



Thermoton Liquid Expansion Steam Traps

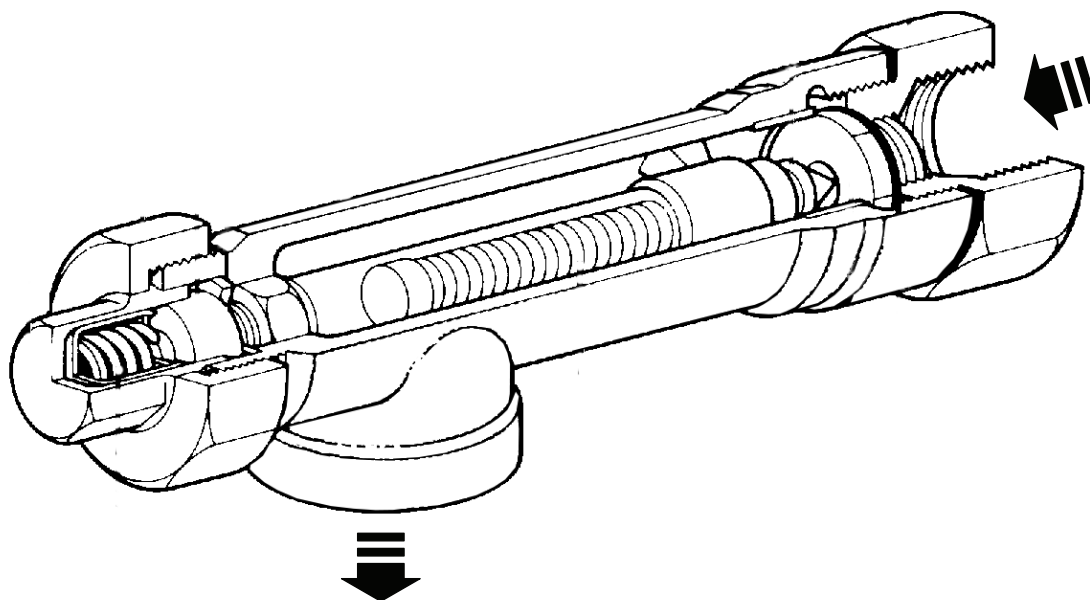
Description

Types "C" Thermotons can be field adjusted to hold back condensate until it has cooled to between 75 °F (24 °C) and 212 °F (100 °C). Four 50 °F (28 °C) adjustment ranges are available. Thermotons can therefore function as both steam traps and very simple temperature regulators.

Model	CL-6	CH-6
PMO	125 psi g (8.6 bar g)	300 psi g (20.7 bar g)
Sizes	¾"	
Connections	NPT	
Construction	Cast Iron Body	
	Brass and Stainless Steel Internals	
Options	BSP connections	

Typical applications

Steam trapping applications, such as outdoor storage tanks and non-critical tracing lines, where extreme sub-cooling is desirable to conserve energy. Automatic drainage of steam traps and process equipment in which residual condensate may freeze if the steam supply is interrupted.



Limiting operating conditions

PMO Maximum operating pressure	CL:	125 psi g	(8.6 bar g)
	CH:	300 psi g	(20.7 bar g)
Maximum operating temperature	Maximum setting	212 °F	(100 °C)

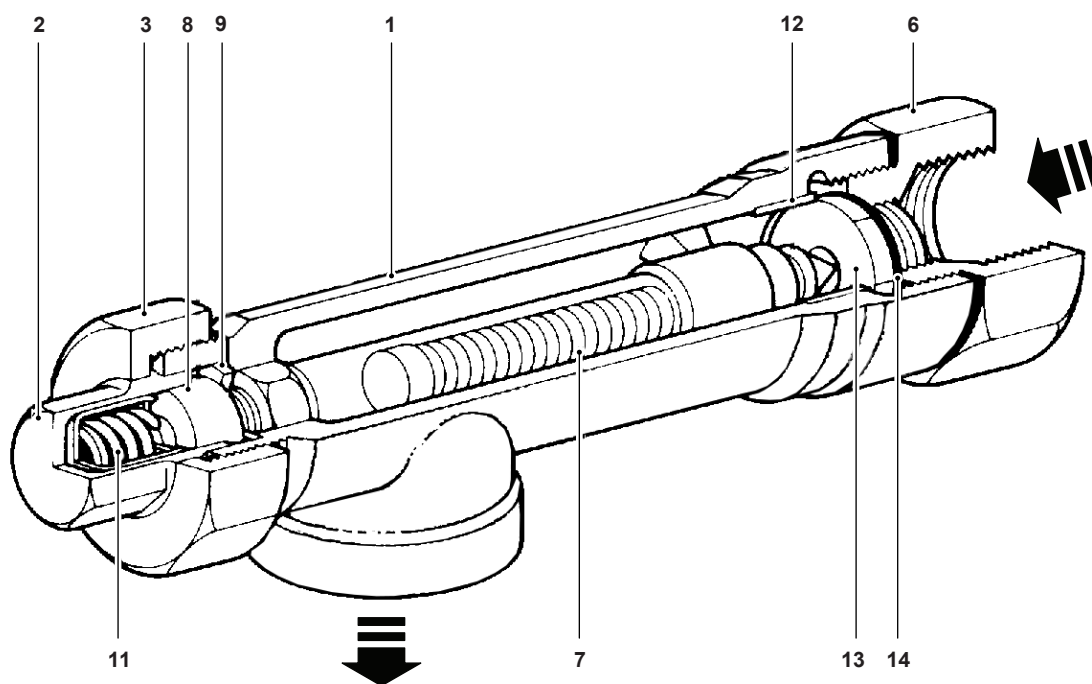
Pressure shell design conditions

PMA Maximum allowable pressure	300 psi g @ up to 450 °F	(21 bar g @ up to 232 °C)
TMA Maximum allowable temperature	450 °F @ 0 - 300 psi g	(232 °C @ 0 - 21 bar g)

Temperature ranges

Code	W		B		G		Y	
Adjustment range	170 °F to 212 °F (76 °C to 100 °C)		145 °F to 195 °F (63 °C to 91 °C)		110 °F to 160 °F (43 °C to 71 °C)		75 °F to 125 °F (24 °C to 52 °C)	
Types	CL-6W	CH-6W	CL-6B	CH-6B	CL-6G	CH-6G	CL-6Y	CH-6Y

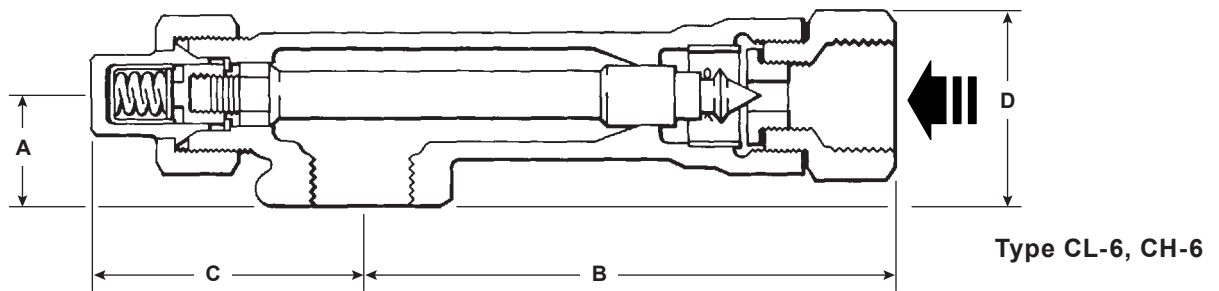
Materials



No.	Part	Material	
1	Body Type C	Cast Iron	ASTM A126 CL B
2	Adjustment Head	Brass	ASTM B124
3	Adjustment Nut	Cast Iron	ASTM A126 CL B
6	Inlet Nut Type C	Steel	AISI 1117
7	Element	Brass & Stainless Steel	
8	Guide Nut	Brass	ASTM B16

No.	Part	Material	
9	Guide Washer	Brass	ASTM B36
10	Adjustment End Plug	Brass	ASTM B62
11	Return Spring	Stainless Steel	AISI 302
12	Valve Head	Stainless Steel	AISI 303
13	Valve Seat	Stainless Steel	AISI 303
14	Seat Gasket Type C	Stainless Steel	AISI 302

Dimensions/weights (approximate) in inches (mm) and lbs (kg)



Size and Type	A	B	C	D	E	F	Weight
¾" CL-6/CH-6	1.5 (38)	4.6 (118)	3.7 (94)	2.7 (68)			4.5 lb (2.0 kg)

Capacities

Type	Valve orifice	Maximum operating pressure	Inlet Pressure psi g (bar g)											
			5 (.34)	10 (.68)	25 (1.72)	40 (2.76)	50 (3.45)	75 (5.17)	100 (6.89)	125 (8.62)	150 (10.3)	200 (13.8)	250 (17.2)	300 (20.7)
		psi g (bar g)	Pounds of condensate per hour*											
CL-6	¾"	125 (8.6)	445	630	1000	1260	1400	1730	2000	2240				
CH-6	⅝"	300 (20.7)	310	435	690	870	975	1200	1380	1540	1700	1950	2180	2400

* Capacities for 10 °F (5.5 °C) drop below opening temperature

Sample specification

Liquid expansion steam traps shall contain a solidly liquid-filled thermostatic element, and shall be field-adjustable to discharge condensate at a fixed temperature below 212 °F.

Installation

Thermotons function both as steam trap and simple temperature regulator. Where over temperature due to element failure will cause risk to people or process a failsafe backup safety control should be fitted. The Type C Thermotons should normally be installed with the outlet above the trap. When used to provide freeze protection, install with outlet downwards (as shown above) to be self draining. Discharge temperature change is approximately 25 °F per full turn of the adjustment nut. Allow 1/2 hour between adjustments.

Maintenance

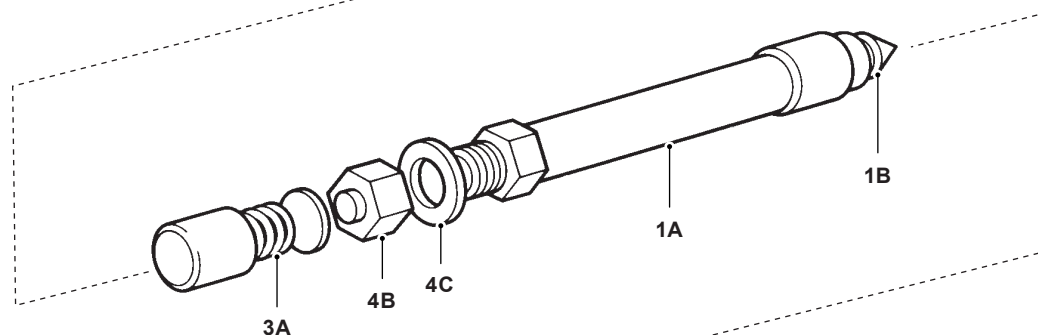
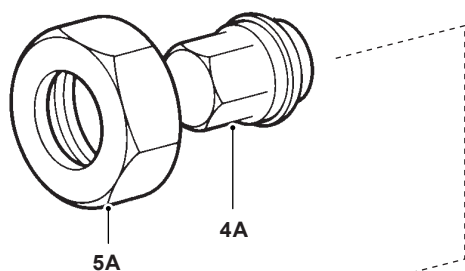
This product can be maintained without disturbing the piping connections. Complete isolation of the trap from both supply and return line is required before any servicing is performed. The trap should be disassembled periodically for inspection and cleaning of the valve head and seat, and operation of the element set. Worn or damaged parts should be replaced using a complete repair kit. Complete installation and maintenance instructions are given in IMI 2.201, which accompanies the product.

Spare Parts

Types C

Part

1	Element Set (Specify Range)	1A, 1B, 1C, 1D
2	Body Assembly	2A, 2B, 2C
2C	Inlet Nut Gasket	2C
3	Relief Spring	3A
4	Adjustment Head	4A, 4B, 4C
5	Lock Nut	5A



Type C

