



Stationary and mobile lines
for shredding and briquetting
of non-woody agrobiomass



Products catalogue



BIOMASSER® SET

Small sets | briquetting machine + shredder



Productivity
up to

320 kg/h

Machines designed for the production of briquettes for own needs. Recommended for individual users, farms and local communities. The **SET** consists of shredder **Tomasser® RK** for small cubes and loose straw and briquetting machine **Biomasser® Solo, Duo or 2Duo**. This configuration of machines creates a complete set for the production of briquettes.

SET is also available in a mobile version on a trailer, easy for transporting by car to the place of raw material storage, to provide briquetting services or rental.



BIOMASSER® SET

BIOMASSER® miniMOBILE

Productivity*

SOLO-SET



SOLO-SET mobile



up to 90 kg/h

DUO-SET



DUO-SET mobile



up to 160 kg/h

2DUO-SET



2DUO-SET mobile



up to 320 kg/h

Only Biomasser® produces briquettes of different hardness

Soft briquettes - used as livestock bedding. The straw in the briquette production process is subjected to high temperature, thanks to which most of the microorganisms are eliminated. Briquettes become more hygienic compared to straw not being temperature treated.

Medium hard - used in automatic boiler rooms or power plants.

Hard - used in fireplaces and stoves instead of wood, and also for animals as a crunchy fibre snack or toy (AWA).

BIOMASSER® MULTI

Professional lines | groupe of briquetting machines + shredder



Productivity
up to

1120 kg/h

Professional lines for the production of the briquettes, consisting of straw bale loading table, shredder **Tomasser® RB**, a group of **Biomasser®** briquetting machines and dust elimination system in the workplace.

The transportable version, **Biomasser® Mobile**, is a complete factory on wheels working at the place of raw material storage. This allows customers to eliminate the high transportation costs normally associated with moving straw to a place of briquettes production.



BIOMASSER® MULTI

BIOMASSER® MOBILE

Productivity*

BM-3		BM-3-MK		up to 480 kg/h
BM-4		BM-4-MK		up to 640 kg/h
BM-5		BM-5-MK		up to 800 kg/h
BM-6		BM-6-MK		up to 960 kg/h
BM-7		BM-7-MK		up to 1120 kg/h

Convenient modularity!

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

Save energy!

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

Unique feature by world standards!

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



reliable straw shredders with loading tables



Tomasser® RK is a shredder designed for chopping small cubes and loose straw, which can work alone, in a set for the briquettes production **Biomasser® Set** or **Biomasser® miniMobile**.

Tomasser® RB is used for chopping straw in bales and large cubes. The high efficiency and reliability make the chopper perfect for professional and industrial use. **Tomasser® RB** works perfectly with a loading table in the briquettes production line **Biomasser® Multi**, **Biomasser® Mobile** and in straw shredding station **Tomasser® SRS**.

Tomasser® SRS



Tomasser® SRS is a Straw Shredding Station composed of straw bale loading table, **Tomasser® RB** shredder, hopper and dust collector. Ideally suited for applications in agriculture, heating, energy and renewable energy production.

Why Tomasser®?

Don't worry about moisture!

The machine cuts into pieces even damp raw material. Tomasser(R) works with the material of moisture content levels up to 35% and even 60% (special execution).

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.

Type:	briquetting machine		briquetting machine + shredder			
	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	1120 kg/h
Power installed:	6,65 kW	12,75 kW	14,15 kW	20,25 kW	33 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		-	-	-	
Operation:	1 - 2 persons					2-4 persons
Mobility:	Yes (option)					
Raw material:	non-woody biomass i.e. straw, hay, reed					
Raw material parameters:	length: 1cm to 5cm moisture content: 10% to 30% temperature: +5°C to +30°C					
Product:	briquette 80mm diameter, regulated hardness					
Energy consumption:	70-80 kWh per 1 tone of briquettes					
Power supply:	3 x 400V, 50Hz					
Ambient conditions:	ambient temperature: +5°C to +30°C, roofed room (place) with appropriate ventilation					

Type:	loose straw, small bales		bales, large cubes		
	RK7	RK15	RB18	RB30	RB45
Productivity up to:**	600 kg/h	800 kg/h	2000 kg/h	2500 kg/h	3300 kg/h
Power installed:	7,5 kW	15 kW	20 kW	31,5 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		
Moisture content up to:	35%		35% 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				
Product:**	Chop of length from 1cm up to 8cm				
Power supply:	3 x 400V, 50Hz				
Ambient conditions:	ambient temperature: +5°C to +30°C, roofed place with appropriate ventilation				

* depends on the type of raw material, its moisture content, method of cutting and hardness of the produced briquette.

** depends on the type of raw material, its moisture content, size of the screen fitted.

*** special execution.

EU ETV - European Union Environmental Technology Verification - is the European Commission 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:

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: <https://bit.ly/asket-etv>

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 h ⁻¹ and 90 kg h ⁻¹

Raw materials for Biomasser® and Tomasser® technology:

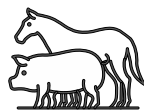
- rye straw
- wheat straw
- barley straw
- oat straw
- rape straw
- corn (maize) straw
- rice straw
- soya straw
- reed
- hay - dry grasses
- Lucerne
- serradella (Ornithopus L.)
- straw from production of oyster mushrooms
- Tanzanian grass (Hyperrhenia rufa)
- Miscanthus
- canary grass (Phalaris arundinacea)
- digestate from biogas plant

Straw briquettes

LOCAL BRIQUETTE.
100% NATURAL.



Heating



Animals



Biogas

Characteristics

- 100% straw
- caloric value: 15,5 to 17,5 MJ/kg
- density: up to 650 kg/m³
- ash: 2 to 4%
- diameter: 80 mm
- 1t coal = about 1.5t briquettes

Combustion

Briquettes should glow during combustion, so we provide a little air.

In the initial phase the briquettes increase their volume, therefore we should leave some free space in the combustion chamber. The batch shall be left until completely combusted.

The temperature in the furnace should amount 700°C - 800°C to avoid slagging of the ash. The briquettes are **burning 4-6 hours** depending on the outside temperature, type of boiler and set room temperature **giving cosy warmth on cold days.**

Fuel smelling like a freshly mown meadow... Does it sound tempting, doesn't it?



Briquettes contribute to climate protection because **the carbon dioxide emission** is on zero level – the amount of carbon dioxide absorbed by a plant during vegetation is then released into the atmosphere during combustion of the straw briquette.



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