



YARWAY SERIES PB-5, PB-40 AND PB-HP STEAM TRAPS

INSTALLATION, OPERATION AND MAINTENANCE MANUAL

Before installation these instructions must be fully read and understood

PRESSURE-TEMPERATURE RATINGS:

(All pressures are gage)

Trap Series	Shell ANSI (CI)	Maximum Operating Pressure	Maximum Operating Temperature	Maximum Test Pressure
PB-5	600 (PN 100)	300 psi (21 bar)	470°F (243°C)	400 psi (28 bar)
PB-40	600 (PN 100)	300 psi (21 bar)	450°F (232°C)	400 psi (28 bar)
PB-HP	600 (PN 100)	450 psi (31 bar)	675°F (357°C)	800 psi (55 bar)
PB-5S	600 (PN 100)	200 psi (14 bar)	470°F (243°C)	400 psi (28 bar)
PB-40S	600 (PN 100)	200 psi (14 bar)	450°F (232°C)	400 psi (28 bar)

SPECIFICATIONS

Pressure-Temperature Ratings:

(All pressures are gage)

Nominal Capacity

PB-5 and PB-HP — 450 lb/hr (204 kg/hr) hot condensate at 100 psi (7 bar) differential within 10°F (5°C) of saturation.

PB-40 — 450 lb/hr (204 kg/hr) hot condensate at 100 psi (7 bar) differential within 45°F (25°C) of saturation.

Failure Position:

Trap fails open upon failure of the filled thermal element.

End Connections:

In-line 1/2", 3/4" NPT (DN 15, 20) per ANSI B1.20.1.

Installation Position:

Horizontal or vertical with discharge down.

Special Features:

Check Valve; integral.
Screen; integral.

WARNING

Hot discharge from this product may cause severe burns. Discharge must be piped away or directed so that persons in the vicinity are not endangered. This product must be isolated, vented and cool to the touch before repairing or inspecting.

APPLICATION

Series PB-5 and PB-HP traps have been designed for drip and tracer service where it is desired to minimize retention of condensate.

Series PB-40 traps have been designed for winterization and non-critical tracing applications where it is desirable to use the sensible heat of the condensate.

OPERATION

The trap operates by means of a filled thermal element and closes and interval valve as condensate temperature changes. Steam is prevented from discharging through the trap, and only condensate is discharged—intermittently under moderate load. Under certain conditions of low loads and/or low pressure, the trap can discharge continuously. The thermostatically operated valve also acts as a check against reverse flow.



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INSTALLATION

Before installing the trap, blow out the upstream piping thoroughly to remove loose scale and dirt. Use pipe dope or lape sparingly when attaching the trap to the pipes.

Observe the pressure limitation and the flow direction marked on the body. The preferred installation direction is vertical with discharge downward to drain. The flow direction should be down, or horizontal to drain (see Figure 1).

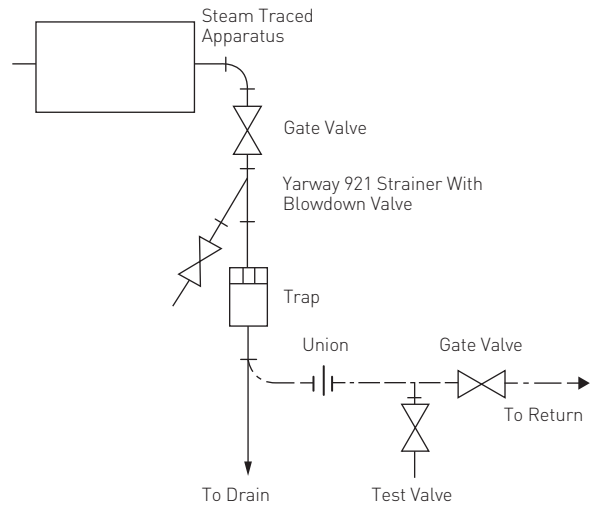
A separate Yarway "Y" type strainer with a blowdown valve is recommended ahead of the trap for dirt removal and flushing.

Avoid excessive back pressure in the discharge piping as this will reduce the flow capacity of the trap.

MAINTENANCE

PB Series traps are permanently assembled; no maintenance other than flushing or removing material from the screen is recommended.

FIGURE 1



Trap fails to pass condensate.	a. Check upstream and downstream valves to assure they are open. b. Blowdown upstream strainer (if installed) to verify pressure ahead of trap. c. Check integral screen of trap for clogging. Remove material clogging screen.
*Trap blows live steam.	a. Dirt on valve seating area. Block trap line with the downstream valve to accumulate condensate. Open the line after several minutes and allow the trap to be flushed by condensate. Tapping the trap may also dislodge particles. b. Worn valve seat. Replace the trap. c. Failure of filled thermal element. Replace the trap.

* Continuous discharge of condensate is not an indication of trap failure. As noted in the description under "operation," "under certain conditions of low loads and/or low pressures the trap can discharge continuously."

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NOTE

Any malfunction of this product must be reported to the service department.
Repair made to the product by unauthorized personnel will void the warranty.

RIGHT TO KNOW LAWS AND OSHA STANDARD 29CFR (1910.1200)

Material Safety Data Sheets on the following Yarway products:

Valves, Steam traps and Strainers

The OSHA Hazard Communication Standard 29CFR 1910.1200, states that the standard does not apply to "articles." The standard defines an article as:

"A manufactured item formed to a specific shape or design for a particular use which does not release or otherwise expose an employee to a hazardous chemical under normal conditions of use."

The above named products fall within the definition of an "article", no Material Safety Data Sheets are available or are required. Our product is manufactured as an "end product."

If the product is a weld end the following applies.

WARNING

Materials used in manufacture of Yarway products are considered in a stable condition when shipped. However, under certain conditions purchasers could create potential hazardous conditions by their future operations.

CAUTION

Welding, cutting, burning, machining or grinding of this product can generate toxic dust and fumes of potentially hazardous ingredients. The dust or fumes can cause irritation of the respiratory tract, nose, throat, skin and eyes. It may cause temporary or permanent respiratory disease in a small percentage of exposed individuals. Use moderate ventilation when grinding or welding. Avoid breathing dust, fumes or mist. Avoid prolonged skin contact with dust or mist. Maintain dust levels below OSHA and ACGIH levels. Use protective devices. Wash hands thoroughly after contact with dust before eating or smoking.

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

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