

## Raw Material Size Reduction

Before pellet or briquette compression can take place, the raw material must be reduced to a suitable particle size. Depending on the raw material size, a one or two stage size reduction process will be needed.

## Chipper / Crusher Introduction

Depending on your chosen raw material, the equipment you require for size reduction may change. For example if you wish to process logs or large pieces of wood into pellets or briquettes a chipper / crusher is the first piece of equipment required for size reduction.

A chipper / Crusher simply works on the principle of a rotating blade. As the wood comes into contact with the blade, small pieces (chips) are removed. The chips produced are generally still too large to be used in the briquette machine or pellet mill, therefore secondary particle size reduction of the chips is required in a hammer mill.

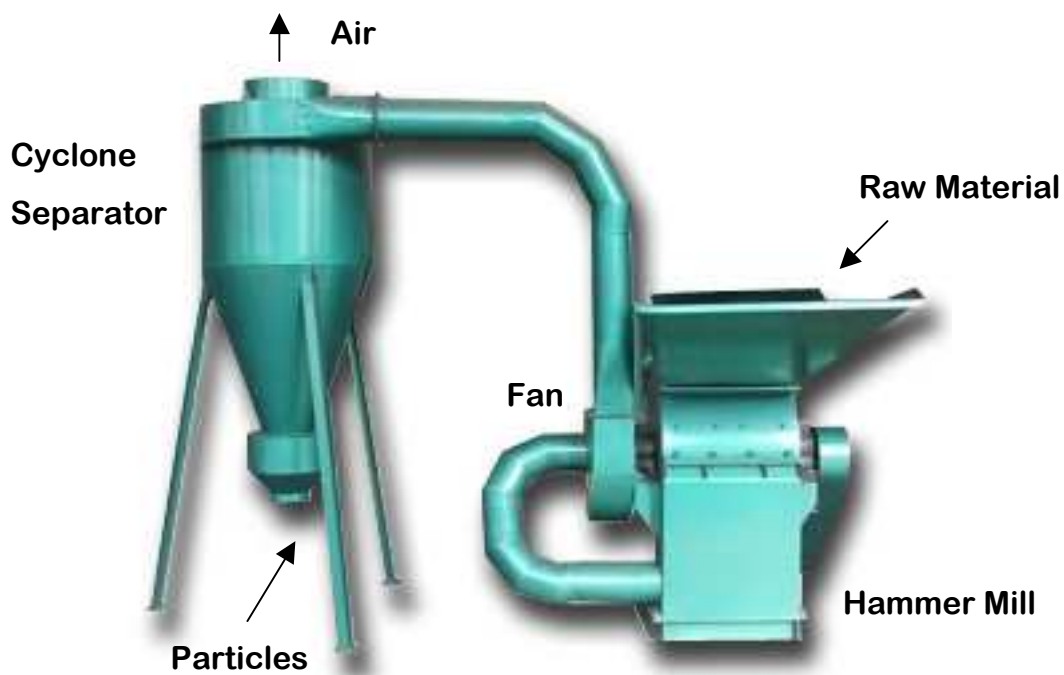
## Hammer Mill Introduction

To reduce the size of wood chips and other suitably sized biomass raw materials to the correct particle size, a hammer mill is used. A hammer mill works on the principle of attrition. A rotating centre with a collection of flailing hammers impact at high speeds, shattering the material into particles. A screen with the desired particle size ensures the correct particle size is produced.

## Post Size Particle Reduction And Cyclone Separation

Once particle size reduction has taken place, a fan is used to extract the particles from the based of the hammer mill. However the particles are now mixed in the air stream, and need to be separated. To separate the particles from the air stream, a cyclone separator is used.

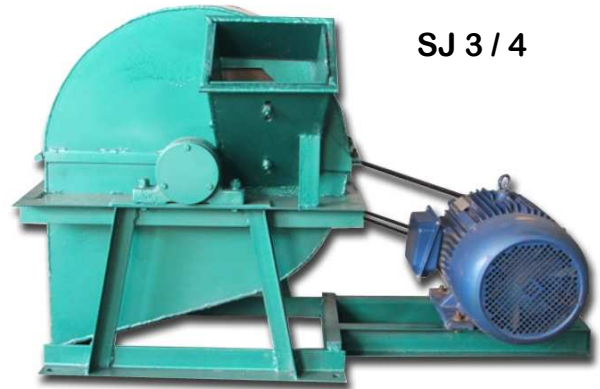
The cyclone has a vertical position, and the air stream and particles are injected into the top of the cyclone. The gas stream, due to the shape of the cyclone is sent into a spiral. During the spiral action, the particles are separated from the air stream and leave the based of the cyclone. The separated air then leaves the cyclone through a central pipe through the top. The particles are now a suitable size for briquette or pellet compression, depending they have a suitable moisture content of around 12% for briquette compression, and 15% for the pellet mill.



## SJ 3 / 4

The SJ 3 and SJ 4 are used for size reduction of logs and large pieces of wood up to 200mm in diameter.

<b>Model Number</b>	<b>SJ 3</b>	<b>SJ 4</b>
<b>Power (Kw)</b>	<b>15</b>	<b>18.5</b>
<b>Productivity (Kg/h)</b>	<b>400-700</b>	<b>500-1000</b>
<b>Maximum Input (mm)</b>	<b>200</b>	<b>200</b>
<b>Gross Weight (Kg)</b>	<b>450</b>	<b>650</b>
<b>FOB Price USD</b>	<b>2,353</b>	<b>4,294</b>



### Knives and Screen for 1 Year

<b>Model Number</b>	<b>SJ 3</b>	<b>SJ 4</b>
<b>FOB Price USD</b>	<b>588</b>	<b>741</b>

## SJ 40

The SJ 40 is used for size reduction of straws and grasses and other biomass of a diameter of less than 10mm.

<b>Model Number</b>	<b>SJ 40</b>
<b>Power (Kw)</b>	<b>7.5</b>
<b>Productivity (Kg/h)</b>	<b>300-400</b>
<b>Maximum Input (mm)</b>	<b>10</b>
<b>Gross Weight (Kg)</b>	<b>450</b>
<b>FOB Price USD</b>	<b>1,576</b>

**SJ 40**

### Knives and Screen for 1 Year

<b>Model Number</b>	<b>SJ 40</b>
<b>FOB Price USD</b>	<b>447</b>



## SJ 50

The SJ 50 is for raw material size reduction of small braches and wood chip up to 30mm in diameter.

<b>Model Number</b>	<b>SJ 50</b>
<b>Power (Kw)</b>	<b>15</b>
<b>Productivity (Kg/h)</b>	<b>400-800</b>
<b>Maximum Input (mm)</b>	<b>30</b>
<b>Gross Weight (Kg)</b>	<b>750</b>
<b>FOB Price USD</b>	<b>3,000</b>

### **Knives and Screen for 1 Year**

<b>Model Number</b>	<b>SJ 50</b>
<b>FOB Price USD</b>	<b>518</b>



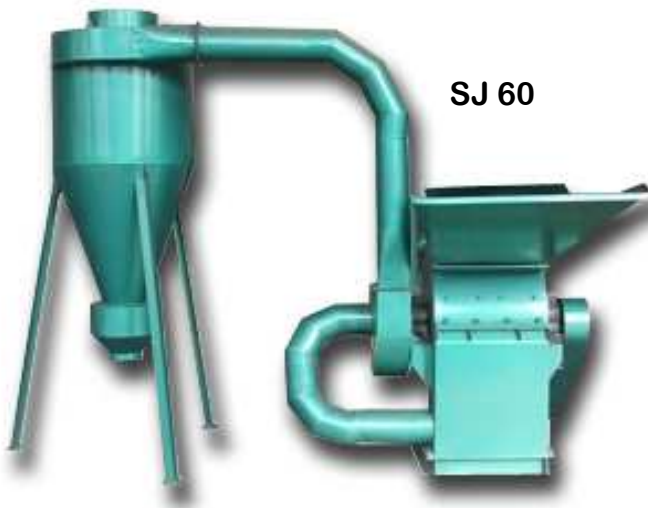
## SJ 60

The SJ 60 is for raw material size reduction of larger branches and wood chips up to 50mm in diameter.

<b>Model Number</b>	<b>SJ 60</b>
<b>Power (Kw)</b>	<b>18.5</b>
<b>Productivity (Kg/h)</b>	<b>600-1000</b>
<b>Maximum Input (mm)</b>	<b>50</b>
<b>Gross Weight (Kg)</b>	<b>950</b>
<b>FOB Price USD</b>	<b>3,529</b>

### **Knives and Screen for 1 Year**

<b>Model Number</b>	<b>SJ 60</b>
<b>FOB Price USD</b>	<b>682</b>



### **FOB Price USD**

The FOB price does not include shipping

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