

J.G. SYSTEMS, INCORPORATED

DUST COLLECTOR MODEL MDC-D-18000-P

This document describes the components of a primary ventilation/dust collection device used by the industrial painting and asbestos abatement industry. This unit is a portable, self contained, diesel powered device with the capability of capturing and storing for disposal, dust that has become entrained in the ventilation air stream as a result of abrasive blasting or asbestos removal (dry) in enclosed, contained areas

The MDC-D-18000-P 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.

The MDC-D-18000-P consists of, but is not limited to, the following specific components;

- **FILTER HOUSING** constructed of 10 gauge HR welded steel with four (4) access doors for filter inspection and removal and one (1) door for access to the clean air plenum.
- **HOPPER** constructed of 3/16" welded steel for the collection of the captured dust. The hopper is equipped with three (3) manually operated screw conveyors to discharge the collected dust. The hopper is equipped with two (2) access doors, as well as, an expanded metal screen to prevent rags, etc. that may become entrained in the ventilation air stream from entering the hopper.
- **FILTER MEDIA** consists of thirty-two (32) high efficiency "Ultra-Web" cartridges providing a total filter area of 7,232 FT². The cartridges provide filtration efficiency greater than 99.99% for particle diameters in the range of .5 to 10 microns.
- **CARTRIDGE CLEANING SYSTEM** utilizing solenoid valves and pulses of compressed air controlled by a solid-state timing mechanism that is adjustable in frequency to correspond to dust loading. A magnehelic pressure gauge is supplied to indicate the pressure differential across the cartridges.
- **EXHAUST FAN** utilizing a backwardly inclined impeller with a capacity of 18,000 CFM @ 18 inches static pressure (WG). The fan is of Class IV construction and is equipped with an outlet damper for balancing the air flow in the ventilation system.
- **DIESEL POWER UNIT** consisting of a four (4) cylinder Deutz air-cooled engine. This unit is furnished with a manually operated clutch and V-belt drive to operate the exhaust fan. The engine RPM indicates the fan speed. A 100 gallon fuel tank and truck-type battery are furnished to support the engine. The fuel tank, battery and engine are located in a locking compartment to prevent vandalism.
- **AIR INLET CONNECTIONS** consisting of two (2) 18 inch diameter inlets designed for the connection of flexible duct work.
- **TANDEM-AXLE TRAILER** with 20,000# GVWR to serve as a common mounting platform for the components described above. The trailer is constructed in accordance with DOT requirements and is furnished with electric brakes and a lynette-eye type drawbar. Alternate trailer configurations and braking systems are available as options.

Height: 12'-0"
Width: 8'-0"
Length: 24'-0"

Operating Voltage: 12 VDC
Empty Weight: 15,000#
Compressed Air Inlet
Connection: 1" FPT