

# Energy from waste wood

## NATURAL CYCLE

When burning wood only so much CO<sub>2</sub> is released into the atmosphere as the wood has extracted from the atmosphere during the course of its growth!



Shredding



Extraction



Briquetting



Heating

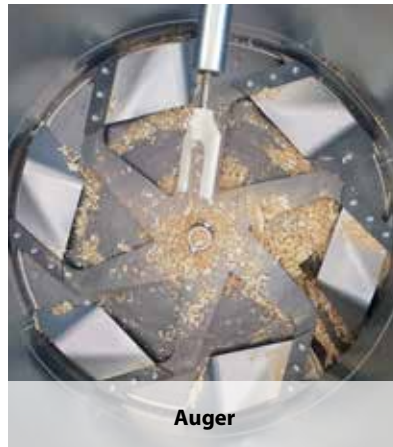
# Briquetting press - MFP series



Transportation line



Control



Auger



Square Briquettes

## Cost-effective briquetting

The briquetting presses of the MFP series are extremely cost-effective and are characterized by their clever technology, their compact and sophisticated design as well as a solid construction. The machines can work in continuous operation and transform residual woodworking materials such as sawdust, wood shavings, milling chips and grinding dust into dimensionally stable, rectangular briquettes with the dimensions 35x35 mm. Depending on the starting raw material, the length of the briquettes is up to a maximum of 50 mm. The machines work very quietly. The sound pressure level is below 62 decibels!

## Machine features

The MFP briquetting presses are ready to plug in, including an hydraulic tank, drive unit and control system. The material silo has a filling capacity of approx. 0.4 cubic meters. The control system is equipped as standard with a motor protection switch and an on / off button. A semi-automatic time control or a fully automatic control with level indicator is available on request.

## Quality features

- Square Briquettes
- Low wear and tear costs
- High compression



## Optional accessories

- Briquette line for transporting the briquettes
- Available in 230 V, 50 Hz, 3 kW
- Time control system with built-in timer
- Automatic operation with level indicator
- Drive system

## Technical Data

MODEL	OUTPUT kg / h	DIMENSIONS OF BRIQUETTE mm	ELECTRICAL CONNECTION kW	DIMENSIONS L x W x H mm	WEIGHT kg
MFP 35	5 - 30	35 x 35	2,2	1370 x 740 x 1480	250

# ► Briquetting press – MPP series



Material silo



Hydraulic pre-compressor



Option: coolable pressing pliers



Cylindrical briquettes

## Clever Briquetting

The high-quality briquetting presses of the MPP series process materials such as wood shavings, sawdust, small wood chips, as well as grinding dust and other residues into dimensionally stable cylindrical briquettes. The pressing process is carried out without the addition of binders, alone by the hydraulic pressure.

### Functioning of the machine

At the bottom of the silo runs a stirrer, which transports the material into the pre-compressor unit. In this chamber runs a hydraulic slide, which pre-compresses the material and pushes it into the pressing block. The punch presses the material into the closed crimping pliers until the set pressing power is reached. The pliers open and the briquette is ejected.

### Quality features

- Low wear and tear costs
- Large tank for the hydraulic oil
- Option: endless, continuous briquettes



### Reasons for Briquetting

- High volume reduction (up to 90%)
- Production of a high quality fuel
- Profitable sale of briquettes
- Reduction of storage and transport costs
- Reduction of dust emission
- Increased safety through dust binding

## Technical Data

MODEL	THROUGHPUT kg/h	BRIQUETTE Ø mm	MOTOR kW	DIMENSIONS L x H x W mm	WEIGHT kg
MPP 60	30 - 60	50	5,5	1680 x 1100 x 1500	680
MPP 80	35 - 80	60	5,5	1680 x 1100 x 1500	700
MPP 110	40 - 110	65	5,5	1925 x 1100 x 1500	800
MPP 180	90 - 180	70	9,2	2095 x 1300 x 1700	1250
MPP 280	100 - 280	80	9,2	2095 x 1300 x 1700	1250
MPP 450	200 - 450	80	15	2500 x 1500 x 1730	2300
MPP 550	250 - 550	80	27,5	2500 x 1500 x 1730	2400

# Briquetting press - RUF



Siemens PLC Control



Rectangular briquettes



Manual packaging



Automatic packaging

## Commercial Briquetting

RUF hydraulic briquetting presses press various materials such as wood shavings, sawdust, fine wood chips as well as grinding dust and other residues into dimensionally stable, rectangular briquettes. The machine is characterized by a very robust construction, which guarantees a consistent briquette quality in continuous operation.

### Functioning of the machine

The starting raw material is filled from above into the silo. At the bottom of the silo, a screw conveyor transports the material into the pre-compressor unit. There the material gets compacted into the pressing chamber. The press plunger is activated, moves forward and presses the material with up to 300 bar into the matrix. The matrix is moved laterally and the briquette gets pressed out to the front.

The dimensions of the briquettes are 150 x 60 mm. The length of the briquette can be adjusted up to a maximum of 105 mm via a PLC control. The operation is via a Siemens touch display.

### Quality features

- Rectangular briquettes
- Low wear and tear costs
- High pressing power (up to 300 bar)



### The production of briquettes has the following advantages

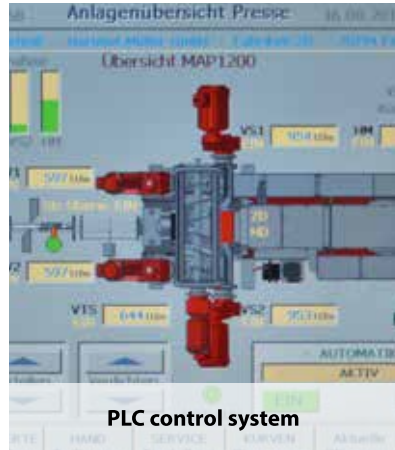
- Profitable selling of wood briquettes
- Briquettes are easy to stack
- Savings on storage and transport costs
- Reduction of waste disposal costs
- Reduction of the risk of fire and explosion due to dust binding
- 2,1 kg briquettes correspond to a heating value of 1 liter fuel oil

## Technical Data

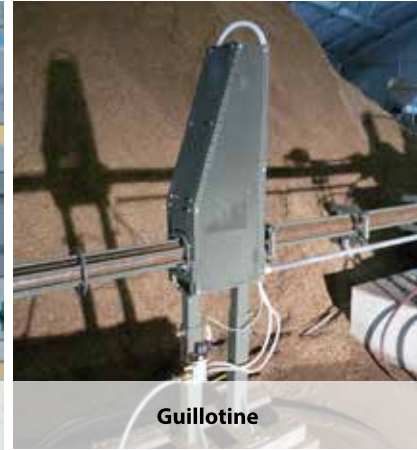
\* other models on request

MODEL	OUTPUT kg / h	DIMENSIONS OF BRIQUETTE mm	ELECTRICAL CONNECTION kW	DIMENSIONS L x W x H mm	WEIGHT kg
Classic	300 - 500	150 x 60 x 40 – 105	34	2100 x 1900 x 2000	3300

# ▶ Briquetting press – MAP series



PLC control system



Guillotine



Briquette tablets



Long briquettes

## Industrial Briquetting

Our mechanical briquetting presses of the MAP series press a wide range of materials such as wood shavings, sawdust, fine wood chips, grinding dust and other residues into dimensionally stable cylindrical briquettes. The pressing process takes place without the addition of binders solely by the mechanical pressing power. Depending on the raw material, the volume of the starting material can be reduced by up to 90%.

Briquetting presses of our MAP series are optionally supplied with a suitable silo or attached to an existing silo. Our MAP presses are designed to meet the requirements of an industrial company with a 24-hour operation.

### Quality features

- High throughput
- Robust construction
- Touchscreen control system



### Functioning of the machine

The press is driven by an electric motor with V-belt drive. Flywheels drive the press plunger over the eccentric connecting rod. The material is fed to the press chamber. The press plunger continuously compacts the chips into an extremely hard briquette. Depending on the design of the press plunger, the same machine can be used to produce both an endless briquette to sell to customers and individual briquette tablets for automatic charging of an own heating system.

## Technical Data

MODEL	THROUGHPUT kg/h	BRIQUETTE Ø mm	MOTOR kW	DIMENSIONS L x H x W mm	WEIGHT kg
MAP 180	100 - 180	45	11	2600 x 1250 x 3000	1600
MAP 350	150 - 350	55	37	2800 x 1250 x 3000	3500
MAP 750	300 - 750	65	37	3100 x 1250 x 3000	3500
MAP 1200	500 - 1200	75	47	3100 x 1250 x 3000	4000

# Shredding machine – MRZ series



Rotor with double row of blades



V-belt drive



Screen of your choice (10-40mm)



Wood chips

## Aggressive Shredding

The robust shredders of our MRZ series shred wood residues such as softwood, hardwood, chipboard, MDF boards, pallets, wooden crates and all other wood waste from the fields of woodworking.

With special parameters, our shredders with single-shaft technology are adapted specifically to our customer's material, the desired throughput, the required chip length and the spatial conditions. One can choose between various machine widths, rotors (Ø 260 or 360 mm), drive variants and hopper sizes.

### Quality features

- PLC control system
- Energy-efficient operation
- Fast hydraulics
- Made in Germany



### Functioning of the machine

The material that needs to be shredded is supplied from above via the hopper. At the bottom of the hopper is a hydraulic slide which, depending on the load, presses the material against the rotor. The shredding of the material takes place between the cutting crowns and the counter knife. The raw material is shredded until it passes through the screen basket. The removal of the produced wood chips can be done via suction, conveyor belt or screw conveyor.

## Technical Data

MODEL	HOPPER mm	HOPPER CAPACITY m <sup>3</sup>	MOTOR kW	DIMENSIONS L x H x W mm	WEIGHT kg
MRZ 530	510 x 810	0,4	15	1750 x 1100 x 1640	1000
MRZ 630	630 x 810	0,5	18,5 - 22	1750 x 1200 x 1640	1200 - 1400
MRZ 830	820 x 1150	1,0	18,5 - 37	2290 x 1600 x 1730	1600 - 2000
MRZ 1030	1020 x 1235	1,25	22 - 45	2510 x 1980 x 1730	2000 - 3000
MRZ 1230	1220 x 1235	1,5	22 - 45	2510 x 2175 x 1730	2500 - 3500
MRZ 1530	1520 x 1235	2,0	30 - 75	2510 x 2575 x 1730	3000 - 4000

# Mobile and stationary extraction systems



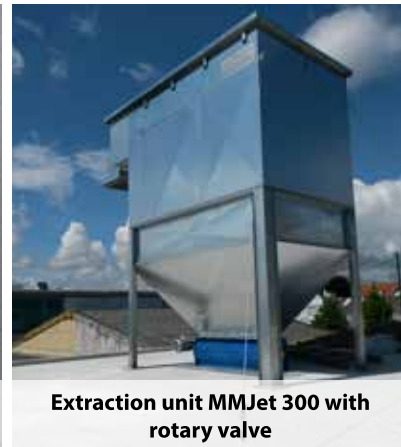
Option: Automatic, compressed air cleaning system



Extraction unit MMJet 300 with briquetting press



Extraction unit MMJet 160 with mobile container



Extraction unit MMJet 300 with rotary valve

## Powerful Extracting

Mobile mütek industrial dust extractors with an air output of 1.850 to 10.000 m<sup>3</sup> / h are approved for indoor installation and are BG tested. They are suitable for extracting dust, shavings or chips from wood (other materials on request).

Thanks to the innovative filtration technology, the residual dust content in the return air is less than 0.1 mg / m<sup>3</sup>. During filtration, the filter material lies in a star shape around the support basket. When cleaning the jet, every single filter hose is returned to its original shape with the help of a blast of compressed air. The particles are repelled from the filter surface and sent for disposal.

Optionally, an automatic start-up and discharge for several processing machines as well as an automatic, differential pressure-dependent filter cleaning can be installed.

### Quality features

- Automatic cleaning
- BIA tested filter bags
- High suction power
- H3 and BG tested



The mütek MMJet offers versatile combination options (see pictures above) :

- **MMJet with mobile container**  
Cost-effective, manual disposal of the chips via a chip container
- **MMJet with rotary valve**  
Pressure-free filling of silo, conveyor unit or container
- **MMJet with briquetting press**  
Automatic removal of chips and production of solid briquettes

## Technical Data

MODEL	EXTRACTION CONNECTION	AIR PERFORMANCE m <sup>3</sup> / h	MOTOR kW	FILTER m <sup>2</sup>	DIMENSIONS L x H x W m	WEIGHT kg
MMJet 160	ø 160 mm	up to 2.000	2,2	8,25	1,7 x 0,7 x 2,2	330
MMJet 300	ø 300 mm	up to 6.000	7,5	31	3,0 x 1,0 x 2,4	820
MMJet 350	ø 350 mm	up to 10.000	11 / 15	73	3,5 x 1,1 x 2,4	1200

## References



**Carpentry, Reih's' -  
Briquetting press MPP 80**



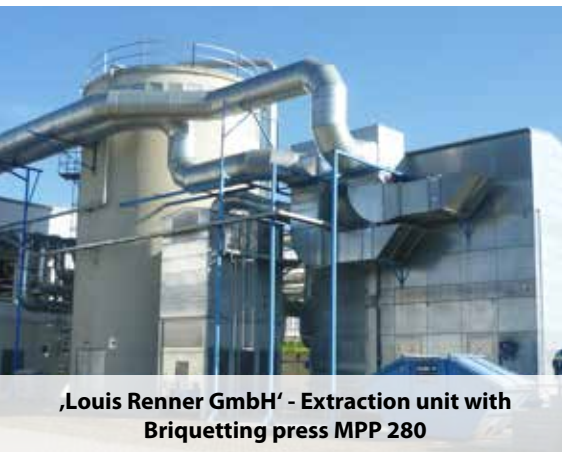
**,Schaum GmbH' -  
Shredder MRZ 630  
& Briquetting press MPP 280**



**,German Red Cross' -  
Briquetting press with silo**



**,Holz Waidelich GmbH' - shredding, extracting,  
briquetting and heating**



**,Louis Renner GmbH' - Extraction unit with  
Briquetting press MPP 280**



**,Schwinge Werkstätten' -  
Shredder MRZ 1530**



**,EGGER' -  
Briquetting presses MAP 1200 Tandem**



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