

HARSH-DUTY INDUSTRIAL AIR CONDITIONERS

Designed and built specifically for extreme environments

Corrosive, Dusty, Hot, Humid, Vibrating and Hazardous (Explosive)

Configurations for All Applications: Roof-Mount Through-the-Wall (Window) Ductless-Split Vertical (Wall-Hung) Interior (Container) Mobile (Spot)



WHEN THE GOING GETS TOUGH, ACC KEEPS YOU GOING! These air conditioners are not ordinary commercial models modified for industrial conditions –

We Design and Build Them from Scratch to Last!

Aero Condtioner Company, LLC

1521 US Route 9W, Building 4C/D | Selkirk, NY 12158 Phone: +1 (518) 635-4169 | Marketing@AeroConditioner.com www.AeroCondtioner.com

OVERVIEW

Aero Conditioner Company, LLC designs and manufactures harsh-duty industrial and military air conditioners for severe industrial, marine and military conditions. Aero focuses on corrosive, dusty, hot (and cold), humid, hazardous (explosive), and other extreme environments.

Aero designs and builds stainless-steel airconditioners. Models in all configurations range in capacity from under 1 ton (12,000 BTU/H) to 10 tons (120,000 BTU/H). Every unit can cool in outdoor temperatures from low-ambient conditions (as low as -40°C/F as an option) to 145°F (63°C)—even throughthe-wall (window) units. All have corrosionprotected condenser and evaporator coils with ten or fewer fins per inch to avoid clogging with dust.

Aero offers two lines that are otherwise equal: **A-Line** maintains its full rated cooling capacity at ambient temperatures of up to 131°F (55°C) and high altitudes—and up to 145°F (63°C) as an option and the **L-Line** can go up to 110°F (43°C) and medium altitudes. These same lines will continue to cool under low-ambient conditions (40°F/5°C) when the sun or equipment is heating the conditioned space and other air conditioners would have stopped cooling—as low as -40°C/F, if necessary.

Most important to many users: Aero uses only mechanical controls to avoid sensitive electronics that often fail and require expensive repair or replacement.

By making its units with efficient, heavy-duty compressors, coils and other components and designing them to function at full rated capacity not just in a pristine test lab under ideal conditions but even in dusty and harsh conditions that greatly reduce the energy



Rock-Processing Plant

efficiencies of most other kinds of air conditioners, Aero produces some of the most energy efficient, green air conditioners on the market!

FEATURES

Aero designs and builds all of its industrial air conditioners specifically for harsh and severe conditions. As a result, all units have several features to make them more reliable and durable than light-industrial and commercial-grade air conditioning units in dusty, hazardous, corrosive, humid, hot, cold, and other difficult, extreme environments.

...Aero designs and builds only tough industrial air conditioners, even if we make them "explosion proof"...

CUSTOMERS



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TOUGH STANDARD FEATURES FROM AERO

 Mechanical controls only – eliminate vulnerability of electronics and their high cost to repair

• To resist corrosion, cabinets, including all internal parts, made of stainless-steel-up to 12 gauge

• To prevent clogging of condensers and evaporators by spacing their fins widely to allow dust and sand to pass through (10 or fewer fins per inch)

• Corrosion protection on every condenser and evaporator provided by electrostaticallyapplied and baked-on epoxy (e-coating)

• Full cooling capacity rated at 131°F (55°C) – not just up to the normal 95°F (35°C) – and down to 32°F (0°C) without modification (down to -40°F/C as an option, even through-the-wall models)

• Power, energy efficiency and reduced noise provided by heavy-duty backwardly-inclined corrosion-resistant blower wheels

• To protect controls, all housed in IP66/ NEMA 4X boxes

• Overall, units meet NEMA 4X and IP56 standards (and when necessary, NEMA 7)

• Maintenance facilitated by easily-removed insert on slide-in tray, high and low-pressure cutouts, head-pressure controls, redundant refrigerant access valves, and receivers

... Stainless steel cabinets and corrosionprotected coils with widely-spaced fins to allow dust to pass through without clogging make AERO units extremely corrosion and dust-resistant...



NEC Class II Division 1 Unit Cooling and Heating at Coke Processing Plant



Underground Control Room



Division/Zone 1 Insert

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ADDITIONAL OPTIONS

• Built-in 2.5KW-10KW electrical-resistant heat provided by integral, corrosion-resistant incoloy tubular elements suitable for ordinary and hazardous environments.

 Most electrical configurations, 60Hz or 50Hz.

• All models can be made suitable for hazardous locations classified as NEC Class I Groups B, C, or D, Class II Groups E, F, or G, or Class III, Divisions/Zones 1 or 2, and equivalent IECEx/ATEX. (All hazardous duty units are made to the same rugged standards as units for non-explosive environments.)

• Hazardous-duty ("explosion-proof" and "flame-proof") units comply with the T4 or T3B temperature standards (even with optional incoloy tubular heating elements included) and the with the AMCA C antispark standard.

• Adaptation for vibration and other movements for use on vehicles (cranes, workboats, mining equipment, locomotives and military vehicles) and other applications with vibration or other types of movement.

• Powder-coat painting for military or other special applications.

• All models have dry contacts for control circuit to enable controls to be installed anywhere, even remotely. Option: mount mechanical thermostat with stainless steel capillary tube and other switches on air conditioner of instead of standard dry contacts.

• Thermostats isolated so that only authorized personnel can access and adjust them.

WHO NEEDS HARSH-DUTY INDUSTRIAL AIR CONDITIONERS?

- Alcohol and Extract Plants
- Bakeries and Grain Elevators
- Barges and Ships
- Cement and Lime Plants
- Chemical and Gas Plants
- Coal and Coke Plants
- Corn Processing Plants
- Cranes, Draglines, and Pay loaders
- Distilleries and Breweries
- Explosives and Munitions Manufacturers
- Guard Booths and Towers
- Dry-cleaning and Dyeing Plants
- Electric and Steam Plants
- Fertilizer Plants
- Grain Elevators
- Hospitals
- Laboratories
- Locomotives
- Land Fills and Recycling Plants
- Marine Facilities, Onshore and Offshore
- Military Vehicles
- Mines and Mining Equipment
- Munitions Storage
- Nuclear Power Plants
- Offshore Oil Terminals and Platforms
- Oil Refineries and Petrochemical Plants
- Paint Booths
- Paper, Pulp and Plywood Plants
- Ship Yards and Dry Docks
- Ships, Civilian and Military
- Steel and Aluminum Mills and Foundries
- Toll Booths and Tunnels
- Tunneling Equipment
- Waste-Treatment and Sewer Plants



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