



BRIQUETTING PRESSES  
**BIOMASSER**®

SHREDDERS  
**TOMASSER**®

Stationary and mobile  
lines for shredding  
and briquetting  
of agrobiomass

STRAW IS AN AGRICULTURE WASTE,  
SO DOES NOT CONTRIBUTE  
TO FOOD PRICES INCREASE

# Lines for individual users

## BIOMASSER®

### Productivity\* up to 320 kg/h

Briquetting presses 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 press BIOMASSER® SOLO or DUO.

This configuration makes up a complete line 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

## Why should you choose briquetting

### Choose quality!

BIOMASSER® is the only briquetting technology in Europe verified by the European programme EU ETV.

### Save energy!

BIOMASSER® consumes 70-80kWh for production of 1 tonne of briquette.

### Reduce the costs of spare parts!

Parts for BIOMASSER® are inexpensive and many parts can actually be regenerated by the customers themselves.

### Forget about drying!

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

# Lines for professional producers of the briquettes



**BIOMASSER®  
MULTI**

Productivity\*  
up to 1 440 kg/h

Complete line for briquettes production comprised of feeding table for bales, shredder TOMASSER® RB, briquetting press BIOMASSER® BSX14 and dust elimination system for place of work.

Line is configured in accordance with individual customer's requirements.

BIOMASSER®  
MULTI BM-4

## etting machine BIOMASSER®?

### Convenient modularity!

The machines are modular, so when you need to increase the capacity of the line, you can easily adjoin another briquetting units.

### Decide about hardness!

BIOMASSER® enables customers to adjust hardness of briquette.

### Save money!

BIOMASSER® are available as mobile production lines, which lets the customer save money usually spent on transportation costs.

### Enjoy your work!

BIOMASSER® guarantees a quiet working environment free from unnecessary dust.



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

# Now you can produce the briquettes in an open field directly at a stack

**BIOMASSER®**  
**MOBILE**  
mobile  
production  
lines



BIOMASSER® MOBILE is a 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.

**BIOMASSER® MOBILE** – a modular line assembled on its own platform as part of a complete unit. **Plug & Play solution** – connect to a suitable electrical supply and the machine is ready to work! Platforms can be placed on:

- Agricultural Trailer for towing to locations with stored raw material.
- Semitrailer for transportation to locations with stored raw material.
- Production premises whereby the equipment can be easily shifted to another place of work if required.

Options include the addition of tarpaulin covers to protect against the elements whilst operating outside.

# Do you need a reliable shredder?

## Choose TOMASSER®

**TOMASSER®**

shredders and  
feeding tables

TOMASSER® RK



TOMASSER® RB  
with feeding table

**TOMASSER® RB** is a stationary, electrically driven shredder designed for chopping round and large rectangular 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 press BIOMASSER® SOLO or DUO.

### Why should you choose the shredder TOMASSER®?

#### 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.

#### 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.

#### 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!

#### Work effectively!

TOMASSER® with feeding table and electrical cabinet provides complete shredding lines.

**EU ETV (European Union Environmental Technology Verification)** is the European Union program 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-wood 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 <sup>-1</sup> and 80 kWh Mg <sup>-1</sup>
Output (for BS114 SOLO):	between 60 kg h <sup>-1</sup> and 90 kg h <sup>-1</sup>



**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://iet.jrc.ec.europa.eu/etv/biomasser%C2%AE-briquetting-machines>



ONLY OUR BRIQUETTING TECHNOLOGY  
IS VERIFIED BY INDEPENDENT EXPERTS ETV



**GREENEVO**  
AKCELERATOR ZIELONYCH TECHNOLOGII

**ASKET - Winner of the 1st Edition of the Competition named "GreenEvo - Green Technology Accelerator" organized by Polish Ministry of the Environment.**

GreenEvo is an innovative of the Ministry that aims to promote the very best Polish environmental technologies on the international market, and support developments from companies involved in this field.

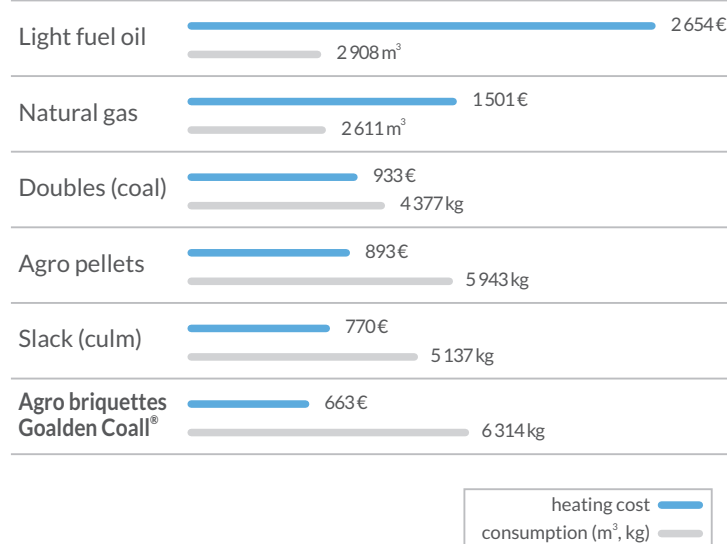
Do you know  
that heating & domestic hot water  
expenses exceed

**80%**  
of total costs  
of energy consumption?

## GOLDEN COAL

### HEAT FROM THE STRAW BRIQUETTES

#### Comparison of costs of heating & domestic hot water for season for house 150m<sup>2</sup>



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®

**Produce your  
own fuel and lower  
the expenditure!**

#### Straw briquettes characteristics:

- 100% natural biomass
- caloric value: 15 to 17 MJ/kg
- density: up to 650 kg/m<sup>3</sup>
- ash: 2 to 4%
- diameter: 80 mm
- length: random
- 1t coal = about 1.5t briquettes

#### BIOMASSER® can produce soft, medium-hard and hard briquettes:

- soft briquettes can be used as bedding material - straw in the briquette production process is heat-treated so that the micro-organisms 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.



BIOMASSER®	briquetting press		briquetting press + shredder			
Type:	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 room (place) with appropriate ventilation					

## TOMASSER®

Type:	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:****	Chop 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						

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

- rye straw	- corn (maize) straw	- hay - dry grasses	- reed canary grass (Phalaris arundinacea)
- wheat straw	- waste straw from production of oyster mushrooms	- Miscanthus	
- barley straw		- Tanzanian grass (Hypertheca rufa)	
- oat straw	- rice straw	- reed	- post zymosis residues from biogas plant
- rape straw	- soya straw		

We continuously expand the list of raw materials to be processed in BIOMASSER® and TOMASSER® technology thanks to systematically executed researches and tests.



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FIND US ON

\*) depends on type of raw material, its moisture content, quality of chop  
 \*\*) depends on type of raw material, its moisture content and size of the screen fitted. Productivity with feeding table  
 \*\*\*) special execution - optional  
 \*\*\*\*) chop length in given range depending on size of the screen fitted

This leaflet is for information purposes and does not constitute an offer within the meaning of Article 66 § 1 of the Civil Code.

Patent Office RP P-377871