Model TS22 Sealed Steam Traps

For subcooled tracing applications

Bestobell's TS22 is a lightweight trap designed for applications requiring sealed stainless steel construction. For services with up to 300 psi differential pressure, this model is designed to efficiently make use of the sensible heat by retaining condensate within the tracer line.

- **Single blade element —** offers long-term, trouble-free service because it's not prone to dirt build-up as encountered with many other bimetal designs.
- **Stainless Steel internals —** highly resistant to fatigue and corrosion and completely renewable.
- **Built-in check valve —** prevents backflow during shutdown.
- **Modulating discharge —** automatically adjusts to operating pressure and load, overcoming problems associated with cyclic discharge.
- **Continuous air and CO_2 venting —** maximizes heat transfer while minimizing corrosion.
- **Fast start-up capabilities —** due to high cold discharge capacities.

BESTOBELL STEAM
Steam Traps and Steam Specialties

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Bestobell Model TS22 Steam Traps

Specifications

Maximum Differential Pressure: 300 psi (20,68 bar)

Maximum Body Pressure: 500 psig (34,5 bar)

Maximum Body Temperature: 750°F (399°C)

Line Sizes: 1/2" & 3/4" (15, 20 mm)

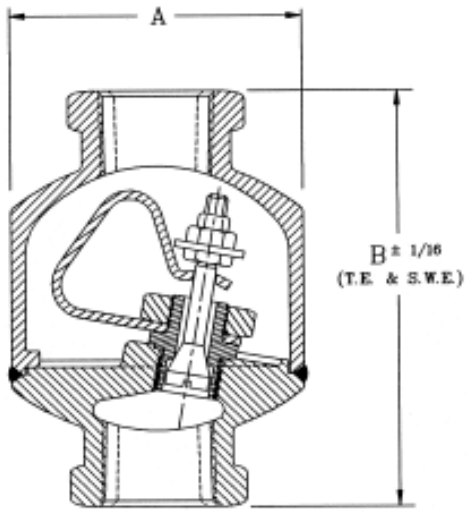
End Connections: threaded (NPT), BSPT, BSPP, or socket weld

Materials:

- Shell: investment cast Stainless Steel
- Valve Seat, Cone, Stem: Stainless Steel
- Bimetal: Stainless Steel

Mounting: from horizontal to vertical *(see Installation & Maintenance Instructions).* Self-draining and freeze-resistant when mounted in vertical position.

Dimensions



Size		A	B	Weight
1/2" & 3/4"	Inches	2-5/8"	3-3/4"	1.8#
	mm	67	95	0,82 kg

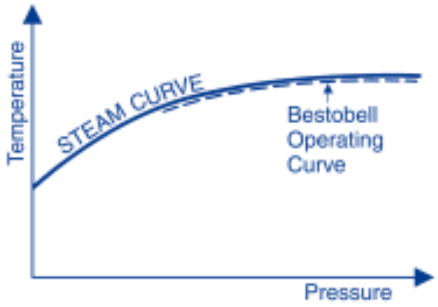
Bestobell's Delta Element ... no live steam loss

A sophisticated, yet simple, design that will give you years of trouble-free service with absolutely no live steam loss.

Bestobell's delta element is a triangular shaped bimetal strip of austenitic and ferritic stainless steels. The materials are rolled together, shaped into the delta pattern and then heat treated to eliminate stresses.

The single blade design provides faster response than found with typical stacked arrangements due to the large surface mass ratio. The stem is situated at a point that allows the expansion of the bimetal to exert a linear pull on the stem to prevent uneven wear on the sealing surfaces.

Combining thermostatic & thermodynamic forces for optimal performance.



Following the steam curve is the key to efficient steam trap performance. Utilizing dual thermostatic/thermodynamic forces allows Bestobell delta traps to match the steam curve, meaning that the energy in the steam is efficiently used by the process and not wasted in operating the trap.

Bestobell traps are unique in that they employ a hybrid design that utilizes both thermostatic and thermodynamic principles to *eliminate live steam loss.*

The combination of a temperature-sensitive closing force (thermostatic element) and a pressure-sensitive opening force (thermodynamic valve) overcomes the sluggishness and susceptibility to service failure that can be encountered with traditional bimetallic designs. The valve design utilizes the thermodynamic pressure forces of the flashing steam within a unique multi-staged variable orifice to provide quick response and a wide operating range closely approximating the steam curve.

Capacity Charts: Condensate Capacity at Differential Pressure

Size	Differential Pressure, psi (bar)	50 (3,44)	100 (6,89)	150 (10,34)	200 (13,78)	250 (17,23)	300 (20,68)
3/8", 1/2", 3/4"	Hot @ 50°F subcool, lbs/hr	50	50	50	50	50	50
	Hot @ 90°F subcool, lbs/hr	250	250	250	250	250	250
	Hot @ 10°C subcool, kg/hr	22	22	22	22	22	22
	Hot @ 32°C subcool, kg/hr	113	113	113	113	113	113

Note: flow rates based on discharge to atmospheric pressure, valid for back pressures up to 20% of inlet pressure. Higher back pressures require reset of control element to obtain these capacities. Consult factory for details.