

# Unique Technology in Milling Collection Cuts Downtime in Half

CASE STUDY Cosmetic Manufacturer | March, 2017

**INDUSTRY: COSMETICS** 

LOCATION: CALIFORNIA,

USA

KEY CHALLENGES: DOWNTIME DUE TO CLEANOUTS AND CHANGEOVERS

**SOLUTION:** UNIQUE COLLECTION TECHNOLOGY

**BENEFITS: INCREASE**UPTIME BY OVER 50%

#### **About the Client**

Since 1946, Jet Pulverizer has been responding to customer demands with high quality, engineered solutions. Cosmetic manufacturers are always looking for the finest particle sizes to provide their customers the best wearable makeup. Micronized minerals like titanium dioxide and zinc oxide are used extensively in cosmetics. The use of micronized minerals in make-up produces a lustrous, smooth and glow-like finish to the skin and enhances the feel and appearance of the product itself. Large cosmetic manufacturers depend on micronized form ingredients to achieve the finest product quality and applied finishes. Jet Mills have become the preferred micronization tool for these manufacturers thanks to their very low contamination, narrower spread of particle sizes, robustness and ease of use.

## The Challenge

One such manufacturer had approached Jet Pulverizer to design and manufacture a Micron Master® Jet Mill for their applications. Once delivered and commissioned, they were very satisfied with the final product the mill would extract. However, since they would have to mill so many different batches, they found themselves having to clean out the mill and, more time consuming, the dust collector cartridges after each run, a process which required up to 24 hours for sticky cosmetic pigments.



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#### The Solution

Jeff Conn, VP of OEM at Jet Pulverizer, offered a custom solution to meet their downtime challenges:

"Another option to collect jet milled product, especially if you have many change overs due to color variety, is the addition of an Integral Bottom Cyclone Collector. This option attaches a Cyclone Collector directly under the jet mill that separates 90 - 98% of the finished product. The product drops down through the cyclone to a 75 liter product receiver beneath the mill. With the majority of the powder load being collected in the Cyclone Collector, the motive air travels out of the top, center of the mill to the cartridge collector for filtering. The material is quickly and easily removed from the Product Receiver. To change products, you will have to disassemble and clean only the jet mill and Cyclone. The large stand-alone cartridge collector does not have to cleaned between batches"

### The Impact

This Cyclone Collector takes no extra footprint, is modular, does not impact efficiency and more importantly, cuts down the cleanout and thus reducing downtime in half. From this customized solution, Jet Pulverizer has been able to add this to its long list of customizable options on their standard mill solutions.

With fewer downtime, our Client was able to cut costs, improve productivity at their key site.

