

# Sturtevant Unveils 100 Percent Mobile Air Classifying Plant



*Sturtevant Whirlwind portable air classifier plant is sturdy, compact and maneuverable on roadways and job sites.*



*Once parked, the unit unfolds to operational mode in one minute or less with the push of a button.*

Many aggregate and sand producers own multiple quarries, and a portable air classifier eliminates the cost of owning and maintaining multiple stationary classifiers. And for major paving projects it is often more economical to move the air classifier to a quarry nearer to the job site or to the job site itself than to haul the de-dusted manufactured sand.

“Many asphalt companies also own or lease portable asphalt plants that normally require adjoining portable equipment for crushing, screening and fines handling,” according to Joe Muscolino, senior project manager of Sturtevant Inc., Hanover, Mass.

“A portable air classifier negates the need for a wash plant where water is not readily available or where waste water disposal is a problem. But there has not been a mobile air classifier that could go from transport to production without the cost and delay of special lifting equipment. People have been asking us for years to design a portable plant to solve this serious problem, he said.

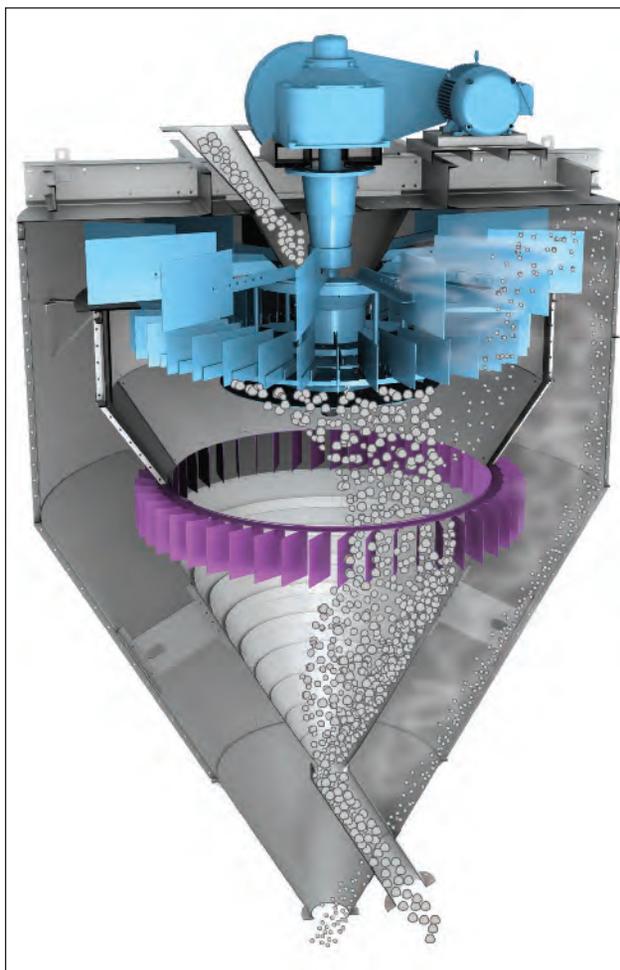
Sturtevant Inc. has introduced a self-contained, 100 percent mobile air classifying plant with integral collapsible conveyors, enabling parking to processing in one hour or less. The Whirlwind air classifier and conveyors hydraulically unfold for setup and fold away for breakdown and transport, with no cranes, boom trucks, front-end loaders or special crew needed for any part of the operation. Simply push a button. Dual hydraulic cylinders provide smooth, steady raising and lowering of the Whirlwind air classifier and the integral, collapsible feed and dual discharge conveyors.

The plant is mounted on a rugged chassis frame with tri-axle suspension for stable travel on highways or back roads. The plant is designed and constructed for vibration-free operation and long service life with low maintenance and the compact design features a low transport height (13 ft. 5 in. [4 m]), short trailer transport length (61 ft. 9 in. [18.8 m]) and trim transport width (12 ft. 7 in. [3.8 m]) for easy maneuvering on roadways and at job sites. Feed capacity is 30 to 90 tons (27 to 81.6 t) per hour with a 50 hp variable-frequency motor for low energy consumption.

“Producers tell us they want a portable unit large enough for high feed rates, but compact and completely mobile to keep transportation costs reasonable,” Muscolino said. “We

estimate that our ample tph range and compact, totally self-contained design will keep transportation costs 40 to 50 percent lower than if we had designed a larger plant with unattached conveyors that require assembly.”

Other features requested by aggregate and asphalt producers include a long, high discharge conveyor for greater stockpile heights of de-dusted manufactured sand, and a feed



*The plant utilizes the same Whirlwind air classifier as in stationary applications for more than 80 years.*

conveyor intake hopper that is low to the ground and can be fed by a front-end loader, eliminating the need for an intermediate conveyor. Also, the feed hopper is located behind the trailer rear wheels to prevent spillage of feed material onto the chassis where it could cause damage and require clean-up. The smaller side conveyor is for byproduct fines.

For safety and nuisance dust control, all three belt conveyors are covered and can be easily vented. In addition, the gravity feed inlet at the top of the classifier is under a slight vacuum to prevent airborne nuisance dust during material transfer. The conveyor covers also help reduce moisture during rain to ensure efficient performance. The air classifier is designed for dry operation; material moisture preferably should not exceed 2 to 3 percent, with 4 to 5 percent as maximum for most materials.

The Sturtevant Whirlwind air classifier can eliminate the need for screening, cyclones, bag houses or wet washing. The unit has an automatic lubrication system for low maintenance and a time-tested gear unit drive for long service life.

An internal fan lifts minus #200 mesh fines out of the feed, and removable selector blades within the housing control the amount of fines to be removed so the process can be adjusted to nearly any material or spec requirement. Any additional fine tuning and quick adjustments are made with easy-to-use speed controls. Adjusted product fineness: minimal minus 100, 200, 325 mesh fines.

Sturtevant has designed and manufactured a wide range of material processing equipment since 1888, including three types of air classifiers. The chassis-mounted Whirlwind air classifier is the exact same model that has been in stationary applications worldwide for more than 80 years. The company has manufactured more than 5,000 air classifiers, and with proper maintenance, Sturtevant air classifiers can last 40 to 50 years, according to the manufacturer.

“Our customers expect superior quality and long service life from everything we make,” Muscolino said. “And our Whirlwind portable air classifier plant and rugged trailer are thoroughly designed and built for the long haul.”

For more information, call 800/992-0209 or visit [www.sturtevantinc.com](http://www.sturtevantinc.com).

(This story also can be found on *Construction Equipment Guide's* Web site at [www.constructionequipmentguide.com](http://www.constructionequipmentguide.com).)