

# Technical Data sheet

# OVERVIEW RECYCLING

FROM IN-A-BOX SOLUTIONS TO IN-LINE SYSTEMS



<i>The specifications for all recycling systems are based on recycling of EPS</i>	MICRO IN-A-BOX	MINI IN-A-BOX	MINI INLINE SYSTEM	MAXI INLINE SYSTEM	JUMBO INLINE SYSTEM
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## Capacity

### SHAPE MOULDING

Granulated and dedusted EPS material on 6mm screen	2-3 m <sup>3</sup> /h 70-105 ft <sup>3</sup> /h	6-8 m <sup>3</sup> /h 210-280 ft <sup>3</sup> /h	6-8 m <sup>3</sup> /h 210-280 ft <sup>3</sup> /h	10-12 m <sup>3</sup> /h 350-420 ft <sup>3</sup> /h	15-20 m <sup>3</sup> /h 630-700 ft <sup>3</sup> /h
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### BLOCK MOULDING

Granulated and dedusted EPS material on 10mm screen	4-6 m <sup>3</sup> /h 140-210 ft <sup>3</sup> /h	9-10 m <sup>3</sup> /h 315-350 ft <sup>3</sup> /h	9-10 m <sup>3</sup> /h 315-350 ft <sup>3</sup> /h	18-20 m <sup>3</sup> /h 630-700 ft <sup>3</sup> /h	35-40 m <sup>3</sup> /h 1225-1400 ft <sup>3</sup> /h
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### HIGH DENSITY MOULDING

Granulated and dedusted EPP material or high density EPS	20-50 kg/h 44-110 Lbs/h	50-100 kg/h 110-220 Lbs/h	50-100 kg/h 110-220 Lbs/h	100-160 kg/h 220-350 Lbs/h	N/A
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## Measurements

Hopper opening	780x400mm 30x15"	900x600mm 36x24"	900x600mm 36x24"	1400x600mm 56x24"	1800x800mm 72x31"
Granulator screen surface	0,2 m <sup>2</sup> 2 ft <sup>2</sup>	0,9 m <sup>2</sup> 9,7 ft <sup>2</sup>	0,9 m <sup>2</sup> 9,7 ft <sup>2</sup>	1,4 m <sup>2</sup> 15 ft <sup>2</sup>	2,4 m <sup>2</sup> 26 ft <sup>2</sup>
Floor space required	5 m <sup>2</sup> 52 ft <sup>2</sup>	6 m <sup>2</sup> 65 ft <sup>2</sup>	12 m <sup>2</sup> 120 ft <sup>2</sup>	16 m <sup>2</sup> 160 ft <sup>2</sup>	40 m <sup>2</sup> 400 ft <sup>2</sup>

## Electrical load

Standard EPS	11,5 kW	19 kW	19 kW	36 kW	50 kW
EPP or high density EPS	14,5 kW	32 kW	32 kW	53 kW	57kW



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# SYSTEM CONFIGURATION



- A version:** Direct vertical material feeding
- B version:** Direct horizontal material feeding
- C version:** Direct vertical + feeding of precrushed material from silo
- D version:** Feeding of pre-crushed material from silo placed above granulator
- E version:** Feeding of pre-crushed material from silo placed next to granulator

	Micro-in-a-box - Version A	Micro-in-a-box - Version D	Mini-in-a-box - Version B	Mini-in-a-box - Version C	Mini-inline - Version A	Mini-inline - Version B	Mini-inline - Version C	Mini-inline - Version D	Mini-inline - Version E	Maxi-inline - Version A	Maxi-inline - Version B	Maxi-inline - Version C	Jumbo-inline - Version D
<b>Capacity (Granulated material output):</b>													
0 - 5 m3/hour	●	●											
0 - 10 m3/hour			●	●	●	●	●	●	●				
0 - 20 m3/hour										●	●	●	●
0 - 40 m3/hour													●
<b>Capacity by weight (EPP + HD versions only!)</b>													
0 - 50 kg/hour	●	●											
0 - 100 kg/hour			●	●	●	●	●	●	●				
0 - 160 kg/hour										●	●	●	●
Regular EPS/Graphite EPS	●	●	●	●	●	●	●	●	●	●	●	●	●
High density EPS/HD Graphite EPS/Regular EPP	●○	●○	●○	●○	●○	●○	●○	●○	●○	●○	●○	●○	●○
Arcel/Bio/Piocelan	●	●	●	●	●	●	●	●	●	●	●	●	●
High density EPP			●○	●○	●○	●○	●○	●○	●○	●○	●○	●○	●○
Built-in pre-crusher	●	●	●	●	●	●			●	●	●	●	●
Separate pre-crusher required/optional		●	●	■	■	■	■	■	■	■	■	■	■
Feeding pre-crushed material from cutting line		●	●	●	●	●	●	●	●	●	●	●	●
Heavy-parts filter for pre-crushed material		●	●	●	●	●	●	●	●	●	●	●	●
Separate transport blower for pre-crusher required/optional		●	●							●	●	●	●
Silo for pre-crushed material required/optional		●	■	■	■	■	■	■	■	■	■	■	■
Built-in granulator	●	●	●	●	●	●			●	●	●		
Separate granulator							●	●	●	●	●	●	●
Screen sizes available:													
4 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
4,5 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
5 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
6 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
8 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
10 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
12 mm	●	●	●	●	●	●	●	●	●	●	●	●	●
Built-in de-dusting unit	●	●	●	●									
Separate de-dusting unit					●	●	●	●	●	●	●	●	●
Built-in dust compactor with cyclone	●	●	●	●									
Separate dust compactor - with air venting bags (optional)					●	●	●	●	●	●	●	●	●
- with air cyclone (optional)					●	●	●	●	●	●	●	●	●
<b>Recommended mixing system:</b>													
Styromix 3 (shape moulding)	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Styrometer Mini (shape & block moulding)			▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Styrometer Maxi (block moulding)										▲	▲	▲	▲
Styrometer Jumbo (block moulding)										▲	▲	▲	▲
Styrometer Gigant (block moulding)										▲	▲	▲	▲

- Available system/function/unit
- Require high density version
- May be required or optional depending on customer requirement
- ▲ Recommendation but other combinations can be applied

# Technical Data sheet

# SYSTEM CONFIGURATION



## In-a-box systems

### Micro-in-a-box & Mini-in-a-box

Complete integrated systems with optional separate pre-crusher, heavy-parts filter and feeding silo. Can be equipped with any mixing system

Illustration 1 features a Mini-in-a-box transferring recycled material to a silo with a distribution box connected with Styromix 3 system.

Illustration 2 features Styrometer mixing system.

Illustration 1

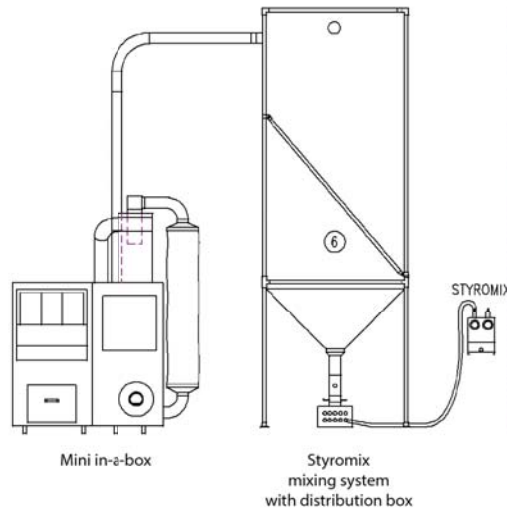
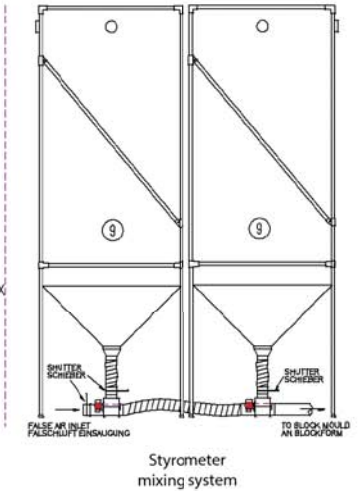


Illustration 2



## In-line systems with combined pre-crusher/granulator

### MINI + MAXI systems

In-line systems with combined pre-crusher/granulator, de-dusting unit, dust compacting and mixing system.

Illustration 3 features a combined pre-crusher/granulator A version, with de-dusting unit and dust compactor with venting bags. Illustration 4 features Styromix with distribution box and Styrometer mixing systems.

Illustration 3

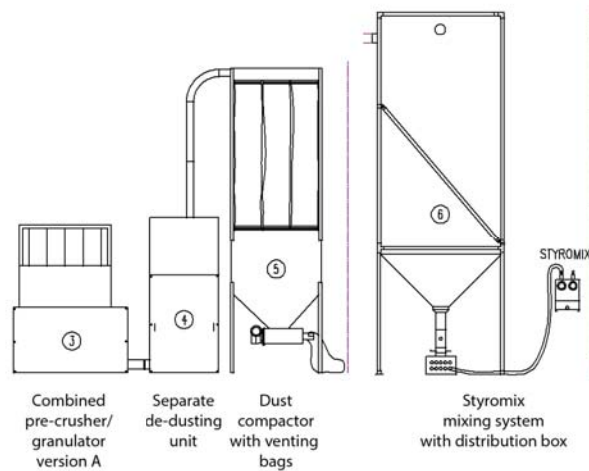
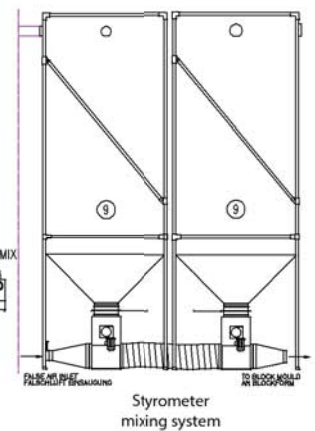


Illustration 4



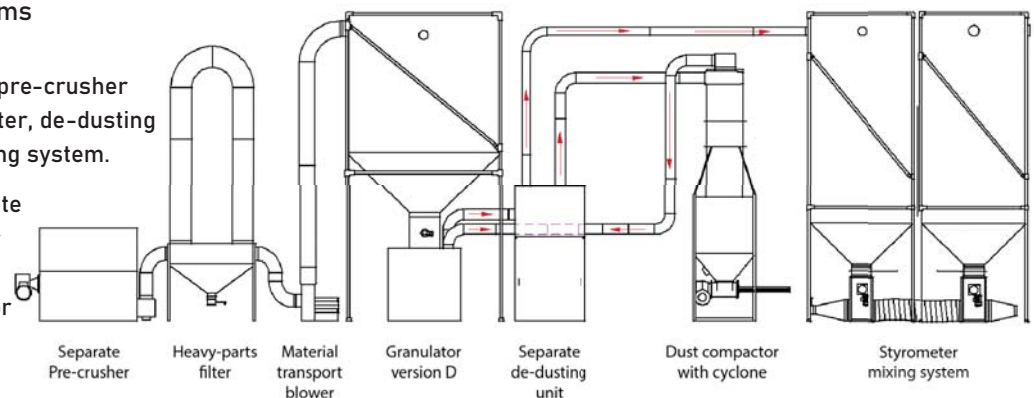
## In-line systems with separate pre-crusher and granulator

### MINI + MAXI + JUMBO systems

In-line systems with separate pre-crusher and granulator, heavy-parts filter, de-dusting unit, dust compacting and mixing system.

Illustration 5 features a separate pre-crusher, heavy-parts filter granulator D version, de-dusting unit, dust compactor with cyclone and Styrometer mixing systems.

Illustration 5



# Technical Data sheet

## DUST COMPACTORS

EASY HANDLING OF COLLECTED DUST FROM RECYCLING



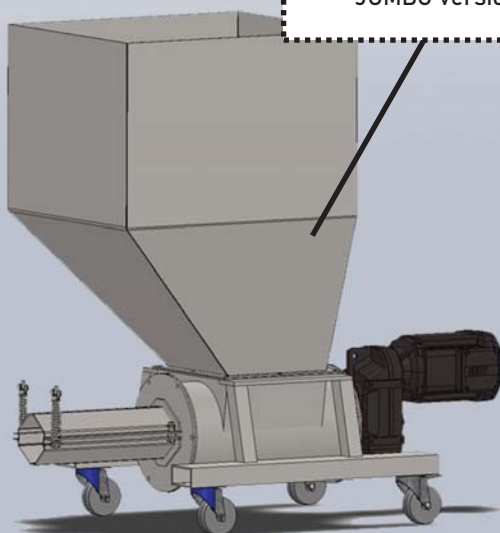
The KBM dust compactors offer many production advantages in terms of easy handling of dust from EPS/EPP/EPE, Arcel, or Neopor. The KBM dust compactors are used to reduce the volume of dust 20-30 times.

The KBM dust compactor reduces the costs of the dust disposal. The KBM dust compactor improves the environment of the dust handling location in the production. Opposite to using plastic bags for collection, no dust is flying around since there are no change of bags.

The basic dust compactor is available in four different sizes: The MINI, the MAXI, the JUMBO and the GIGANT.

The basic KBM dust compactor can be equipped for multiple applications:

- One use would be as part of a recycling system where the machine is used as a combined air venting unit and dust compactor. It will be equipped with a small storage silo with venting bags or with a cyclone for the KBM closed air circuit system, which reduces maintenance of venting bags to almost zero.
- Another would be as part of a recycling system which is placed under a larger dust collection silo from a recycling system. It can be placed underneath a large silo where milling dust is collected.



DUST-FLEX  
Available as MAXI or  
JUMBO versions

### Applied as a separate mobile compactor unit (Dust-Flex)

The dust is collected in the part just above the compactor and is compacted into a rod with a density of 150-300 Kg/m<sup>3</sup> (9-18 lbs/ft<sup>3</sup>).

The KBM dust compactor can be used in a large number of ways in combination with any production line where dust occurs.

The dust compactors are also parts of KBM's large program of recycling plants and equipment for the EPS/EPP/EPE/ARCEL/NEOPOR foam industries.



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# DUST COMPACTORS

## EASY HANDLING OF COLLECTED DUST FROM RECYCLING



Capacity/hour EPS:  
(measured with EPS dust)

Cyclone with blower  
for conveying dust to  
external dust compactor

Capacity/hour EPS: (measured with EPS dust)

MINI dust compactor: 0.75-1 m<sup>3</sup> (25-35 ft<sup>3</sup>)

MAXI dust compactor: 1-1.5 m<sup>3</sup> (35-50 ft<sup>3</sup>)

JUMBO dust compactor: 1.5-3 m<sup>3</sup> (50-100 ft<sup>3</sup>)

GIGANT dust compactor: 9-14 m<sup>3</sup> (315-490 ft<sup>3</sup>)

(Experienced with EPS dust from a KBM recycling system.)

Capacity measured in weight is depending on the volume capacity given above.



Dimension of the compacted material:

MINI dust compactor: 100x100mm (4"x4")

MAXI dust compactor: 100x100mm (4"x4")

JUMBO dust compactor: 150x150mm (6"x6")

GIGANT dust compactor: 270x270mm (11"x11")

Space required ca. 2-5 m<sup>2</sup> (20-50 Ft<sup>2</sup>)

KBM DUST COMPACTOR  
with venting hoses  
available in  
4 capacity versions

KBM DUST COMPACTOR  
cyclone  
available in  
4 capacity versions

Measurements: L x W x H

MINI with 3 venting bags: 1.5x0.5x5.1 m (59x20x201")

MAXI with 6 venting bags: 1.5x1.0x5.1 m (59x40x201")

JUMBO with 9 venting bags: 1.5x1.5x5.2m (59x59x205")

MAXI with cyclone venting: 1.2x1.2x4.8 (48x48x189")

JUMBO with cyclone venting: 1.2x1.2x5.4 (48x48x213")

DUST-FLEX MAXI: 1.3x0.6x1.3 (51x24x51")

DUST-FLEX JUMBO: 1.9x0.6x1.3 (75x24x51")

Pipe connections:

MINI or MAXI dust compactors 160 mm (6")

JUMBO dust compactors 200 mm (8")

Electrical load: EPS EPP

MINI dust compactor: 1.5 Kw 1.5 Kw

MAXI dust compactor: 2.2 Kw 2.2 Kw

JUMBO dust compactor: 4.0 Kw 4.0 Kw

GIGANT dust compactor: 7.5 Kw 7.5 Kw

Voltage:

3x400V/50Hz, 3x480V/60Hz or other voltages.

