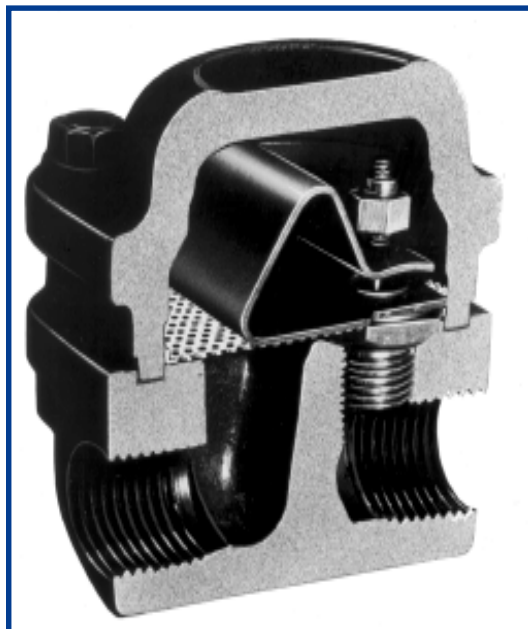


Model DM10E Steam Traps

For freeze protection drainage or ultra-subcooled tracing



Commonly used as an automatic drain for freeze-proof protection of condensate return systems and manifolds, and on tracer systems where maximum use of BTU's from condensate is desired.

- **Unique valving operation** — specifically designed to be closed steam-tight above 180°F.
- **Stainless Steel internals** — highly resistant to fatigue and corrosion and completely renewable.
- **Built-in strainer & check valve** — dish-type strainer protects trap from dirt while integral check valve prevents backflow during shutdown.
- **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.
- **Continuous air and CO₂ venting** — maximizes heat transfer while minimizing corrosion.
- **Fast start-up capabilities** — due to high cold discharge capacities.

Bestobell Model DM10E Steam Traps

Applications for DM10E

• Drainage Service

Install at drainage point on manifolds and condensate piping. Trap will remain closed during normal operation of condensate system. If condensate temperature falls below 120-180°F, trap will prevent freeze-ups by opening and draining the system.

• Ultra-Subcooled Tracing Service (with condensate discharged in the 100-180°F range)

See capacity chart at bottom of page.

Specifications

Maximum Differential Pressure: 120 psig (8,3 bar)

Maximum Body Pressure: 750 psig (52 bar)

Maximum Body Temperature: 650°F (343°C)

Line Sizes: 3/8", 1/2" & 3/4"

End Connections: threaded (NPT), BSPT, BSPP, SW

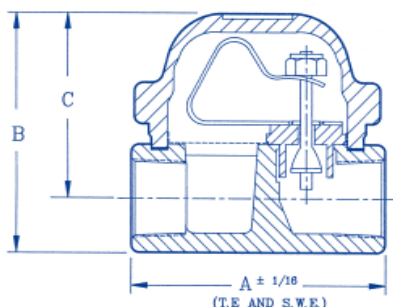
Materials:

- Body & Cover: forged Carbon Steel
- Valve Seat & Cone: Stainless Steel
- Bimetal: Stainless Steel
- Strainer: Stainless Steel
- Nuts & Bolts: Steel
- Gasket: flexible Graphite

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

Dimensions

Note:
dimension D
is overall width.



		A	B	C	D	WT.
3/8", 1/2"	Inches	2-7/16	3	2-1/4	2-7/16	2.2#
	mm	62	76	57	62	1 kg
3/4"	Inches	4-9/16	3-1/8	2-1/4	2-7/16	3.0#
	mm	116	79	57	62	1,4 kg

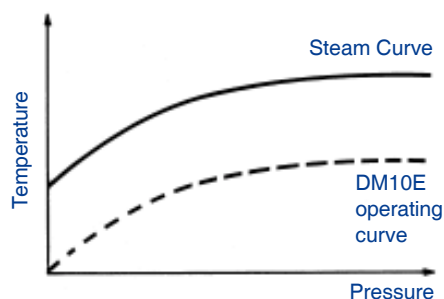
Bestobell's Delta Element ... no live steam loss

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)	30 (2,07)	40 (2,76)	50 (3,45)	60 (4,14)	70 (4,83)	80 (5,52)	90 (6,21)	100 (6,90)	110 (7,59)	120 (8,28)
3/8", 1/2", 3/4"	150°F discharge, lbs/hr	50	50	50	50	50	50	50	50	50	50
	120°F discharge, lbs/hr	250	250	250	250	250	250	250	250	250	250
	65,6°C discharge, Kg/hr	22,7	22,7	22,7	22,7	22,7	22,7	22,7	22,7	22,7	22,7
	48,9°C discharge, Kg/hr	113	113	113	113	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.