MMPC

Mobile Modular Processing Concept by Doppstadt

# BIOWASTE SIEVE RESIDUES PROCESSING

*TURN TRASH INTO CASH. JUST DO IT SMART.*

## *LEGALLY COMPLIANT PROCESSING OF BIOWASTE. POST-TREAT YOUR SIEVE RESIDUES ECONOMICALLY.*

Presented here, the successful implementation of the MMPC (Mobile Modular Processing Concept) according to the legal and market-specific framework conditions in Germany. Together with our expert local dealers, we individually adapt the MMPC to the country-specific framework conditions and your needs.

The latest amendments to the Biowaste Ordinance (BioAbfV) pose a major challenge for the processing of biowaste. To reduce the discharge of plastics, glass and metals into the environment, the requirements for the removal of foreign substances have been tightened considerably.
Using a mobile modular treatment concept that is individually tailored to your operation, you can efficiently pre-treat fresh biowaste in a legally compliant manner and economically post-treat sieve residues.

### *PRE-TREATMENT OF FRESH BIOWASTE.*

Using a METHOR as a doser and bag opener, as well as two spiral shaft separators and two windsifters, your biowaste is freed from impurities. You will keep below the limit values of the biowaste ordinance and the quantity of sieve residues is reduced significantly.

### *POST-TREATMENT OF SIEVE RESIDUES.*

The combination of a METHOR, a SELECTOR and a windsifter enables a significant reduction of your disposal costs in the post-treatment of your sieve residues.

### *MOBILE MODULAR PROCESSING CONCEPT (MMPC).*

Doppstadt solutions are characterised by innovative process flows, high efficiency and outstanding cost-effectiveness. This applies in particular to our mobile modular processing concept, in which we combine standard machines smartly and efficiently.

### *FLEXIBLE:*

All of the components are mobile and can therefore be used and combined flexibly in your operation. If your material flows change, the processing concept can be quickly adapted: You can always recombine, reduce or add the components of your Doppstadt system, while at the same time requiring little space.

### *LEGALLY COMPLIANT:*

Our process concept is designed in such a way that you can comply with the control values of the amendment to the Biowaste Ordinance for the input material to the first biogenic stage.

### *ECONOMICAL:*

A mobile modular processing concept from Doppstadt can be realised with an investment of less than €1,000,000. A Reduction of your disposal costs by up to 80 % is possible.


## *MMPC FOR BIOWASTE. AN INVESTMENT THAT PAYS OFF.*

- Future-proof solutions with Doppstadt's mobile modular processing concept (MMPC)
- Processing of up to 30,000 tonnes per year and per plant possible
- Low investment volume
- ROI possible within just three years with the appropriate processing quantities
- Reduction of disposal costs by up to 80%
- Reduction of the sieve residue quantity from 15% to less than 5% is possible (related to the input quantity)
- Flexible use of the machines
- Rapid reaction to changed framework conditions

## *UP TO 30,000 TONNES PER YEAR AND PER PLANT POSSIBLE.*

All Doppstadt machines that we combine for your mobile-modular biowaste processing are adaptable, high-throughput and mobile. If you need to process other material streams, you can also use the machine elsewhere, as required.

### *ECONOMIC ADVANTAGES.*

You benefit from your Doppstadt reprocessing concept every day of operation. The quantity of sieve residues is reduced considerably. Anything that's left over is no longer incinerated, but can be marketed as a substitute fuel. This significantly reduces your disposal costs.

The entire plant requires very little space and hardly any manpower. You can easily integrate drum screens or turners that are already in operation.
Another advantage of mobile technology is that the approval procedures are simpler.

### *INPUT MATERIAL: BIOWASTE.*

***GENERATED PARTIAL FRACTIONS:***

***FOIL FRACTION***
after windsifting

***COARSE FRACTION***
from the overflow of the first SELECTOR

***MEDIUM FRACTION***
from the overflow of the second SELECTOR

***FINE FRACTION***
from the underflow of the second SELECTOR



*'Low investment, high legal compliance. The mobile modular biowaste processing plant has enormous potential.'*

*(Ferdinand Doppstadt, owner)*

## *EFFICIENTLY REMOVE CONTAMINANTS FROM YOUR BIOWASTE.*

Thanks to Doppstadt's mobile modular processing concept, you are on the safe side. It enables you to pre-treat all biowaste in a legally compliant and economical manner. In addition, the machines are so flexible that your operation can react promptly if the framework conditions change.

*'Removing impurities before they enter the composting process significantly simplifies the subsequent processing into a high-quality end product.'*

*(Moritz Müller, Product Manager, Doppstadt)*

### *THE PROCESS STEPS OF BIOWASTE PRE-TREATMENT.*

**1 DOSING AND MATERIAL OPENING**

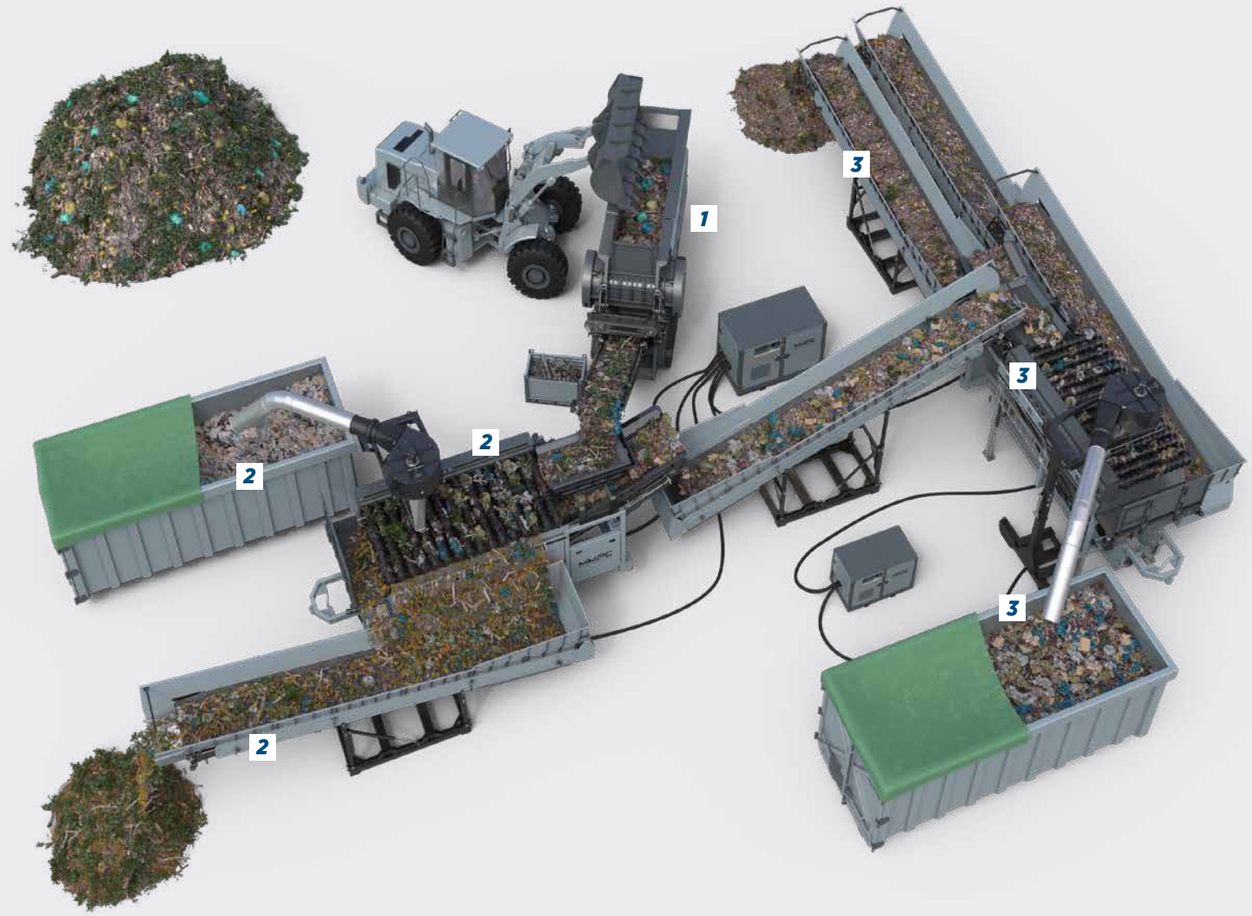
The METHOR opens bags, breaks up shrubby material composites, crushes stones, concrete and wood parts and separates Fe metals. It then conveys the material evenly onto the first SELECTOR 400 spiral shaft separator.

**2 FIRST SEPARATION LEVEL**

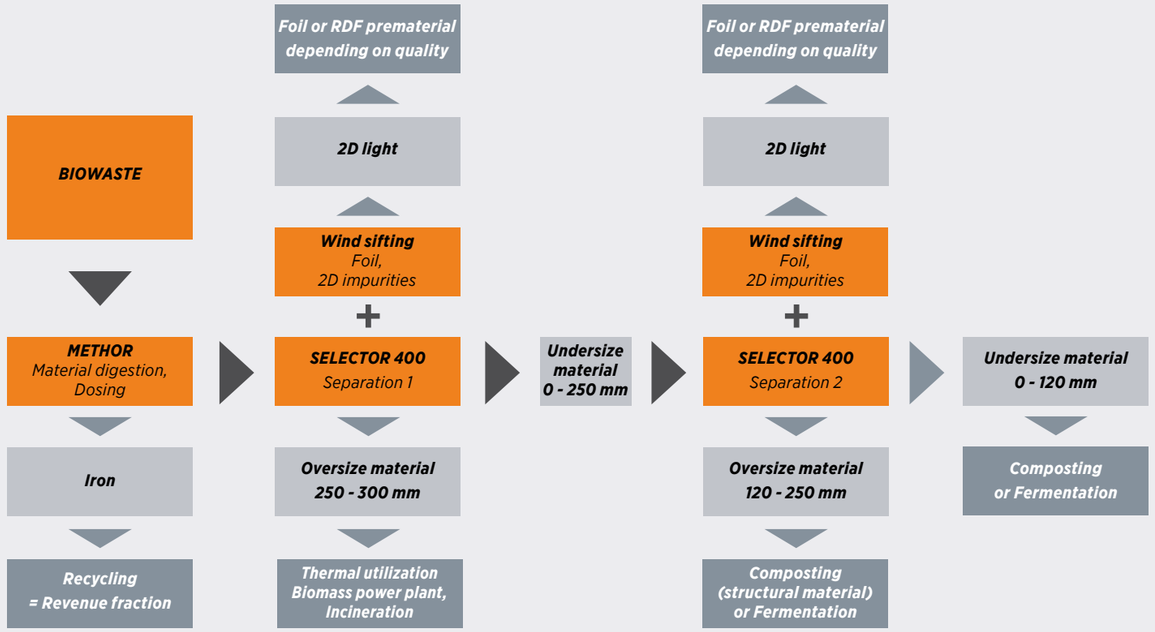
The SELECTOR 400 spiral shaft separator separates all impurities larger than 250 mm. They are discharged as overflow onto a mobile conveyor and stockpiled. A windsifter is installed above the spiral shaft deck, which extracts foils and other 2D impurities and conveys them into a settled roll-off container. The underflow is conveyed to the second SELECTOR 400.

**3 SECOND SEPARATION LEVEL**

The second SELECTOR 400 spiral shaft separator further separates the material stream so that the second windsifter can extract the remaining foils and 2D impurities. After that, the medium and fine fractions are almost free of impurities. You can now feed both fractions into the first biogenic treatment stage (composting or fermentation).




### *FLOWCHART PRE-TREATMENT PLANT*



## *EFFICIENT PROCESSING OF SIEVE RESIDUES TO REDUCE DISPOSAL COSTS.*

The post-treatment of sieve residues is carried out using the same mobile modular process concept as the pre-treatment of biowaste. After two separation stages, you get an almost completely contaminant-free medium and fine fraction, from which you can sieve high-quality finished compost. The concept can be adapted flexibly if the influencing factors change.

### *ECOLOGICAL ADVANTAGES.*

Treating sieve residues with Doppstadt's mobile modular processing concept has decisive ecological advantages.

The yield of finished compost is greatly increased. At the same time, the quantity for thermal or material recycling is extremely reduced.

### *INPUT MATERIAL: SIEVE RESIDUES.*

***GENERATED PARTIAL FRACTIONS:***

***FOIL FRACTION***
after windsifting

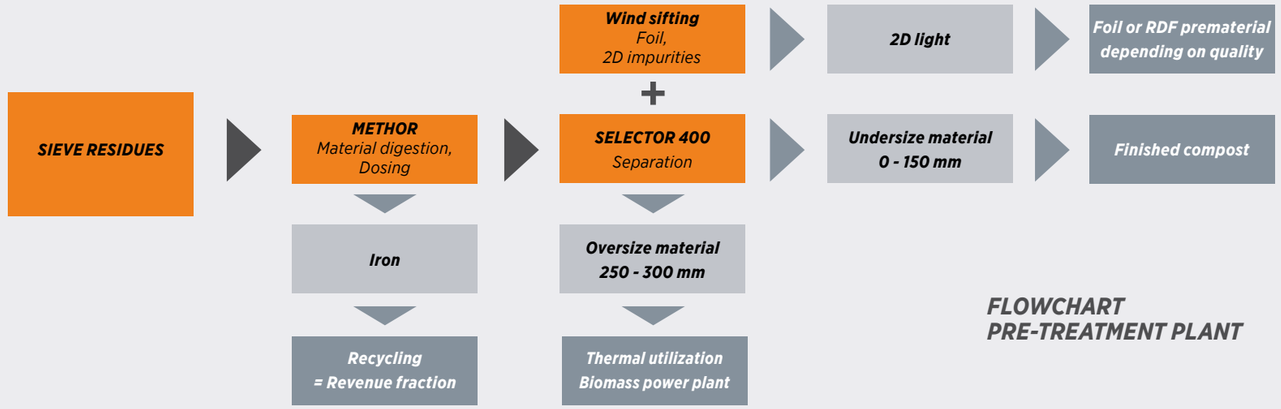
***COARSE FRACTION***
from the overflow of the SELECTOR

***FINE FRACTION***
from the underflow of the SELECTOR

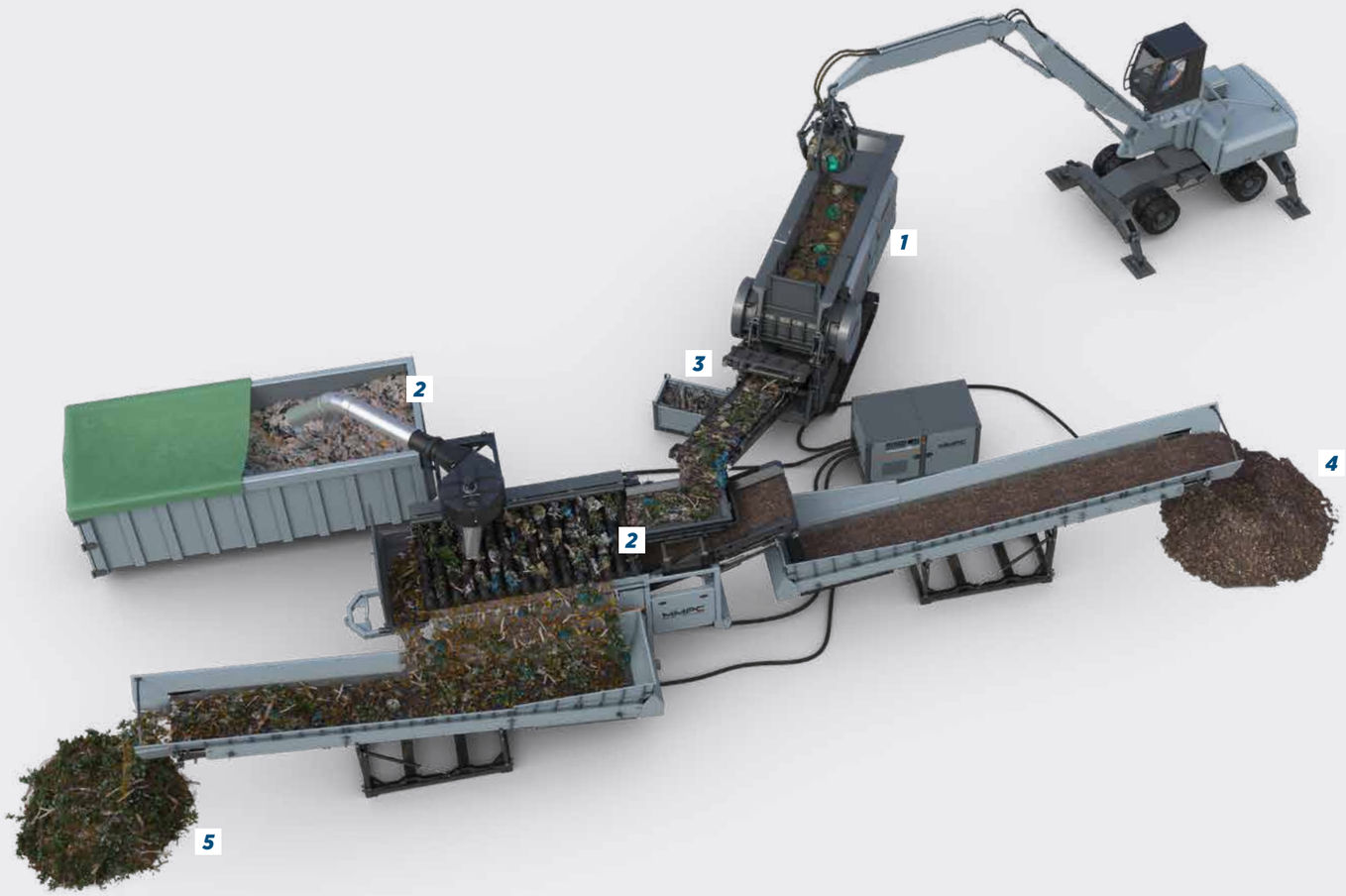


## *MMPC REFINES YOUR SIEVE RESIDUES.*

By mobile modular processing concepts, we mean combining mobile Doppstadt machines in a modular principle. As an operator, you have a variety of options to adapt the concept exactly to the requirements you place on the post-treatment of your sieve residues.




*FLOWCHART PRE-TREATMENT PLANT*




## *THE PROCESS STEPS OF THE SIEVE RESIDUE POST-TREATMENT.**

**1 DOSING AND MATERIAL OPENING**
The METHOR opens bags, separates composites and meters the material flow. It crushes stones, concrete and wood parts and separates Fe metal. It then conveys the material evenly onto the first SELECTOR 400 spiral shaft separator.

**2 SEPARATING DIFFERENT MATERIALS**
The SELECTOR 400 spiral shaft separator separates all impurities larger than 250 mm. Stones, hard plastics, hollow glass and coarse wood are discharged as overflow onto a mobile conveyor and stockpiled.

An infinitely adjustable wind sifter is mounted above the spiral shaft deck, which extracts foils and other 2D light fractions such as paper and conveys them into a settled roll-off container.

**3 IRON EXTRACTION**
Separation of ferrous components with an overhead suspension magnet at the Methor.

**4 SCREENING**
Fine screening using a trommel screening machine to separate wood and stone components in the oversize material and finished compost in the fine material.

**5 THERMAL UTILIZATION**
The wood in the oversize material that has been cleaned of impurities can be recycled in the BMKW.

* Due to the modular design, the layout of the system can vary, with higher proportions of impurities, two separation separation stages can also be used.

## *THE FUTURE IS MOBILE-MODULAR.*

Our experts have smartly combined robust Doppstadt machines and proven add-ons to create a mobile modular system. All of the machines can be used flexibly in different fractions. You can react quickly to changing conditions by recombining the components of the system. It means you are ideally set up for the economical and legally compliant processing of your biowaste – no matter what challenges await you in the future.

*'MMPC. These four letters stand for the future of biowaste pre-treatment.'*

*(Michael Zeppenfeldt, Authorized Signatory, Head of Sales, Doppstadt)*


***METHOR ON TRACKED CHASSIS***
The 'multitool' among shredders offers the widest range of applications in its class.


***METHOR ON HOOK LIFT FRAME***
The hook lift version can be powered by a diesel or electric motor. The Methor on a tracked chassis is driven by a diesel engine.

***SELECTOR 400 WITH WINDSIFTER ATTACHMENT***
Screening and additionally separating a light fraction in one working step.

***MOBILE CARRIER FRAME DMT WITH WINDSIFTER***

***SELECTOR 400***
Accurate and fast spiral shaft separation for even the most difficult material flows.


***HYDRAULIC UNIT HYDRAPAK 40 AND 90***
Power unit for hydraulic drive of all mobile components.


***MOBILE AUXILIARY CONVEYOR DMB 8500***

## *YOUR RECYCLING PROCESSES WILL BE EVEN MORE PROFITABLE.*

You can rely on your durable Doppstadt machines on every day of operation. The Doppstadt brand also offers powerful and innovative machines for the further process steps in compost treatment. With their large capacity, impressive throughput and high yard- and road mobility, they make your recycling processes efficient and profitable. Their good accessibility allows quick maintenance. If you have a problem that you are unable to solve yourself, Doppstadt Service will be at your premises in no time at all.

### *DOPPSTADT / SMART TURNING / SIDE TURNER LINE*


***DU 265***
The flexible add-on turner trailer for table windrow attachment even in low storage halls.


***DU 320***
The mobile pushed transfer unit for tractors with reverse drive equipment.


***SM 620.2 K***
Screening area: 30.2 m²
Bunker volume: 7 m³
Weight: 24,000 kg

### *DOPPSTADT / SMART SCREENING / TROMMEL LINE*

***SM 518.2***
Screening area: 22.5 m²
Bunker volume: 5 m³
Weight: 17.000 kg



***SM 620.2***
Screening area: 30.2 m²
Bunker volume: 5 m³
Weight: 19,000 kg

***SM 620.2 SA***
Screening area: 30.2 m²
Bunker volume: 7 m³
Weight: 24,000 kg



***720.2 SA***
Screening area: 38.8 m²
Bunker volume: 7 m³
Weight: 24,000 kg

# *TURN TRASH INTO CASH. JUST DO IT SMART.*

Our innovative solutions have made us a leading supplier and manufacturer of processing technology. Customers in the waste disposal and recycling industry all over the world trust our expertise and benefit from our qualified service every day.

We are always there for you. At the Doppstadt Academy, we develop your team online and offline so that you can fully exploit the performance potential of the machines and make operations even more productive. Added to this are worldwide security of supply, fast on-site repair service and all-round carefree packages within service and maintenance contracts.

Because “every machine is only as good as the service behind it.” (Werner Doppstadt)