

# UB450

# Universal Style Quick-Change Trap Module

**Bi-Metallic Steam Trap Module** (mounts to UC450 Universal Connectors)

Model	<b>UB450</b>
Connections	<b>Fits UC450 Series Universal Connectors</b>
Body Material	<b>Stainless Steel</b>
PMO Max. Operating Pressure	<b>450 PSIG</b>
TMO Max. Operating Temperature	<b>662°F</b>
PMA Max. Allowable Pressure	<b>720 PSIG @ 100°F</b>
TMA Max. Allowable Temperature	<b>800°F @ 400 PSIG</b>

Steam trap modules **can be used with other manufacturers' Universal Connectors.**

### Typical Applications

The **UB450** Series Bi-Metallic Steam Trap Modules are used in steam tracing applications (for process line heating, instrumentation and winterization, general steam jacketing). In tracing applications, the externally-adjustable (temperature adjustment) bi-metal element provides accurate control of condensate discharge temperature as required to maintain a specific product temperature as well provide maximum usage of energy.

### How It Works

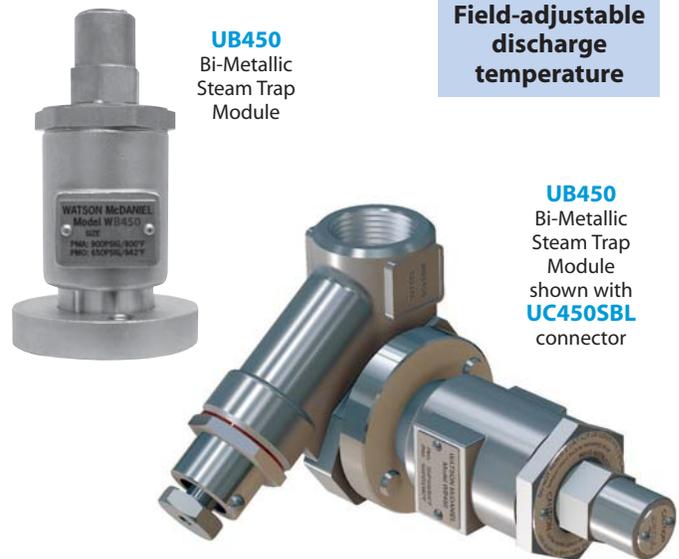
Bi-metallic plates of dissimilar metals which are connected to the valve seat assembly respond to temperature variations. At relatively cool conditions, the trap is open for the discharge of condensate. When the temperature of the condensate is equal to or higher than the set temperature, the metals react and expand, closing the trap. External field-adjustability of the bi-metal element allows control of the condensate discharge temperature. Trap module is fastened to the universal connector using 2 bolts.

### Features

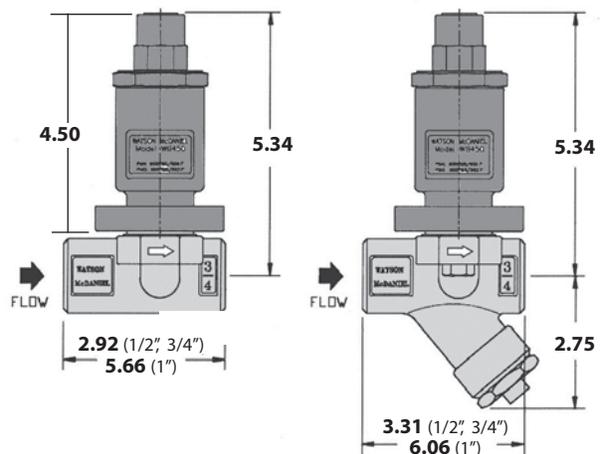
- Excellent for various steam tracing and small process applications where maximum energy usage is desired
- Field-adjustable bimetal element allows control of condensate discharge temperature, providing maximum use of additional energy in the condensate
- Internal screen and seat/plug design help prevent pipe scale and debris from accumulating on seating surfaces to provide trouble-free operation

### Installation and Maintenance

Universal connector is first permanently threaded or welded into piping system. Trap module is attached to the universal connector using two bolts. If the trap fails for any reason, replace only the trap module. In vertical piping installations with upward flow, use of a blowdown valve is not recommended. Discharge would be in upward and unsafe direction.



MATERIALS	
Body and Cover	Stainless Steel, A-351, Gr. CF8
Bimetal Element	GB14
Valve Seat	17-4 Ph Stainless Steel
Gaskets (2)	Spiral Wound 304 Stainless Steel with Grafoil Filler



Shown with UC450 & UC450S Connectors

Set Temperature	Maximum Trap Capacities at Various Inlet Pressures and Set Temperatures – Condensate (lbs/hr)											
	Steam Inlet Pressure (PSIG)											
	15	30	50	100	125	150	200	250	300	350	400	450
220°F	56	70	102	144	161	177	204	228	250	270	289	306
240°F	116	164	212	300	336	368	425	475	520	562	600	637
260°F	134	190	245	346	387	424	490	548	600	648	693	735
280°F	143	202	261	370	413	453	523	584	640	691	739	784

- Notes:**
- 1) Capacities in chart are based on discharging condensate to atmosphere with a condensate temperature of 200° F.
  - 2) Contact factory for additional information including other condensate set and discharge temperatures.
  - 3) To ensure proper operation and eliminate possible steam loss, the Set Temperature should be lower than 27 °F subcool (degrees below inlet steam saturation temperature).