Liquid Drain Traps

Steel Liquid Drain Trap
3" (DN80) and 4" (DN100) FA450

The float-operated liquid drain trap discharges continuously in direct response to variations in liquid flow rate, assuring thorough drainage of the system.

**Model**
- FA450

**Sizes**
- 3" (DN80)
- 4" (DN100)

**Connections**
- NPT, SW, Flanged
- Flanged

**Construction**
- Carbon Steel Body
- Stainless Steel Internals

**Typical Applications**
Draining a liquid from a gas in large process applications.

**Compliance**
The product fully complies with the requirements of the European Pressure Equipment Directive 2014/68/EU, and carries the CE mark when so required.

**Certification**
This product is available with certification to EN 10204 3.1. Designed in accordance with ASME VIII DIV 1. 

**Note:** All certification/inspection requirements must be stated at the time of order placement.

**Note:** The double seated valve may not shut tight under no-load conditions. Normally, the liquid load will always be greater than the small residual leakage.

**Construction Materials**

<table>
<thead>
<tr>
<th>No.</th>
<th>Part</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Body</td>
<td>Cast Carbon Steel</td>
</tr>
<tr>
<td>2</td>
<td>Cover</td>
<td>Cast Carbon Steel</td>
</tr>
<tr>
<td>3</td>
<td>Cover Gasket</td>
<td>Graphite with SS insert</td>
</tr>
<tr>
<td>4</td>
<td>Cover Bolts</td>
<td>Steel</td>
</tr>
<tr>
<td>5</td>
<td>Lockwashers</td>
<td>Steel</td>
</tr>
<tr>
<td>6</td>
<td>Main Valve Assembly</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td></td>
<td>Valve Mech. Gasket</td>
<td>Graphite</td>
</tr>
<tr>
<td></td>
<td>Valve Mech. Screws</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>7</td>
<td>Float</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>8</td>
<td>Cover Plug (3/4&quot; NPT)</td>
<td>Steel</td>
</tr>
<tr>
<td></td>
<td>Drain Plug (3/4&quot; NPT)</td>
<td>Steel</td>
</tr>
<tr>
<td>9</td>
<td>Companion Flange</td>
<td>Forged Steel</td>
</tr>
<tr>
<td>10</td>
<td>Flange Bolts</td>
<td>Steel</td>
</tr>
</tbody>
</table>

**Capacities**
For liquids other than cold water, see TIS 7.318.

![Graph](image-url)

**Limiting Operating Conditions**

**Max. Operating Pressure (PMO)**
- Up to 450 psig (31 barg), depending on the specific gravity of the liquid being drained. See TIS 7.318.
- 650°F (343°C) at 450 psig (31 barg)
- 750°F (400°C) at operating pressures below 375 psig (26 barg)

**Pressure Shell Design Conditions**

**PMA**
- Max. allowable pressure 450 psig/0-650°F (31 barg/0-343°C)
- 425 psig/700°F (29 barg/371°C)
- 375 psig/750°F (26 barg/400°C)

**TMA**
- Max. allowable temperature 750°F/0-375 psig (400°C/0-26 barg)

*The limiting operating and design conditions for ANSI 150 flanged units will be limited by the flange rating.

Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only.

In the interests of development and improvement of the product, we reserve the right to change the specification.
Sample Specification
Liquid drain traps shall be of the mechanical ball float type having steel bodies with stainless steel internal parts. The piping connections shall be horizontal in-line, and the body shall incorporate mounting legs with drilled pads. The trap body shall be horizontally split and all internal parts shall be completely serviceable without disturbing the inlet and outlet piping.

Installation
The trap should be located below and close to the equipment drain point. A pipeline strainer should be installed ahead of the trap, and full-flow isolating valves should be placed to permit servicing. The mounting legs should be bolted to a firm horizontal support. Access above the trap must be provided for servicing. The cover has a plugged 3/4" NPT balance pipe connection. The balance pipe must be connected with a continuous rise between the trap and the equipment being drained.

Complete installation instructions are given in IMI 7.3151.

Maintenance
This product can be maintained without disturbing the piping connections. Complete isolation from both supply and return line is required before any servicing is performed. The trap should be disassembled periodically for inspection and cleaning of the valve mechanism.

Complete installation and maintenance instructions are given in IMI 7.3151, which accompanies the product.

Liquid drain traps can be used to drain most liquids from most gases. However, some applications, particularly those involving hazardous or unusual fluids, may be subject to regulation or may otherwise require special consideration.

Spirax Sarco will endeavor to provide whatever data is necessary to assist in product selection.

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