MikroPul High Efficiency Cyclones are the most cost-effective solution for separating dry particulate (5 microns or larger) from gas streams.

With more than three decades of experience in research, design, and successful commissioning of cyclones, we have the expertise to select the appropriate design to meet the most demanding needs of any application in the industry.

MikroPul Cyclones feature robust construction for long term, trouble-free service. Careful design results in high efficiency at low pressure drop to keep operating costs low.

**Benefits**
- Low initial cost
- Low operating expenses
- No moving internal parts
- Minimal space requirements

**System design**
Seemingly a relatively simple device, a cyclone consists of components which must be optimized for the application and properly work together to achieve maximum dust removal efficiency. Consideration is given to the forces dust particles are subjected to simultaneously:

1. Viscous drag or resistance, which is a function of the relative velocity between the carrier gas and the dust particle, its shape and size, and gas viscosity. Each particle must overcome resistance as it moves through the carrier gas stream.
2. Centrifugal force, which is affected by velocity, cyclone curvature profile, and the particulate mass.

3. Particle inertia, whereby the particle would move in a straight line if not subjected by the other forces.

Based on careful evaluation of your application, MikroPul will custom select:
- Single, twin, or quad arrangements
- Outlet to inlet relationships
- Barrel length
- Cone length

We can also custom design the following enhancements as required:
- Internal surface finishes to minimize abrasion, buildup caused by sticky particulate
- Ease of access
- Body flanges
- Wear liners, fixed or removable
- Refractory lining for wear or high temperatures
- ASME coded construction
- Stainless steel or more exotic alloy construction

(continued)
Operation
Particle laden gas enters the cyclone through a tangential inlet, which imparts a vortex motion to the stream causing the removable particulate to concentrate along the wall. The stream (called the descending vortex) spirals down the cyclone barrel toward a bottom cone which opens into an expansion chamber. Particle inertia forces the particulate to the wall of the expansion chamber, while the lighter gas stream forms another vortex (caused by drag) ascending through the center of the descending vortex. The cleaned gas escapes through a tube extending into the center of the main chamber. A tangential outlet removes the cyclonic action of the gas stream.

Applications
Industrial
• Powder coatings
• Plastic fines
• Sawdust
• Chip collection
Iron and Steel
• Sintering
• Pelletizing
• Sand Recovery
Mining and Industrial Minerals
• Crushing plants
• Dryers
• Material handling
• Carbon collection
• Metal powder
• Potash
Consumer Goods
• Tobacco
• Coffee
• Cereals
• Soybean fines
Coal
• Pulverized coal collection
• Chalk
• Coal ash
Pneumatic Conveying
• Product receiving

The MikroPul Difference
MikroPul is unmatched worldwide in our emissions control capabilities and experience in applying the right technologies for a given application. Whether it be a single unit or complete system, we stand ready to meet your needs.

MikroPul backs up our products with worldwide customer support. Our experts and crews can help you select, install, operate, and maximize your equipment investment. Call us anytime you need help.