

## Press Release 3/2010

HERBOLD MECKESHEIM GMBH,  
[www.Herbold.com](http://www.Herbold.com)

### **Everyone Is Talking about Energy Saving – HERBOLD has the appropriate granulator design**

Granulators by nature are high energy consumers based on the level of work and tough cutting applications they are placed in. As part of any recycling plant they almost always become the machine with the highest installed drive capacity.

As energy savings is a hot topic in the news media and concern for consumers it seems quite logical to focus on these machines to improve their efficiency. HERBOLD has published several success stories with our forced feeding granulators, the SB series with increased efficiencies and power savings that a patent in the USA has been applied for based on their unique design. Two years after their commercial launch, as many as 80 machines of this series have been sold and the customer's feedback was unanimous: energy savings between 30 and 50% have been achieved. This means reduced operating costs and money savings in the amount of 15 to 25 thousand Euros per year with a 75 kW granulator operated in three shifts.



Fig. 1: SML SB 60/100

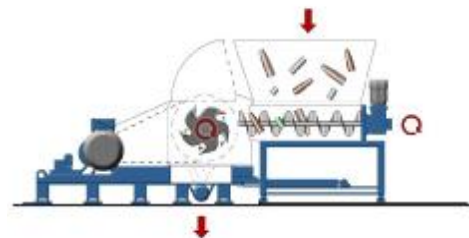
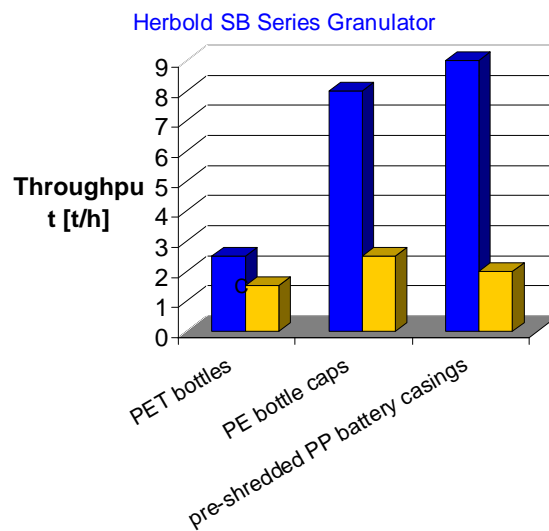


Fig. 2: Schematic diagram Herbold granulators of the SB series

Why is there such a high energy saving with these machines? Energy is not wasted tossing the material around in the feed hopper instead the material is directly forwarded to the grinding chamber by the crammer feeders. The operation is more efficient, the feed stream is consistent reducing current spikes and in addition eliminates the annoying fly back associated with conventional granulators. The benefits of this feed design also improve the number of cuts per minute as the feed material is kept in the cutting path reducing the amount of fines and heat generation of the ground material due to a reduced dwell time in the grinding chamber

## And there are more advantages:

- There is an intermediate buffer above the screws, thus increasing the utilisation ratio especially if there is a shredder with an oscillating hydraulic ram just before the granulator. The hydraulic ram pulsates as the material is discharged and the buffer in front of the granulator ensures that even with no-load operations the granulator is used to capacity.
- Increased efficiency and output means a smaller machine can achieve rates that would have required a much larger machine in the past. Smaller means less overall equipment cost, reduced foot print, reduced labor costs and substantial savings on wear items.



*Efficiency comparison between a conventional granulator and the **Herbold SB series (blue bar)** with a rotor diameter of 600 mm and a rotor width of 1000 mm.*

The force feed concept is particularly efficient for size-reducing of beverage bottles. with the addition of water to the size reduction step and the friction – a by product of size reduction provides a washing action that removes contamination during the size-reduction step. Reducing blade, screen and internal wear of the granulator at the same time, basically a win, win.

There are 5 different sizes of the SB series from 1 to 12 t/h throughput (with a 12-mm-screen) and with drives from 45 to 315 kW.

Engineering, producing, delivery :

**Herbold Meckesheim GmbH**  
Industriestr. 33  
D-74909 Meckesheim  
Germany  
Tel.: +49/6226/932-0  
Fax: +49/6226/932-495  
E-mail: herbold@herbold.com  
www.herbold.com

Our subsidiary:  
**Herbold Meckesheim USA**  
Resource Recycling Systems Inc.  
333 George Washington Highway  
USA – Smithfield, Rhode Island 02917  
Tel.: +1 401 232 3354  
Fax: +1 401 232 5425  
E-mail: info@herboldusa.net  
www.herboldusa.net