



OVERVIEW RECYCLING

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

<i>The specifications for all re-cycling 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 ³ /h 70-105 ft ³ /h	6-8 m ³ /h 210-280 ft ³ /h	6-8 m ³ /h 210-280 ft ³ /h	10-12 m ³ /h 350-420 ft ³ /h	15-20 m ³ /h 630-700 ft ³ /h
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BLOCK MOULDING

Granulated and dedusted EPS material on 10mm screen	4-6 m ³ /h 140-210 ft ³ /h	9-10 m ³ /h 315-350 ft ³ /h	9-10 m ³ /h 315-350 ft ³ /h	18-20 m ³ /h 630-700 ft ³ /h	35-40 m ³ /h 1225-1400 ft ³ /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	900x600mm	900x600mm	1400x600mm	1800x800mm
Pre-crusher/granulator	30x15"	36x24"	36x24"	56x24"	72x31"
Granulator screen surface	0,2 m ² 2 ft ²	0,9 m ² 9,7 ft ²	0,9 m ² 9,7 ft ²	1,4 m ² 15 ft ²	2,4 m ² 26 ft ²
Floor space required	5 m ² 52 ft ²	6 m ² 65 ft ²	12 m ² 120 ft ²	16 m ² 160 ft ²	40 m ² 400 ft ²

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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Technical Data sheet

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	Jumbo-inline - Version E
Capacity (Granulated material output):														
0 - 5 m3/hour	●	●												
0 - 10 m3/hour			●	●	●	●	●	●	●					
0 - 20 m3/hour										●	●	●	●	●
0 - 40 m3/hour														●
Capacity by weight (EPP + HD versions only!)														
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)					●	●	●	●	●	●	●	●	●	●
Recommended mixing system:														
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

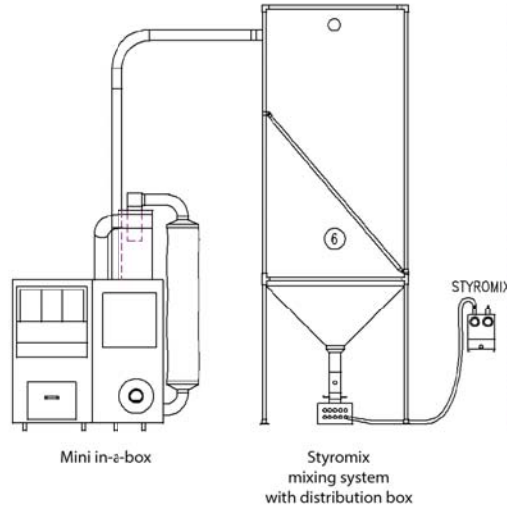
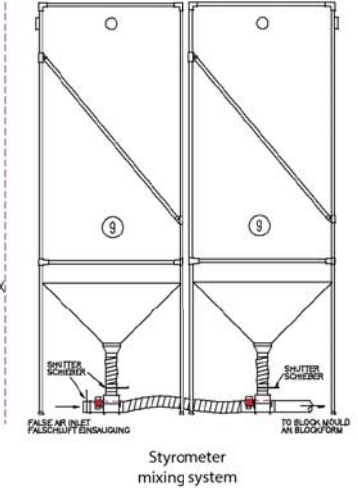


Illustration 2



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

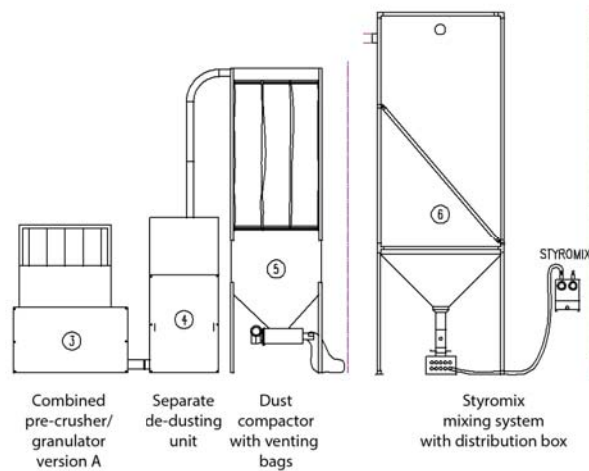
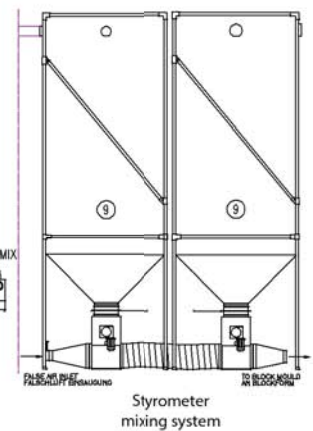


Illustration 4



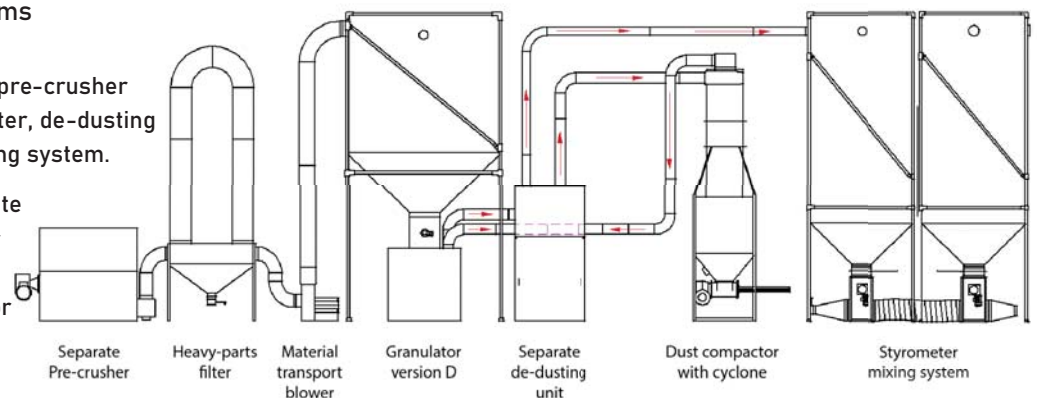
In-line systems with separate pre-crusher and granulator

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

MINI-IN-A-BOX

COMPLETE RECYCLING SYSTEM - 10 M³/HOUR CAPACITY



Brand name: KBM MINI-IN-A-BOX	A complete system to convert moulded EPS/EPP/ EPE/NEOPOR/ARCEL packaging and insulation mate- rials into individual beads ready to be mixed with virgin beads to mould new products.
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Material	Cabinet is made of galvanized steel.
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Density range	Standard EPS version < 35-40 Kg/m ³ (< 2.2-2.5 lb/ft ³) High density version (HD) < 100-120 Kg/m ³ (<6.2-7.5 lb/ft ³)
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Capacity by volume (Granulated EPS)	
6mm screen	6-8 m ³ per hour (210-280 ft ³ /hour)
10mm screen	9-10 m ³ per hour (315-350 ft ³ /hour)
12mm screen	12-13 m ³ per hour (420-455 ft ³ /hour)

Capacity weight (EPP + HD EPS)	
6mm screen	50-100 Kg/m ³ per hour (130-220 lb/hour)

Screen surface	0.9 m ² (9.7 ft ²)
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Space required (without optional pre-crusher)	6 m ² (65 ft ²)
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Measurements L x W x H	
Fully mounted	2.23 x 2.73 x 3.56 m (88x108x140")
Dismounted for transport	2.23 x 2.23 x 2.22 m (88x88x87")

Silo for pre-crushed material installed on top of the system (optional)	2.85 x 3 x 6 m (114x120x240") - (19 m ³)
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Storage silo (optional)	Any size available
Pipe connections	160 mm (6")

Hopper opening	900 x 600 mm (36x24")
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Estimated conserved material	Min. 93-95%
Extracted dust & particles	Max 5-7%
Dust content after processing	Max 1%

Recycled EPP & EPS.
Pre-crushed, granulated and de-
dusted - ready to be reused
in your production



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MINI-IN-A-BOX

COMPLETE RECYCLING SYSTEM - 10 M³/HOUR CAPACITY



The KBM MINI-IN-A-BOX complete recycling system is suited for processing EPS/EPP/EPE/NEOPOR/ARCEL. The system is available in 2 versions.

Standard version: Densities < 35-40 kg/m³

HD version: Densities < 100-120 kg/m³

The only system on the market, where pre-crushing, granulation and dust separation are built into one unit. In addition, the system comes with a built-in dust compactor.

The system is perfectly suited for both small and large shape moulders, as well as small block moulding plants with a limited production, or moulders wanting a separate recycling process for e.g. colored or graphite modified materials.



Noise level

90-95 dB(A) (in operation)

Electrical load

EPS version: 18.4 Kw

EPP+HD EPS version: 31.9 Kw

Voltage: 3x400V/50Hz, 3x480V/60Hz

(Other voltages available)



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MINI-IN-A-BOX

COMPLETE RECYCLING SYSTEM - 10 M³/HOUR CAPACITY



The KBM MINI-IN-A-BOX is build with a dust compactor as standard.

After de-dusting the granulated material, the dust is conveyed to the dust compactor.

The obtained compacted density is 150-300 kg/m³ (9-18lbs/ft³)



The hopper (and the cabinet) are sound insulated and covered with galvanized steel plates. The hopper is equipped with a strong plastic curtain for easy input of scrap. The low side of the hopper (yellow) is equipped with a safety string, which, in order to avoid any accidents, stops the machine if activated.

Watch demo on 

MINI-IN-A-BOX
VERSION C
is build with a cell-wheel on top, for metering pre-crushed material. It feeds from a silo with pre-crushed material on top.
Suited for plants where you have external pre-crushers located in different locations. You can still feed the Mini-in-a-box manually from the side .



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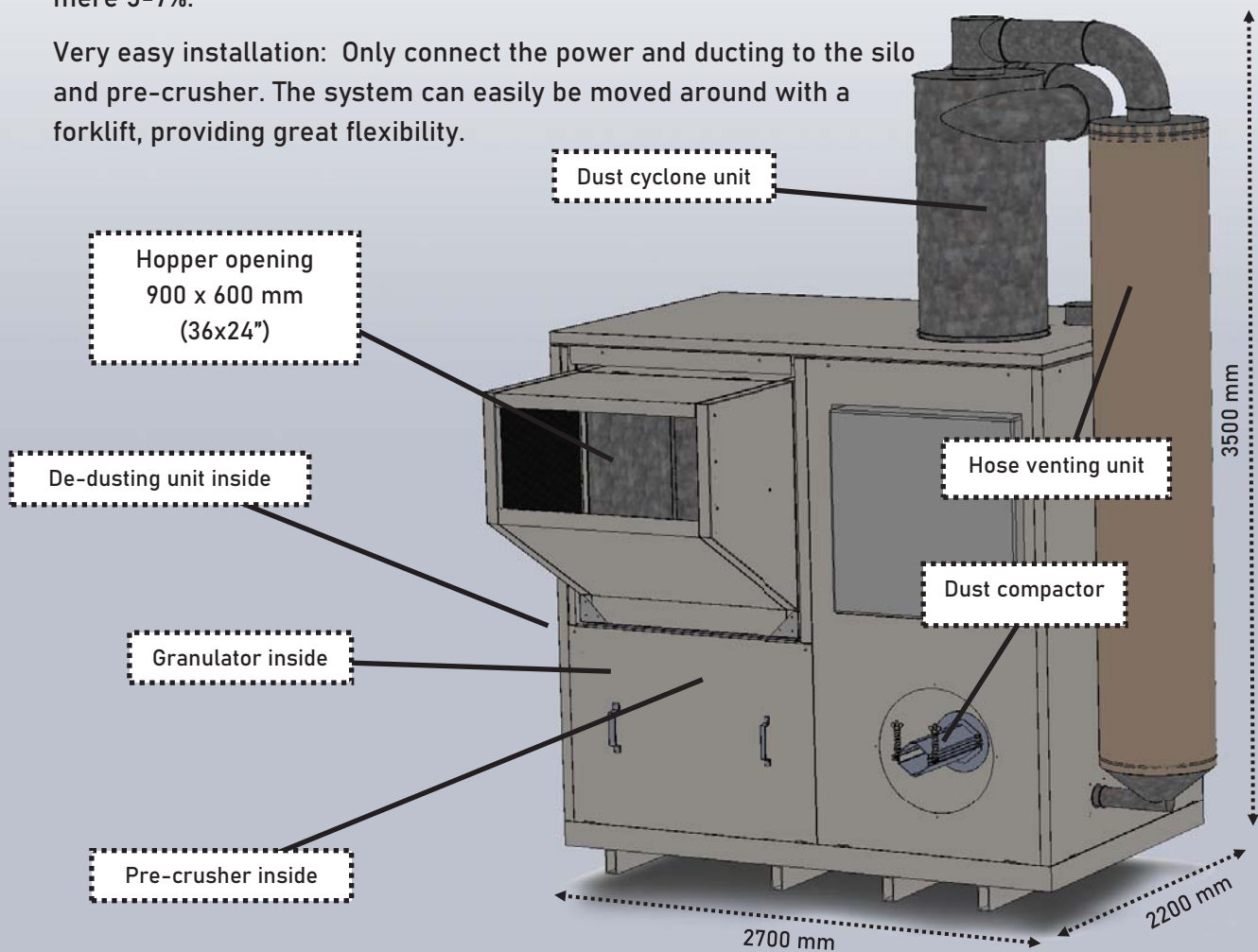
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MINI-IN-A-BOX

COMPLETE RECYCLING SYSTEM - 10 M³/HOUR CAPACITY



- Investing in a KBM recycling system, enables you to regain > 90% value on your EPS/EPP scrap material.
- High mixing ratios: Add up to 10-20% of recycled material into shape moulding applications and 20-50% in block moulding without de-mixing problems.
- The system generates individual beads from the scrap moulded parts, dust free and ready to be re-inserted into your production.
- A unique design of the granulator and a special proces limit the amount of dust and particles to a mere 5-7%.
- Very easy installation: Only connect the power and ducting to the silo and pre-crusher. The system can easily be moved around with a forklift, providing great flexibility.



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