

## Model 1000 Mine Air Systems Technical Data

### Performance benefits

- Rugged design specifically engineered for surface mining applications
- Modular design for unmatched changeout speed and convenience
- Unique weather-sealed roofplate eliminates dust and water leaks into the cab and electrical room
- Stainless steel construction
- Designed for maintenance ease
- Designed specifically for ozone friendly R134A refrigerant
- High efficiency air filters to suit each application
- Industrial-sized super efficient filter-pressurizer with air pre-cleaner
- Smooth and quiet scroll technology compressor

P&H brand Mine Air Systems (MAS) climate control units provide air conditioning, heating, filtration and pressurization comforts to the operator's cab. Advanced MAS climate control technology sustains ultimate operator comfort and efficiency by automatically maintaining an even floor-to-roof temperature and a regulated, filtered air flow.

The MAS model 1000 will control climate condition of operator cabs and electrical rooms on electric mining shovels, drills and draglines – and is manufactured and distributed worldwide by Komatsu.

Through modular design, an entire unit can be changed out in just 60 minutes. Individual electrical and control modules can be replaced in as little as ten minutes with no special tools. Maintenance is also simplified.



For more information, contact  
a local Komatsu Mining  
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**Applications**

The MAS model 1000 unit is a complete operating system requiring only a power supply to function. Ideal applications include shovels, drills and draglines. The unit can be deck or roof mounted.

Additional considerations:

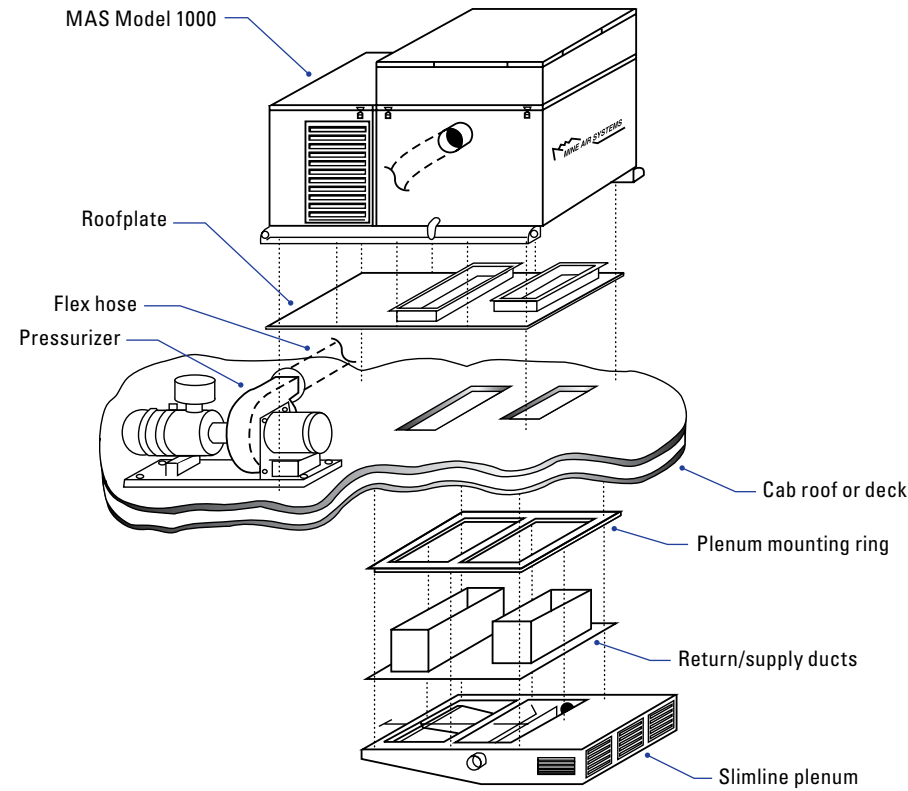
- Installation expertise required:
  - Electrician
  - Welder
  - Mechanic
  - Air conditioning experience
- Power requirement 30 amp:
  - 480/3/60 AC or
  - 380/3/50 AC (see specs.)

**Components/options**

The following are components/options available on the MAS model 1000 unit:

- Filter – pressurizer with air pre-cleaner
- Silica dust and diesel emission packages
- Cooling only option

**Model 1000 installation** (roof mount application shown)

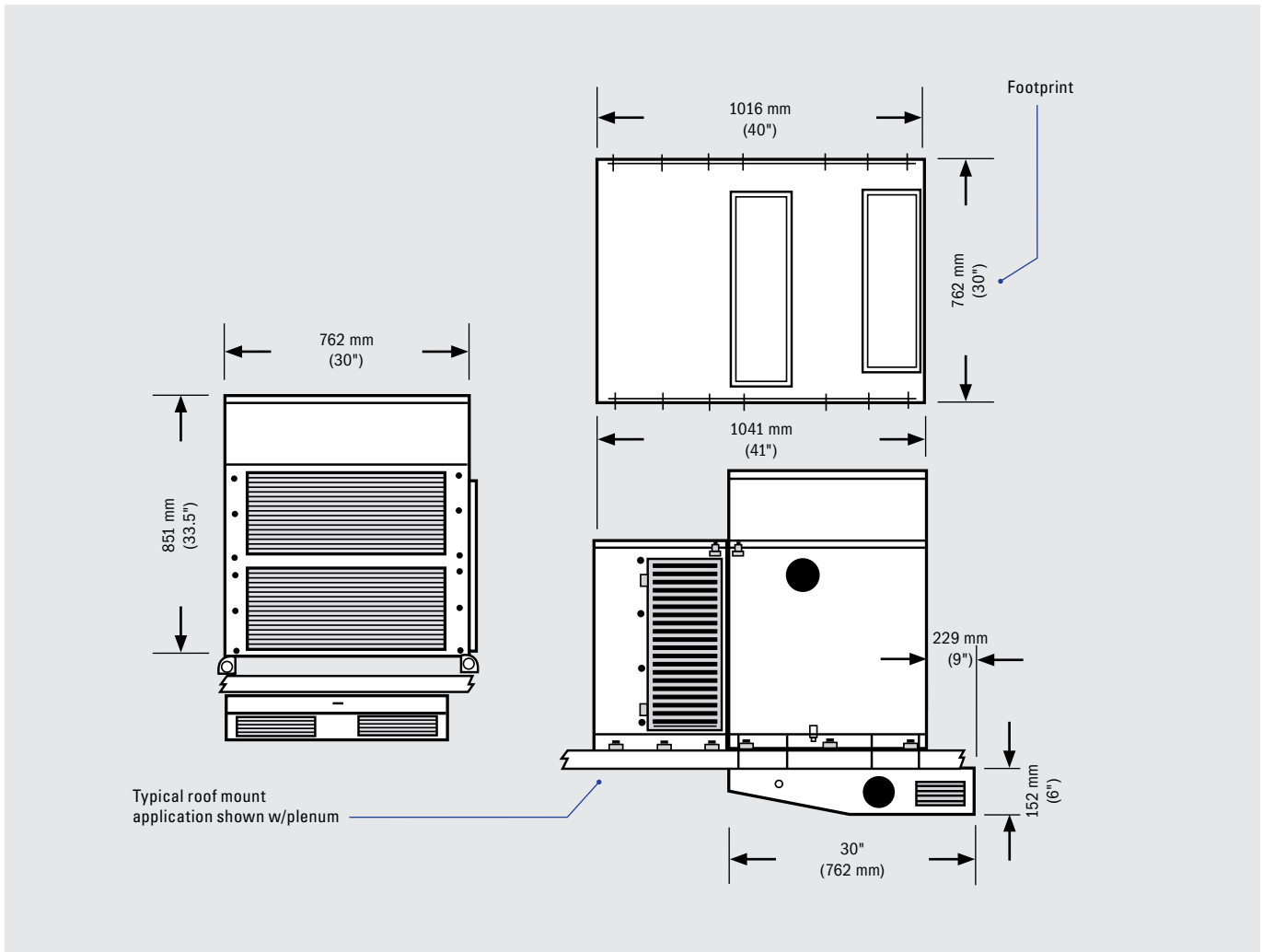


**Technical Characteristics**

Feature	Specification
Description	Roof or beside-the-cab mounted climate control system with optional remote mounted dedicated fresh air pressurizer
Electrical	460 VAC, 3 Phase, 60 Cycle 380 VAC, 3 Phase, 50 Cycle
Recirculated airflow	High speed - 1000 cfm Low speed - 650 cfm 1 x 250 mm EC blower
Safety controls	Field replaceable without refrigerant loss Digitally monitored low and high pressure
Compressor ROHS	Compliant scroll, hermetically sealed
Refrigerant	R-134A
Pressurization	170 cfm @ 60 Cycle with clean filter, 20% reduction at change interval Self-cleaning pre-cleaner Maintainable second stage filter cup Donaldson radial seal disposable filter element (no fasteners). Cast aluminum, high speed impeller, operating range 178 mm (7") w.c.
Filters	Disposable 65% efficient in-cab filter in standard plenum configurations Custom filter plenums from 65% (Hepa 99% @ .1 micron*) to suit individual requirements *By special order only
Physical size	41" long, 30" wide, 33.5" high (1041 mm x 762 mm x 851 mm)

Feature	Specification
Exchangability (modularity)	Complete system – 60 minutes Electrical module – 20 minutes Control module – 10 minutes
Switch gear	High quality contactors and thermal overloads all circuits Safety contactor, fuses, auto-reset, and main reset limits-heaters Fused disconnects main, heater, control circuits
Cooling capacity	30,000 Btu/hr @ 75°F DB/65°F WB
Capacity control	Low load idle (hot gas bypass) valve Externally equalized thermostatic expansion valve
Compressor oil	Polyolester (POE)
Heating capacity	11.4kW at 480 VAC/380 VAC Fully proportional control from 0 to 100% of capacity (stageless)
Control	Standard Electric Controller (SEC – analog control) Mine Logic Controller (MLC) digital control
Construction	Cases 16 gauge 316 stainless steel, polished finish Coils copper tube/copper fin-8 fins/in
Weight	327 kg (720 lbs)

**Model 1000 dimensions**



**Komatsu Mining Corp. Group**

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