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### GPOAS 167523-5350-1439214401

## GPOAS 16x18 Heat Exchanger Instruction Manual

Model: 167523-5350-1439214401 | Brand: GPOAS

### PRODUCT OVERVIEW

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The GPOAS 16x18 Heat Exchanger is a robust water-to-air unit designed for forced air heating systems. It features a durable 306 steel case, 12 aluminum fins per inch, and three rows of 3/8-inch seamless copper tubes to maximize heating or cooling efficiency. Its construction with brazed edges and contact points allows it to withstand high pressures and temperatures, ensuring durability. This heat exchanger is highly energy-saving, converting thermal energy directly to a preset temperature without consuming electricity or oxygen, making it an economical choice for various applications.



A comprehensive view of the GPOAS 16x18 Heat Exchanger, showcasing its robust construction and copper port connections, designed for efficient water-to-air heat transfer.

## KEY FEATURES

- **Superior Quality:** Constructed with a robust 20x20 306 steel case, 12 aluminum fins per inch, and 3 rows of 3/8" seamless copper tubes for maximum efficiency. Edges and contact points are base brazed for high pressure and temperature resistance.
- **Easy Installation & Practical Design:** Installation is simplified with four thickened MNPT ports, allowing it to slide directly into the plenum without extra tools. Its compact design saves space without compromising performance.
- **Highly Energy-saving:** Converts thermal energy directly to a preset temperature, offering good heat transfer and refrigeration performance economically, without consuming electricity or oxygen.
- **Wide Application:** Provides high thermal efficiency and durability in a compact, lightweight construction, ideal for outdoor wood stoves, residential and commercial heating/cooling, forced air heating, hybrid systems, air conditioning, and dehumidification.

## IMPORTANT NOTICE

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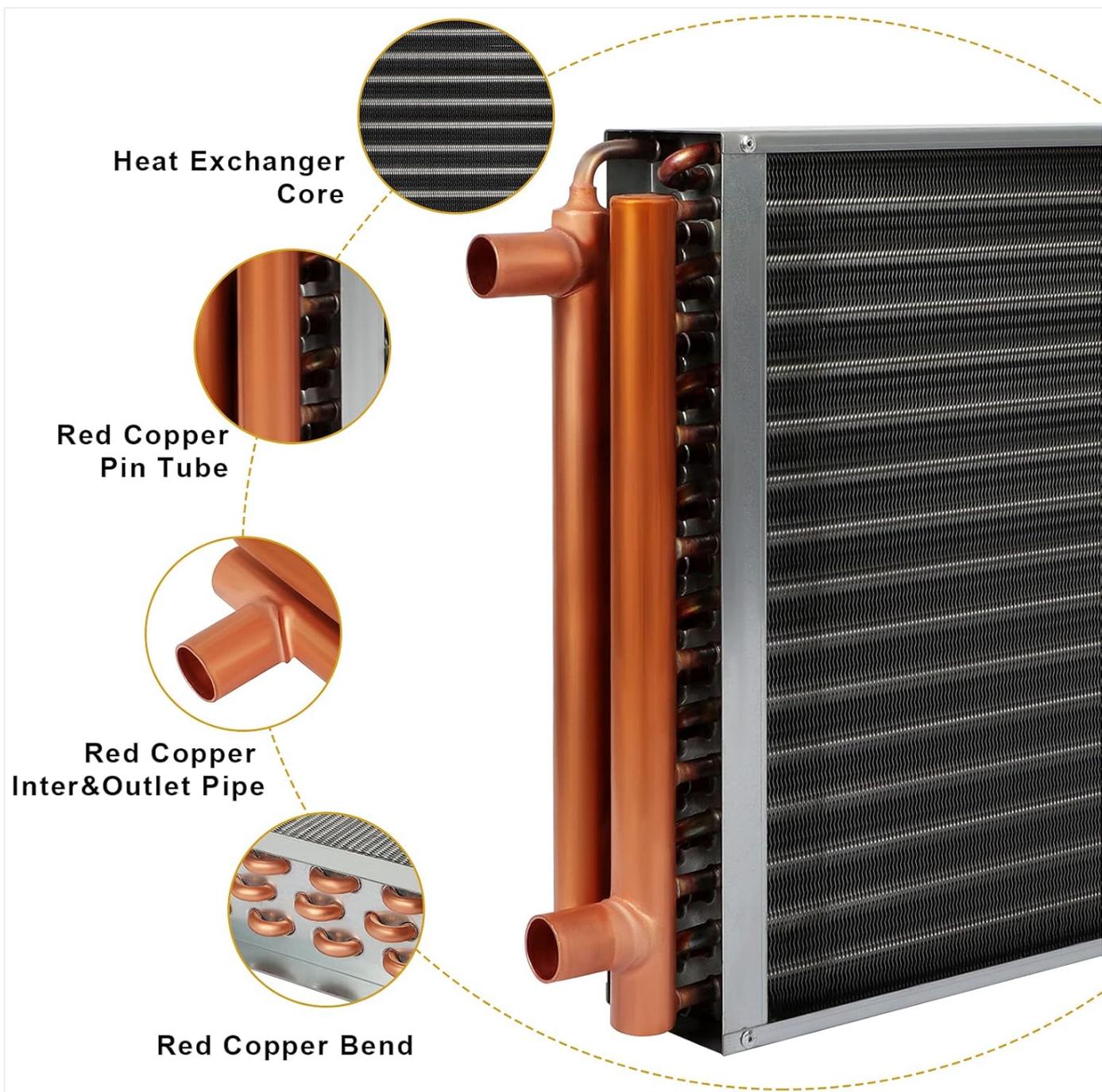
Copper pipes undergo a forging and water-cooling process during manufacturing, which may result in some water stains. These stains do not affect the normal use or performance of the heat exchanger. Please consider this before purchase.

## SETUP AND INSTALLATION

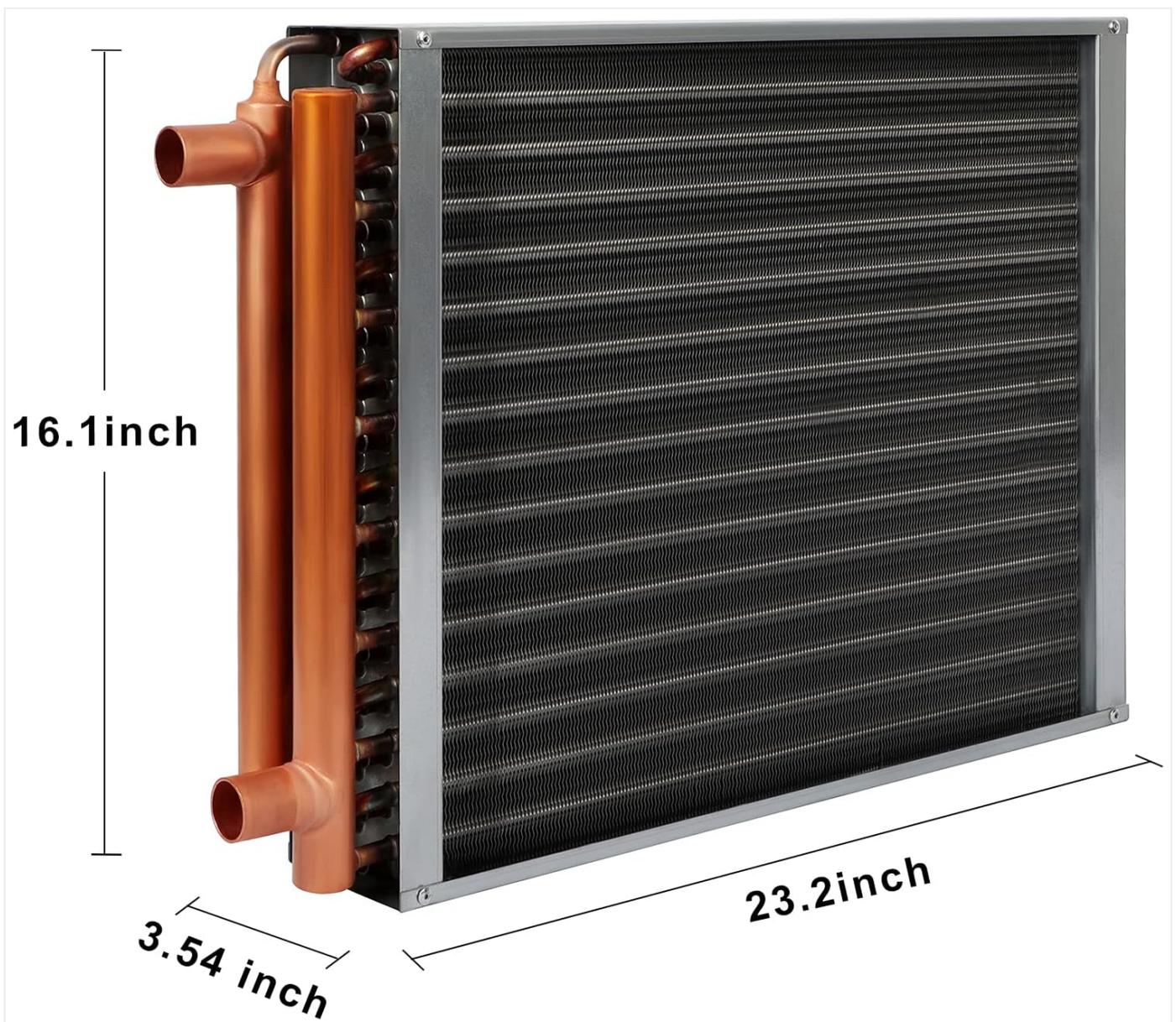
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The GPOAS Heat Exchanger is designed for straightforward installation. Follow these guidelines for proper setup:

1. **Unpacking:** Carefully remove the heat exchanger from its packaging. Inspect for any visible damage before proceeding.
2. **Placement:** Choose an installation location that provides adequate space for the unit and allows for proper airflow. The compact design helps optimize space utilization.
3. **Connection:** The heat exchanger features four thickened MNPT ports for simplified connection. Slide the unit securely into the plenum. No specialized tools are typically required for this step.
4. **Piping:** Connect the 1-inch copper ports to your hot water coil system. Ensure all connections are secure and leak-free to prevent system inefficiencies or damage.



This image illustrates the internal components of the heat exchanger, including the heat exchanger core, red copper pin tubes, red copper inlet/outlet pipes, and red copper bends, highlighting the robust construction.



This image provides the key dimensions of the heat exchanger, showing its length, width, and height for installation planning.

## OPERATING INSTRUCTIONS

The GPOAS Heat Exchanger is designed for efficient thermal energy conversion. To ensure optimal performance and longevity, follow these operating procedures:

1. **Preheating (Steam Systems):** If your system uses steam, it is crucial to preheat the heat exchanger with steam for approximately 10 minutes before starting the fan. This prevents sudden entry of cold steam into a cold heat exchanger, which could cause damage to the unit.
2. **Automatic Temperature Control:** The heat exchanger automatically heats water to a preset temperature during operation, contributing to energy efficiency and consistent performance.
3. **Heating/Cooling Modes:** The unit supports both heating and cooling functions. These modes can be switched as needed based on your system requirements and environmental conditions.
4. **System Monitoring:** Regularly monitor the system for consistent performance and any unusual sounds or indicators.

Your browser does not support the video tag.

This video provides an introduction to the GPOAS Heat Exchanger, demonstrating its features and operational aspects, including the importance of preheating for steam systems.

## MAINTENANCE

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Regular maintenance ensures the longevity and efficient operation of your heat exchanger.

- **Fins Cleaning:** Periodically inspect the aluminum fins for dust, debris, or obstructions. Gently clean them using a soft brush or compressed air to maintain optimal heat transfer efficiency.
- **Connection Check:** Annually check all copper port connections for any signs of leaks or corrosion. Tighten connections as necessary to prevent pressure loss or damage.
- **System Flush:** Depending on your water quality and system usage, consider periodically flushing your heating system to prevent mineral buildup within the copper tubes. Consult a qualified HVAC professional for this procedure.



This image shows a top view of the heat exchanger, illustrating the arrangement of the aluminum fins which require periodic cleaning for optimal performance.



This image displays the bottom view of the heat exchanger, showing the copper tubing and connections that should be regularly inspected for leaks or corrosion.

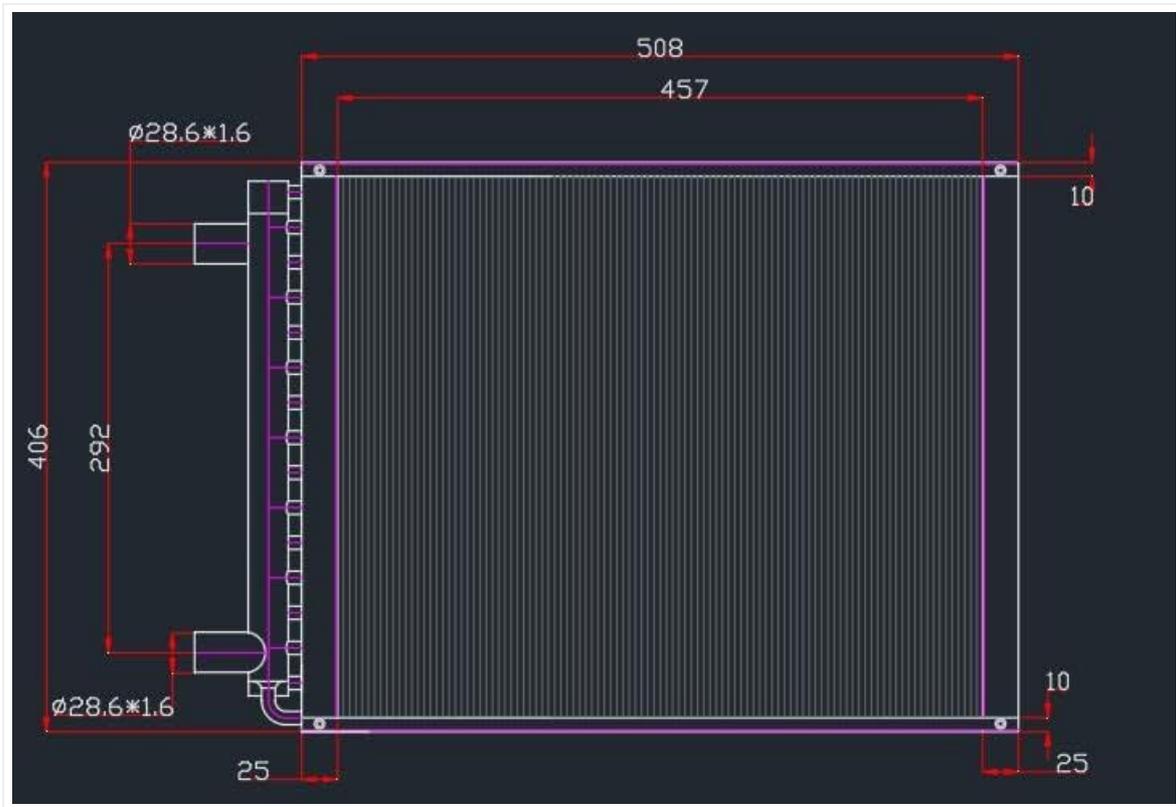
## TROUBLESHOOTING

If you encounter issues with your GPOAS Heat Exchanger, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
Reduced Heating/Cooling Efficiency	<i>Clogged fins</i> <i>Insufficient water flow</i> <i>Air in the system</i>	<i>Clean fins as per maintenance section.</i> <i>Check pump and piping for obstructions.</i> <i>Bleed air from the system.</i>
Water Leaks	<i>Loose connections</i> <i>Damaged piping/ports</i>	<i>Tighten all port connections.</i> <i>Inspect for physical damage; replace if necessary.</i>

## SPECIFICATIONS

Attribute	Detail
Manufacturer	GPOAS
Part Number	167523-5350-1439214401
Item Weight	13.57 pounds
Product Dimensions	25 x 17.32 x 5.31 inches
Size	16x18
Color	Stainless Steel
Power Source	wood
Date First Available	May 14, 2021



This technical drawing provides precise measurements and specifications for the heat exchanger, useful for detailed installation planning.

## WARRANTY AND SUPPORT

For warranty information, please refer to the product packaging or contact GPOAS customer service directly. While specific warranty details are not provided in this manual, GPOAS is committed to customer satisfaction.

For technical support, troubleshooting assistance, or inquiries regarding your GPOAS Heat Exchanger, please visit the official GPOAS store on Amazon or contact their customer support channels.

**GPOAS Store Link:** [Visit GPOAS Store](#)

