



The Name to Remember

# MN SERIES

## DIRECT FIRED MAKE-UP AIR HANDLER



*A 30:1 turn down ratio provides fuel efficiency by matching the fuel consumption to the heating requirements—this provides more comfort for the building occupants and more fuel savings over lower turndown or on/off systems.*

*Burners are precision-built, sturdy, compact, and virtually maintenance-free. All MN direct fired units can be ordered for either indoor or outdoor operation.*

*Designed to operate in 100% fresh air applications, the MN series can be applied in numerous industrial and commercial projects. All MN Series units can be highly customized to meet your exact requirements.*

**1,500 – 100,000<sup>+</sup> CFM**



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# Customization



With superior performance flexibility, the MN can be applied in a number of different applications, meeting specific needs, such as:

- ✦ Variable air volume
- ✦ Unique footprint or selectable air tunnel dimensions
- ✦ Special humidification/dehumidification
- ✦ Ultra-quiet
- ✦ Energy recovery
- ✦ Make-up air
- ✦ Factory-mounted components

Optimally configured for individual applications—differentiated by higher quality construction and virtually unlimited choices in unit components, material, configuration, cabinet size and aspect ratios—

**AAON'S MN air handler unit has it all.**



As customer demand for greater flexibility and customization grows, AAON continues to develop innovative solutions to bring to each market. Just to name a few, we have designed custom air handler units for:

- ✦ Large Warehouses
- ✦ Distribution Centers
- ✦ Manufacturing Plants
- ✦ Car Dealerships
- ✦ Indoor Sport Facilities
- ✦ Paint Booths
- ✦ Commercial Kitchens

# Coils

- ✦ ARI-certified 1/2 inch and 5/8 inch coils
- ✦ Low pressure drop and high performance
- ✦ Aluminum or copper fins from .006 to .012 inch thicknesses in galvanized or stainless casings
- ✦ Tube walls from .024 to .049 inches thick
- ✦ Intertwined, face-split or condensing unit matched circuiting



Fully Modulating...

Quite the Investment.

## Direct Fired Heater

Direct fired heating refers to heating equipment that burns gas directly in the fresh air stream resulting in the most efficient method of heat transfer. Direct fired heaters generate the lowest cost per BTU of heating when compared to indirect-fired and electric strip heaters. A few of the many benefits are:

- ✦ **92% efficiency rate for the heating process**
- ✦ **Environmentally clean**
- ✦ **Burners operate on either natural or liquid propane (LP) gas, achieving very high temperature increase. [An AAON MN air handler heats air to a maximum differential of 125°F (69°C), with an outgoing maximum discharge temperature of 160°F (71°C)]**
- ✦ **Intelligent flame monitoring equipment, ensuring optimized airflow and gas flow, producing the most efficient and clean combustion process**
- ✦ **Fully modulating with constant adjustment to ever-changing outdoor air conditions**
- ✦ **Worry-free operation down to -40°F (-40°C) with all valves modulating a 30:1 turndown**



## Fans



Fans are individually selected to match external static, sound efficiency and space design criteria.

**Need housed airfoil? Housed backward inclined or housed forward curved? Airfoil plenums or vane axial?**

AAON can provide it. Fans are available with open drip proof (ODP) or totally enclosed, fan-cooled (TEFC) motors. Variable frequency drive are also available when adjustable air flow applications are specified.

## Construction

AAON cabinets are both water and air tight implementing electrically-welded base frames—constructed of integral iron channel or heavy duty formed steel. Heavy gauge galvanized panels protect the cabinet from inclement weather and caustic environments.



Options include:

- ✦ **Metal thickness variations and alloys, accommodating weight and corrosion requirements**
- ✦ **Hinged access doors with compression latches, ensuring unit integrity and low air leakage**
- ✦ **Optional windows, allowing for convenient observation of internal components**

Unit components are supported off the base instead of the sidewalls, and engineers can specify the type of liners and insulation required to meet acoustic, thermal or corrosion requirements.

Special construction requirements include:

- ✦ **Penthouse designs**
- ✦ **Service corridors**
- ✦ **Service platforms**

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## DIRECT FIRED MAKE-UP AIR HANDLER

### Self-Contained Controls

**CONTROL FLEXIBILITY IS ANOTHER FEATURE THAT MAKES AAON'S MN SERIES SUPERIOR IN THE MARKET.**

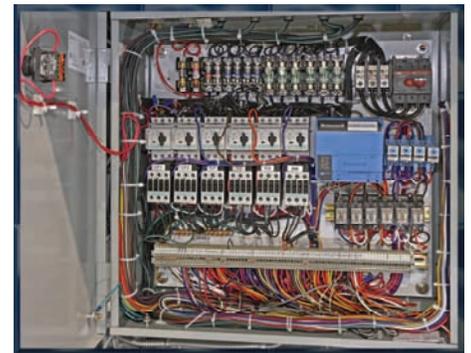
Factory-installed 'controls by others' is a feature provided by AAON that allows you to specify the type and manufacturer of the controller that is preferred to be used in your AAON equipment.

For jobs that involve field-installed controls, AAON offers 'no-factory' wiring, so that all wiring can be done to the controls contractor's specifications.

AAON control options allow integration into open protocol environments or building automation systems.

AAON offers:

- ❖ 'No-factory wiring' for field-installed applications
- ❖ Unit factory-wiring with all points connected to a terminal strip for lower labor costs
- ❖ Pre-engineered, factory-mounted commissioned controls for higher quality and consistency
- ❖ Variety of controls options from stand-alone, interconnected or networked



### Other AAON Product Lines:



**ALL AAON PRODUCT LINES AVAILABLE WITH R-410A**

2-230 Ton Rooftop Units



800-68,000 CFM Outdoor Air Handlers



2-5 Ton Residential Air Conditioners & Heat Pumps

2-230 Ton Condensing Units



800-52,000 CFM Indoor Air Handlers



35-365 Ton Chillers  
500-6,000 MBH Boiler Combinations



1,000-218,000+ CFM Custom Equipment



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It is the intent of AAON to provide accurate up-to-date specification data. However, in the interest of ongoing product improvement, AAON, Inc. reserves the right to change specifications and/or design of any product without notice, obligation, or liability.

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AAON products are covered by one or more of the following U.S. Patents: 7,010,920; 6,929,452; 6,802,543; 6,792,767; 6,715,312; 6,437,469; 6,431,979; 5,839,505; 5,826,641; 5,738,167