



ASKET[®]

EN

BRIQUETTING MACHINES
BIOMASSER[®]

SHREDDERS
TOMASSER[®]

Stationary and mobile
machines for shredding
and briquetting
of agrobiomass

Biomass in the form of straw belongs to renewable sources of energy, falls into the idea of sustainable development and circular economy.

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

Sets for briquetting for individual users

BIOMASSER® SET

Briquetting set designed for single users and small homesteads, so that they may produce the natural fuel for themselves or for local communities.

BIOMASSER® SET is composed of shredder TOMASSER® RK for small cubes and loose straw, and briquetting machine BIOMASSER® SOLO, DUO or 2DUO.

This configuration makes up a complete set for the production of straw briquettes.



BIOMASSER® 2DUO-SET

BIOMASSER® SET

shredder + briquetting machine

Productivity*



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 briquet

■ 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®.

Mobile sets for briquetting



BIOMASSER® miniMOBILE

BIOMASSER® miniMOBILE

Transportable machines (SET) for briquetting straw, mounted on a trailer that may be easily transport by car to the place of storage of raw material, provide briquetting services or renting.

ing 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.

BIOMASSER® miniMOBILE **NEW!** shredder + briquetting press + trailer

Productivity*



SOLO-SET
mobile

up to 90 kg/h



DUO-SET
mobile

up to 160 kg/h



2DUO-SET
mobile

up to 320 kg/h

Lines for briquetting for professional producers

BIOMASSER® MULTI

The line for briquettes production comprised of loading table for straw bales, shredder TOMASSER® RB, briquetting machines **BIOMASSER® BSX14** and dust collection system for the place of work.

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



BIOMASSER® MULTI BM-5

BIOMASSER® MULTI

shredder + briquetting machines

Productivity*



BM-3

up to 480 kg/h



BM-4

up to 640 kg/h



BM-5

up to 800 kg/h



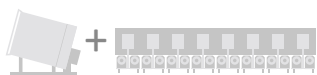
BM-6

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






Mobile lines for briquetting



BIOMASSER® MOBILE

BIOMASSER® MOBILE

Transportable line (MULTI) for briquettes production which may be conveyed to the location of raw materials store. This allows to eliminate the high transportation costs normally associated with moving straw to a place of briquettes production.

BIOMASSER® MOBILE shredder + briquetting machines + trailer		Productivity*
	BM-3-MK	up to 480 kg/h
	BM-4-MK	up to 640 kg/h
	BM-5-MK	up to 800 kg/h
	BM-6-MK	up to 960 kg/h
	BM-7-MK	up to 1 120 kg/h

Shredders for straw

TOMASSER®

TOMASSER® RK is a shredder designed for chopping small cubes and loose straw, that can work autonomously, in the briquettes production assortment BIOMASSER® SET or BIOMASSER® miniMOBILE.

TOMASSER® RB is dedicated for shredding straw bales. High efficiency makes the machine ideal for professional and industrial use.

TOMASSER® RB can work autonomously, in the briquettes production line BIOMASSER® MULTI or BIOMASSER® MOBILE.



TOMASSER® RK



TOMASSER® RB with loading table

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.

Straw briquettes



The briquettes glowing

Only BIOMASSER® can produce the briquettes of various density:

- soft briquettes - used as bedding material for livestock. Straw in the briquettes production process is treated by high temperature, so the majority of microorganisms and organic components are eliminated. The briquettes become more hygienic compared to straw not being temperature treated.
- medium hard - are used in automated boiler houses or power plants,
- hard - dedicated for individual customers, who intend to replace the wood by the briquettes.

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
- 1t coal = about 1.3t briquettes

Raw materials for BIOMASSER® and TOMASSER® technology

rye straw	serradella (<i>Ornithopus L.</i>)
wheat straw	straw from production of oyster mushrooms
barley straw	
oat straw	Tanzanian grass
rape straw	(<i>Hyperhena rufa</i>)
corn (maize) straw	Miscanthus
rice straw	canary grass
soya straw	(<i>Phalaris arundinacea</i>)
reed	post zymosis residues from biogas plant
hay - dry grasses	

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



	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:	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	1,25/0,85/1,40 m	-	-	-	
Operation:	1 person					2-4 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					

	loose straw or small bales		bales, rectangular bales		
Type:	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%		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				

* 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

*** special execution – optional

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://ec.europa.eu/environment/ecoap/etv/biomasserr-briquetting-machines_en

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