

November 2021

# Spence™ Drain Air



Figure 1. Drain Air

## Features

- **Automatic and Positive Drain** — Effectively removes condensate from compressed air systems with minimum air loss and rapid shutoff on no load conditions.
- **Reliable** — Only one moving part.
- **Low Maintenance Cost** — No adjustments necessary. Replaceable cartridge for in line repair and/or cleaning.
- **Long Service Life** — Stainless Steel internals.
- **Freezeproof** — Will not freeze when installed in vertical position with muffler removed.
- **Quiet Operation** — Meets OSHA noise standards.
- **Simplifies Startup** — No need to drain air lines through manual valves or petcocks. Top performance is reached without waiting for system to purge.
- **Sized for Most Applications** — available in NPS 3/8 and 1/2 / DN 10 and 15.

## Introduction

The liquid drain trap is thermodynamically designed with screwed NPT connections. It effectively removes condensate from compressed air systems with minimum air loss and rapid shutoff.

# Drain Air

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## Specifications

This section lists the specifications for the Drain Air. Factory specifications are stamped on the nameplate fastened on the steam trap at the factory.

<p><b>Available Configuration</b> <b>Drain Air:</b> Forged body with Stainless steel internal mechanism and nylon muffler</p> <p><b>Body Size</b> NPS 3/8 and 1/2 / DN 10 and 15</p> <p><b>End Connection Style</b> NPT</p> <p><b>Maximum Operating Pressure<sup>(1)</sup></b> 600 psig / 41.4 bar</p> <p><b>Maximum Operating Temperature<sup>(1)</sup></b> 200°F / 104°C</p> <p><b>Maximum Allowable Pressure<sup>(1)</sup></b> 600 psig / 41.4 bar</p> <p><b>Maximum Allowable Temperature<sup>(1)</sup></b> 800°F / 426°C</p>	<p><b>Capacity Information</b> See Figures 2 and 3</p> <p><b>Materials of Construction</b> <b>Body and Cover:</b> Forged Steel <b>Cartridge:</b> 416 Stainless Steel with hardened disc and seat <b>Bolts:</b> High temperature alloy <b>Cover Gasket:</b> Stainless steel spiral-wound with graphite filler <b>Integral Strainer:</b> 304 Stainless Steel <b>Muffler:</b> Nylon Housing, Aluminum</p> <p><b>Applications</b> Air Header Drainage (pocket risers, end of line) Air Station or Location where petcock is used for blowdown, collecting wells and separators.</p> <p><b>Approximate Weight</b> 2.3 lbs / 1.04 kg</p>
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1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

## Principle of Operation

A disc is used with no linkage or close fitting parts to eliminate problems found in ordinary small float or piston-operated devices used in drip legs on air lines. Disc will lift off seat on a periodic time cycle, allowing moisture to be discharged and atomized through the muffler. Positive action of the disc assures reliable condensate removal with minimum loss of air and rapid shutoff on no load condition. Intermittent discharges atomize condensate to avoid messy accumulations produced by other devices. Highly effective, specially designed muffler eliminates noise and diffuses moisture so that discharge drain piping is usually unnecessary. Freeze proof when mounted in vertical position with outlet facing down and muffler removed.

## Installation

1. Install Drain Air at lowest point of equipment or line in vertical position with outlet facing down. Arrow on body bottom shows flow line, see Figure 4 for typical installations.
2. Install muffler in Drain Air outlet, hand tight.

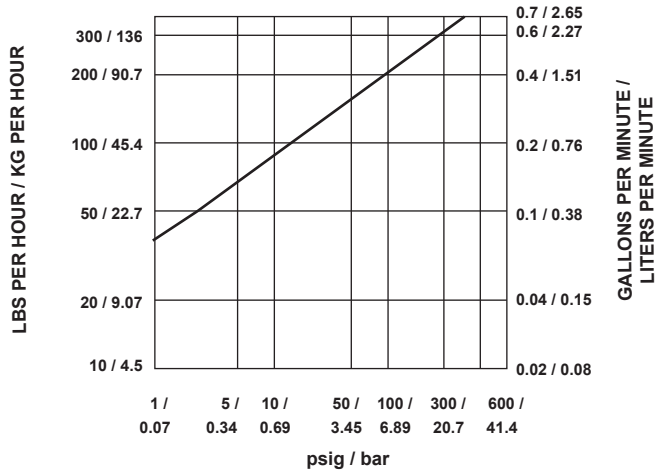


Figure 2. Drain Air Discharge Capacity

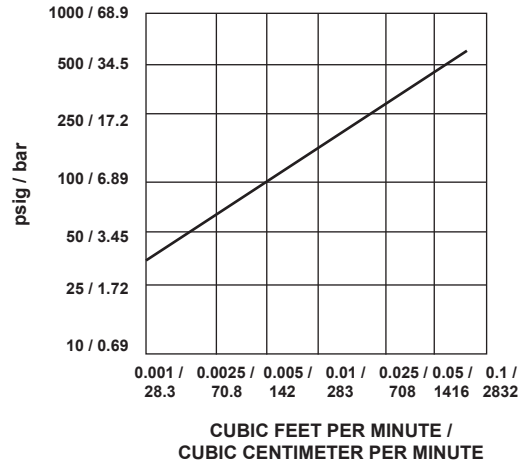


Figure 3. Air Loss - No Load Condition

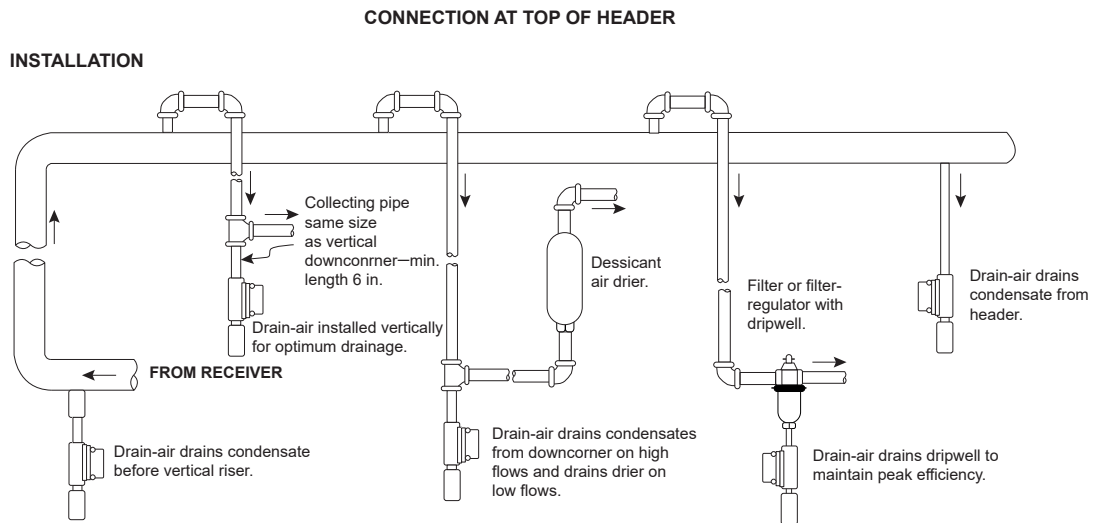


Figure 4. Typical Installations of Drain Air

# Drain Air

## Ordering Information

When ordering, complete the ordering guide on this page. Refer to the Specifications section on page 2.

Review the description to the right of each specification and the information in each referenced table or figure. Specify your choice whenever a selection is offered.

## Ordering Guide

### Drain Air Body Size (Select One)

- NPS 3/8 / DN 10
- NPS 1/2 / DN 15

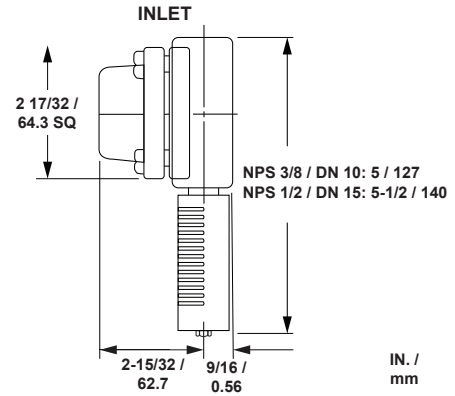


Figure 5. Dimension

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