

BALLISTIC SEPARATOR MODEL SBS

The SGM Smart Ballistic Separator (SBS) is an innovative high-speed separation system designed to **optimize metal recovery from moist incinerator ash** (typically containing around 20% moisture). By concentrating the metals into a fraction with 50% less mass and one-third the moisture content, the SBS significantly enhances subsequent ferrous and eddy current separation, improving overall efficiency.

HOW IT WORKS

The SBS utilizes a high-speed rotating drum equipped with strategically designed hitting plates that propel particles upon impact. This controlled ballistic trajectory enables precise separation based on mass, where:

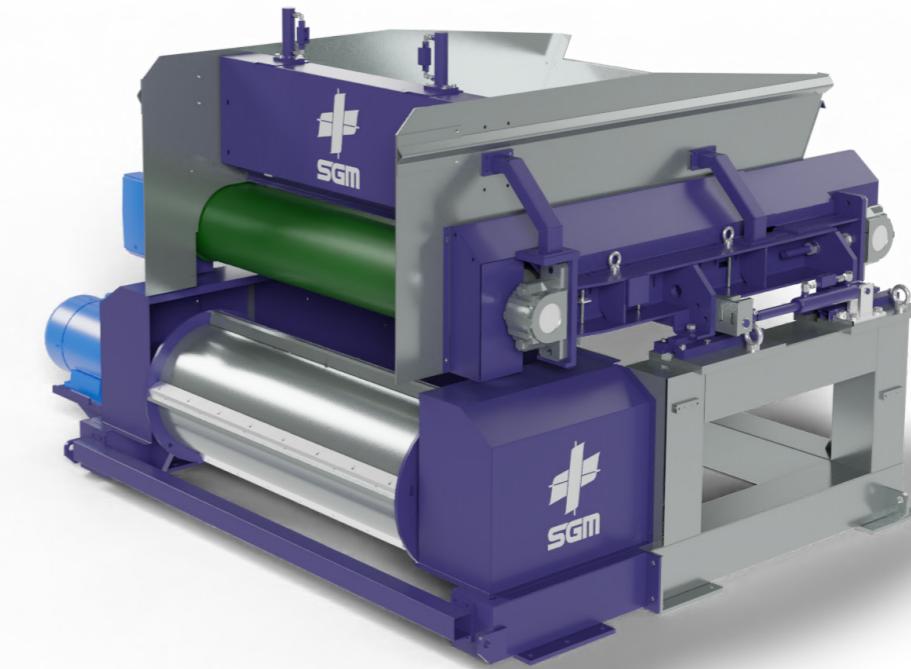
Heavier particles (including metals) travel longer distances due to their increased momentum.

Lighter particles (such as fines and moisture-rich materials) follow shorter trajectories, concentrating unwanted fractions for disposal. The result is a cleaner, drier metal fraction that is easier to process, while moisture and ultra-fine materials are efficiently separated.



Unlike conventional ballistic separators that rely on direct impact, the SGM SBS employs a centrifugal launch mechanism, ensuring:

- Gradual particle release: particles leave the hitting plates at different moments based on their impact position, reducing turbulence and optimizing separation.
- More precise mass-based separation: the optimized trajectory control minimizes variations in particle flow, ensuring greater accuracy in sorting.
- Improved downstream metal recovery: by narrowing the dispersion spectrum, the SBS delivers a more concentrated metal fraction, enhancing the performance of subsequent ferrous and eddy current separators.



TYPICAL APPLICATIONS

- Municipal solid waste incinerator ash (IBA)

MODEL mm - ft	DRUM WIDTH	CAPACITY*	LENGTH	WIDTH	HEIGHT	WEIGHT
SBS 150 60	1500 mm 60"	30 t/h	2660 mm 104"	3100 mm 76"	3100 mm 122"	4,000 Kg 8,818 lbs
SBS 200 80	2000 mm 80"	40 t/h	2660 mm 104"	3100 mm 76"	3580 mm 141"	4,700 Kg 10,360 lbs

(*) Depending on application, material specific weight and metal content in material