

# WALL MOUNT PRODUCT CATALOG



[www.northernairsystems.com](http://www.northernairsystems.com)

# ABOUT US

In 1998, Northern Air manufactured its first combination air conditioning chiller for use on mobile MRI systems after being approved for use by GE Medical. Today, this system is used worldwide by all manufactured mobile MRI trailers with over 1,200 in operation.

Northern Air Systems' international presence and reputation enabled us to expand into television production and oil and gas industries. Northern Air Systems has products that are operating in all parts of the world.

## Corporate Facility

- Full Vertical Integration
- High Speed LVD Turret Press
- 130 Ton Five Axis Press Brake
- 2kW Fiber Optic Laser Cutter
- RAS Bending Machine
- CNC Tube Bender
  
- Professional Vertical Wire Storage & Wire Stripping/Cutting Equipment
  
- Fully Automated Evacuation, Leak Detection & Charging Station



## OUR MISSION

To be the best supplier of special customized products including explosion proof systems in the HVAC field.

## OUR QUALITY POLICY

It is the goal of each Northern Air Systems employee to meet our customer's requirements. This includes on-time delivery of quality products and services, and to continually identify opportunities for improvements.

**Northern Air Systems is an ISO 9001 certified business.**

## OUR VISION

Creating customized solutions is the heart of innovation.

## OUR PHILOSOPHY

- To have continued research and technical advancement
- To have the highest product quality in the industry
- To have reliable on-time delivery
- To have pre and post sales support by a qualified technical and professional team



# OUR MEMBERSHIPS

Northern Air Systems is proud to be apart of ASHRAE. The American Society of Heating, Refrigerating and Air-Conditioning Engineers, is an international organization of 50,000 persons with chapters throughout the world. The Society is organized for the sole purpose of advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration for the public's benefit through research, standards writing, continuing education and publications.

Northern Air Systems is proud to be apart of ACCA. The nation's premier trade association of heating, ventilating, air conditioning, and refrigeration (HVACR) contractors. With local chapters across the country, ACCA's membership also includes manufacturers of HVACR equipment, wholesalers and distributors, vocational and technical schools, facilities operators and others.

## Worldwide Markets & Applications

### Chemical | Oil & Gas Offshore | Onshore & Refineries

- Living Quarters
- Blast Proof Buildings
- Safe Houses
- Drillers Cabins
- VFD Houses
- MCC Control Rooms
- Remote Instrumentation Enclosures
- Power Distribution Centers
- Analyzer Houses
- Battery Rooms



### Homeland Security & Law Enforcement

- Mobile Command Centers

### Military & Specialty Mobile Applications

- Shelter & Tent Cooling
- Simulator ECU's
- Communication Trailers
- Berthing Units

### Mobile Medical

- MRI
- PET/CT
- Surgical

### TV Radio Broadcast Units

- Mobile Broadcast Trailers

### Aviation

- Pre-Conditioned Air Systems
- Mobile & Cart Mounts
- Jet Bridge Mounts
- Full Ground Support Cooling
- Built For Commercial & Military





# Quality Components

We use high quality vendors such as:

- Grundfos Pumps
- Sporlan Refrigeration Components
- Copeland and Carlyle Compressors
- Square-D, Telemecanique, Care Electrical Components
- High Quality German Built Fans



**Telemecanique**

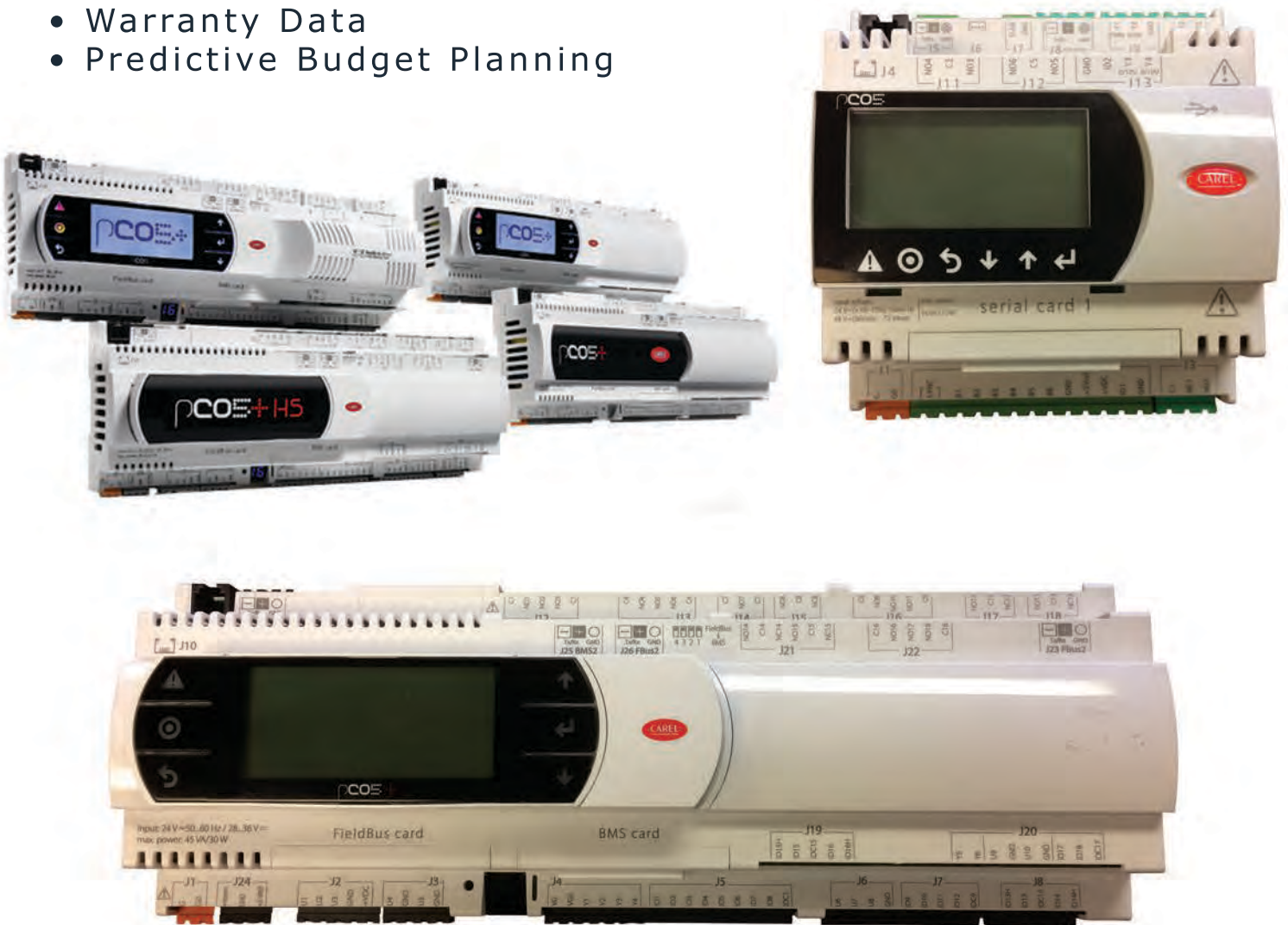
**Sensors**

# User-Friendly Control Panels

- Easy to follow and operate control pad
- Displays temperature and humidity
- Provides service reminders
- Self diagnostics
- Alarm reporting with time and date stamp
- Optional Remote Display
- Can communicate with all Protocol's such as "MODBUS"
- Displays Operating pressures and system status
- Touch safe electrical compartment

## Run Time Storage Info

- Performance Comparison Information
- Failure Analysis
- Warranty Data
- Predictive Budget Planning





# Our Certifications

- Class 1, Division 1 & 2, Groups B, C & D
- NFPA 496 Purge and Pressurization
- ATEX
- IECEX
- GOST
- Zone 1, Zone 2
- UL
- CSA



***THE SUN NEVER SETS  
ON A NORTHERN AIR SYSTEM***





## Our Products

- Wall Mount
- Roof Mount
- Skid Mount
- Split Systems
- Chillers
- Ruggedized Window Units
- Modified Units
- PCA Ground Support Units
- Rental HVAC Systems
- Specialized HVAC Systems
- Bard Replacement HVAC Systems
- MarvAir Replacement HVAC Systems
- Wireless Guardian Monitoring

## Available Options

- Remote Panels
- Purge & Pressurization
- Coated Coils & Marine Coatings
- Stainless Steel Finish
- Lead Lag Operation
- Worldwide Remote Monitoring
- Gas Tight Dampers
- Custom Control Options

## Available Certifications

- Class 1, Division 1 & 2, Groups B, C & D
- NFPA 496 Purge and Pressurization
- ATEX
- IECEX
- GOST
- Zone 1, Zone 2
- UL & CSA
- Intertek



# Explosive Gas Classifications

Typical gas hazards are from hydrocarbon compounds, but hydrogen and ammonia are common industrial gases that are flammable.

## Class I, Division 1 Classified Locations

An area where ignitable concentrations of flammable gases, vapors or liquids can exist all of the time or some of the time under normal operating conditions. A Class I, Division 1 area encompasses the combination of Zone 0 and Zone 1 areas.

## Zone 0 Classified Locations

An area where ignitable concentrations of flammable gases, vapors or liquids are present continuously or for long periods of time under normal operating conditions. An example of this would be the vapor space above the liquid in the top of a tank or drum. The ANSI/NEC classification method consider this environment a Class I, Division 1 area. As a guide for Zone 0, this can be defined as over 1000 hours/year or > 10% of the time.

## Zone 1 Classified Location

An area where ignitable concentrations of flammable gases, vapors or liquids are likely to exist under normal operating conditions. As a guide for Zone 1, this can be defined as 10-1000hours/year or 0.1-10% of the time.

## Class I, Division 2 or Zone 2 Classified Locations

An area where ignitable concentrations of flammable gases, vapors or liquids are not likely to exist under normal operating conditions. In this area the gas, vapor or liquids would only be present under abnormal conditions (most often leaks under abnormal conditions). As a general guide for Zone 2, unwanted substances should only be present under 10 hours/year or 0-0.1 % of the time.



# Explosion-Proof Apparatus

Apparatus enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor that may occur within it and of preventing the ignition of a specified gas or vapor surrounding the enclosure by sparks, flashes or explosion of the gas or vapor within, and that operates at such an external temperature that it will not ignite a surrounding flammable atmosphere.

## Hazard Examples

### Class I

- Aircraft hangars and aviation repair facilities
- Petroleum refineries and dispensing areas
- Storage companies that handle liquified petroleum gas
- Companies that use flammable liquids in dip tanks
- Companies that manufacture chemicals from oil and gas

### Class II

- Coal preparation plants
- Carbon-handling plants and mills
- Grain elevators, flour and feed mills
- Plants that use and store magnesium or aluminum powders
- Plants that have different types of chemical processes

### Class III

- Textile mills, cotton gins or seed mills
- Wood cutting and sawdust mills

# 5 Ton (60,000 BTU's)

Nominal Capacitance: 5 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

				460/480	208V	
Ambient Condition	Total Capacity	Sensible Capacity	Electric Power	3Φ-60Hz	3Φ-60Hz	
95°F (35°C)	62,000 BTU/hr	47,000 BTU/hr	Evaporator Blower Motor FLA	1.9	3.2	
120°F (49°C)	57,000 BTU/hr	45,000 BTU/hr	Condensator Fan Motor FLA	1.2	2.1	
<b>Unit Dimensions</b>				Compressor Motor RLA	15.0	25.2
Width	Depth	Height	Weight	Heat 18KW, Amps	21.7	50.0
42"	25.5"	85"	775 lbs.	Heat 13.5KW, Amps	16.3	37.5
<b>2,100 CFM @ 0.50 In W.C. ESP</b>				Heat 9KW, Amps	20.8	48.1
				Total Cooling FLA	18.0	30.5
				9 KW Heat FLA	18.8	78.6
				18 KW Heat FLA	39.7	80.5
				Unit LRA	100	164
				<b>Operating Range</b>		





# 8 Ton (96,000 BTU's)

Nominal Capacitance: 8 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition		Total Capacity	Sensible Capacity	Electric Power	480V 3Φ-60Hz	208V 3Φ-60Hz
95°F (35°C)		96,000 BTU/hr	72,000 BTU/hr	Evaporator Blower Motor FLA	2.2	4.0
120°F (49°C)		86,000 BTU/hr	66,500 BTU/hr	Condensor Fan Motor FLA	2(2X)	3.3 (2X)
<b>Unit Dimensions</b>				Compressor Motor RLA	22.3	44.6
Width	Depth	Height	Weight	Heat 18KW, Amps	21.7	50.0
51.25"	43"	95.25"	1350 lbs.	Heat 13.5KW, Amps	16.3	37.5
<b>3,200 CFM @ 0.50 In W.C. ESP</b>				Heat 9KW, Amps	16.3	37.5
				Total Cooling FLA	30.0	60.0
				9 KW Heat FLA	20.0	45.0
				18 KW Heat FLA	20.0	55.0
				Unit LRA	125	245
<b>Operating Range</b>				<b>-30F to 135F</b>		



# 10 Ton (120,000 BTU's)

Nominal Capacitance: 10 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition				Total Capacity	Sensible Capacity	Electric Power		460/480 3Φ-60Hz	208V 3Φ-60Hz
95°F (35°C)				120,000 BTU/hr	90,000 BTU/hr	Evaporator Blower Motor FLA		3.7	5.6
120°F (49°C)				108,000 BTU/hr	81,000 BTU/hr	Condensor Fan Motor FLA		2 (2X)	3.3 (2X)
Unit Dimensions						Compressor Motor RLA		17.8	35.6
Width	Depth	Height	Weight			Heat 18KW, Amps		21.7	50.0
51.25"	43"	95.25"	1600 lbs.			Heat 13.5KW, Amps		16.3	37.5
<b>4,000 CFM @ 0.80 In W.C. ESP</b>						Heat 9KW, Amps		16.3	37.5
						Total Cooling FLA		30.0	50.0
						9 KW Heat FLA		25.0	45.0
						18 KW Heat FLA		30.0	60.0
						Unit LRA		99	198
<b>Operating Range</b>						<b>-30F to 135F</b>			





# 12.5 Ton (150,000 BTU's)

Nominal Capacitance: 12.5 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition		Total Capacity	Sensible Capacity	Electric Power	460/480 3Φ-60Hz	208V 3Φ-60Hz
95°F (35°C)		150,000 BTU/hr	112,500 BTU/hr	Evaporator Blower Motor FLA	3.7	5.6
120°F (49°C)		135,000 BTU/hr	101,000 BTU/hr	Condensor Fan Motor FLA	2 (2X)	3.3 (2X)
<b>Unit Dimensions</b>				Compressor Motor RLA	19.9	39.7
Width	Depth	Height	Weight	Heat 18KW, Amps	21.7	50.0
51.25"	43"	95.25"	1600 lbs.	Heat 13.5KW, Amps	16.3	37.5
<b>4,500 CFM @ 0.50 In W.C. ESP</b>				Heat 9KW, Amps	16.3	37.5
				Total Cooling FLA	30.0	55.0
				9 KW Heat FLA	25.0	45.0
				18 KW Heat FLA	30.0	60.0
				Unit LRA	114	228
<b>Operating Range</b>				<b>-30F to 135F</b>		





# 15 Ton (180,000 BTU's)

Nominal Capacitance: 15 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition				Total Capacity	Sensible Capacity	Electric Power	460/480 3Φ-60Hz	208V 3Φ-60Hz
95°F (35°C)				178,000 BTU/hr	133,000 BTU/hr	Evaporator Blower Motor FLA	4.7	8.0
120°F (49°C)				132,000 BTU/hr	116,000 BTU/hr	Condensor Fan Motor FLA	2 (2X)	3.3 (2X)
<b>Unit Dimensions</b>						Compressor Motor RLA	56.0	112.0
Width	Depth	Height	Weight			Heat 18KW, Amps	21.7	50.0
63"	51"	102"	2000 LBS			Heat 13.5KW, Amps	16.3	37.5
<b>6,000 CFM @ 0.80 In W.C. ESP</b>						Heat 9KW, Amps	16.3	37.5
						Total Cooling FLA	65.0	130.0
						9 KW Heat FLA	25.0	50.0
						18 KW Heat FLA	30.0	60.0
						Unit LRA	223	446
						<b>Operating Range</b>	<b>-30F to 135F</b>	





# 20 Ton (240,000 BTU's)

Nominal Capacitance: 20 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition	Total Capacity	Sensible Capacity	Electric Power	460/480 3Φ-60Hz	208V 3Φ-60Hz	
95°F (35°C)	237,000 BTU/hr	193,000 BTU/hr	Evaporator Blower Motor FLA	4.7 (2X)	8.0 (2X)	
120°F (49°C)	180,000 BTU/hr	173,000 BTU/hr	Condensor Fan Motor FLA	2 (3X)	3.3 (3X)	
Unit Dimensions			Compressor Motor RLA	68.0	135.0	
Width	Depth	Height	Weight	Heat 18KW, Amps	21.7	50.0
76"	57"	102"	2200 LBS	Heat 13.5KW, Amps	16.3	37.5
<b>8,500 CFM @ 1.50 In W.C. ESP</b>			Heat 9KW, Amps	16.3	37.5	
			Total Cooling FLA	85.0	165.0	
			9 KW Heat FLA	30.0	55.0	
			18 KW Heat FLA	35.0	70.0	
			Unit LRA	253	506	
			Operating Range			-30F to 135F





# 40 Ton (480,000 BTU's)

Nominal Capacitance: 40 Tons  
Refrigerant: R-134A

- Ruggedized construction provides dependable cooling in the most demanding environments
- Designed for 24 hour operation in high load demands, from -30° to 141°F
- Available in painted stainless steel construction with marine coatings
- Available with coated coils & explosion proof applications
- Available with worldwide voltages

Ambient Condition		Total Capacity	Sensible Capacity	Electric Power	460/480 3Φ-60Hz	208V 3Φ-60Hz
95°F (35°C)		480,000 BTU/hr	360,000 BTU/hr	Evaporator Blower Motor FLA	3.7 (4X)	5.6 (4X)
120°F (49°C)		355,000 BTU/hr	341,000 BTU/hr	Condensor Fan Motor FLA	4.7 (2X)	4.6 (4X)
<b>Unit Dimensions</b>				Compressor Motor RLA	56 (2X)	112 (2X)
Width	Depth	Height	Weight	Heat 18KW, Amps	21.7	50
120"	65"	95"	5100 LBS	Heat 13.5KW, Amps	16.3	37.5
<b>16,000 CFM @ 0.80 In W.C. ESP</b>				Heat 9KW, Amps	16.3	37.5
				Total Cooling FLA	140	270
				9 KW Heat FLA	35	60
				18 KW Heat FLA	40	75
				Unit LRA	223	446
				<b>Operating Range</b>	<b>-30F to 135F</b>	





# Worldwide Service & Support

Northern Air Systems provides install assistance and worldwide service on all of our equipment:

- 24-Hour a day emergency service support to eliminate down time
- Worldwide project management and support available
- A National Service Network in the U.S., with an international presence worldwide

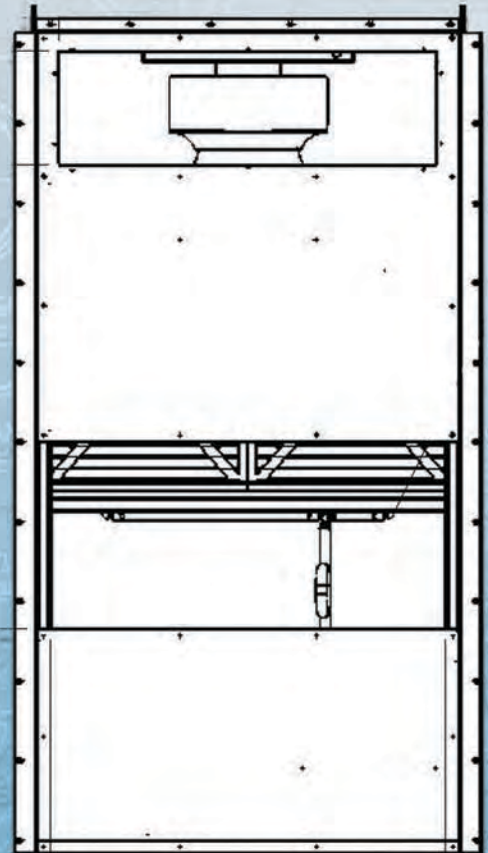
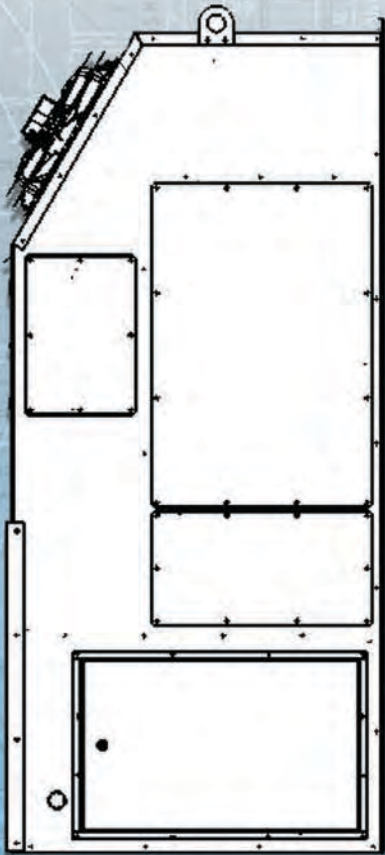
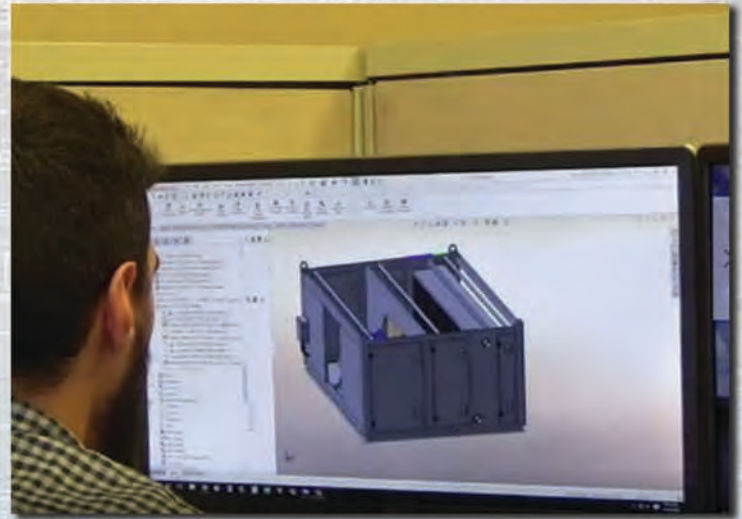
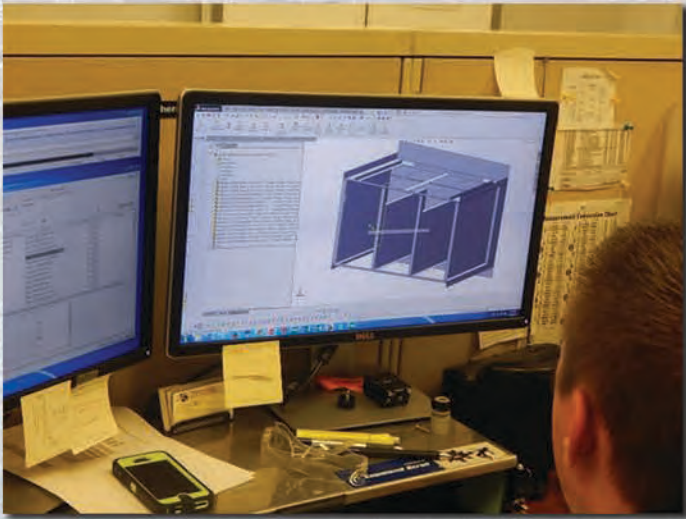




# Northern Air Engineering

Full In House Engineering & Project Management Using Solid Works & AutoCAD Software

- Innovative and highly skilled college educated team with years of experience in multiple types of HVAC engineering
- Projects include simple and complex unit designs and support services from the conceptual design phase to in-progress projects that require workable solutions to challenging obstacles
- Our engineers are ready to align themselves with your objectives to help deliver a successful product 100% of the time





# Wireless Guardian

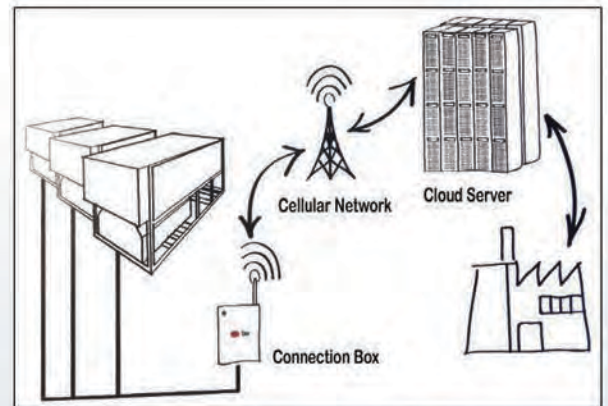
*Protect your investment and keep your finger on the pulse of your system!*

Traditional monitoring of your system used to involve on-site, scheduled inspection of equipment. When equipment failure occurred, onsite personnel would telephone a service company to dispatch a technician to the site for needed maintenance.

The notification system could be fraught with delays or a misdiagnosis, increasing costs and downtime. The Wireless Guardian Online Monitoring changes all that. Now notification is rapid, accurate and direct. No need for on site personnel.

## Robust Online Tool

- Past 24-hours of activity
- High and low temperatures
- System run time
- Battery condition
- Signal strength
- Prior unresolved reports
- Real time monitoring of set points & temperatures



All Plants / NAS-ROG

Variables Alarms Trends Report

Search:

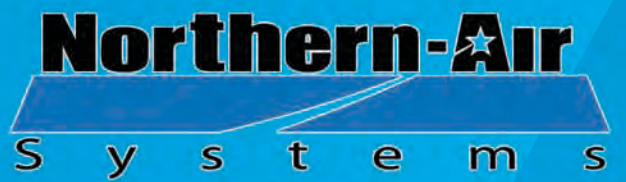
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All Favourites General









# Northern-Air S y s t e m s

## Corporate Office

Northern Air Systems  
3605 Buffalo Rd  
Rochester, NY 14624

## Baton Rouge

Northern Air Technology  
10421 Mammoth Ave  
Baton Rouge, LA 70814



**Northern Air Systems**  
Service - 888-723-9230  
24 Hours - 585-594-9933  
info@northernairtech.com  
sales@northernairtech.com  
www.northernairsystems.com