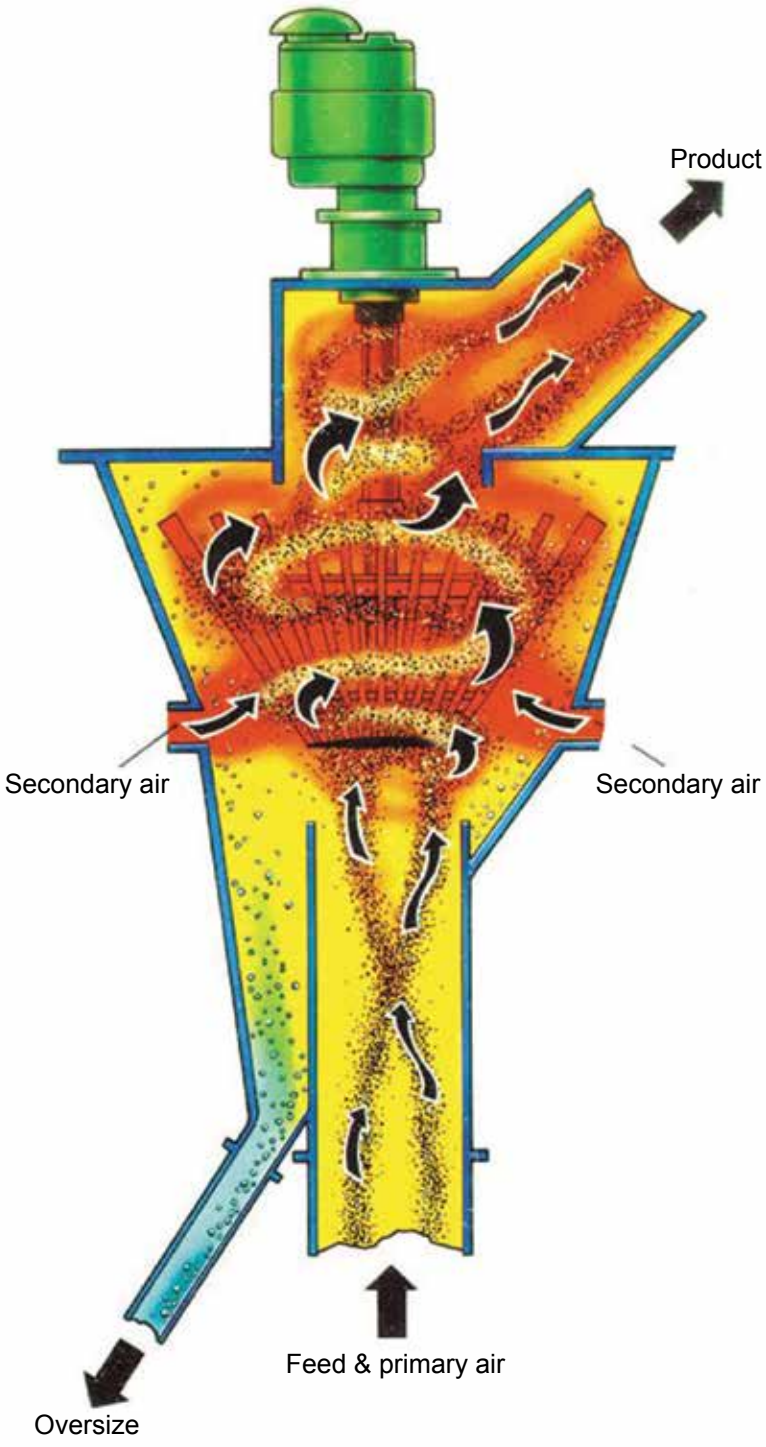
Gyrotor Air Classifier System



For more information, contact your local Metso representative. www.metso.com
Metso Minerals Industries, Inc. Mining

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Improves Grinding Efficiency

The Svedala Gyrotor, a rotating vane air classifier, separates dry solid particles by size and is ideal for any separation where the fines are 35 mesh or finer. Products of 99.9 percent passing 325 mesh with an average particle size of 5 microns or finer are obtainable for ultrafine applications.

When used in connection with a grinding mill, this classifier system controls product size; improves energy efficiency of the grinding mill; and provides a transport system for the ground material.

These classifiers handle feed rates from 0.1 to 200 tons per hour depending upon the desired cut point and material density.

Provides Transport System

Material discharging from the mill is air conveyed vertically into the bottom of the classifier through a multivaned rotor mounted on a vertical shaft. As the mixture travels upward through the classifying section, it is subjected to centrifugal forces induced by a vaned rotating element.

The speed of the rotating element controls the product size. The coarser (oversize) particles are thrown out of the air stream and fall by gravity along the casing to an oversize discharge for return to the grinding mill. The finer material (product) remains in the air stream and is conveyed to product collectors. The fineness of the product can be regulated by varying the speed of the rotor rotation.

Dust Free Operation

Air, free of material, leaves the product collectors and returns to the fan, which generates the airflow through the system. The main air stream returns to the mill discharge area to convey more material to the classifier. At the discharge of the fan, a controlled amount of air is vented from the system to an auxiliary dust collector. This vent system serves to maintain a negative pressure within the classifier system and provides dust-free operation.

Heated air may be introduced into the system to remove moisture from the feed material.

GAC Standard Sizes:

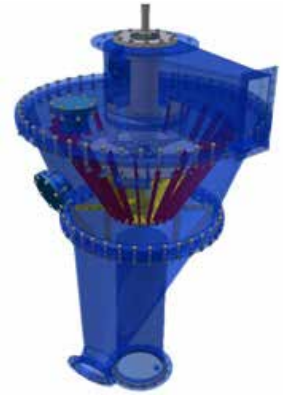
Size	Capacity (STPH) 325 Mesh	Capacity (STPH) 35 Mesh
18	0.1	0.4
24	0.2	0.7
36	0.6	1.8
54	1.2	5
72	2.7	15
90	4	28
108	6	40
126	9	55
144	11	75
168	16	95
192	21	130
216	26	165
240	32	200

Classification-Only System

In a classification-only system, material is introduced into the system through an airlock at the point, which normally receives mill discharge. This system functions as it does when fed by a mill, producing a fine fraction and a coarse fraction product.

Proven Experience

Metso Minerals draws from more than 100 years of mill design and manufacturing expertise. We offer specialized test plant capabilities to analyze your size reduction and classification requirements. Metso engineers will recommend the optimum system to meet your specific application.



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