

## BRIQUETTING MACHINES

It's time to move away from the take-it-or-leave-it dynamic.







#### Mackma is an Italian company

that exports industrial cold metalworking machinery all over the world.

Attractive design, simple, high-performance technology, attention to environmental aspects, silence and reliability make

Mackma machines unique in their sector.

The company was founded with the desire to bring innovation to the sector of industrial machines for metalworking and has developed thanks to constant comparison with the market and listening to the needs of its customers.

#### Mackma's extensive catalogue includes:

bending machines, profile bending machines, mandrel bending, ring roller, plasma cutting machines, horizontal presses, shredders, threaded bar cutters, magnetic drills and briquetting presses.



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## With Mackma briquetting machines, you save resources and increase profits



Discover the advantages of briquetting chips with Mackma briquetting machines



#### Volume reduction -90% \*

Waste storage space, costs and time are reduced and improve of internal handling and external transport.





#### Handling and transport -80% \*

The volumetric reduction of the product allows for fewer deliveries of the waste or product to specialised waste management companies or directly to the foundry, resulting in cost savings.



#### Recovery of any internal liquids +20% \*

Metal shavings can contain significant quantity of oils and emulsions, which are often very expensive. During the process briquetting process, it is possible to recover approximately up to 98% of liquid inside the swarf. Through the hydraulic circuit inside the briquetting machine, the liquids present will be sent back to the processing centres, resulting in a reduction in product consumption and economic savings.



#### Increased commercial value and melt yield +70% \*

Briquettes intended for foundries have a higher commercial value than shavings because, during melting, they significantly increase the material yield and can be loaded directly into the melting furnaces without prior treatment of the emulsion liquids. They are qualitatively better than swarf, which on the other hand is subject to oxidation, reduction and shrinkage.

In a chip where 20 % liquid is present, only 2 % will remain in the chip after briquetting. The extracted liquid will then be recovered and sent back to the machining centres.

















<sup>\*</sup> Values in percentages refer to tests on a sample of homogeneous material





**Industry 4.0** 

#### Mackma briquetting machines meet the requirements

#### **CNC** control

Mackma briquetting presses are equipped with a touchscreen PLC control, the work cycles are automatic. The control panel allows you to programme cycles, stop or start the machine, check the operating status, the number of working cycles, the energy saving of the machine, the analysis and level management of the liquid collection pump and the counting of briquettes made.

#### Interconnection of computer systems and connection to other machines.

Mackma briquetting presses can be connected to the production lines or conveyor belts present in the company, so that start and stop commands can be sent to the line if the collection tank is full or not. In addition, via an RJ45 network cable and thanks to the management software we supply, you can connect the machine to computer systems that will allow you to program it, set up a work order, check the work progress, configure settings for specific chips, manage the quantity of briquettes produced, monitor the status of alarms, update the software and request remote technical assistance from the Mackma team.

#### Simple and intuitive interface

The interface used on Mackma briquetting presses is simple and intuitive, the 10" colour touchscreen PLC screen allows the full view of settings, the clear and intuitive graphics enhances user friendliness and speeds up the programming process.

#### **Remote assistance**

Mackma briquetting presses can receive remote assistance. If connected to the network, through the control panel, it will be possible to enable entry to the Mackma team to provide assistance on programming and viewing alarms.











The new BTF-P line of briquetting machines is the line dedicated to grinding sludge, machining waste from sharpening, polishing or grinding operations, consisting of carbide powder mixed with oils or emulsions of oil and water. They are classified as hazardous and must be handled appropriately.

#### **GRINDING SLUDGE**





## BTF-P

**GRINDING SLUDGE BRIQUETTING MACHINE** 





Briquettes of grinding sludge made by our BTF-P Line machines





#### **BTF-P machines**

The BTFP series is dedicated to sludge, machining waste from sharpening operations, mirror polishing or grinding, consisting of Hard Metal powder mixed with oils or emulsions of oil and water. They are classified as hazardous waste and must be managed appropriately.

#### Capable of pressing up to 5000 kg per Cm2

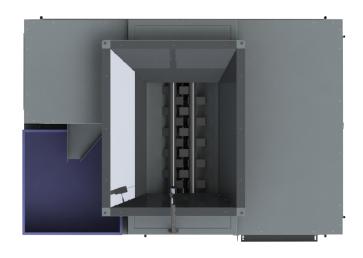
	Ø Briquets	Kg/h sludge
BTF-P 50	50 mm	60

	Ø Briquets	Kg/h sludge
BTF-P 65	65 mm	100

	Ø Briquets	Kg/h sludge
BTF-P 75	75 mm	152

	Ø Briquets	Kg/h sludge
BTF-P 85	85 mm	222

	Ø Briquets	Kg/h sludge
BTF-P 95	95 mm	362













#### **CONTATTI**

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