• Minimal field assembly
• Minimal footprint
• Spinning cyclonic effect on large particles
• High efficiency
• Can be connected to a dust collector
• Ideal for wood, plastic or metal transforming industries
High-Productivity Innovative Products

Cyclone dust collectors

Cyclone dust collectors use centrifugal energy to separate large and medium size particles from the air. The spiraling effect brings those particles toward the bottom of the cyclone and into the dust storage system (drum, canister or other). Clean air is then drawn upward into the inner cylinder and discharged into the atmosphere or into an after filter system for additional filtration efficiency. Clean air can then be recycled back into the facility for maximum energy savings. The narrow footprint of the MAXICLONE allows interior or exterior installation without losing valuable floor space.

A Leading-Edge, High-Performance Company

The AQC Dust manufacturer fabricates a full range of safe, industrial dust collectors, as well as dust and smoke capture equipment and high pressure industrial dampers at the leading edge of air control technologies based on more than 30 years of experience in the field.

AQC’s strength lies in its innovative products designed and developed to generate substantial savings throughout their entire operating life.

AQC is renowned for its technological innovation, safe and sophisticated equipment design, as well as its robust and precise product manufacturing. AQC stands out with its unique design of the baffles inside dust collectors making filter cleaning easy and a cartridge holder design that provides maximum filter surface, which enhances filter performance. The ultra-smooth concept inside AQC fume arms makes them maintenance-free and the durability of the heavy duty industrial dampers exceed expectations.

In short, AQC equipment is designed and built to generate substantial operating savings in terms of time, money and energy. This translates to major reductions in operating costs – from 10 to 20% – throughout the equipment's operating life. This scale of savings can represent a significant portion of the equipment's total purchase price. Companies looking to maximize their profitability should factor in these savings when purchasing equipment.

The unique design and manufacturing of AQC equipment generates significant savings for various reasons:

- Substantial increase in the duration of filters.
- Lower energy consumption during years of use.
- Significantly less maintenance (easy to clean, robust manufacturing, a minimum number of more reliable and durable parts).
- Reduced operating costs (less frequent overhauls, lack of or minimum down time, etc.).
- Lower administrative costs (coordination, follow-ups, supervision) due to much less frequent breakdowns.
- Safe design can prevent serious or even fatal accidents.
- Increased comfort and productivity of personnel.

The acquisition cost is just one part of the equation. It's the total cost including the operating cost throughout the life cycle of the equipment that must be kept low. This is what AQC delivers. The advanced technology, design, robustness, durability and safety of AQC products generate major savings during the equipment's entire life cycle.
TYPICAL APPLICATIONS FOR THE MAXICLONE

For large and medium size particules

- Woodworking industries
- Machine shops
- Metal transforming
- Manufacturing plants
- Bulk and powder collection
- Food or pharmaceutical facilities

DCS-030 model with dust storage drum and multiple after filter

Top mounted fan with transition to after filter

DCS-018 model with dust storage drum and single bag after filter
Cyclone dust collector

OUTSTANDING MAXICLONE FEATURES

- Reinforced structure for fan support
- Heavy duty rolled steel. Welded and bolted.
- Quick release drum latch
- Convenient drum grab handle
- Direct drive top mounted fan
- Extended surface bag filter
- Two (2) drums for maximum dust storage

- Bolted flange inlet
- 3 or 4 legged support structure
- Drum dolly with casters for ease of movement
- Anchor plates with pre drilled holes
- Angled hopper for proper dust discharge
- Two (2) drums for maximum dust discharge

DCS-018
PRINCIPLE OF OPERATION

Particles enter the cyclone through the inlet 1 at high velocity. The internal baffle 2 located after the inlet diverts the particles downward in a helicoidal pattern. The centrifugal force 3 pushes the heavier particles toward the interior walls and the gravity effect brings the particles towards the bottom of the cyclone.

The larger particles are collected in the dust storage system. 4 Clean air is then vacuumed upward 5 toward the inner cylinder 6. The top flange 7 is usually equipped with a blower directing cleaner air to a secondary optional after-filter for fine particle filtration or released into the atmosphere (refer to environmental requirements before selecting this system).

SAFETY RULES AND REQUIREMENTS

The MAXICLONE is an enclosed type dust collector. MAXICLONE dust collectors can be used with different dusts such as wood, metals, composites, chemicals, agricultural or food grade.

It is strongly advised to not mix wood and metal dust or any other different dust mix with the MAXICLONE. Not following this precaution could create a fire or an explosion.

<table>
<thead>
<tr>
<th>Type of dust</th>
<th>F.P.M./meter per second</th>
<th>Type of dust</th>
<th>F.P.M. / meter per second</th>
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<tr>
<td>Metal dust</td>
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<td>Cement dust</td>
<td>4500 / 23</td>
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<td>Sawdust (dry)</td>
<td>4000 / 20</td>
<td>Wood dust</td>
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Note: Specifications listed above may be modified to suit application. Contact AQC or representative for information.
## TECHNICAL DATA

### Dimensions

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<th>in/mm</th>
<th>DCS-10</th>
<th>DCS-12</th>
<th>DCS-15</th>
<th>DCS-19</th>
<th>DCS-24</th>
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<th>DCS-38</th>
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<td>A</td>
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<td>68 / 1727</td>
<td>84 / 2134</td>
<td>105 / 2667</td>
<td>132 / 3353</td>
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<td>B</td>
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<td>11 / 279</td>
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### CHART 2

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<td>CFM @ 2” Delta P</td>
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<td>2408</td>
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<tr>
<td>App Weight (lbs/kg)</td>
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<td>119 / 54</td>
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<td>468 / 212</td>
<td>932 / 422</td>
<td>2094 / 950</td>
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</tbody>
</table>
AFTER-FILTER SYSTEM APPLICATION

High efficiency cyclone dust collectors may still require enhanced filtration for small particles. After-filter systems could be required if the small particles coming out of the cyclone outlet are not allowed to be released into the atmosphere. Environmental, state or local regulations could apply.

After-filter systems dimensions will vary as per the air volume required. Those systems do not have a cleaning operation and filter bags or envelopes need to be replaced occasionally. Filters are clamped to flanges on the tube sheet located at the top of the secondary filter. Bottom of filters may include zippers to empty the contaminants into drums or dust bins. Quantity, diameters and lengths of filter bags vary as per the air volume required.

The inlet is usually located at the top of the secondary by means of ductwork, fine particles travel into the plenum toward the opened section of the filter bags. The bottom of the structure is opened to allow filtered air to be recycled into the premises or to be released into the atmosphere. Front access doors allow visual inspection of the filter bags and replacement.

CONSTRUCTION

The filter cabinet and support structure are made with 11 to 14 gauge steel welded sheet plates and channels. The protection of the metal surface is ensured by an epoxy primer with one coat of air dried polyurethane paint. Cross braces on the rugged support structure and filter cabinet are assembled to resist damages in seismic zone 4.

Note: That in certain cases with high dust concentrations, a shaker type dust collector such as MAXIVIBE could be an interesting option.
YOUR MAXICLONE SPECIFICATIONS

1. Dust collector:
   11 and 14 gauge mild steel epoxy primer coat (4000 hours salt spray test) with one (1) coat of air dried polyurethane paint. Cabinet and support structure (seismic zone 4); cross braces on support structure with pre-drilled holes for floor anchoring; high efficiency cyclonic effect; direct drive TEFC motor with non-sparking impeller for wood dusts or reactive metals; top dirty air inlet; inner cylinder; clean air outlet on top of cyclone with flange for fan mounting; quick-release drum latch; drum or bin for dust storage; drum dolly; angled hopper for proper dust discharge.

2. Model:
   a) DCS-10
   b) DCS-12
   c) DCS-15
   d) DCS-19
   e) DCS-24
   f) DCS-30
   g) DCS-38
   h) DCS-48

3. Blower:
   a) 7.5 HP
   b) 10 HP
   c) 15 HP
   d) 25 HP
   e) 30 HP
   f) 50 HP

4. Fan performance:
   _______CFM@_______" S.P.
   (Ex: 5000 CFM@ 6" S.P.)

5. Voltage:
   a) 115 / 1 / 60
   b) 208 / 3 / 60
   c) 230 / 1 / 60
   d) 460 / 3 / 60
   e) 575 / 3 / 60

6. Dust Storage capacity should be:
   a) 20 gallons bin (25 gallons U.S.)
   b) 45 gallons drum (55 gallons U.S.)
   c) Opened bottom for straight discharge

7. Unit to be equipped with:
   a) NFPA explosion relief
   b) Sprinkler
   c) Abort damper
   d) Blowback damper
   e) Spark detection / extinguishing system
   f) Rotary airlock at bottom of hopper
   g) Slide / blast gates

Note: Specifications listed above may be modified to suit application. Contact AQC or representative for information.

Your AQC representative is:

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