Quality + Performance = Engineered Value

AAON customers demand the very best products and service available from the industry leaders in Chillers, Boilers, and Pumps. AAON is committed to exceeding customer expectations in both product design and manufacturing. AAON has the resources, equipment, and expertise required to meet customer needs.


effective-1.png

Air-Cooled Condensers

AAON offers a wide range of condensers to meet the needs of our customers. Whether you need a small or large condenser, you can be assured that AAON has the perfect solution for your project.


effective-2.png

Chiller + Boiler + Pumps = Packaged Savings

At AAON, we believe that quality, performance, and value are the key components to a successful project. Our Chillers, Boilers, and Pumps are designed to work together to provide the best possible solution for your needs.


effective-3.png

Standard Features and Specifications

AAON products are designed to meet the highest standards of quality and performance. Our Chillers, Boilers, and Pumps are built to last, and we stand behind our products with a comprehensive warranty.


effective-4.png

Design Data

AAON products are covered by one or more of the following U.S. Patents: 5,738,167; 5,826,641; 5,839,505; 6,715,312

www.aaon.com
Tulsa, OK 74107
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AAON continues to expand its line of quality products with the introduction of the package LL Series Chillers. The LL Series is designed for critical chiller solutions from AAON, the premier supplier of rooftop equipment. Available in a variety of configurations to meet the specific job requirements, the LL Series continues the tradition of excellence of the RL Series and incorporates the quality AAON customers demand.

All cabinet walls, roof and floor are a high performance composite panel construction to ensure low sound levels in adjacent areas.

Air-Cooled Condensers
Coils are constructed of copper tubing mechanically bonded to aluminum fins. Coil mounts are sloped to protect fins from damage. In addition, coils facing outward are protected by perforated sheet metal screens. Coils are designed for a minimum 10°F refrigerant sub-cooling. When conditions warrant, condenser fans are cycled off, or VFD controlled, to maximize energy conservation.

Evaporative Condensers
The AAON design provides energy savings of 20 to 40% over an air-cooled model. All wetted surfaces are constructed of 304 stainless steel, copper or other non-corrosive material. The system utilizes a Patented desuperheater above the wetted evaporative condenser section that reduces the water usage and chemical treatment requirement for the condenser water by 20 to 100% depending on the ambient temperature.

Customer Benefits
- All condensers are vertical discharge
- All Condenser fans are forged aluminum axial flow
- Maximum energy efficiency and sound attenuation, minimal operation temperature achieved by VFD controlled fans.
- All wetted surfaces on Evaporative-Cooled condensers are 304 Stainless Steel, Copper, or other non-corrosive materials.
- All water circuits are factory piped and wired to include all controls
- All water dispensing components on Evaporative-Cooled condensers are non-corrosive high strength material
- Water treatment systems for Evaporative-Cooled condensers are completely factory assembled, and include chemical dispensers. All processes are controlled through a factory supplied microprocessor

Heat Exchangers
- All chilled water piping takes place inside the LL Series cabinet. Heated compartment is available.
- All chillers come with a factory installed, completely insulated shell and tube heat exchanger.

Quality + Performance = Engineered Value
Quality + Performance = Engineered Value

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A Truly New and Breakthrough Design

New and Energy Efficient Too

The AAON Chiller is unmatched with its lower sound level. Quiet and Energy Efficient Too – not the welded angle iron look with exposed compressors and piping found in other chillers. A clean, exterior with Sloped Condenser Coils and Direct Drive, Forged Condenser Fans allows weatherproof service.

Innovative Heat Exchanger Design

Innovative heat exchanger design in the LL Series includes a Patented Desuperheat System to effectively handle cold-start condensate. A two-stage desuperheater above the wetted section of the evaporative-cooled heat exchanger prevents condensate accumulation. The System utilizes an exclusive Patented Desuperheat System that can reduce the water consumption and chemical treatment requirements by 20%.

High Efficiency Multiple Scroll Compressors

All models feature a lighted, full height, walk-in compartment that contains all vital operational components to allow maximum efficiency multiple scroll compressors, evaporator heat exchanger and control. Phypon fasteners are used to install individual components, the air to air heat exchanger, for example, is held in place with fasteners. The rugged industrial cast aluminum blower and fan wheel are equipped with a replaceable combustion air filter (99% efficient to one micron) to create excellent combustion characteristics.

High Efficiency Full and Part Load Operation

Their efficiency is held to a minimum under all load conditions. VFDs er fans are axial flow, adjustable pitch blades designed to provide maximum airflow with minimum sound levels. To ensure the efficiency is full and part load operation, they also are quieter under part load conditions.

Good Looks Do Count

Compare the appearance of the AAON Model LL air and evaporative cooled chillers containment features never before offered in a packaged chiller. Model AAON Cat32 selection program for the PC will determine additional components for you.

AAONECat32 selection program, the rating sheet, the pump performance curves and the piping diagram are automatically generated as part of the output.

Optional Factory Installed Boilers

AAON also offers factory installed boilers for the LL Chiller models. The boilers configurations are available in capacities from 500,000 to 6,000,000 Btuh input.

Typical Secondary Pump, Inlet Strainer and Expansion Tank of a Primary/Secondary Pump Package

The boilers are optimally matched to the chiller to reduce start-up time and eliminate additional, system-swinging pumps. The boilers include a complete control package, controls, and safety devices. All models feature a lighted, full height, walk-in compartment to allow easy inspection of the safety devices. The boilers are designed to provide the best hot water for the building.

Innovative Heat Exchanger Design

Innovative heat exchanger design in the LL Series includes a Patented Desuperheat System to effectively handle cold-start condensate. A two-stage desuperheater above the wetted section of the evaporative-cooled heat exchanger prevents condensate accumulation. The System utilizes an exclusive Patented Desuperheat System that can reduce the water consumption and chemical treatment requirements by 20%. Inhibits Scale Accumulation.

Primary Pump Example

One example of a primary pump in use is the AABOS/LLD pump, through which a bypass line design is added to the piping diagram. The bypass line is added to the piping diagram to illustrate that a bypass line is used to bypass the pump to achieve the desired flow rate. The bypass line is used to bypass the pump to achieve the desired flow rate.
35 Ton Evaporative-Cooled Model

**Single End Air-Cooled Chiller**

- Direct Drive, Forged Aluminum, Axial Flow Condenser Fans
- 304 Stainless Steel All Wetted Surfaces
- Sloped Condenser Coils with Outer Protection
- Complete Control Vestibule Allows Weatherproof Service
- Factory Installed Shell and Tube Heat Exchanger (Walk-in Cabinet)
- R410A or R-22 Scroll Compressors
- Replaceable Core Filter Driers
- All cabinet walls, roof and floor are a high performance composite panel construction to ensure low sound levels in adjacent areas
- Factory Installed Boiler Package
- Victaulic Fittings Throughout
- Factory Installed Primary/Secondary Pumps
- Factory Installed Expansion Tank
- Patented Desuperheat System Inhibits Scale Accumulation. The System utilizes an exclusive desuperheater above the wetted evaporative condenser section that can reduce the water consumption and chemical treatment requirements by 20 to 100% dependent on ambient temperature.

**Chiller + Boiler + Pumps = Packaged Savings**
Quality + Performance = Engineered Value

A non-volatile memory is used for all schedules. Schedules are available with a seven-day cutaway of panel wall showing thermal break and foam core. All panels have a thermal break with no conductive path from inside to outside. The system utilizes a patented composite panel construction to ensure low sound levels and peace of mind for AAON customers demanding a quiet environment.

Diagnostic Controllers

The AAON diagnostic controller on all LL Series Chillers provides the ability to monitor and optimize operating conditions. The system is in real-time for all critical parameters such as temperature, pressure, and flow. The controller is designed for the end user, providing easy access to detailed reports and a wide range of control functions.

Customer Benefits

• Customer ease of access to data
• Maintaining refrigerant levels and avoiding costly failures
• Embedded service in a Controller Code
• Easy access to diagnostic data
• Diagnostic sensors for the pressure and temperature control functions
• Replaceable core filter driers on each circuit
• Automatic low pressure and manual reset high pressure control
• Schrader valves high and low side of circuit
• Water Treatment – Three-Chemical, Water Attenuation, minimal operation temperature
• Water Distribution – Non-corrosive materials or other non-corrosive materials.
• Condensers are completely factory assembled, including all controls, pumps and electrical components.

Standard Features and Specifications

- Air-Cooled Condenser: Copper, or Non-Corrosive Material
- Polymer Coated
- Custom Paint Colors
- Bleed Valve – Microprocessor Controlled
- Microprocessor Controlled
- Liquid crystal display
- Built-in time clock
- Function keys with menu driven prompts
- Current sensors for each compressor
- 0 to 10 volt DC signal
- System control functions
- Low Ambient Operation Package
- Customer Benefits

Air-Cooled Chillers

Air-Cooled Chillers are the preferred choice for locations where the ambient temperature is below freezing. The system utilizes a patented composite panel construction to ensure low sound levels and peace of mind for AAON customers demanding a quiet environment.

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