



# AERO

**CONDITIONER COMPANY, LLC.**

*HARSH-DUTY INDUSTRIAL AIR CONDITIONERS*

**Designed and built specifically for extreme environments:**

Corrosive, Dusty, Hot, Humid,  
Vibrating and Hazardous  
(Explosive)  
Full rated cooling capacity up to  
145°F (55°C)

**Hazardous-Duty Units for gases, dusts & flyings**

Class I Groups A, B, C & D  
Class II Groups E, F & G  
Class III  
Division/Zone 1 and 2 for all the above

**Only Mechanical Controls - No Fragile Electronics**

**Six Configurations for All Applications:**

Roof-Mount  
Through-the-Wall (Window)  
Ductless-Split  
Vertical (Wall-Hung)  
Interior (Container)  
Mobile (Spot)



**WHEN THE GOING GETS TOUGH, AERO 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 Conditioner Company, LLC.**

# OVERVIEW

Aero Conditioner Company, LLC designs and manufactures harsh-duty industrial and military air conditioners only 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 air-conditioners. Models in all six 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 through-the-wall (window) units. All have corrosion-protected condenser and evaporator coils with ten or fewer fins per inch to avoid clogging with dust.

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

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.



Rock-Processing Plant



Underground Control Room

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 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.



United States Steel



SIEMENS ENERGY



EASTMAN

# TOUGH STANDARD FEATURES FROM AERO

- Mechanical controls only – eliminate vulnerability of electronics, their high cost to repair and need for often hard-to-obtain parts.
- 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 electrostatically-applied 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

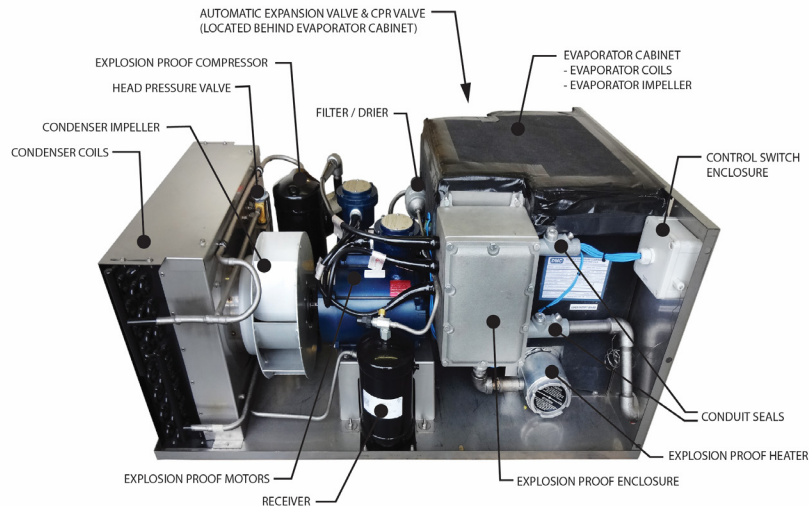


*NEC Class II Division 1 Unit Cooling and Heating at Coke Processing Plant*

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



*Division/Zone 1 Insert*



## ADDITIONAL OPTIONS

- Built-in 2.5KW-20KW 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 anti-spark 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.



*Units Installed At A Global Terminals Factory*

## 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



*USS Pathfinder Unit*

**All Products Made  
in U.S.A.**

**Aero Conditioner Company, LLC**  
1521 US Route 9W, Building 4C/D | Selkirk, NY 12158  
Phone: +1 (518) 635-4169 | [Marketing@AeroConditioner.com](mailto:Marketing@AeroConditioner.com)

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