

# HERBOLD



## Air Stream Separator (SZS) for Closely Defined Particle separation, Wide Range of Adjustment and Many Types of Applications

HERBOLD air stream separators of the SZS range are used for separating particles of almost constant granule size on the basis of their specific weight. They are also employed for separating materials that, due to their shape, are difficult to separate or cannot be separated at all by screening.

Applications:

### Composite materials

- The separation of fabric, fibre and textile components from size reduced carpet scrap, textile reinforced hoses, pieces of old rubber, textile coated plastics, foam backed items from the automobile industry, etc.

### The plastic component from domestic waste and discarded material

- Removal of the light weight component (e.g. film, paper, fabric, etc.) from domestic waste for separate further treatment.
- Separation of heavy matter (e.g. stones, glass, metal, etc.) from pre-crushed waste.

### Cable recycling

- Separation of copper or aluminium from the PVC/PE-cable insulation after the cable mixture has been size reduced in a granulator.

### Metal and plastic mixtures

- Granulate mixed with metal can be separated into a plastic and a metal component (e.g. metal/plastic mixtures from an all metal separator).

### PVC profile manufacturers and PVC profile recycling companies

- Pieces of profile with protective film coatings can normally be size reduced without the time consuming manual removal of the film prior to processing. These are separated into granulate/film and fines in the HERBOLD air stream separator.

### Granulate de-dusting

- The removal of dust, fluff and fines from the granulate (a particular problem on scrap from blown or injection moulded HDPE for example).



Fig. 1: Herbold air stream separator in a PET bottle washing line



Fig. 2: Air stream separator with maintenance platform

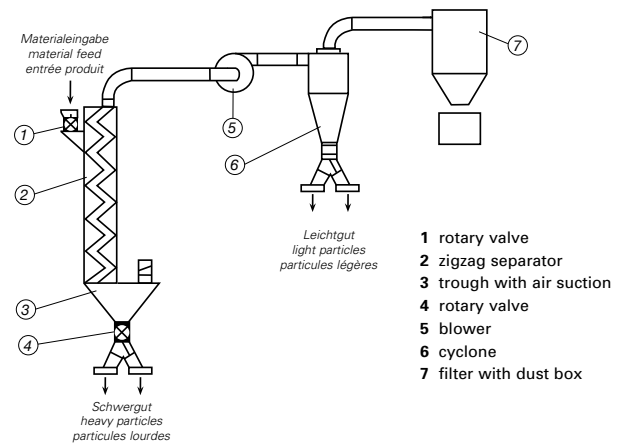
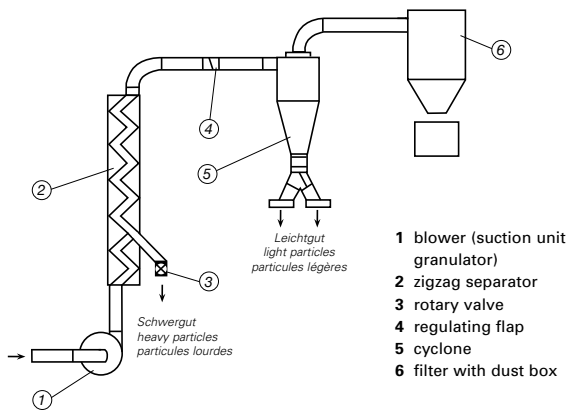
### Mode of operation:

The material to be separated (size reduced in a granulator or pre-crusher) is fed pneumatically or with an alternative feed system to the vertically mounted, zigzag shaped separation channel. An air stream, which develops a special flow pattern inside the separator, is passed through the zigzag channel. A turbulence is created at each of the zigzag bends in the separator when the material is being fed.

The process material is picked up by the air stream at these points and separated into two components (e.g. light/heavy, coarse/fine, etc.). Due to the numerous bends in the unit the best possible separation results can be achieved.

Coarse or heavy material is discharged at the end of the separation stage or from the side outlet of the air stream separator. The light material or fines are carried by the air stream to the top of the unit where they are discharged. The required particle size limitation is regulated to suit the type of feed material by adjusting the air quantity control fitted to the unit.

HERBOLD air stream separators can either be used as a part of a complete size reduction system or as a separate unit. In most cases, a later installation of an air separator into an existing reduction plant is advantageous and possible at little expenses. Special models of this separator to be fitted in high pressure systems are available for particular applications.



Type	Cross section		Capacities*	
	mm	inch (approx.)	kg/h	lbs/hr
SZS1 630/212	630 x 212	24.8 x 8.4	up to 2,000	up to 4,400
SZS2 300/100	300 x 100	11.8 x 3.9	up to 400	up to 880
SZS2 450/150	450 x 150	17.7 x 5.9	up to 1,200	up to 2,650
SZS2 630/212	630 x 212	24.8 x 8.4	up to 2,000	up to 4,400
SZS2 630/212 II, double channel	630 x 212 x 2	24.8 x 8.4 x 2	up to 3,000	up to 6,600
SZS2 800/270	800 x 270	31.5 x 10.6	up to 4,000	up to 8,800
SZS2 800/270 II, double channel	800 x 270 x 2	31.5 x 10.6 x 2	up to 7,000	up to 15,500
SZS2 1000/340	1,000 x 340	39.4 x 13.4	up to 10,000	up to 22,000

\*Depending on type of material and percentage of material to be separated.



### Our product range

- Granulators
- Pulverizing Systems
- Shredders
- Hammer Mills
- HOG Shredders
- Guillotines
- Washing Systems
- Plastcompactors

### Herbold Meckesheim GmbH

Industriestr. 33  
74909 Meckesheim  
Postfach 1218  
74908 Meckesheim  
Germany  
Tel.: + 49 (0) 6226/932-0  
Fax: + 49 (0) 6226/932-495  
E-Mail: [herbold@herbold.com](mailto:herbold@herbold.com)  
Internet: [www.herbold.com](http://www.herbold.com)

### Our subsidiary:

### Herbold Meckesheim USA Resource Recycling Systems Inc.

130 Industrial Drive  
North Smithfield, RI 02896, USA  
P.O. Box 239  
Slatersville, RI 02876, USA  
Tel.: +1 401 597/5500  
Toll-Free 888/612 RRSI (7774)  
Fax: +1 401 597/5535  
E-mail: [info@herboldusa.com](mailto:info@herboldusa.com)  
Web: [www.herboldusa.com](http://www.herboldusa.com)