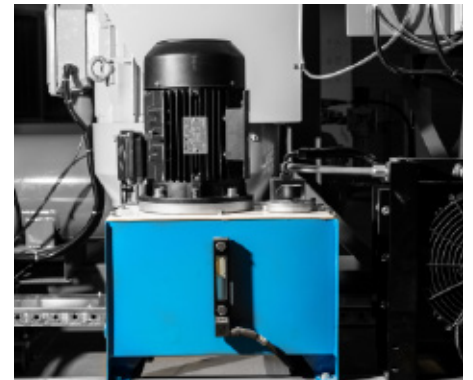
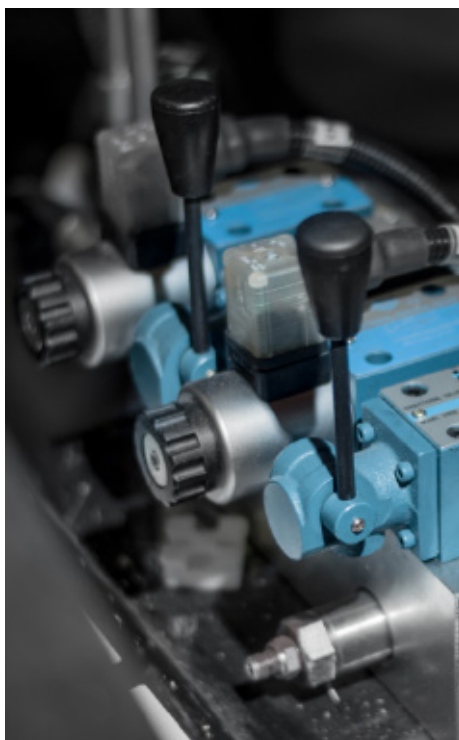


JMS-10-MEC

Mobile Electric Castor Wheel Dust Collector





Grydale

Original Equipment Manufacturer (OEM) of fixed and mobile dust collection equipment

Experts in Dust Control. Grydale

Our team has over 15 years' experience designing and manufacturing industrial dust collection and extraction solutions.

We add value through a total service offering, providing ventilation design, manufacture, implementation, ongoing project management and on-site maintenance and technical support.

Our expertise includes:

- Ventilation and dust control design
- Mobile dust collectors for source extraction
- Fixed unit dust collection solutions
- Manufacture of large volume ventilation fans

Market demand for dust control solutions is increasing globally, with Health and Safety experts focused on increasing dust control regulations to protect workers from potentially hazardous consequences.

We work with our clients to maintain compliance with workplace health and safety regulations while reducing cost, increasing efficiency and limiting downtime.

JMS M-Series. Mobile Dust Collectors

Grydale JMS M-Series dust collectors are complete dust collection systems that feature a centrifugal exhaust fan, dirty air intake, patented drop-out box, high efficiency filters, reverse pulse filter cleaning system, dust discharge system, clean air exhaust and fan silencer. All components are mounted on a single mobile base to create 6m³/s to 60m³/s of air flow.

The JMS M-Series is a full range of mobile dust collection units. Units are available powered by diesel, electric or hybrid systems. A full range of mobility options are available including the internationally patented track mounted units, hydraulic stepping systems, drag skids, trailer mounted and castor wheel units.

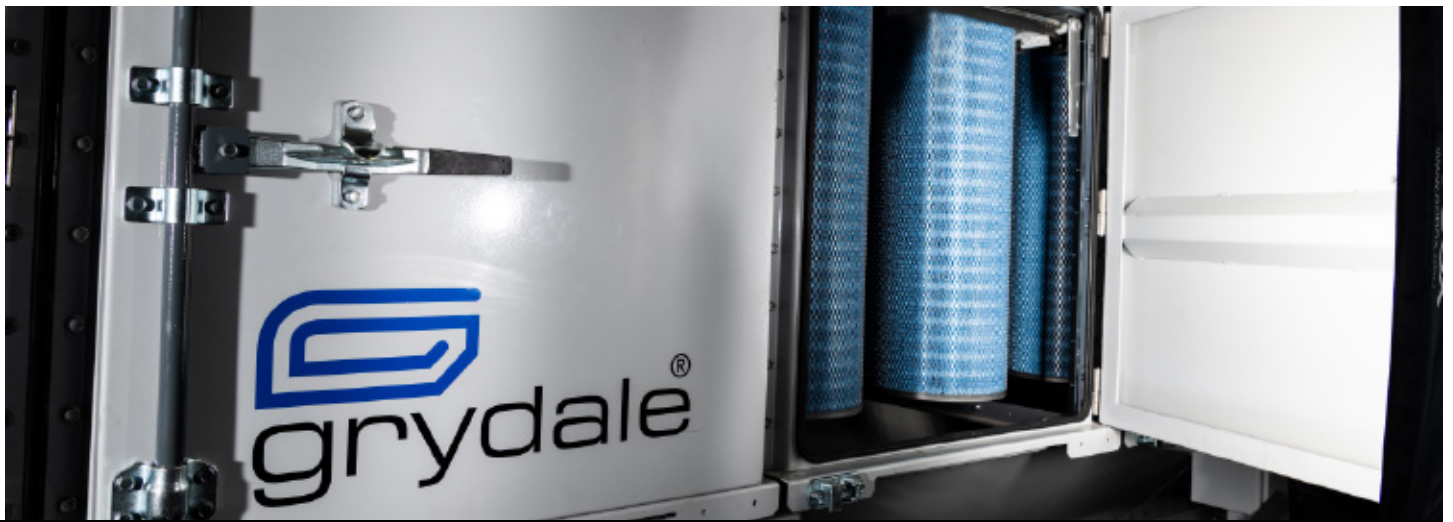
Units feature our proprietary technology that sets the units apart as pioneering dust collection solutions.

Mobility combined with compact integrated design provides significant advantages on construction sites.

Industries we serve



Grydale mobile dust collection units are being used to manage dust and fume exposures within a wide range of industries.



JMS-10-MEC

Designed for tunnel cross passage construction and sites with restricted access

Overview

The **JMS-10-MEC** (Mobile, Electric, Castor Wheel) is a complete dust collection system mounted on a compact, castor wheel base. It features a 55kW centrifugal exhaust fan to create 20,000CFM @ 12iwg (10m³/s @ -3kPa).

Mobility

When units need to be repositioned there is limited downtime in construction works as the complete unit can be moved easily using one of the two available options:

- **Sliding** – the dust collector features compressed rigid castor wheels to allow ease of movement.
- **Lifting** – the dust collector also has four designated lifting lugs at each corner of the machine allowing the units to be lifted into position.

Power

The **JMS-10-MEC** uses 380-480V to power the centrifugal exhaust fan, whilst hydraulics are used to power the auger and rotary valve discharge system.

The standard configuration for the **JMS-10-MEC** includes a Variable Speed Drive (VSD). The VSD is used in conjunction with a high precision Air Velocity Probe to minimize the power needed to achieve the air volume required. This makes the units power efficient and allows projects to reduce their power consumption by up to 40%.

Air Intake

Flexible couplings allow the 800mm Ø dirty air intake to connect effectively to ducting on uneven surfaces.

Filters

12 high efficiency filter cartridges provide filtration of both dust and diesel particulates. Baffle plates distribute air throughout the dust collector ensuring an even wear of filters.

Filtration Efficiency

Independent, certified air flow performance and filtration testing has been conducted both above and below ground as part of rigorous performance verification and certification processes and shows a collection efficiency of 99.99% at 0.067 micron.

Filter Maintenance

The filters can be easily accessed through the two filter access doors to allow efficient filter maintenance to maximize machine up-times.

Changing the filters at the optimum time ensures the dust collector does not draw more kW than required to maintain air flows.



Key Features

Certified air flow performance and filtration tested

Reverse Pulse Cleaning System

The **JMS-10-MEC** is connected to an on-site compressor to provide air for the on-board reverse pulse filter cleaning system, using the plant air receiver tank and attachment kit fitted to the unit.

Jet tubes direct air inside the filters which blasts air from the inside of each filter, effectively removing dust build-up and prevents the filters from clogging. The adjustable timer allows the pressure and frequency of pulse cleaning to be set to the application and dust loading. This reduces the number of filter changes required.

Configuration option: There is an option to include an on-board compressor if plant air is not readily available.

Centrifugal Fan

Centrifugal fans offer superior energy efficiency and enhanced durability, allowing them to operate in even the most corrosive environments. The standard configuration for the **JMS-10-MEC** features a 74hp (55kW) centrifugal fan to provide 20,000CFM @ 12iwg (10m³/s at -3kPa) using one motor and one impellor to develop system pressure.

Configuration option: Alternative centrifugal fans can be utilised to optimize air volume and pressure to suit site conditions and specific applications.

Fan Silencer

Exhausted air passes through silencers to reduce noise pollution. Units can be supplied with a square to round attachment allowing a vent bag to be attached to the exhaust side if required.

Configuration option: Custom exhaust silencers can be designed and manufactured to meet site acoustic requirements.

Dust Discharge System

The standard configuration for the **JMS-10-MEC** includes a hydraulic reversible incline auger and stainless steel rotary valve dust discharge system. The incline auger discharges dust particles to a 1T bulker bag.

The use of hydraulics to power the augers and rotary valves maximizes their efficiency, whilst the ability to reverse the augers and force material through clean-out hatches is key to increasing up-time in the event of product build-up in the hopper and auger. This reduces the maintenance effort and the requirement to have Low Voltage (LV) and High Voltage (HV) electricians servicing a mechanical component.

Configuration options: There are alternative dust discharge configurations if required to meet space restrictions on site:

- **Front facing auger** to discharge product to the site floor.
- **Side incline auger** if there are length space constraints.



Key Features

Sophisticated instrumentation combined with CANbus technology

Programmable Logic Computer (PLC) with HMI Interface

A simple one button start-up and shut-down sequence starts and stops all critical components in a programmed order which increases the efficiency of the unit and provides additional safety for workers.

A 7" button dashboard display facilitates ease of operation. On-screen instructions and warnings display error codes which provide a powerful diagnostic tool to support service and maintenance staff.

Optional Upgrade: 12" touch screen display.

CANbus System

The CANbus system enhances the speed, flexibility, and reliability in communication along with supporting effective troubleshooting and maintenance from offsite. The system retains key alarm logs so that system performance and troubleshooting can be undertaken as required.

Air Flow Meter

The air flow meter monitors the air flow from the exhaust, to help dynamically control the VSD.

RealTime Emissions Monitoring

Real time particle detectors examine emissions coming out of the clean air exhaust and can be tuned to meet the requirements of any given site. The unit can be programmed to alarm when levels are being approached and exceeded.

Static and Differential Pressure Gauges

The static pressure monitor alerts the operator if it is necessary to turn the system volume up due to a long duct run or if there is a blockage in the ducting. The differential pressure monitor alerts the operator if filters are blocked or if there are higher than normal dust loads.

Safety Features

Grydale JMS M-Series dust collectors offer a number of features that focus on maximizing the health and safety of workers along with providing a safe working environment by controlling dust and fumes.

Emergency Stop System

Two emergency stop buttons are located on the front and rear of the **JMS-10-MEC**.

Operation and Maintenance Lights

Operational and maintenance lights have been fitted in key locations on the unit giving operators and maintenance workers clear visibility of components and/or to illuminate working spaces.

Technical Specification

JMS-10-MEC Mobile, Electric, Castor Wheel dust collector

Overview	
Power	380-480V Electric
Variable Speed Drive	74hp IP54 3 Phase VSD
Mobility	4 x Castor Wheels (1.8T Capacity Each) Plus: 4 x Lifting Lugs, 4 x Rigging Mounts
Fabrication	0.12" and 0.20" (3mm and 5mm) Mild Steel International Two Pack Paint
Air Intake Ø	1 x 23.6" (800mm) Ø
Filter Technical Data	
Air Volume	20,000CFM (10m ³ /s)
Number of High Efficiency Filters	18
Filter Cleaning Efficiency	99.99% at 0.067 micron
Total Filter Surface Area	5, 425ft (504m ²)
Filter Temperature Limit	179.6°F (82°)
Method of Changing Filters	Via 2 Filter Doors
Estimate Filter Change Time	Two Technicians x 1hr
Centrifugal Fan	
Maximum Pressure Drop Across Filters	12iwg (-3kPa) *
Electric Motor	74hp (55kW)-2P
Hydraulic Motor	4kW
Variable Air Flow Control	Yes
Fan Silencer	Yes
Exhaust Outlet Ø	800mm Ø
Reverse Pulse Cleaning System	
Reverse Pulse Cleaning Solenoids	4
Filter Pulse Cleaning System	Plant Air Receiver Tank (180L) and Attachment Kit
Adjustable Pressure and Frequency Rate	Yes
Auto Drains	Yes
Dust Discharge System	
Main Screw Conveyor Auger	1
Incline Screw Conveyor Auger	1- with swivel connection Option: Front / Side Incline Auger
Stainless Steel Rotary Valves	1

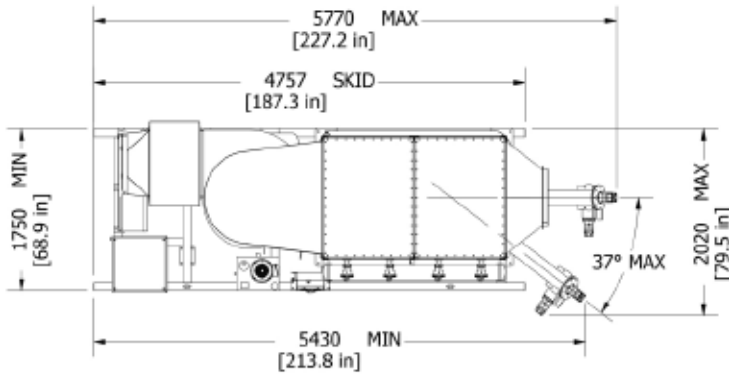


Instrumentation	
PLC	Yes
HMI	7" Touch Button Display Optional Upgrade: 12" Touch Screen Display
Control System	CANBus
Static and Differential Pressure Gauges	Yes
Velocity Probe	Yes
Emissions Monitoring Probe	Yes - 24V
Electrical System and Wiring	
Single Cubicle for Power Distribution and Control	Yes
Complies to AU / NZ / EU / CE Standards	Yes
Double Door Enclosure	800x800x300 IP 65 1.5mm
Receptacle	250 AMP
Starter and Protection	1 x 55kW VFD
Control Wiring and Relays	24VDC
Safety Features	
Isolator	Mains Isolator
Emergency Stops	2
Operation and Maintenance Lights and Alarms	Yes
Amber Rotating Beacons	2

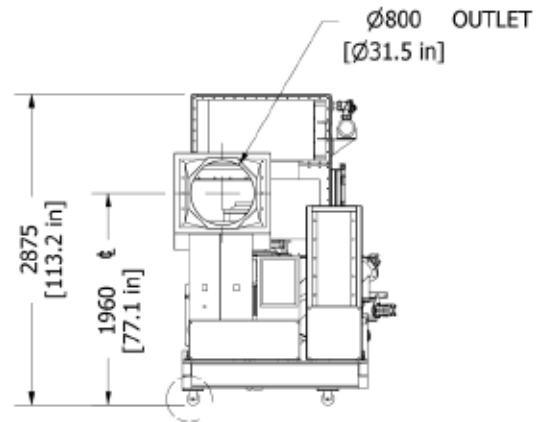
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Technical Specification

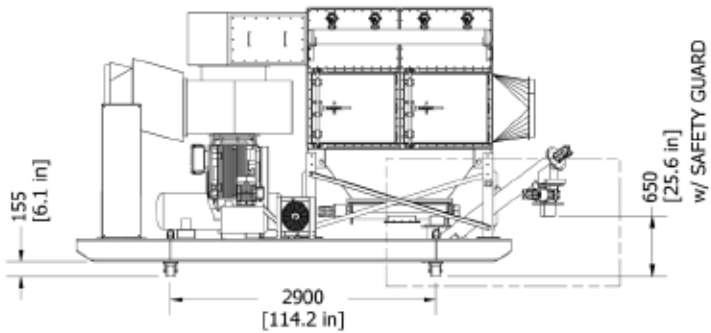
JMS-10-MEC Mobile, Electric, Castor Wheel dust collector



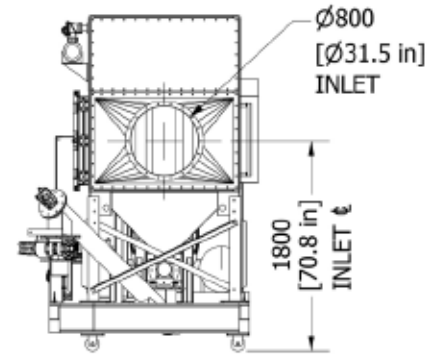
TOP VIEW



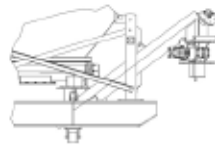
LEFT VIEW



FRONT VIEW



RIGHT VIEW



DUST DISCHARGE SYSTEM



CASTOR WHEEL

DETAIL 2
SCALE 1:10

Key Dimensions	
Maximum Height	113.2" (2,875mm)
Maximum Width	68.9" (1,750mm) skid 79.5" (2,020mm) with rear discharge auger
Maximum Length	1987.3" (5,430mm) with rear side discharge auger 2272" (5,770mm) (with rear discharge auger)
Mass	4.8 T

Grydale. Experts in Dust Control

Our team has over 15 years' experience designing and manufacturing industrial dust collection and extraction solutions.

We focus on adding value through a total service offering, providing ventilation design, manufacture, implementation, ongoing project management and on-site maintenance and technical support.

Contact us for more information.

info@grydaleusa.com

+1 888 479 3253

JMS 10 M-Series. Product Range

10m³/s air volume, available as:

- **JMS-10-MDT** - Mobile, Diesel, Track dust collector
- **JMS-10-MDS** - Mobile, Diesel, Skid dust collector
- **JMS-10-MES** - Mobile, Electric, Skid dust collector



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