

## Hoffman 404328

# ITT Hoffman Specialty B1030A 3/4" Inverted Bucket Steam Trap (Model 404328) User Manual

Part Number: 404328

## INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the ITT Hoffman Specialty B1030A 3/4" Inverted Bucket Steam Trap, Model 404328. This device is designed to efficiently remove condensate and non-condensable gases from steam systems while preventing steam loss. Please read this manual thoroughly before installation or operation.

## SAFETY INFORMATION

**WARNING:** Failure to follow these safety instructions could result in serious injury or property damage.

- Always depressurize and cool down the steam system completely before attempting any installation, maintenance, or repair.
- Wear appropriate personal protective equipment (PPE), including safety glasses, gloves, and protective clothing, when working with steam systems.
- Ensure all connections are properly sealed to prevent steam leaks, which can cause severe burns.
- Installation and maintenance should only be performed by qualified personnel familiar with steam systems and local codes.
- Do not exceed the maximum operating pressure or temperature specified for this steam trap.

## PRODUCT OVERVIEW

The ITT Hoffman Specialty B1030A is an inverted bucket steam trap designed for robust performance in various steam applications. Its inverted bucket mechanism ensures reliable condensate removal and resistance to water hammer and dirt.



Image: ITT Hoffman Specialty B1030A 3/4" Inverted Bucket Steam Trap. This image shows the compact design of the steam trap, typically featuring a cast iron body with inlet and outlet connections.

## SETUP AND INSTALLATION

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Proper installation is crucial for the efficient operation and longevity of the steam trap.

1. **System Preparation:** Ensure the steam line is clean and free of debris. Flush the line before installing the trap.
2. **Orientation:** Install the inverted bucket trap in a vertical position with the bucket opening facing downwards. Ensure there is sufficient space for maintenance.
3. **Piping Connections:** Connect the trap to the steam line using appropriate pipe fittings (3/4" NPT). Use pipe sealant or PTFE tape on threaded connections to ensure a leak-free seal.
4. **Bypass Line (Optional):** For critical applications, consider installing a bypass line with isolation valves around the trap to allow for maintenance without shutting down the entire system.
5. **Check Valve (Optional):** If discharging into a common return line with varying back pressure, install a check valve downstream of the trap to prevent backflow.
6. **Initial Fill:** Before introducing steam, prime the trap by filling it with water through a vent or bypass to ensure the bucket is submerged. This prevents steam from blowing through on startup.
7. **Leak Test:** After installation, slowly introduce steam and check all connections for leaks. Tighten as necessary.

## OPERATING INSTRUCTIONS

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The inverted bucket steam trap operates automatically to discharge condensate and non-condensable gases.

- When condensate enters the trap, it fills the body and surrounds the inverted bucket, causing it to sink.
- The sinking bucket opens the valve, allowing condensate to be discharged.
- As steam enters the trap, it collects inside the inverted bucket, making it buoyant.
- The buoyant bucket rises and closes the valve, preventing steam from escaping.
- A small vent hole at the top of the bucket allows non-condensable gases to escape and accumulate at the top of the trap, eventually being discharged with condensate.
- The trap will cycle open and closed as condensate accumulates and is discharged.

## MAINTENANCE

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Regular maintenance ensures optimal performance and extends the lifespan of your steam trap.

- **Routine Inspection:** Periodically check for external leaks, corrosion, or damage. Listen for unusual

sounds that might indicate internal issues.

- **Trap Testing:** Use appropriate steam trap testing equipment (e.g., ultrasonic detectors, temperature guns) to verify proper operation and identify traps that are blowing steam or blocked.
- **Cleaning:** If the trap becomes fouled with dirt or scale, it may need to be disassembled and cleaned. Ensure the system is depressurized and cooled before disassembly. Clean internal components with a suitable solvent and brush.
- **Valve and Seat Inspection:** Inspect the valve and seat for wear or damage. Replace if necessary.
- **Bucket Inspection:** Check the inverted bucket for damage, corrosion, or blockages in the vent hole.
- **Gasket Replacement:** Always replace gaskets when reassembling the trap to ensure a proper seal.

## TROUBLESHOOTING

| Problem                                | Possible Cause                                                                                         | Solution                                                                                             |
|----------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Trap blowing steam (passing steam)     | Worn valve and seat<br>Dirt or debris preventing valve closure<br>Damaged bucket                       | Replace valve and seat<br>Clean internal components<br>Replace bucket                                |
| Trap not draining condensate (blocked) | Blocked vent hole in bucket<br>Dirt or scale accumulation<br>Back pressure too high<br>Trap not primed | Clean vent hole<br>Disassemble and clean trap<br>Check return line pressure<br>Prime trap with water |
| Water hammer                           | Improper drainage<br>Condensate pooling                                                                | Check trap operation<br>Ensure proper piping slopes<br>Verify adequate trap sizing                   |

## SPECIFICATIONS

- **Model:** B1030A
- **Part Number:** 404328
- **Manufacturer:** ITT Hoffman Specialty
- **Connection Size:** 3/4 inch NPT
- **Maximum Operating Pressure:** 30 PSI (pounds per square inch)
- **Item Weight:** Approximately 12.32 pounds
- **Type:** Inverted Bucket Steam Trap

## WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided with your purchase or contact ITT Hoffman Specialty directly. Support resources, including technical assistance and replacement parts, can

typically be found on the manufacturer's official website or through authorized distributors.  
You can visit the [Hoffman Store on Amazon](#) for more products and information.