

# By-pass trap



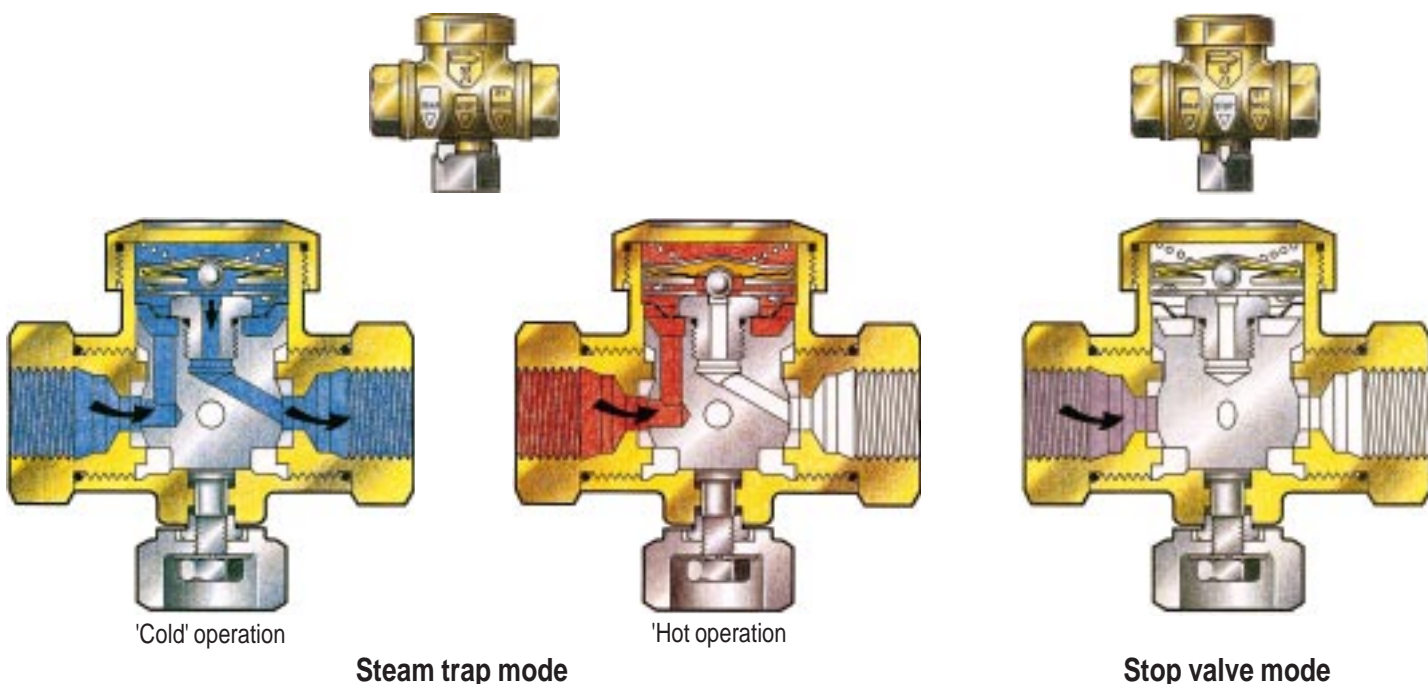
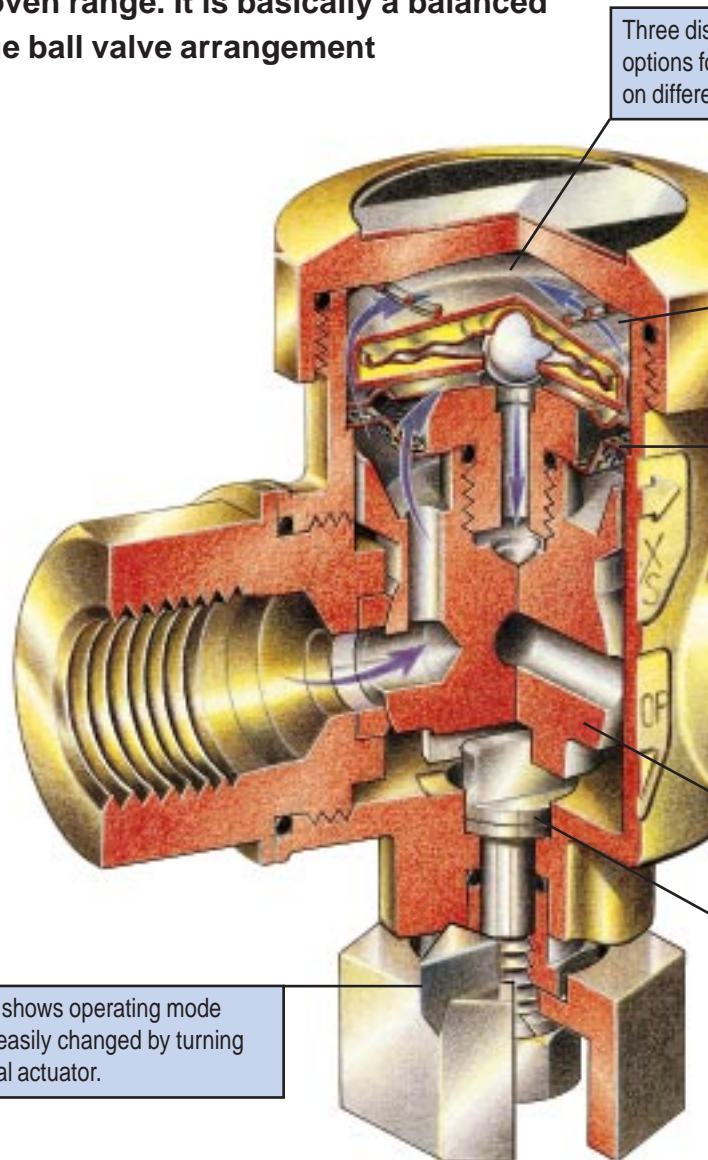
Spirax Sarco has been manufacturing balanced pressure thermostatic steam traps for over 50 years. Continuous development has resulted in a design evolution which leads the world.

The BPT13T has now been added to the well proven range. It is basically a balanced pressure steam trap which incorporates a unique ball valve arrangement making the product 'three ways different'

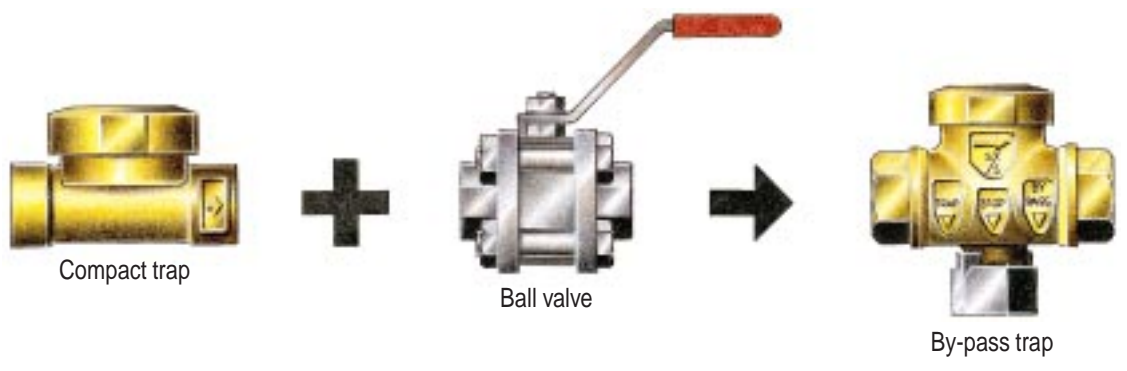
- 1** In the steam trap mode it operates similarly to other Spirax Sarco balanced pressure traps which are widely accepted for applications where thermostatic steam traps can utilise sensible heat in the condensate and reduce flash steam loss.
- 2** In the stop valve mode it totally isolates the downstream pipework from the upstream pressure source.
- 3** In the by-pass mode it simplifies and reduces the cost of installation. The by-pass can be used to handle air and high start up condensate loads or to avoid debris collecting in the steam trap when new systems are commissioned.

The thermostatic principle of operation also makes the BPT13T ideal for the fast venting of air and other incondensable gases under normal steam trap operation.

The versatility of the BPT13T therefore makes it suitable for a wide variation of applications in heating and venting as well as in steam using process industries.



Discharge temperature  
for optimum performance  
in different applications.



Stainless steel capsule for  
high corrosion resistance.

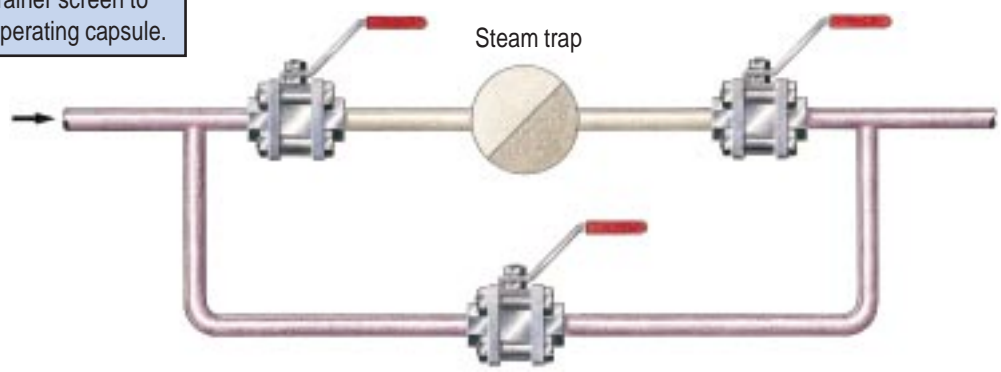
Inbuilt strainer screen to  
protect operating capsule.



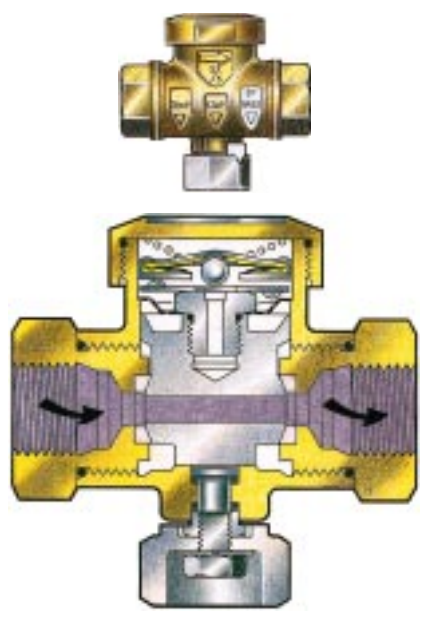
Unique ball valve enabling  
three modes of operation.

High integrity, captive  
asbestos-free seals.

### Conventional trap and by-pass



### Combined steam trap, stop valve and by-pass



By-pass mode

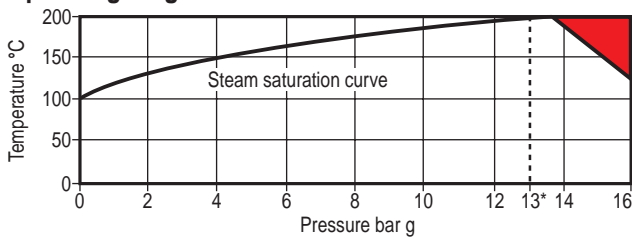
### User benefits

- Three easily adjusted operating modes for flexibility of plant operation.
- Integral by-pass for start up conditions.
- Combined steam trap, stop valve, and by-pass reduces installation space.
- Discharge temperature set by capsule selection removes necessity for on site adjustments.
- Automatically discharges air and incondensable gases during normal trapping application and is unaffected by back pressure.
- High resistance to superheat and waterhammer ensures long working life and reduces maintenance.

## Limiting conditions

Body design conditions PN16  
 PMA - Maximum allowable pressure 16 bar g  
 TMA - Maximum allowable temperature 200°C  
 Cold hydraulic test pressure 24 bar g

## Operating range



\*PMO - Maximum operating pressure (recommended) 13 bar g

  The product must not be used in this region.

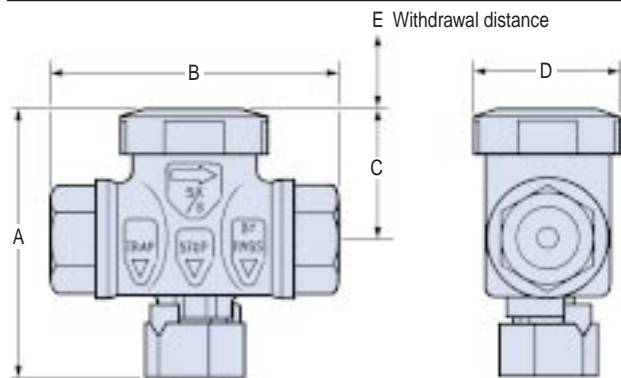
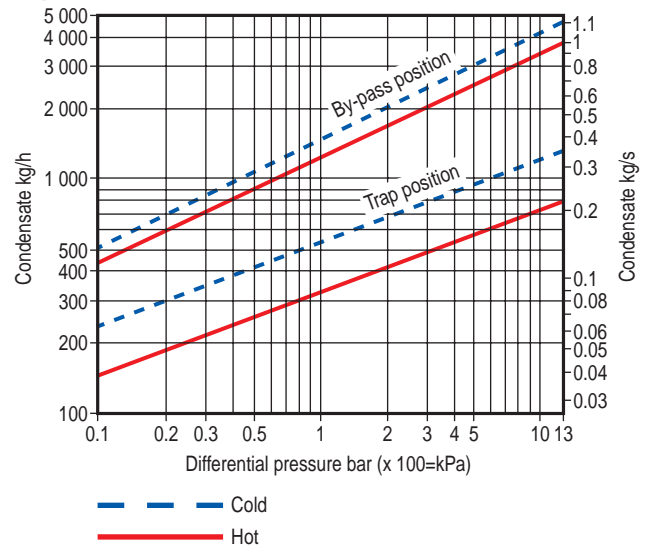
## Sizes and pipe connections

½", ¾" and 1" Screwed BSP

## Materials

Part	Material	
Body	Brass	BS 2872 CZ 122
End connection	Brass	BS 2872 CZ 122
Cap	Brass	BS 2872 CZ 122
Actuator	Stainless steel	BS 3146 Pt2 ANC 4B
Spindle	Stainless steel	BS 970 431 S29
Stem seal	25 % carbon filled PTFE	
Gland nut	Stainless steel	BS 970 303 S31
Spring washer	Stainless steel	BS 6105 Gr A4
Lock nut	Stainless steel	BS 970 304 S16
Ball plug	Brass (ELNP finish)	BS 2874 CZ 121
Seat 'O' ring	Synthetic rubber high fluorine fluorocarbon	
Valve seat	Stainless steel	BS 970 431 S29
Main seal	25 % carbon filled PTFE	
End connection 'O' ring	Synthetic rubber high fluorine fluorocarbon	
Screen	Stainless steel	ASTM A240 TP 304
Spacer plate	Stainless steel	BS 1449 304 S16
Capsule	Stainless steel	
Spring	Stainless steel	BS 2056 302 S26
Cap 'O' ring	Synthetic rubber high fluorine fluorocarbon	

## Capacities



## Dimensions (approximate) in millimetres

Size	A	B	C	D	E	Weight kg
½"	92	97	45	50	55	1.0
¾"	92	117	45	50	55	1.2
1"	92	127	45	50	55	1.5

Spirax-Sarco Limited, Charlton House,  
 Cheltenham, Gloucestershire, GL53 8ER UK.  
 Tel: +44 (0)1242 521361 Fax: +44 (0)1242 573342  
 E-mail: enq@spiraxuk.attmail.com  
 Internet: www.spirax-sarco.com

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