

# AVEKA CCE TECHNOLOGIES

**EMPLOYEE OWNED**

**TOLL MANUFACTURING  
EQUIPMENT SALES**



## JET MILLING & AIR CLASSIFICATION

- Narrow product size distributions
- Load cell control
- Precise top size control
- Ideal for temperature sensitive material
- Simple cost effective design
- Abrasive resistant linings
- Low maintenance / easy to clean
- Operates under negative pressure, allowing for good containment of fine powders and a cleaner processing area
- Four sizes ranging from 150 to 1500 scfm
- Ideal for fine powders of ceramics, abrasives, glass minerals and polymers applications
- Feasibility testing offered

The AVEKA CCE Fluid Bed Mill System comes complete with mill, flow source, product cyclone and/ or collector, feed system and control package.

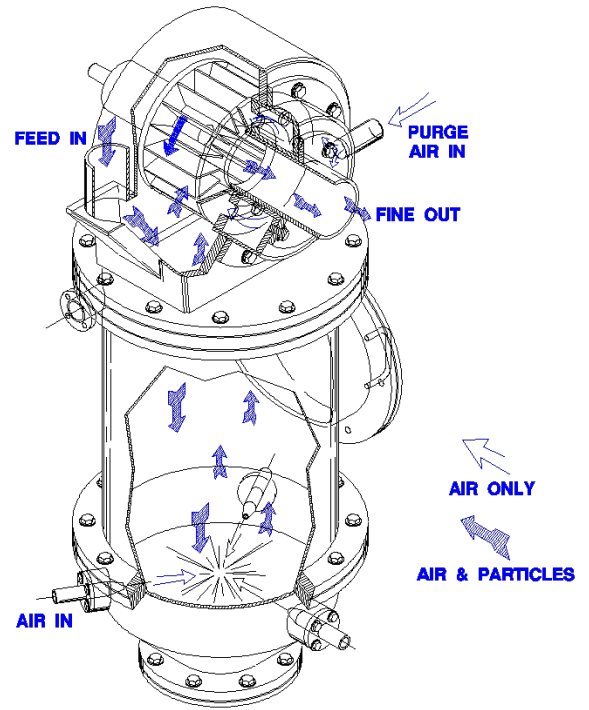
## TOLL MANUFACTURING & EQUIPMENT SALES

The AVEKA CCE Fluid Bed Jet Mill incorporates dense phase micronization using turbulent-free jets in combination with high efficiency centrifugal air classification within a common housing. This combination allows for enhanced comminution by high probability particle on particle impact for breakage and a high degree of particle dispersion for improved separation resulting in lower overall energy consumption. Abrasive and temperature sensitive products can be finely ground with minimum contamination. The simple, easy to clean, cost effective design offers precise top size control with narrow size distributions in the 95% < 70  $\mu\text{m}$  to 95% < 70  $\mu\text{m}$  size range. Load cells are used to precisely control mill load for optimum grinding efficiency and/ or product size distribution control.

# OPERATING PRINCIPLE

Feed is introduced into the common housing through either a double flappers valve or injector. Flooding the pulverizing zone to a level above the grinding nozzle forms the mill load. Turbulent free jets are used to accelerate the particles for impact and breakage. After impact the fluid and size reduced particles leave the bed and travel upwards to the centrifugal classifier where rotor speed will define what size will continue with the fluid through the rotor and which will be rejected back to the particle bed for further size reduction. The high degree of particle dispersion leaving the pulverizing zone aids in the efficient removal of fine particles by the classifier. Operating parameters of rotor speed, nozzle pressure, and bed level allows for optimizing productivity, product size, and distribution shape.

AVEKA CCE Technologies specializes in toll processing and custom equipment in the areas of jet milling and air classification.



## EQUIPMENT FOR SALE SPECS

Model No.	DPM-1	DPM-2	DPM-3	DPM-4
Air flow scfm**	150-250	300-500	600-1000	1100-1500
Number of nozzles	3	3	3	3
Rotor speed, rpm	500-9000	400-5200	360-3600	310-3100
Drive, HP	5	10-15	15-20	20-25
<b>System Requirements</b>				
Primary Air, HP	15	30	40	60
Purge Air, HP	1	2	5	7.5
Lab scale model available. Contact us for additional information				
*Airflow at 100 psig, dependent on nozzle size selection				

## TOLLING GUIDELINES

Model No.	DPM-1	DPM-2
Minimum run quantity (kg)*	20	90
Preferred run quantity (kg)*	90-225+	225-450+
Typical throughput, kg/hr**	35-60	35-60
Dust combustibility suppression systems available		
Lab scale feasibility tests available		
*For test runs on equipment installed at AVEKA CCE Technologies		
**Rates are dependent on materials and conditions		

