Capacity (T/h)	Rotated Speed	Cooling Time (minutes)	Water Removal (%)	Power (kW)
MLWG160-I	5-8	2.5	15-20	2-3.5	10.75
MLWG160-II	8-14	2.5	15-20	2-3.5	18.75

HIGH FIBRE MATERIAL TURNKEY PROJECTS



TURNKEY PROJECTS



EFB BRICKS



PINE PELLETS



WHEAT STRAW BRICKS



NUT PELLETS



ACACIA PELLETS



SUNFLOWER SHELL PELLETS



BLACK SUNFLOWER SHELL PELLETS



PEANUT SHELL PELLETS



MISCELLANEOUS WASTE-WOOD PELLETS



RUBBER WOOD PELLETS

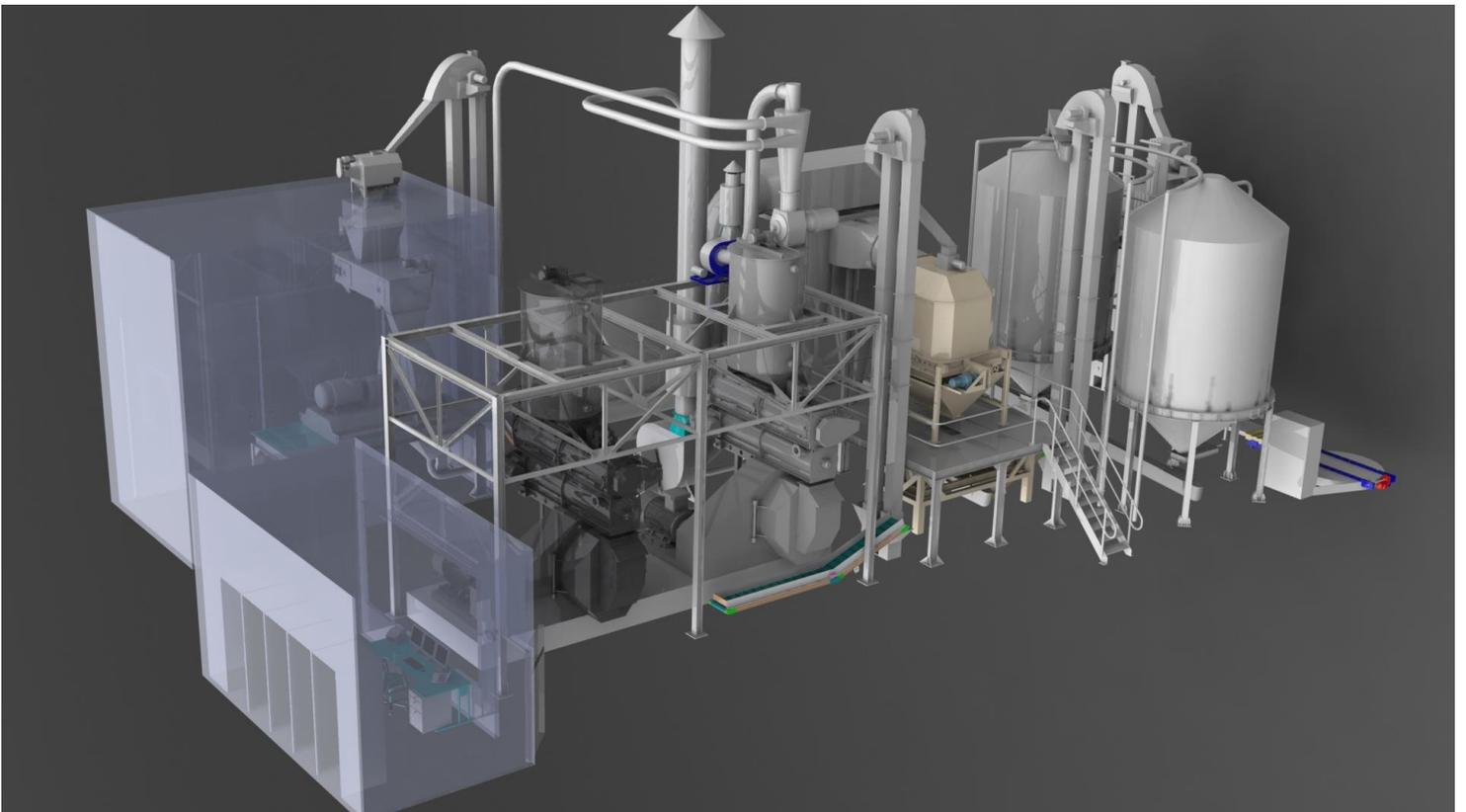
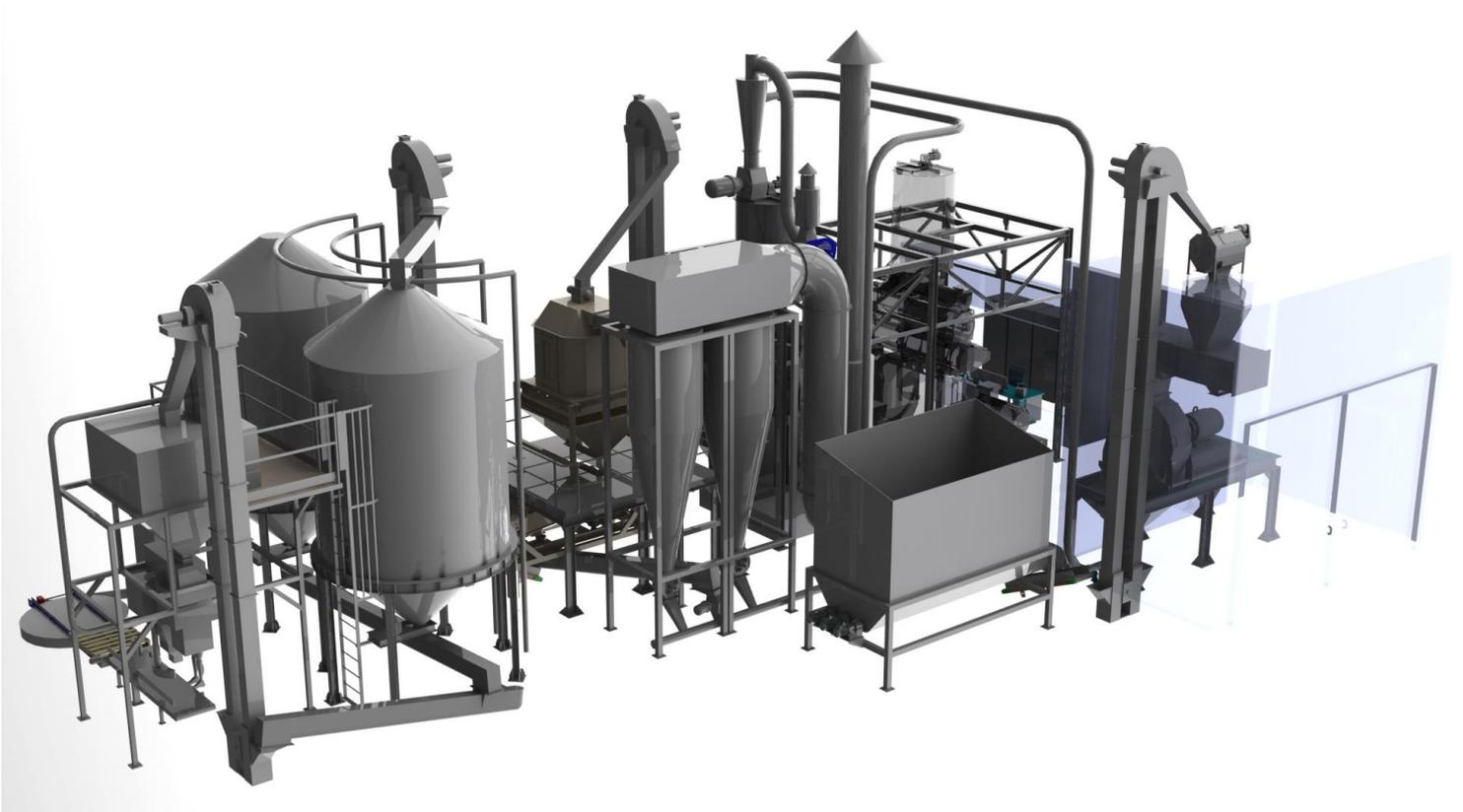


80% WHEAT STRAW + 20% SAWDUST PELLETS



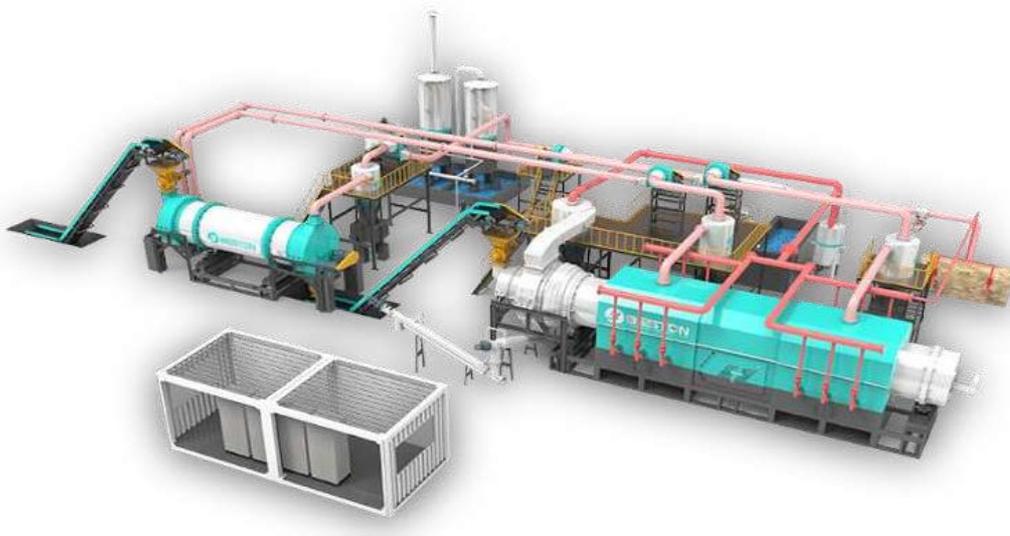
70% SLUDGE + 30% PALM SILK PELLETS





BIO-MASS CARBONIZATION

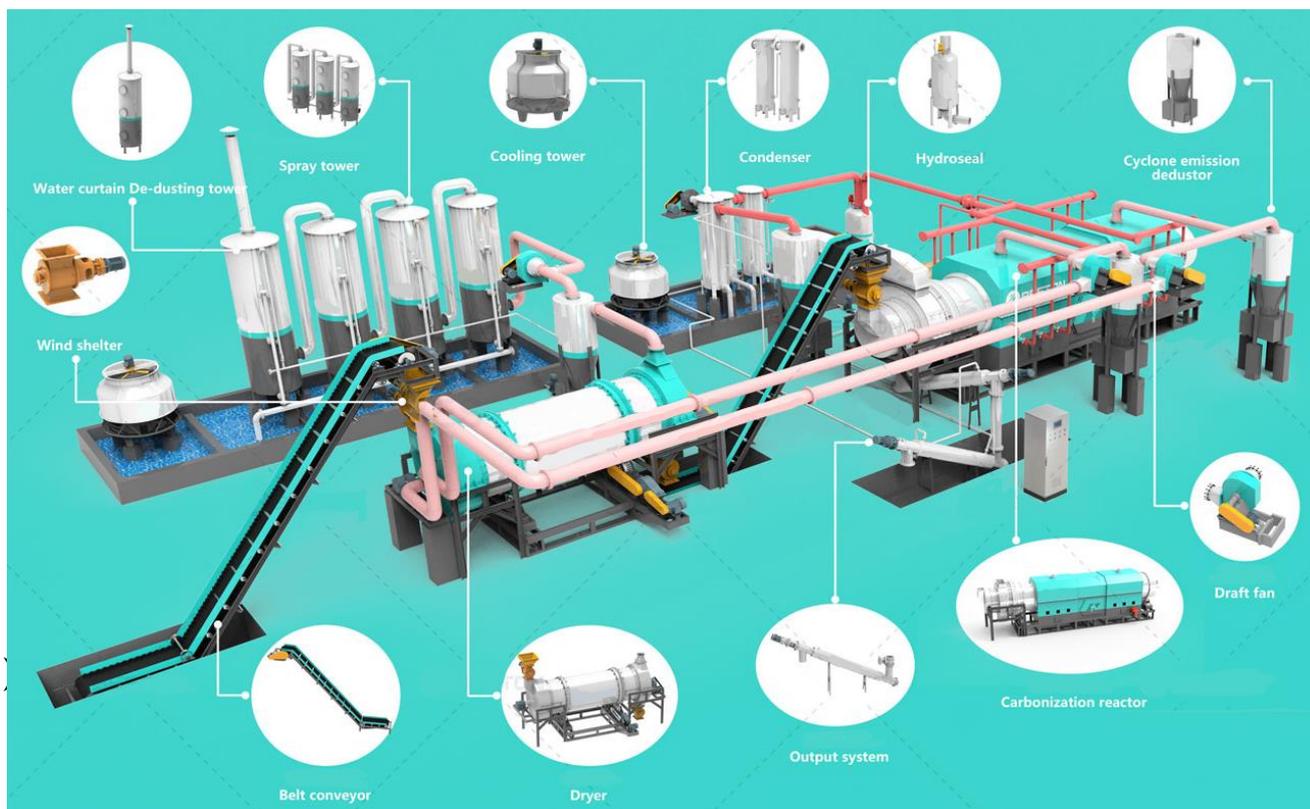
WOOD WASTE TO CHARCOAL MANUFACTURING



➤ What is Biomass Carbonization

Biomass carbonization plant refers to equipment that can convert biomass waste into biomass charcoal under high-temperature conditions. This equipment includes an exhaust dust removal system. The de-dusting system operates to purify the gas in the carbonization process. Ultimately, this system recycles biomass without polluting the surrounding environment. Many customers now consider it a worthwhile investment in this kind of equipment.

➤ Carbonization Process Arrangement



➤ Carbonization Process Equipment





➤ What is Carbonized Biomass Used For?

Carbonized biomass is used in many applications – for example: agriculture, industry, ship, cooking, etc.

Field	Uses
Agriculture	It is used to make biochar applied in agriculture. The biochar is used to improve the soil quality.
Industry	Charcoal is used in boilers and furnaces within cement, brick, ceramic, and power plant operations. Charcoal is a good alternative fuel.
Ship	Biomass charcoal is a good alternative heating fuel.
Cooking	Charcoal from biomass carbonization can be used for cooking and barbequing.



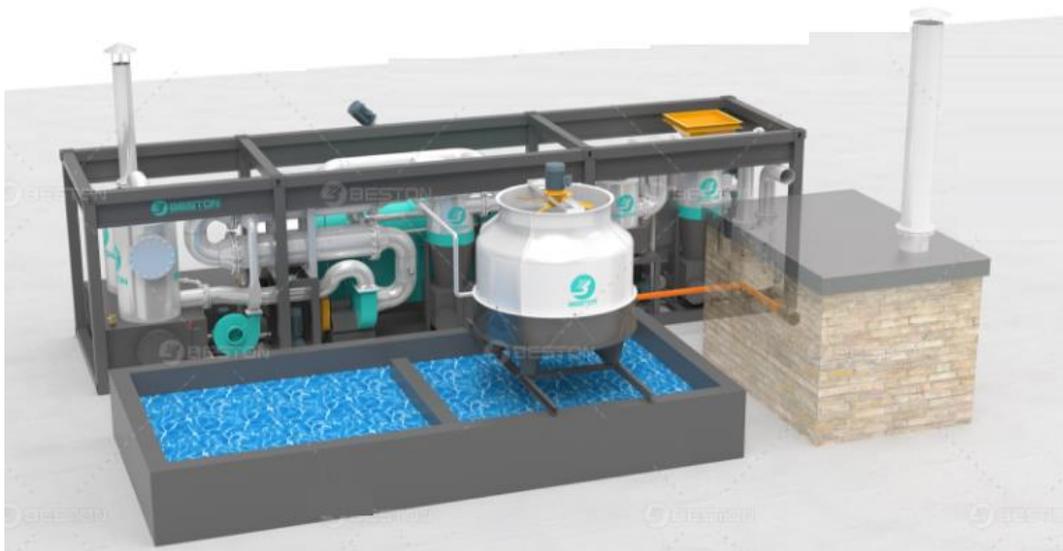
➤ Batch Type of Carbonization Equipment

- Process 1 furnace per day or 2 furnaces per 3 days.
- The structure of this production line is simple. It is easy to install and operate.
- The requirement for workers is low, and the requirement for workers' skills is low.
- The required land area is small.
- Low energy consumption (11 to 25 kW/hour)
- It can be moved to other places easily.
- Fuel – natural gas, LPG, diesel.



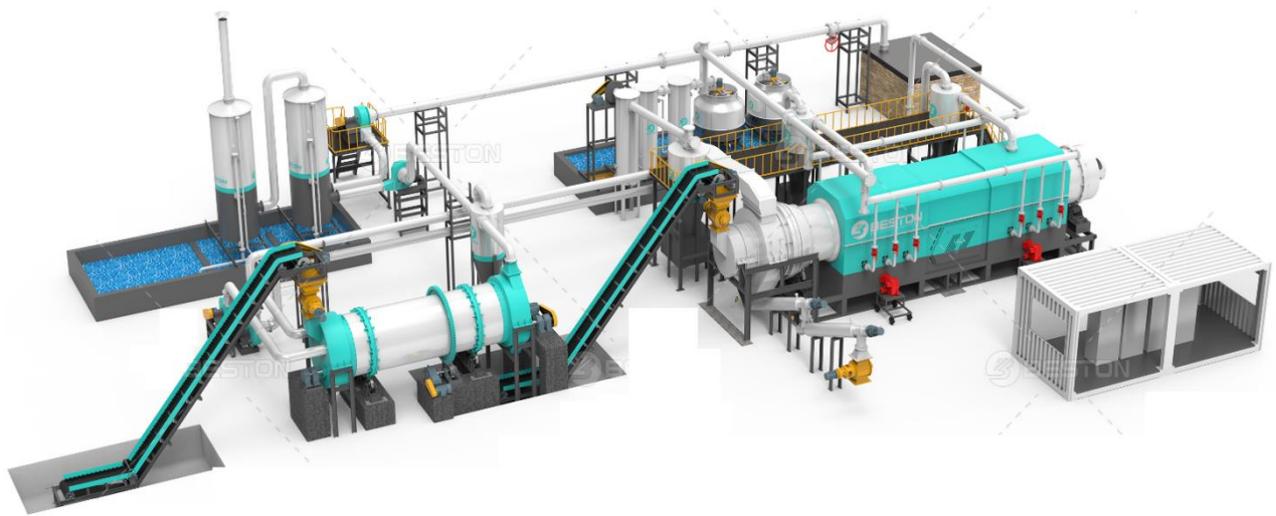
➤ Skid-mounted Type of Carbonization Equipment

- Small footprint, compact and modular design.
- No foundation work is required.
- Installation is simple and fast. 90% of installation has been completed prior to the ex-works factory delivery.



➤ Continuous Type of Carbonization

- It can operate continuously for 24 hours.
- High degree of automation.
- It can process 10+ raw material types.
- Continuous raw material infeed and finished product discharge.
- It is equipped with an exhaust gas de-dusting system where the exhaust hot air and gas is purified.



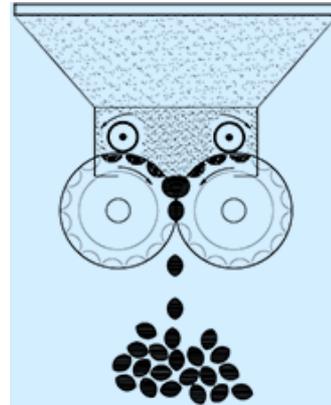
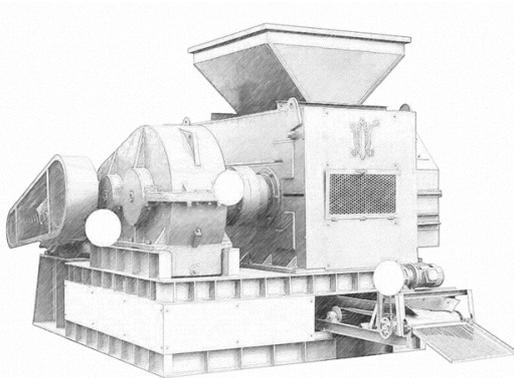
➤ Capacity and Models:

Model	BST-J12	BST-J18	BST-J40	BST-05 Pro (skid-mounted)	BST-10	BST-30	BST-50
Input Capacity	12m ³ /batch	18m ³ /batch	40m ³ /batch	0.3-0.5m ³ /h	2-4m ³ /h	7-9m ³ /h	10-15m ³ /h
Reactor Size(m)	φ1.9*L4.5	φ1.9*L6.6	φ2.8*L7.1	Φ0.83*L5.5	φ1.3*L14	φ1.7*L14.2	φ2.0*L14.2
Land for Equipment (L*W*H) (m)	9*6*6	12*6*7	15*18*7	10*8*3.9	29*15*5	30*15*8	35*18*9
Weight (Standard Configuration) (T)	18	22	34	15	35	35	49
Energy Consumption (kw/h)	11	13.5	25	31	34.7	61.5	116
Working Method	Batch			Fully continuous			
Feeding Requirement				Size: ≤20mm; moisture: ≤15%; strong liquidity			
Structure	Horizontal rotation			Double barrel single hearth	Double barrel double hearth		
Speed	0-2 RPM			1-9 RPM			
Control Method	Control by buttons			Automatic control			
Reactor Material	Q245R			Q245 + 310s			
Pressure	Micro negative pressure						
Heating Material	Diesel, natural gas, heavy oil, biomass, etc.						
Heating Method	Direct heating						
Noise (dB)	≤80						
Condenser	Circulating water cooling						
Rotation Method	External gear rotation						

CHARCOAL BRIQUETTES

For effective carbonized biomass use within industrial applications and economy of transport, the charcoal is generally formed into briquettes

Structure of Briquette Machine



➤ Components

It mainly consists of a frame (or foundation support), reducer, drive- spindle seat, drive-spindle, driven shaft, main bearings, coupling, main rollers, auxiliary rollers, wheel hub, drive gearing, driven gearing, briquette forming roll deviation adjuster, bearing seat, wedge assembly, oil cylinder, piston, oil pump, feeding hopper and unloading belt conveyor.

In order to meet the requirements for combustion and smelting, usually the briquettes will be formed into 20 to 80mm size with their shape being round, elliptical, square, pillowed or customised.



➤ Application for Charcoal Briquettes

Charcoal briquettes from biomass sources includes carbonization and then briquetting of a wide range of biomass energy resources such as wood processing and forestry harvesting waste and residue materials, agricultural waste such as straw, husk and cobb. Commercial grade charcoal briquettes are typically made incorporating a binder and filler where the charcoal is crushed finely and screened to achieve the required particle size for briquetting. A binder, typically starch, is added to the fines, as well as water. The charcoal comprises 75% of the briquette mix while water and starch comprise 20% and 5% respectively. The briquetting press has heavy duty design features to ensure that high density briquettes are formed as a continuous process which may be either an integral part of a charcoal producing facility, or an independent operation, with charcoal being received as raw material.

Charcoal briquettes derived from woody and agriculture biomass sources can be used as a replacement for existing fossil fuel heating applications and have advantages in industrial use over other heating agents.

Charcoal has:

1. A low sulphur content,
2. High carbon to ash ratio,
3. Relatively few and unreactive inorganic impurities,
4. A specific pore structure with a larger surface area, and
5. Little smoke discharge.

A large range of biomass residues can be carbonized and agglomerated into the charcoal briquettes including small, chipped pieces of wood, forest residue materials, straw and agricultural harvest waste. It generally takes 5 tonnes of woody biomass waste to produce one tonne of charcoal on a dry yield basis. Sustainable carbonized briquette biofuels have two favourable properties, namely availability from renewable raw materials and its lower negative environmental impact than that of fossil fuels.

Wood generally produces around 3500 kcal/kg for green wood and 4500-4770 kcal/kg for dried wood. Wood pellets produce 4500 ± 100 kcal/kg, whereas charcoal varies around 7500 kcal/kg.

➤ Briquetting Machine Specifications

Model	ZZXM-4	ZZXM-6	ZZXM-8	ZZXM-10
Output	3-4 t/h	6 t/h	8 t/h	10 t/h
Roller Width	250mm	240mm	220mm	300mm
Roller Diameter	360mm	400mm	450mm	500mm
Power	7.5kW	11kW	18.5kW	22kW
Reducer	ZQ350	ZQ400	ZQ500	ZQ500
Pressure Type	Mechanical	Mechanical	Mechanical	Hydraulic
Roller Material	65Mn	65Mn	65Mn	65Mn
	9Cr2	9Cr2	9Cr2	9Cr2
	Wear-resistant alloy	Wear-resistant alloy	Wear-resistant alloy	Wear-resistant alloy
Roller Assembly	Split-clamp type	Split-clamp type	Split-clamp type	Temper assembly
Hardness of Roller	52-62 HRC	52-62 HRC	52-62 HRC	52-62 HRC
Pressure Structure	Four-rollers double pressure	Four-rollers double pressure	Four-rollers double pressure	Four-rollers double pressure
Dimensions (mm)	1200x1150x1835	1400x1298x2125	1700x1510x2200	2000x1960x2440
Weight(kg)	2100	2300	2750	5800
Model	ZZXM-15	ZZXM-20	ZZXM-30	ZZXM-40
Output	15 t/h	20 t/h	30 t/h	40 t/h
Roller Width	336mm/400mm	428mm/500mm	500mm	600mm
Roller Diameter	650mm	750mm	850mm	1000mm
Power	37kW	55kW	90kW	110kW
Reducer	ZQ650	ZQ850	ZQ1000	ZQ1000
Pressure Type	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Roller Material	65Mn	65Mn	65Mn	65Mn
	9Cr2	9Cr2	9Cr2	9Cr2
	Wear-resistant alloy	Wear-resistant alloy	Wear-resistant alloy	Wear-resistant alloy
Roller Assembly	Temper assembly	Temper assembly	Temper assembly	Temper assembly
Hardness of Roller	52-62 HRC	52-62 HRC	52-62 HRC	52-62 HRC
Pressure Structure	Four-rollers double pressure	Four-rollers double pressure	Four-rollers double pressure	Four-rollers double pressure
Dimensions (mm)	2188x1972x1670	2660x2300x1750	2965x2450x1980	3065x2850x2220
Weight(kg)	7600	9000	15500	25000

* Note: A larger capacity is available at request.



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