

J.G. SYSTEMS, INCORPORATED

DUST COLLECTOR MODEL MDC-5000/E

This high efficiency unit provides ventilation, as well as, the ability to recovery airborne dust and debris from contained areas during abrasive blasting or dry asbestos abatement operations.

The MDC-5000/E utilizes cartridge filter media to collect the dust and particulate preventing contaminated air from being discharged to atmosphere. A unique cartridge cleaning system, utilizing reverse pulses of compressed air, releases the captured dust from the cartridges allowing operation of the dust collector in excess of 2,000 hours before the cartridges need replacing.

This unit is designed for portable operation and the exhaust fan has been sized to allow satisfactory operation even with long lengths of flexible duct work.

This unit is factory assembled and is supplied with all required electrical controls, wiring and piping so that only a single point connection of electrical power and compressed air is required to operate. All the components of the unit are mounted on casters allowing easy movement by personnel or fork lift. The dust collector can also be furnished mounted to an optional skid or DOT approved trailer. Furthermore, the filter unit is only 30 inches wide allowing it to fit through doorways.

The MDC-5000/E consists of, but is not limited to, the following specific components;

- **EXHAUST FAN** (Class IV) rated for 5,000 CFM @ 16 inches static pressure (W.G.). The exhaust fan utilizes a backwardly inclined impeller, therefore a reduction in total system static pressure will result in increased air flow. The fan is equipped with an outlet damper for balancing the air flow in the ventilation system and is installed on vibration mounts to insure quiet, vibration free operation. The exhaust fan is powered by a 20 horsepower TEFC electric motor (480V/3/60).
- **V-BELT DRIVE** (constant speed) with OSHA approved drive guard.
- **FILTER MEDIA** consists of ten (10) high efficiency "Ultra-Web" cartridges providing a total filter area of 2,260 FT². The cartridges are cleaned by reverse pulses of compressed air which are controlled by a solid-state timing unit (120 VAC) that is adjustable in frequency to correspond to dust loading.
- **MAGNEHELIC PRESSURE GAUGE** (0-20 inch scale) is supplied to indicate the pressure differential across the cartridges.
- **FILTER HOUSING** of 10 gauge welded construction is equipped with a removable access door for cartridge removal/replacement. An access door is also located in the clean air plenum. The tube sheet is fabricated from structurally reinforced 3/16" plate to prevent deformation of the filter housing when transported at highway speeds.
- **HOPPER** of 10 gauge welded construction is equipped with a manually operated screw conveyor for dust removal. The screw conveyor bearings are located outside the hopper and are removable along with the screw flights from one end of the hopper. Screw conveyor outlet is equipped with a quick release seal for dust discharge. The hopper is equipped with one (1) access door.
- **AIR INLETS** Two (2) 12 inch diameter (alternate sizes available) designed for the connection of flexible duct work. The inlets are equipped with expanded metal screens to prevent rags, etc., from entering the hopper.
- **CONTROL PANEL** with circuit breaker disconnect, across-the-line motor starter, control transformer, pushbuttons, pilot lights, etc. mounted in a NEMA 4 (weather tight) enclosure (480V/3/60).

- **CONFIGURATION** The exhaust fan and filter housing will be supplied as two (2) separate units. Each unit shall be equipped with casters for portability. The filter housing shall also be supplied with screw-type stabilizer jacks.
- **SKID** (No charge option) with protective cage, gross weight lifting eyes and fork lift pockets.
- **TRAILER** (Optional) DOT approved, 10,000 pound capacity, with lighting and stabilizer jacks designed for installation of the filter unit and exhaust fan.

TECHNICAL DATA

Electrical Requirement: 480 V/3/60, 50 Amp Service (#10 minimum wire size).	Compressed Air Requirement: 15SCFM @ 90 PSIG Minimum (Clean and dry).
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STANDARD CONFIGURATION

EXHAUST FAN

WIDTH: 4'-0"
LENGTH: 4'-9"
HEIGHT: 5'-3"
WEIGHT: 900#

FILTER UNIT

2'-6"
9'-6"
6'-4"
2.350# (empty)

SKID MOUNTED

WIDTH: 4'-0"
LENGTH: 14'-10"
HEIGHT: 8'-0"
WEIGHT: 4,450# (empty)