



Products catalogue

Stationary and mobile lines
for shredding and briquetting
of agrobiomass



BRIQUETTING MACHINES
BIOMASSER®

SHREDDERS
TUMASSER®

BIOMASSER® SET





For individual users

Productivity up to

320 kg/h

Briquetting machines designed for single users and small homesteads, so that they may produce their own fuel. The presses can work autonomously or together with the shredder **TOMASSER® RK**. **BIOMASSER® SET** is composed of shredder **TOMASSER® RK** and briquetting machine **BIOMASSER® SOLO** or **DUO**. This configuration makes up a complete set for the production of straw briquettes.

SOLO-SET	up to 90 kg/h	
DUO-SET	up to 160 kg/h	
2DUO-SET	up to 320 kg/h	

Straw is an agriculture waste, so does not contribute to food prices increase.



BIOMASSER® MULTI




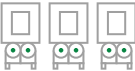












For professional users

Productivity up to

1440 kg/h

Complete lines for briquettes production comprised of loading table for bales, shredder **TOMASSER® RB**, briquetting machines **BIOMASSER® BSX14** and dust elimination system for place of work. Line is configured in accordance with individual customer's requirements.



BM-3	up to 480 kg/h	 + 
BM-4	up to 640 kg/h	 + 
BM-5	up to 800 kg/h	 + 
BM-6	up to 960 kg/h	 + 
BM-7	up to 1 120 kg/h	 + 
BM-8	up to 1 280 kg/h	 + 
BM-9	up to 1 440 kg/h	 + 

Why BIOMASSER® ?

100% ecological briquettes

BIOMASSER® produces the briquettes without any additives, glues, flours etc.

Forget about drying

The moisture content of raw material is typically 10% to 30%, therefore you do not have to dry it prior to briquetting with BIOMASSER®.

Choose quality

BIOMASSER® is the only briquetting technology in Europe verified by the European programme ETV - Environmental Technology Verification.

Reduce the costs of spare parts

Parts are inexpensive and some of them you can actually regenerate by yourself.

Save energy

Only 70 - 80 kWh for production of 1 tone of briquettes .



Specification

BIOMASSER®	SOLO	DUO	SOLO-SET	DUO-SET	2DUO-SET	MULTI
Productivity up to **	90 kg/h	160 kg/h	90 kg/h	160 kg/h	320 kg/h	1440 kg/h
Power installed	7,5 kW	14,5 kW	15 kW	22 kW	36,5 kW	depending on the configuration
Terminal	32 A	32 A	32 A, 32 A	32 A, 32 A	32 A, 32 A	
Dimensions (L/W/H)	1,25/0,85/1,40 m	1,25/0,85/1,40 m	-	-	-	
Operation	1 person					1-3 persons
Mobility	yes (wheels)					yes (platform)
Raw material	non-woody biomass i.e. straw, hay, reed and other					
Raw material parameters	length: 1 to 5 cm, moisture content: 10 to 30 %, temperature: +5 to +30°C					
Product	briquette 80mm diameter, random length					
Energy consumption	70-80 kWh per 1 tone of briquettes					
Power supply	3 x 400V, 50Hz					
Ambient conditions	ambient temperature: +5 to +30°C, roofed place with appropriate ventilation					

BIOMASSER® MOBILE

Transportable production line which may be conveyed to the location of raw materials store.

This allows customers to eliminate the high transportation costs normally associated with moving straw to a place of briquette production.

Moreover, it is suitable for executing a briquetting service for a customer.



List of raw materials that can be chopped in TOMASSER® technology and briquetted in BIOMASSER® technology

- Rye straw
- Wheat straw
- Barley straw
- Oat straw
- Rape straw
- Rice straw
- Hay dry grasses
- Miscanthus
- Corn (maize) straw
- Reed canary grass (Phalaris arundinacea)
- Waste straw from oyster mushrooms production
- Tanzanian grass (Hyparrhenia rufa)
- Soya straw
- Reed
- Post zymosis residues from biogas plant.

BIOMASSER® can produce soft, medium and hard briquettes.

- **Soft briquettes** can be used as bedding material - straw in the briquette production process is heat-treated so that the microorganisms and other organic components are eliminated. The achieved briquettes are aseptic and can be used as bedding for livestock.
- **Medium** - as fuel for automated boiler houses or power plants.
- **Hard** - as fuel for individual customers, who intend to replace wood.

Straw briquettes characteristics

- 100% natural biomass
- caloric value: 15 to 17 MJ/kg
- density: up to 650 kg/m³
- ash: 2 to 4%
- diameter: 80 mm
- length: random
- 1t coal = about 1.3t briquettes

 **TOMASSER®**

Reliable shredders with loading tables

TOMASSER® RB is a stationary, electrically driven shredder designed for chopping round and large rectangular straw bales.

High productivity makes this machine ideal for professional and industrial use. RB works perfectly together with briquetting line **BIOMASSER® MULTI** or **MOBILE**.



TOMASSER® RK is designed for shredding small cubes and loose material. The machine works very well together with briquetting machine **BIOMASSER® SOLO** or **DUO**.

Why should you choose TOMASSER® shredder?

Don't worry about moisture!

The machine is capable of cutting damp material into particles. The input material, cut by TOMASSER® may reach moisture content levels up to 35% and even 60% in some cases.

Trust quality!

TOMASSER® is a professional machine, composed of subassemblies from renowned suppliers using superior quality components. It is designed and built by professional engineers with expert knowledge!

Choose productivity!

The productivity of TOMASSER® is impressive and equals up to 3300kg/h.

Be accurate!

TOMASSER® will let you size raw material into particles ranging from 1cm up to 8cm.

Work effectively!

TOMASSER® with loading table and electrical cabinet provides complete shredding line.

Specification

TOMASSER®	RK7	RK15	RB18	RB22	RB30	RB37	RB45
Productivity up to **	600 kg/h	800 kg/h	2000 kg/h	2000 kg/h	2500 kg/h	2500 kg/h	3300 kg/h
Power installed	7,5 kW	15 kW	21 kW	23,5 kW	31,5 kW	38,5 kW	46,5 kW
Terminal	32 A	32 A	-	-	-	-	-
Dimensions (L/W/H)	1,60/0,95/1,45 m		3,80/2,00/2,70 m				
Loading	manual		mechanical				
Mobility	yes (wheels)		yes (platform)				
Moisture content	up to 35%		up to 35% up to 60%***				
Raw material parameters	loose or rect. bales 0,45 x 0,45 x 0,85 m		bales Ø 1,20 - 1,50 m rect. bales 2,40 x 1,30 x 1,20 m				
Raw material	non-woody biomass i.e. straw, hay, reed and other						
Product	particles of length from 1 up to 8cm						
Power supply	3 x 400V, 50Hz						
Ambient conditions	ambient temperature: +5 to +30°C, roofed place with appropriate ventilation						



EU ETV (European Union Environmental Technology Verification) is the European Union programme focused on showing reliable, innovative ecological solutions.



Received Verification Statement confirms that BIOMASSER® machines are solid and trustworthy in the opinion of independent experts.

The newest equipment BIOMASSER® BSX14 is a great, module product that contains the best and the most effective solutions for producing renewable fuel from local, non-woody biomass. BIOMASSER BSX14 briquetting machines were verified in the framework of the EU Environmental Technology Verification (ETV) pilot programme for:

Type of parameter	Verified values
Moisture content in input material	from 10% to 30%
Ambient temperature	from +5°C to 30°C
Mechanical durability of briquettes	minimum 80%
Specific energy consumption	between 60 kWh Mg ⁻¹ and 80 kWh Mg ⁻¹
Output (for BS114 SOLO)	between 60 kg ⁻¹ h and 90 kg ⁻¹ h

Verification Body: Environmental Technology Verification Body, Institute of Technology and Life Sciences in Falenty, Poznań Branch (Poland). Date: 12.11.2014

The Statement of Verification has been registered under Number VN20140001 and is accessible at the following address: <http://bit.ly/2FVm4ZM>

Golden Coal

Comparison of costs of heating & domestic hot water for season for house 150m²

Light fuel oil	2654 € / 2908 m ³	Agro pellets	893 € / 5943 m ³
Natural gas	1501 € / 2611 m ³	Slack (culm)	770 € / 5137 m ³
Doubles (coal)	933 € / 4377 m ³	Agro briquette Golden Coal	663 € / 6314 m ³ ✓

- Heating cost
- Consumption (m³, kg)

Prices related to Polish market. Prices in Euro are indicative and calculated from Polish Zloty to Euro (October 2015). Source: Magazine "Biomasa - Rynek Peletu", Autumn 2015 and ASKET®



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