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.

### 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

For more information, contact a local Komatsu Mining representative or visit mining.komatsu
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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Roof or beside-the-cab mounted climate control system with optional remote mounted dedicated fresh air pressurizer</td>
</tr>
<tr>
<td>Electrical</td>
<td>480 VAC, 3 Phase, 60 Cycle</td>
</tr>
<tr>
<td></td>
<td>380 VAC, 3 Phase, 50 Cycle</td>
</tr>
<tr>
<td>Recirculated airflow</td>
<td>High speed - 1000 cfm</td>
</tr>
<tr>
<td></td>
<td>Low speed - 650 cfm</td>
</tr>
<tr>
<td>Safety controls</td>
<td>Field replaceable without refrigerant loss</td>
</tr>
<tr>
<td></td>
<td>Digitally monitored low and high pressure</td>
</tr>
<tr>
<td>Compressor ROHS</td>
<td>Compliant scroll, hermetically sealed</td>
</tr>
<tr>
<td>Refrigerant</td>
<td>R-134A</td>
</tr>
<tr>
<td>Pressurization</td>
<td>170 cfm @ 60 Cycle with clean filter, 20% reduction at change interval</td>
</tr>
<tr>
<td></td>
<td>Self-cleaning pre-cleaner</td>
</tr>
<tr>
<td></td>
<td>Maintainable second stage filter cup</td>
</tr>
<tr>
<td></td>
<td>Donaldson radial seal disposable filter element (no fasteners). Cast aluminum, high speed impeller, operating range 178 mm (7”) w.c.</td>
</tr>
<tr>
<td>Filters</td>
<td>Disposable 65% efficient in-cab filter in standard plenum configurations</td>
</tr>
<tr>
<td></td>
<td>Custom filter plenums from 65% (Hepa 99% @ 0.3 micron) to suit individual requirements</td>
</tr>
<tr>
<td>Weight</td>
<td>327 kg (720 lbs)</td>
</tr>
</tbody>
</table>

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

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

Safety controls
- Field replaceable without refrigerant loss
- Digitally monitored low and high pressure

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