

Spence Type NLD Free-Floating Lever Drainer



Figure 1. Type NLD Free-Floating Lever Drainer

Features

- **Automatic and Positive Drain** – Effectively removes liquids from compressed air systems with minimum air loss and rapid shutoff on load conditions.
- **Inexpensive** – Low maintenance and initial cost.
- **Steel Body** – Durable heavy wall construction provides years of reliable service and resists corrosion and freezing.
- **Maintenance Free** – Sealed body design prevents tampering and no gaskets or adjustments are necessary.
- **All Stainless Steel Construction** – Long lasting, rugged, and corrosion resistant.
- **Direct Lever Action** – Ensures proper seating under all operating conditions.

Type NLD

Specifications

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

Available Configuration Type NLD: Free-float liquid drainer	Maximum Allowable Pressure⁽¹⁾ 400 psig / 27.6 bar
Body Size NPS 3/4 x 1/2 / DN 20 x 15	Maximum Allowable Temperature⁽¹⁾ 500°F / 260°C
End Connection Style NPT	Materials of Construction Body, Connectors, Float, Lever and Bracket Clip: 304 Stainless steel Valve and Valve Seat: Hardened chrome steel
Orifice Size 1/8, 3/32 and 5/64 in. / 3.18, 2.38 and 1.98 mm	Applications Removes liquid from air or gas systems and storage
Maximum Operating Pressure⁽¹⁾ See Table 1	

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

Table 1. Maximum Operating Pressure

ORIFICE SIZE		MAXIMUM OPERATING PRESSURE	
in.	mm	psi	bar
1/8	3.18	175	12.1
3/32	2.38	300	20.7
5/64	1.98	400	27.6

Introduction

Type NLD free-floating lever drainer is a float type design with all stainless steel components including, sealed body, seat and valve. It is available in NPS 3/4 x 1/2 / DN 20 x 15 connections.

Principle of Operation

Type NLD removes liquids from a pressurized air / gas system. The float and lever operated design provides instantaneous and automatic adjustment to variations in flow and pressure. As liquid enters the top of the drainer, it starts to lift the float up and open the valve. When the liquid is removed, it falls back down to close the valve. This cycle repeats as more liquid accumulates in the drainer.

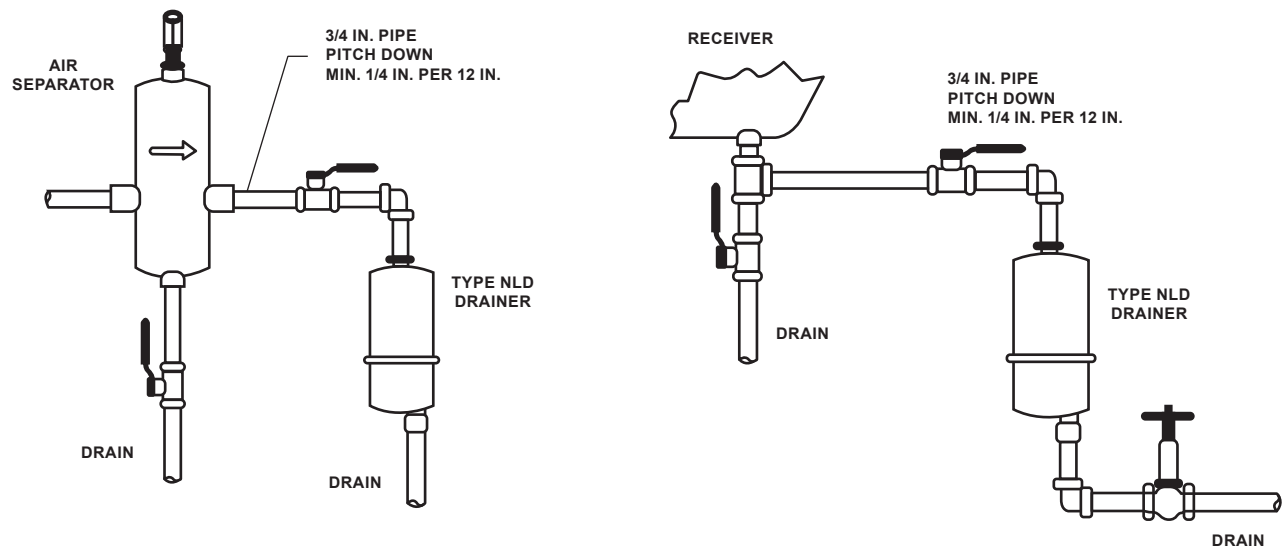


Figure 2. Typical Installations of Type NLD

Installation

1. Properly locate Type NLD in the system.
2. Do not exceed the maximum allowable pressure and temperature noted on the nameplate of the Type NLD body. Also, check to see if the liquid drainer has the proper maximum differential pressure for your particular application.
3. Locate Type NLD liquid drainer at the low points in air or gas service system, or on any gas storage or distribution system. Do not locate Type NLD below and close to the unit being drained or as directed by the equipment manufacturer.
4. Adhere to good piping practices. Before installing the Type NLD, clean the pipes by flushing out the lines to remove loose dirt. A strainer in the line leading to the liquid drainer is recommended for dirty systems. Use pipe dope or piping tape sparingly and on male threads only. Leave the end thread exposed to avoid introducing sealant into the system.
5. Make sure that the Type NLD is mounted in the proper direction with the flow arrow on the body of the valve pointing down. This will allow the float mechanism to work properly.
6. When tightening a pipe into either the inlet or the outlet fittings of a Type NLD, use only the hex-shaped fittings as wrenching surfaces. Do not use drainer body for a wrenching surface to screw the drainer into position.
7. The inlet and outlet piping should be the same size as the Type NLD's connections. Do not reduce the size of the inlet on light loads; however, smaller pipe or tubing may be used on the outlet. Keep the piping as short as possible, with a minimum of valves and fittings. If you are installing a liquid drainer without an equalizing connection, try not to use elbows in the inlet line from the equipment to the liquid drainer.
8. Install gate valves or full ported ball valves (DO NOT USE GLOBE VALVES) so the drainer can be isolated from the system to permit servicing. If the drainer is installed in a closed piping arrangement, install Uniflex Union pipe couplings in each side of the drain trap.

Type NLD

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

Orifice Size (Select One)

- ☐ 1/8 in. / 3.18 mm
- ☐ 3/32 in. / 2.38 mm
- ☐ 5/64 in. / 1.98 mm

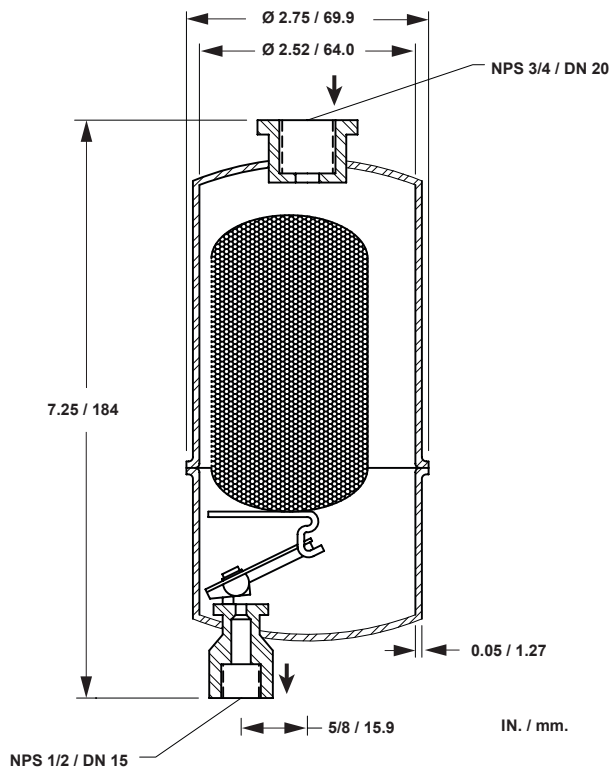


Figure 3. Type NLD Dimensions

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