

Model 500 Mine Air Systems Technical Data

Performance benefits

- Provides quality air
- Silica dust and diesel emission packages (optional)
- Precise, automatic air temperature and pressurization comfort
- Modular design for unmatched changeout speed and convenience
- Unique weather-sealed roofplate eliminates dust and water leaks into the cab
- Stainless steel construction with a trapezoidal structural design, permitting thin gauge, high tensile metal to reduce weight
- Designed for maintenance ease
- Designed specifically for ozone friendly R134A refrigerant
- Top efficiency throw-away air filters to suit each application
- Industrial-sized super efficient filter-pressurizer with air pre-cleaner
- Electric, belt driven or hydraulic drive Bock compressor with pressure lubrication and suction gas cooling (optional)

P&H brand Mine Air systems provides appreciable improved air conditioning, heating, filterization and pressurization comforts to the operator's cab. The advanced Mine Air systems climate control technology sustains ultimate operator comfort and efficiency by maintaining precise, automatic air temperature and a regulated, filtered air flow.

The system will control climate condition of operator cabs of any type or make of mobile surface mining machines – from haul trucks to front end loaders – and is manufactured and distributed worldwide by Komatsu.

Through modular design, an entire Mine Air systems unit can be changed out in just 25 minutes. Individual electrical and control modules can be replaced in as little as 10 minutes without special tools. Maintenance also is simplified.

This Mine Air systems unit is for DC applications with a 762 mm x 1016 mm (30x40 inch) footprint. It is durably constructed of high tensile stainless steel and offers a variety of mounts.



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Applications

The Mine Air systems model 500 unit is a complete operating system with the exception of the refrigerant compressor. It is ideal for rubber tired or tracked mobile vehicles.

Additional considerations:

- Remote compressor/drive
 - Engine driven flywheel/auxiliary
 - Electric motor driven
 - Hydraulic motor driven

- Refrigerant and heater hoses
- Heating is by engine glycol, or hot engine/hydraulic oil
- Installation expertise required:
 - Heavy duty mechanic
 - Welder
 - Automotive type air conditioning experience
- Power requirement 30 amp, 24 VDC

Components/options

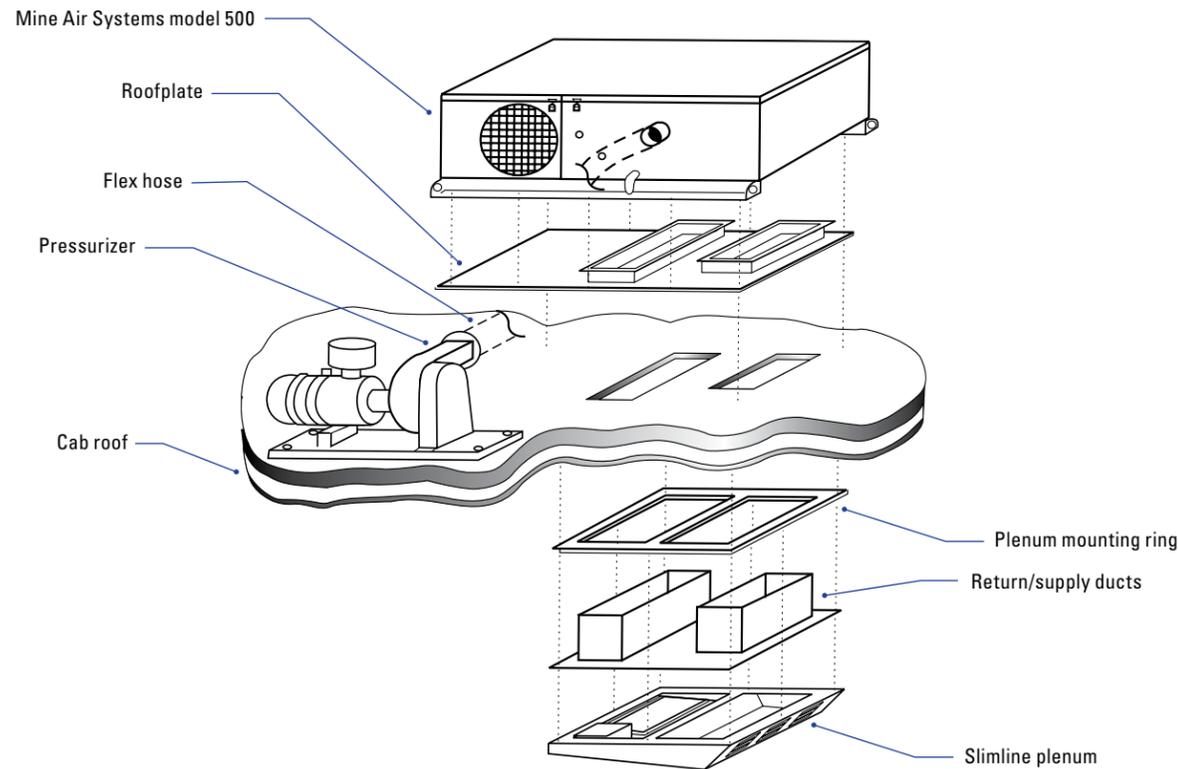
The following are components/options available on the Mine Air systems model 500 unit:

- Filter - pressurizer with air pre-cleaner
- Silica dust and diesel emission packages
- Side wall mounting kit
- Cooling only unit
- External mounted compressor

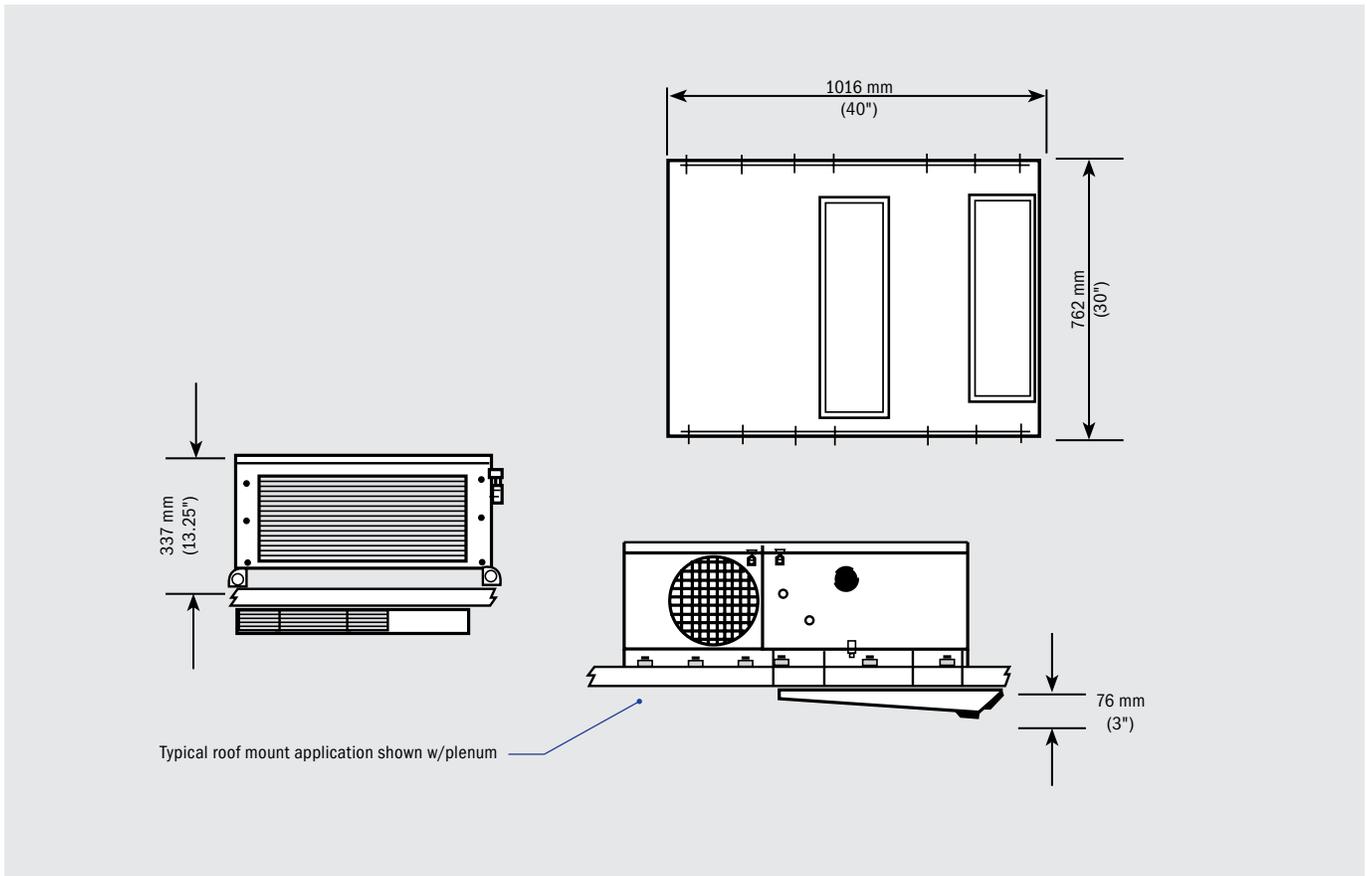
Technical characteristics

Feature	Specification	Feature	Specification
Description	Roof, side-wall, or rear-wall climate control system with optional remote mounted dedicated blower pressurizer.	Exchangability (modularity)	Complete system - 25 minutes Electrical module - 10 minutes Control module - 10 minutes
Electrical	24 volt DC at maximum 80 amp	Cooling capacity	9,300 Btu/hr @ 27°C (80°F) DB/55°F WB Return air, 49°C (120°F) ambient
Recirculated airflow	High speed - 593 cfm Medium speed - 490 cfm Low speed - 360 cfm	Capacity control	Thermostatic control of compressor clutch, hot gas bypass valve, externally equalized thermostatic expansion valve.
Compressor	Optional	Compressor oil	PVE oil
Refrigerant	R-134A	Heating capacity	22,500 Btu/hr @ 82°C (180°F) glycol entering, 5gpm, flow modulated through automatic cycling solenoid valve.
Pressurization	100 cfm, self-cleaning pre-cleaner Maintainable second stage filter cup Donaldson radial seal disposable filter element (no fasteners).	Control	Electronic temperature modulation. Fan speed selector control. Independent pressurizer control. Function LEDs to indicate correct operation. Cooling mode/heating mode switch. Thermostatic control of cooling functions.
Filters	Disposable 65% efficient in-cab filter. Custom filter plenums from 65% to Merv is available upon request	Construction	Cases-16 gauge 316 stainless steel, polished finish. Coils-copper tube/copper fin-8 fins/in.
Physical size	1016 mm long x 762 mm wide x 337 mm high (40" long, 30" wide, 13.5" high)	Weight	98 kg (215 lbs)

Model 500 installation (roof mount application shown)



Model 500 dimensions



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