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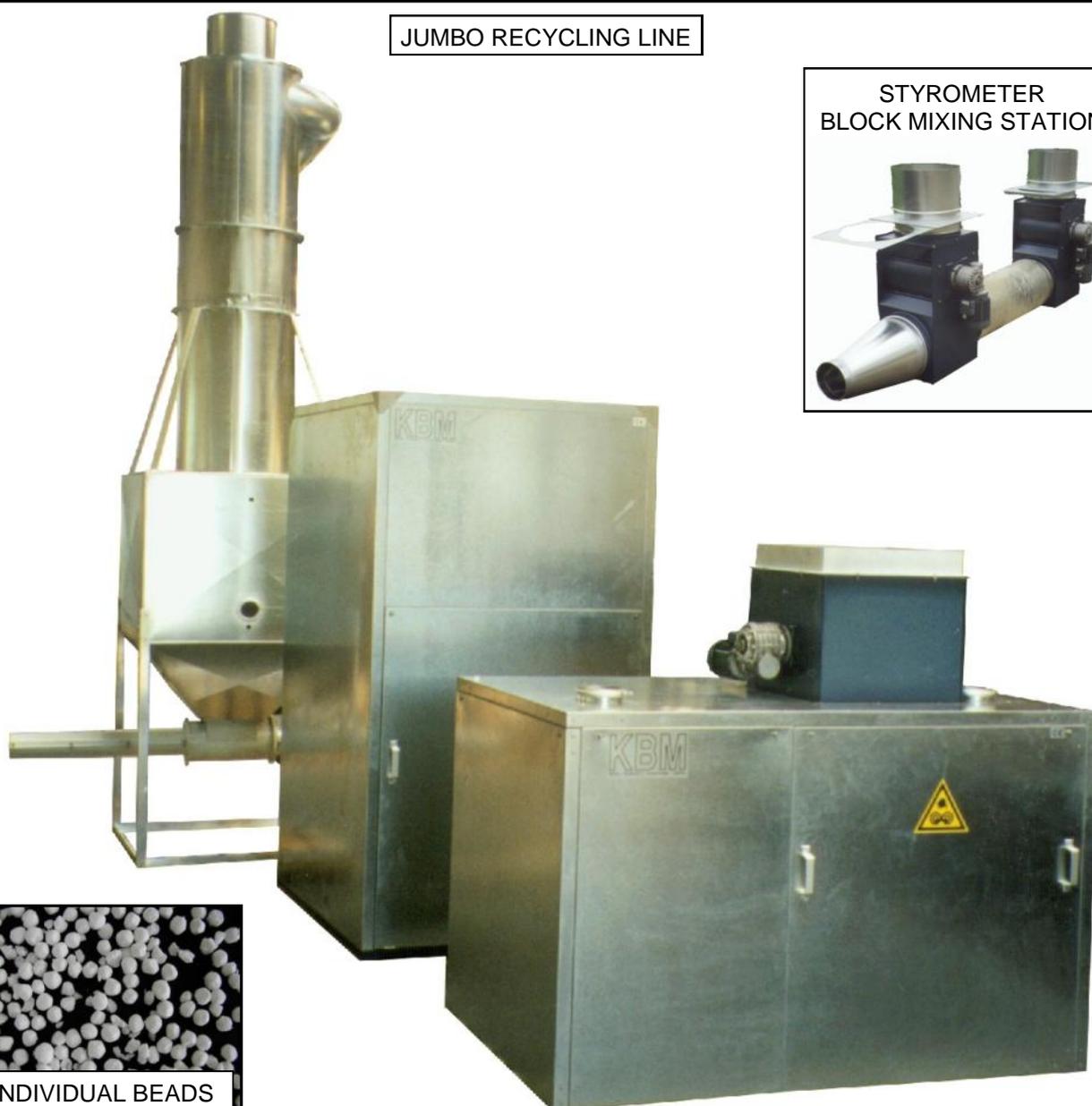


# KBM JUMBO RECYCLING

## EPS / NEOPOR

JUMBO RECYCLING LINE

STYROMETER  
BLOCK MIXING STATION



INDIVIDUAL BEADS



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We developed the completely integrated recycling concept for reusing EPS material in 1978 and have in the past supplied these plants world-wide, where they have solved the recycling problems and brought substantial savings. Our experience in this field enables us to solve the problem of reusing the waste material with optimal result.

The KBM JUMBO recycling plant / line for EPS is made for the very large shape and block moulding plants.

For smaller shape or block moulding plants the MINI and MAXI Recycling plants are available.

Thanks to the large sieve surface and granulation chamber the JUMBO Plant produces from production waste, cut-offs from block production or even from used EPS mouldings, a high quality recycled material, which contains a minimum of dust.

The recycled EPS material can be reused in shape moulding production in a ratio of at least 10-20 percent without any perceptibly optical or physical change of the product quality. For block moulding 20-50 percent can be added.

Due to the fact that the material is broken down to the individual bead size similar to the new beads, it is homogeneous with the new pre-expanded beads and consequently de mixing problems in the silos causing uneven density distribution are minimized. Problems like blocking of core vents due to dust and lumps of material causing hot wire cutting problems in terms of inaccurate sheets with bad surface are also minimized.

To pre crush the material 2 different sizes of pre crushers (A) are available (see separate leaflet). The pre crushers are designed to separate and collect metal parts, stones and other very heavy parts in the bottom. To collect also parts of wood, plastic and other parts before they reach the blower, we suggest our heavy particle separator (B).

From the silo (C) above the JUMBO granulator (D), the pre-crushed material is metered into the sound insulated granulator and broken down to the individual bead size depending on the sieve hole size. Afterwards the dust is extracted in the JUMBO dust separation unit (E) and the recycled material is conveyed to a storage silo.

The dust is blown into the JUMBO cyclone dust compactor (F), which separate the dust from the air. The dust is collected in the lower part and is compacted into an octagonal rod with a density of 200-300 Kg/m<sup>3</sup> (12-19 lbs/ft<sup>3</sup>). The air is returned from the cyclone air exhaustion into the granulator in a closed circuit. It replaces the large filter bags, which means that the daily cleaning of filter bags is eliminated and maintenance is reduced to a minimum.

The KBM STYROMIX units are available to give an individual and exact mixing of material for each moulding machine (see special leaflet).

For Block production, STYROMETER (see photo) with 2 silos and mixing station (G), to be placed just before the block mould, is available.

**Technical Data - JUMBO Line:**

**Capacity/Hour:**

(granulated and dust extracted EPS)

Screen with 6 mm holes (Shape): 18-20 m<sup>3</sup>(630-700 ft<sup>3</sup>)

Screen with 8 mm holes (Block): 25-35 m<sup>3</sup>(875-1225 ft<sup>3</sup>)

Screen with 10 mm holes (Block): 35-40 m<sup>3</sup>(1225-1400 ft<sup>3</sup>)

With 20 mm screen the granulator capacity exceeds 60 m<sup>3</sup>

Screen surface: 2 x 1,2m<sup>2</sup> = 2,4 m<sup>2</sup> (26 ft<sup>2</sup>)

Dust compactor with 16 kg/m<sup>3</sup> (1,0 lbs/ft<sup>3</sup>) EPS dust:

approx. 30-40 kg/h (66-88 lbs/h)

Space required (A-F)

approx. 30-40 m<sup>2</sup> (320-430 ft<sup>2</sup>)

Measurements:

L x W x H

Silo pre crushed material: 3.0x3.0x6.0 m (118x118x236")  
Size silo bag (C): (approx. 27 m<sup>3</sup>/940 ft<sup>3</sup>)

Metering/Granulator (D): 2.1x1.4x1.9 m(84x56x76")

Dust separating unit (E): 1.8x1.2x2.7 m(72x48x108")

Dust compactor with (F): 1.2x1.2x5.1 m (48x48x204")  
cyclone type air exhaustion

Storage silo (G): 2.0x2.0x6.0 m (80x80x240")  
Size Silo bag: (approx. 17 m<sup>3</sup>/600 ft<sup>3</sup>)  
Any size available

**STYROMETER**

Mixing station (block) (G): 4.0x2.0x6.0m (158x80x236")  
Size each silo bag: (approx. 17 m<sup>3</sup>/600 ft<sup>3</sup>)

Pipe connections (pre crushed material): 250 mm (10")

Pipe connections (granulated material): 160/200 mm (6"/8")

**Pre crusher hopper top openings:**

MAXI: 1400x600mm (56x24")

JUMBO (A): 1800x800mm (72x32")

Reusable EPS material after recycling: min. 93-95 %

Extracted EPS dust and fines: max. 5-7 %

Dust content after dust separation: max. 1 %

(Experienced with EPS granulated on a KBM granulator.)

**Electrical load:**

**EPS**

Metering/Granulator (D): 31.2 Kw

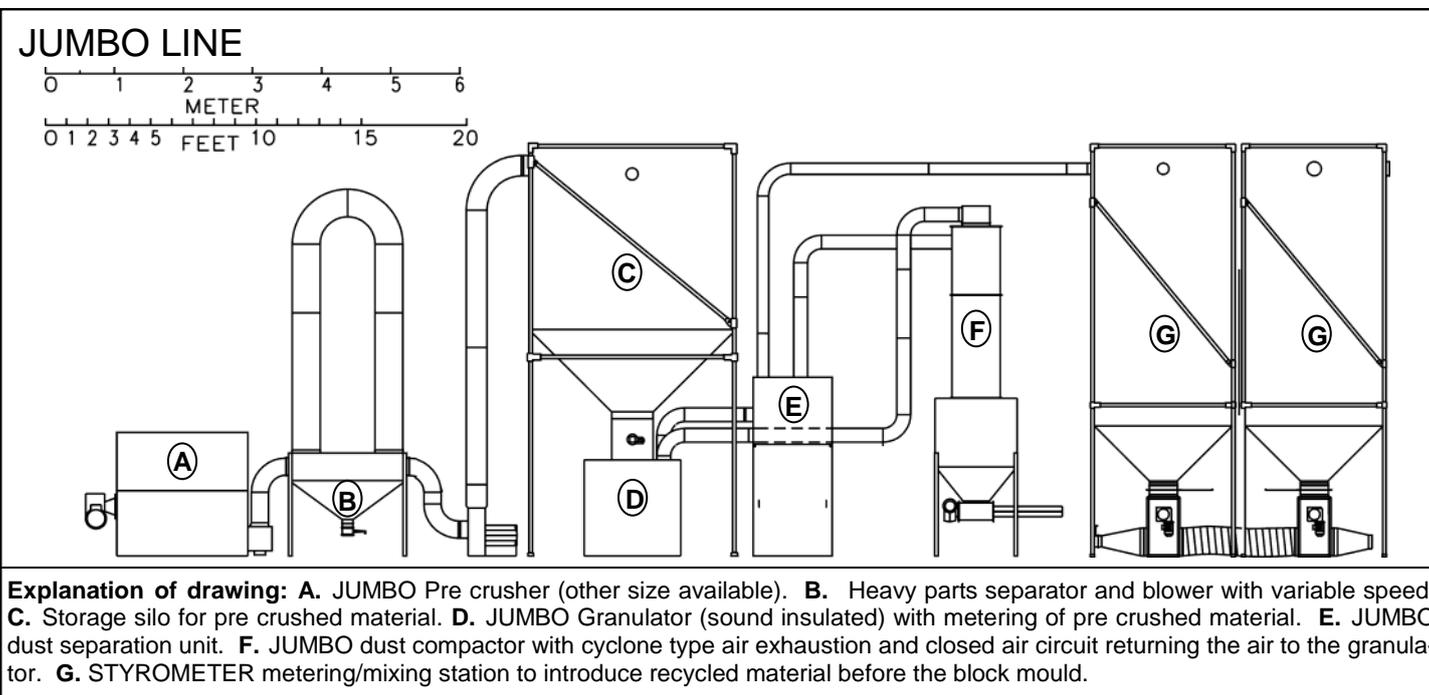
Dust separating unit (E): 14.4 Kw

JUMBO dust compactor (F): 4.0 Kw

STYROMETER Mixing station (block) (G): 2.3 Kw

Voltage: 3x400V/50Hz or other voltages.

SUBJECT TO ALTERATIONS



**Explanation of drawing:** A. JUMBO Pre crusher (other size available). B. Heavy parts separator and blower with variable speed. C. Storage silo for pre crushed material. D. JUMBO Granulator (sound insulated) with metering of pre crushed material. E. JUMBO dust separation unit. F. JUMBO dust compactor with cyclone type air exhaustion and closed air circuit returning the air to the granulator. G. STYROMETER metering/mixing station to introduce recycled material before the block mould.