



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 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 30x15"	900x600mm 36x24"	900x600mm 36x24"	1400x600mm 56x24"	1800x800mm 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

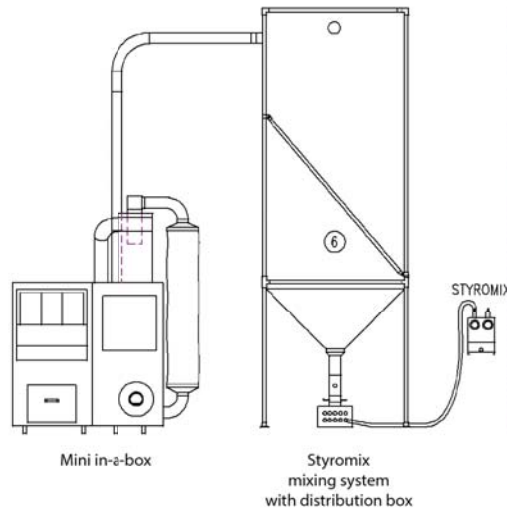
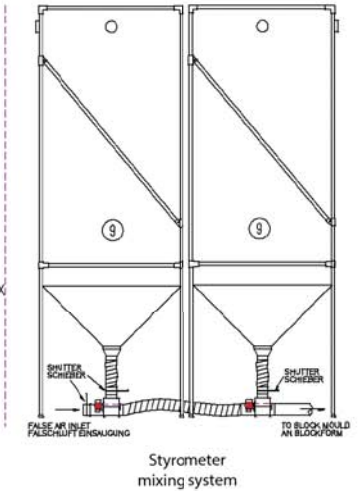


Illustration 2



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

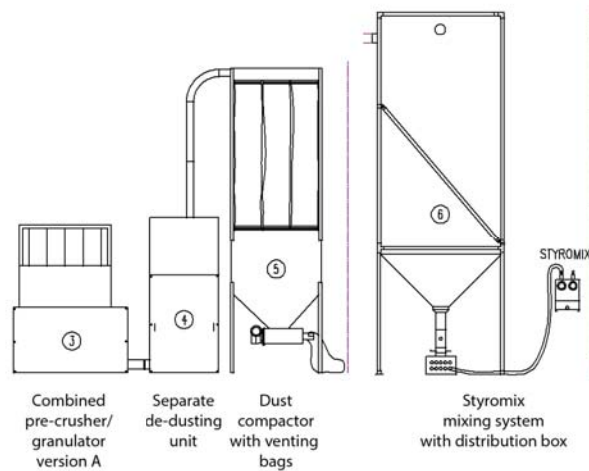
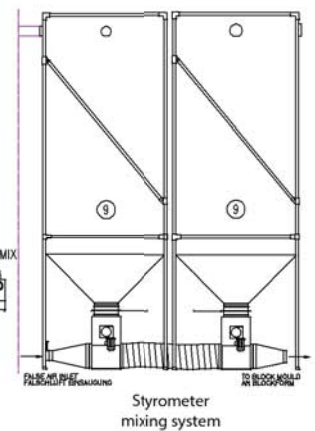


Illustration 4



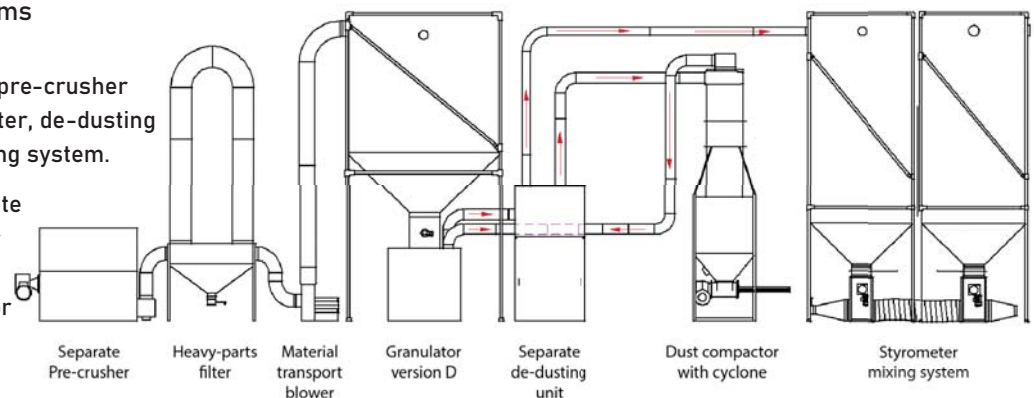
In-line systems with separate pre-crusher and granulator

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

PRE-CRUSHERS

HEAVY DUTY PRE-CRUSHERS WITH HIGH CAPACITY



KBM offers 3 separate pre-crushers with or without an optional heavy parts separator. All pre-crushers are designed with slowly rotating breaker arms in order to keep the created dust at a minimum. The purpose of our pre-crushers is to crush EPS or EPP scrap down to a size of approx. 25-100 mm (1-4 inches), preparing the scrap for being conveyed by a blower to your KBM recycling plant. The pre-crushing in larger pieces reduces the creation of dust.

STYROCRUSHER XL

The StyroCrusher MAXI XL is a low-cost large pre-crusher. It's ideal as a satellite-crusher placable in different locations at your plant, or as a pre-crusher for larger EPS/EPP parts to be recycled on smaller recycling systems.

MAXI PRE-CRUSHER

The MAXI pre-crusher will grind all kinds of shape- and block materials and is sufficient for most shape- and block moulders.

JUMBO PRE-CRUSHER

The JUMBO is designed for pre crushing very large quantities of scrap and/or very large shape or block parts, and offers a very high capacity.



The MAXI and JUMBO pre-crushers are designed to separate and collect metal parts, stones and other very heavy parts which may find their way to the hopper. These heavy parts are collected in the bottom of the machine and can be removed through an easily accessible opening.

In order to collect parts of wood, plastic and other parts as well, before they reach the blower, our heavy particle separator, which is placed between the pre-crusher and the blower for pre-crushed material is recommendable.



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PRE-CRUSHERS

HEAVY DUTY PRE-CRUSHERS WITH HIGH CAPACITY

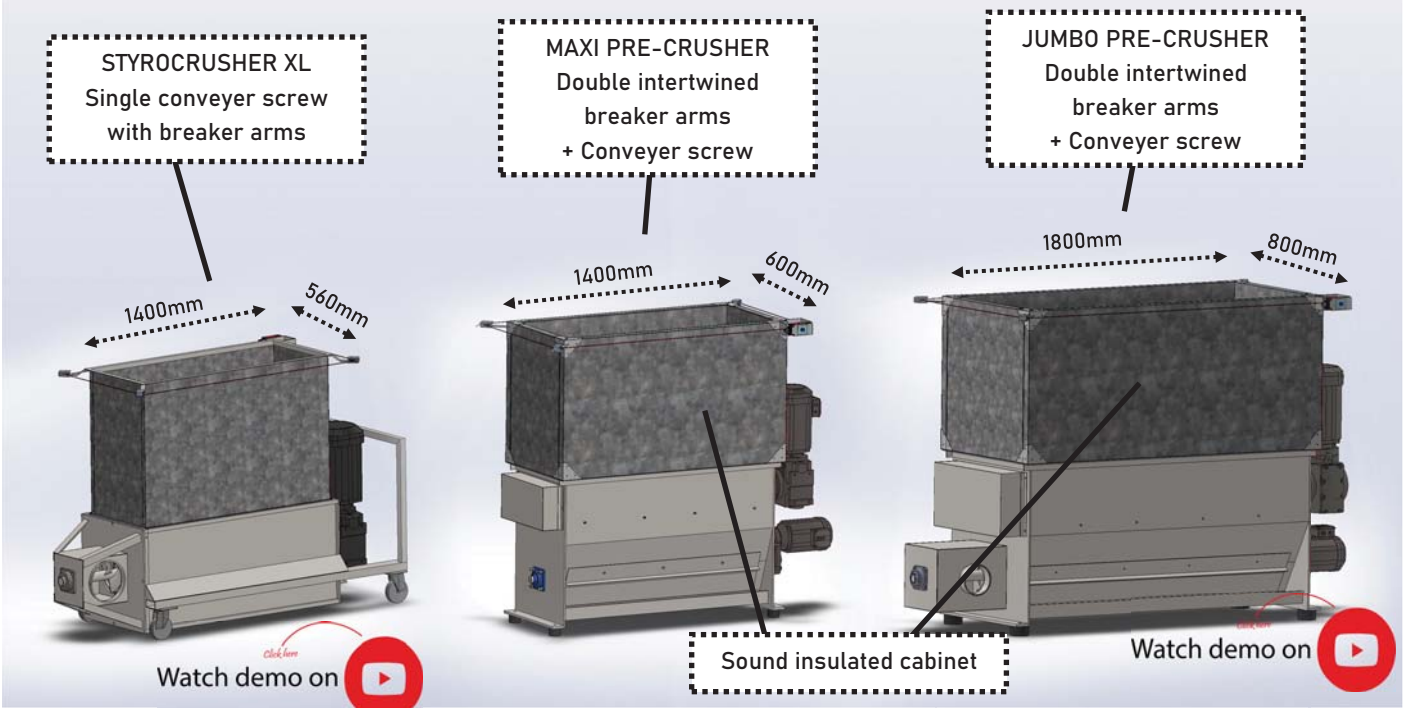


Brand name	STYROCRUSHER XL	MAXI PRE-CRUSHER	JUMBO PRE-CRUSHER
Measurements			
Hopper opening	1400 x 560 mm (4'8"x1'10")	1400 x 600 mm (4'8"x2")	1800 x 800 mm (5'11"x2'8")
Length ¹	2400mm (7'10")	1900mm (6'3")	2400mm (7'11")
Width ¹	900mm (3'0")	800mm (2'8")	1100mm (3'7")
Height ²	1600mm (5'3")	1800mm (5'11")	1800mm (5'11")
Capacity			
	8 - 10 m ³ /hour 280 - 350 ft ³ /hour	25 - 30 m ³ /hour 880 - 1060 ft ³ /hour	60 - 100 m ³ /hour 2100 - 3500 ft ³ /hour
Max density std. version	40 - 60 g/l	35 - 40 g/l	35 - 40 g/l
Max density HD version ³	N/A	50 - 100 g/l	50 - 80 g/l
Electrical load			
Pre-crusher	5,5 kW	6,2 ² kW	11,2 ² kW
Blower	2,2 kW	2,2 kW	5,5 kW

¹ Measurements without blower.

² Incl. built-in conveyor screw under pre-crusher

³ Maximum density range depending on scrap characteristics



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HEAVY-PARTS FILTER

RE-USE EPS WASTE FROM CONSTRUCTION SITES



Collected concrete waste after pre-crushing in a KBM pre-crusher. The material is collected in the bottom of the pre-crusher

KBM HEAVY-PARTS FILTER is a necessity for any moulder who is obliged to collect EPS waste from construction sites.

The used EPS is often contaminated with dirt, plaster, concrete, nails etc. which makes it impossible to re-use for producing new blocks for insulation sheets.



With the **HEAVY-PARTS FILTER** in connection with a KBM recycling system, the obtained purity of the EPS waste is nearly 99%, and it can as such be reused similarly to cut-offs from block cutting lines.

The **HEAVY-PARTS FILTER** is a low cost add-on to an existing KBM system.

Collected EPS waste that was screened out in the **HEAVY-PARTS FILTER**. The waste is easily collected in the bottom of the filter



After pre-crushing, Heavy-parts filtering, granulation and de-dusting. Ready to mix with virgin EPS



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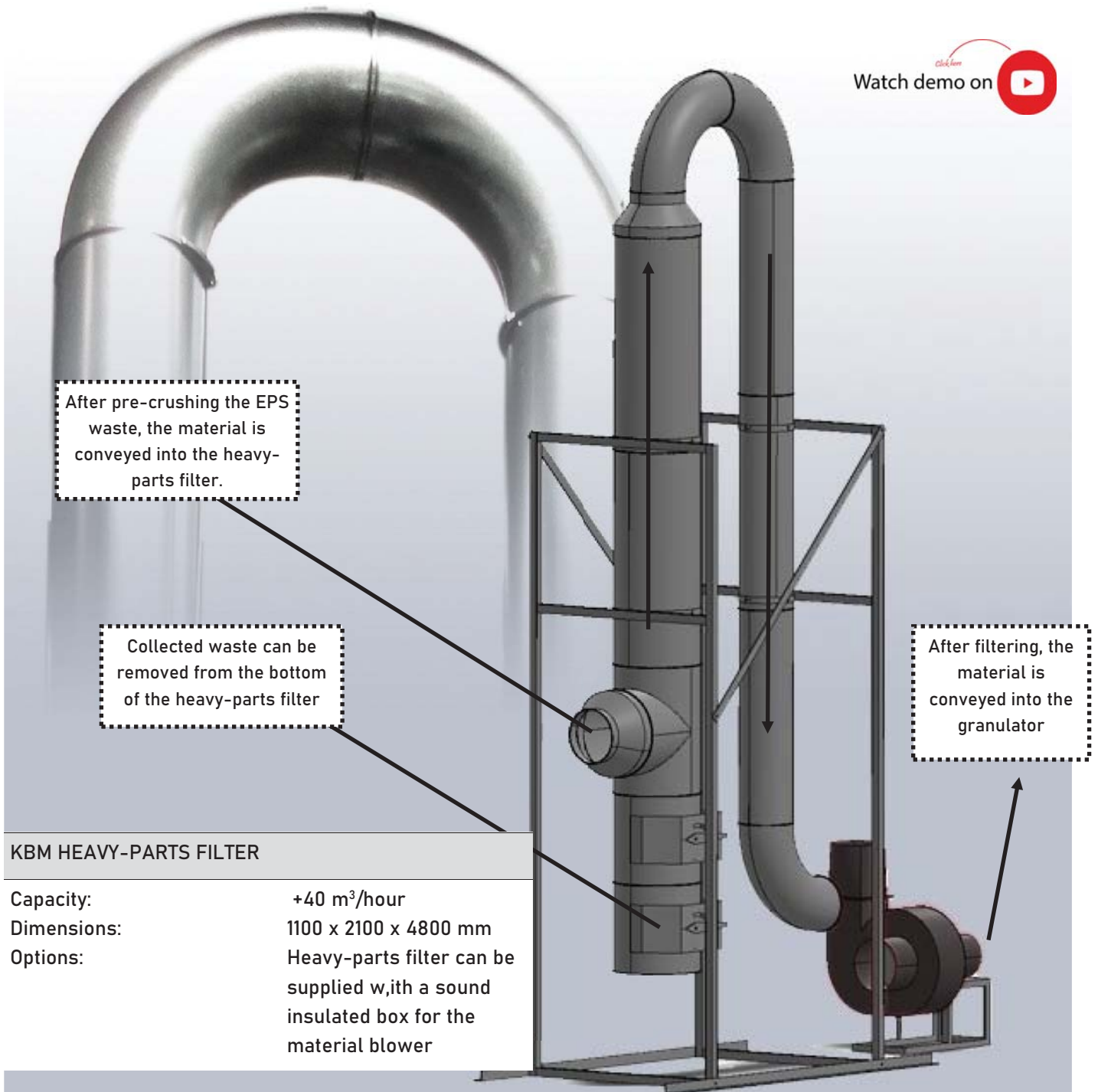
Technical Data sheet

HEAVY-PARTS FILTER

RE-USE EPS WASTE FROM CONSTRUCTION SITES



Watch demo on 



KBM HEAVY-PARTS FILTER

Capacity: +40 m³/hour
Dimensions: 1100 x 2100 x 4800 mm
Options: Heavy-parts filter can be supplied with a sound insulated box for the material blower



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