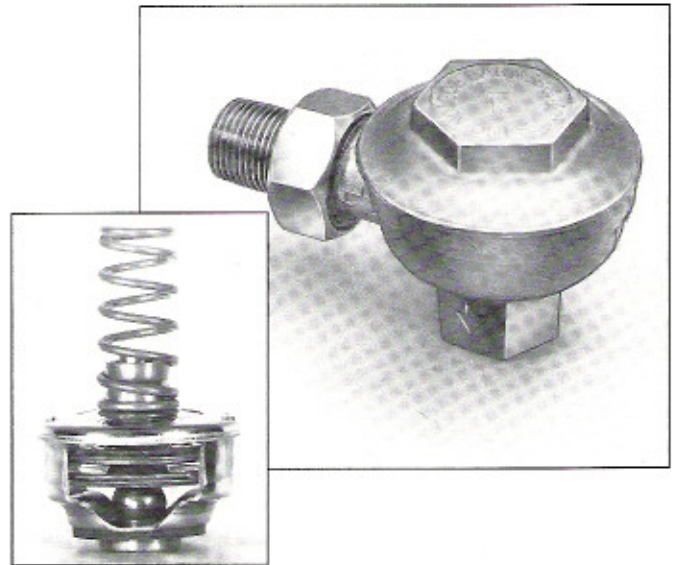


### Features

- Heavy duty cast bronze or forged brass body
- Forged brass cover, union nut and tailpiece
- Corrosion resistant seat and plug with option of stainless steel
- All working parts factory calibrated within "Cage Unit" ensuring absolute uniformity of performance
- 100% factory tested under live steam & condensate.
- Available in angle, straightway or vertical piping patterns
- 1/2", 3/4" and 1" Pipe sizes
- Also available, 1/2" inlet x 3/4" outlet design.



"Cage Unit" Interior\*

### Description

The purpose of a steam trap is to prevent steam from passing its point of use and to allow condensate to be expelled as soon as it forms. Barnes & Jones' thermostatic steam traps perform this function better than any other traps available today. Ours are the only factory calibrated thermostatic steam traps; a claim that cannot be matched by Dunham Bush, Sarco, Hoffman, Illinois or any other manufacturer. Calibration ensures that each of our thermostatic traps snaps shut to steam and opens to condensate with a uniform sensitivity that has been proven under live steam in our factory test facility. You no longer have to worry about the tolerances of individual parts, such as the "screw in" seat, lock washers, element and cover of other traps. It is our one piece, fully removable, thermostatic element, the Cage Unit, that is the heart of our trap. The body of the trap acts merely as a housing for the Cage Unit, which performs all the work. Additionally, testing of this element can be performed out of its original trap body, in a test body, due to its stand alone, calibrated construction, thereby eliminating the need to take the trap off line for testing or repair and greatly simplifying your preventive maintenance program.

### Operation

Using a diaphragm or bellows, within which is a volatile liquid, sealed under vacuum, the trap opens and closes in a modulating manner dependent upon the temperature affecting it. The trap's normal state is that of being wide open to expel air and condensate. When surrounded by steam at saturated temperature, the volatile fill has flashed, creating an internal pressure equal to the surrounding pressure. This equalization of pressures allows the bellows to expand to its natural length or "closed" position, preventing steam from passing. The presence of condensate sufficiently cools the bellows to condense the vapor within. Once again the external pressure is greater and the bellows reverts back to its contracted, or "open" position, allowing the condensate to drain from the trap, permitting more steam to enter the radiator and thus, the modulating action of the trap.

\*Adaptations of the "Cage Unit" are available to renew all manufacturers' thermostatic steam traps. Call for "Steam Trap Repair Guide."

# Engineering Specifications

## CAPACITIES

square feet EDR

Type	Pipe Size	Orifice Dia.	Pressure Differential (PSIG)									
			¼	½	1	1½	2	3	5	10	15	25
122 & BJV-2L	½"	⅜"	92	120	168	200	228	278	320	490	610	1270
134	¾"	⅜"	152	208	320	400	450	512	710	1040	1260	2450
147	1"	¼"	300	430	590	700	760	824	1200	1750	2200	4100

**Note on capacity:** For low pressure heating system use, thermostatic traps are rated in square feet EDR (Equivalent Direct Radiation). One square foot EDR is equivalent to an output of 240 BTU per hour or 0.25 lbs. of condensate.

## CAPACITIES

lbs. condensate per hour.

Type	Pipe Size	Orifice Dia.	Pressure Differential (PSIG)												
			¼	½	1½	2	3	5	10	15	20	40	50	60	65
EB & BJV-2M	½" & ¾"	¼"	150	200	290	440	550	1150	1540	1700	1910	2370	2960	3260	3430

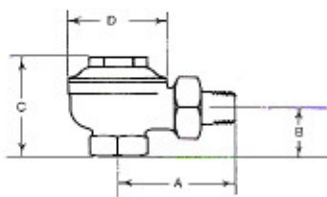
**Note on capacity:** Capacities shown are at 10° below saturated steam temperature and are the result of an extensive testing program conducted in accordance with ANSI/ASME PTC 39.1 – 1980, *Condensate Removal Devices for Steam Systems*, at the B & J factory. Significantly greater capacities are realized when condensate temperatures are cooler than 10° below saturation temperature.

## DIMENSIONS

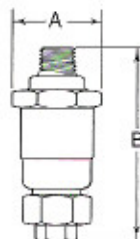
## MATERIALS

Model No.	Pipe Size	A	B	C	D	E	Wt. (lbs.)
122A	½"	3"	1¼"	2½"	2⅞"	—	1½
134A	¾"	3⅝"	1⅝"	2⅞"	2⅞"	—	1¾
147A	1"	3⅝"	1⅞"	3½"	3⅞"	—	2¼
2EBA	½"	3"	1¼"	3"	2⅞"	—	1⅝
3EBA	¾"	3⅝"	1⅝"	3⅝"	2⅞"	—	2
122S	½"	3"	2"	2½"	2⅞"	½"	2
134S	¾"	3⅝"	2⅞"	2⅞"	2⅞"	⅝"	1⅞
2EBS	½"	3"	2"	3"	2⅞"	½"	2
3EBS	¾"	3⅝"	2⅞"	3⅝"	2⅞"	⅝"	2⅞
BJV-2L	½"	2⅞"	4⅞"	—	—	—	1½
BJV-2M	½"	2⅞"	4⅞"	—	—	—	1½

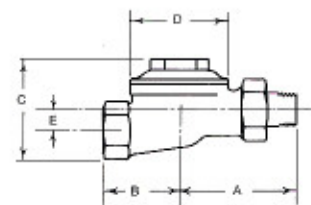
Part	122, 134, BJV-2L	147, EB, BJV-2M
Cap	Brass, ASTM CDA-377	Brass, ASTM CDA-377
Body	Brass or Bronze	Brass or Bronze
Element	Monel & Phosphor-Bronze	Phosphor-Bronze
Gaskets	Non-Asbestos Fiber	Copper And Non-Asbestos Fiber
Plug	Stainless Steel	Bronze
Seat	Brass	Brass



Angle Pattern — A



Verticle Pattern — BJV



Straight Pattern — S