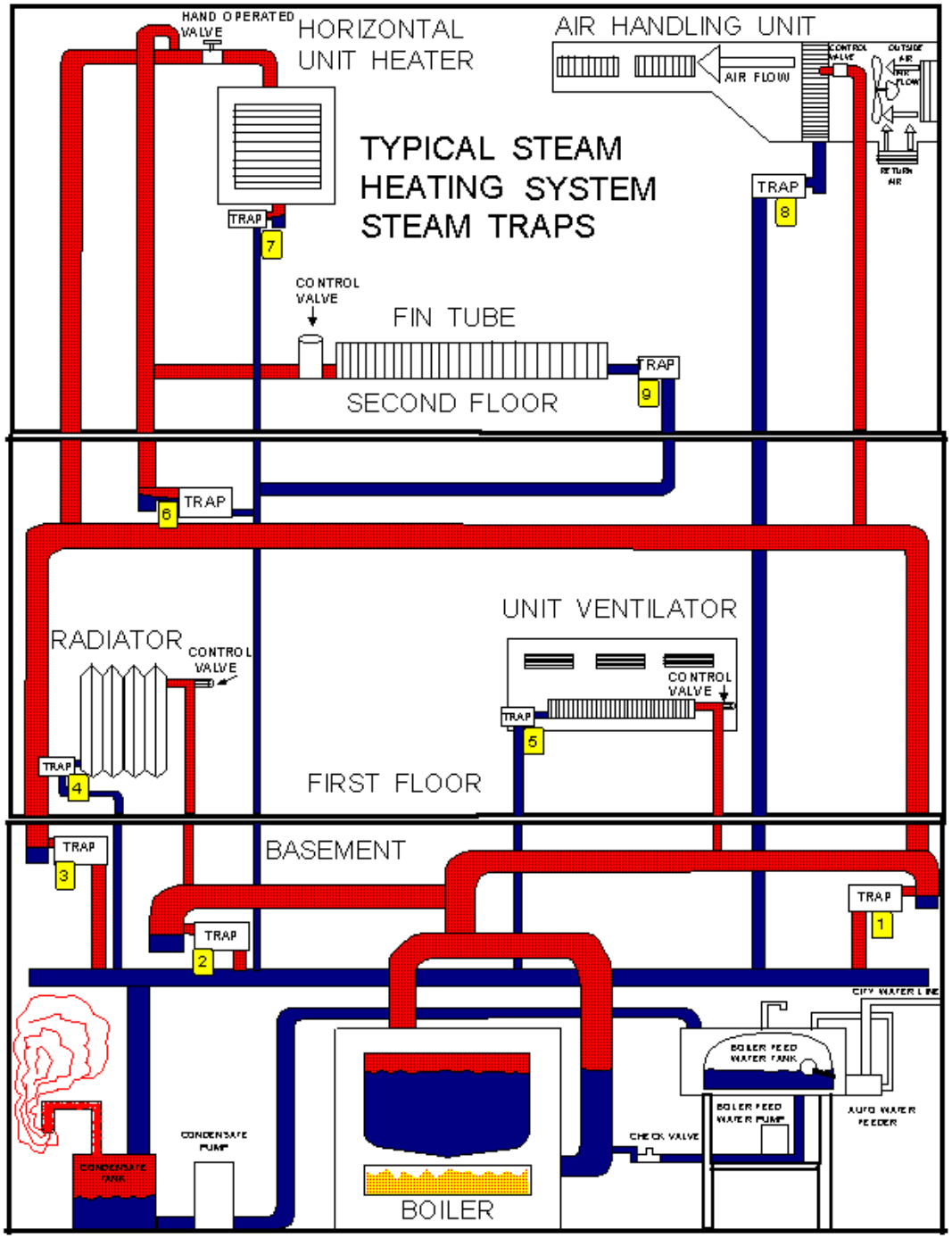
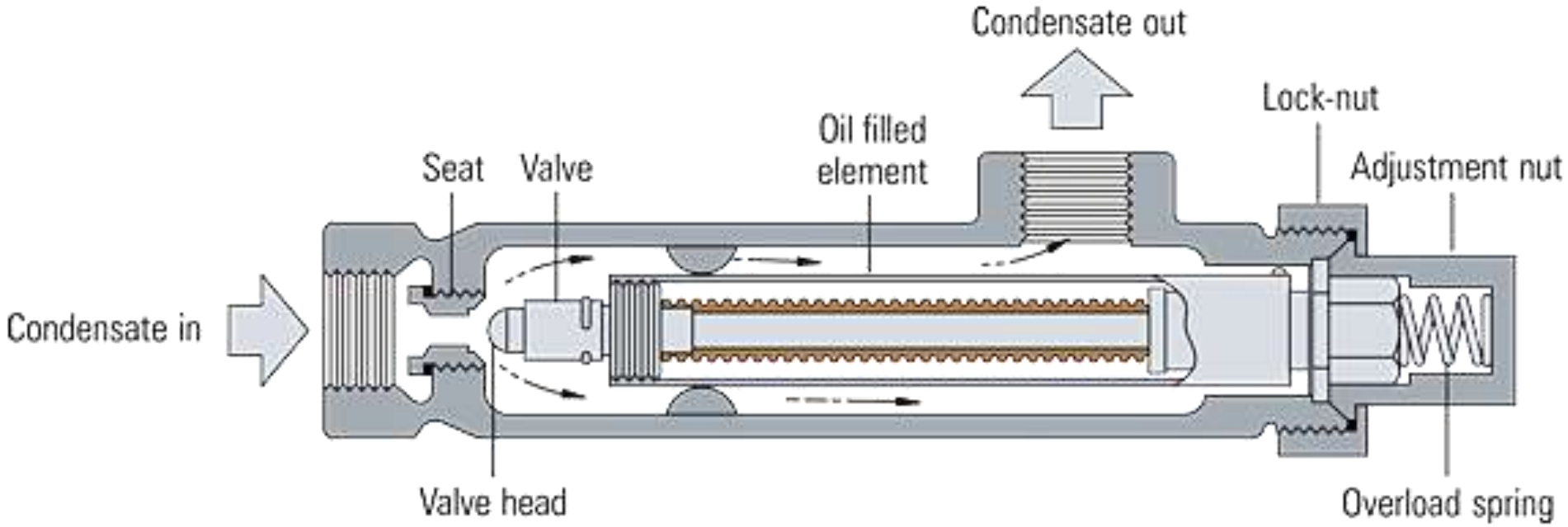
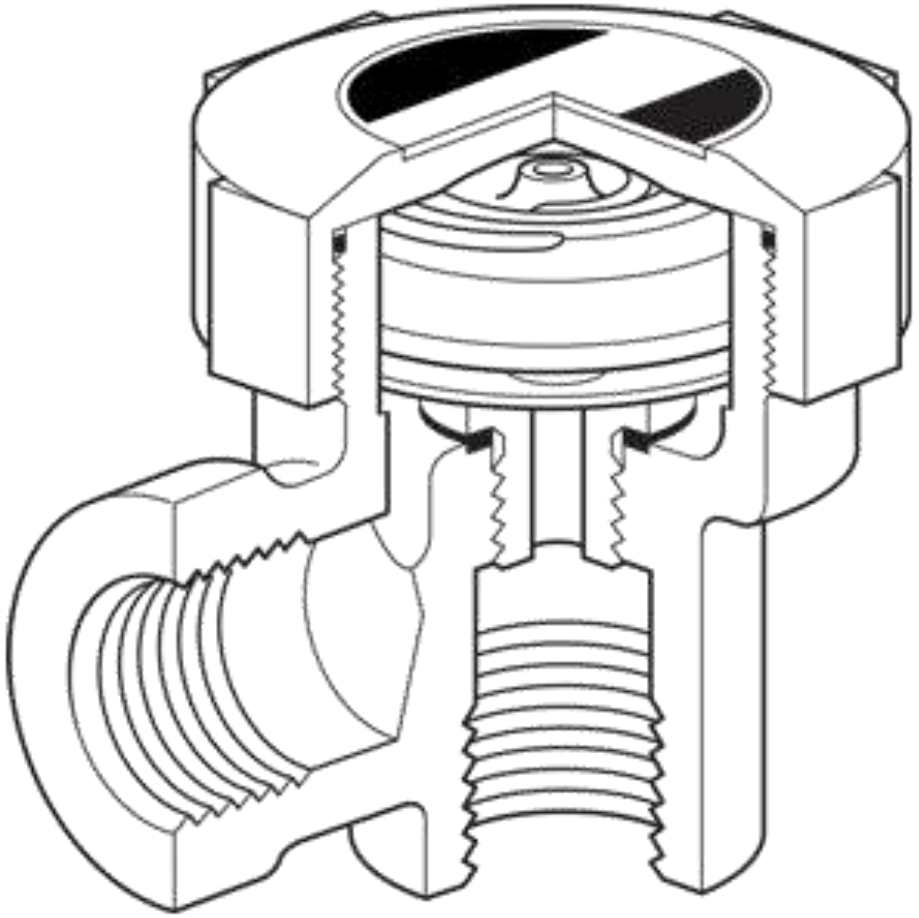
STEAM TRAPS

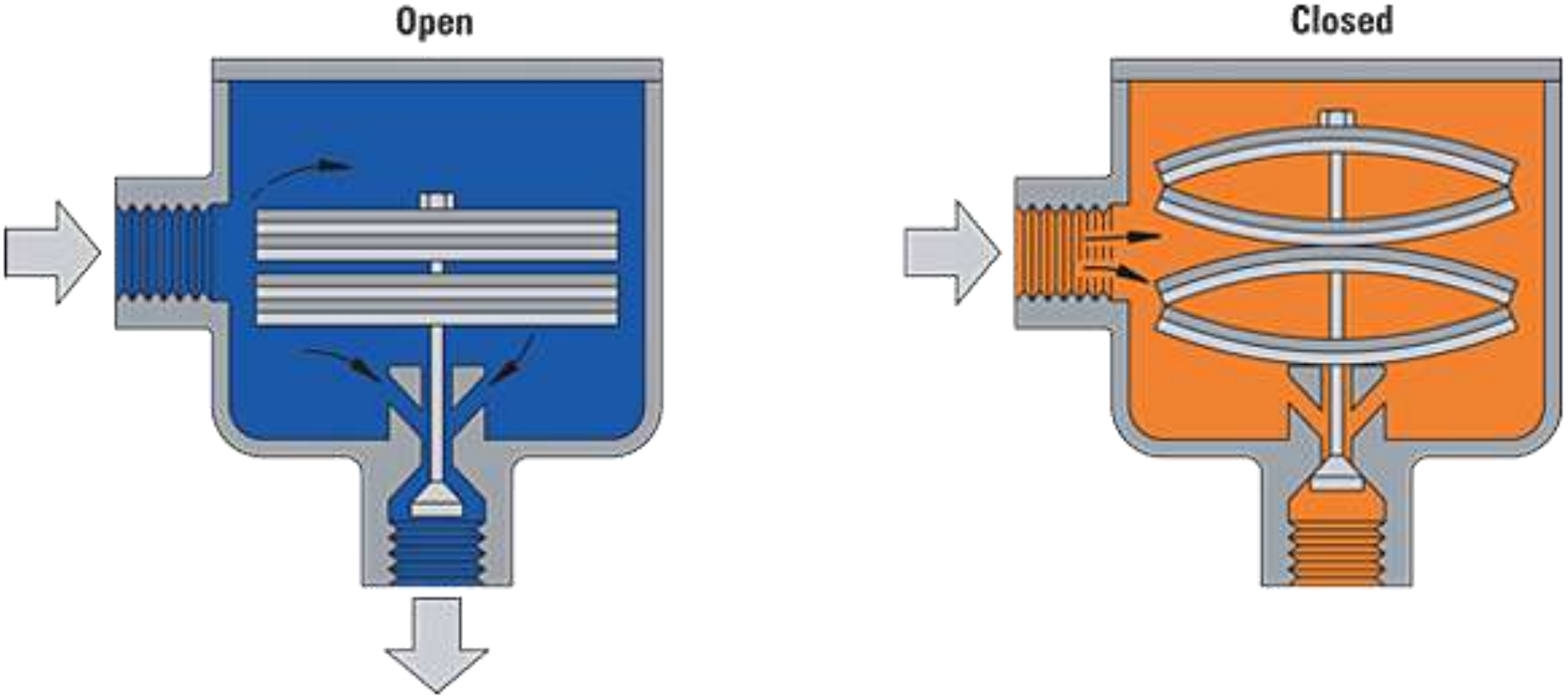

HAND OPERATED VALVE
HORIZONTAL UNIT HEATER
AIR HANDLING UNIT
AIR FLOW
CONTROL VALVE
OUTSIDE AIR INTAKE
RETURN AIR
TYPICAL STEAM HEATING SYSTEM STEAM TRAPS
TRAP 7
TRAP 8
CONTROL VALVE
FIN TUBE
TRAP 9
SECOND FLOOR
TRAP 6
UNIT VENTILATOR
RADIATOR
CONTROL VALVE
CONTROL VALVE
TRAP 5
TRAP 4
FIRST FLOOR
BASEMENT
TRAP 3
TRAP 2
TRAP 1
CITY WATER LINE
BOILER FEED WATER TANK
BOILER FEED WATER PUMP
AUTO WATER FEEDER
CHECK VALVE
CONDENSATE PUMP
CONDENSATE TANK
BOILER

Liquid expansion steam trap

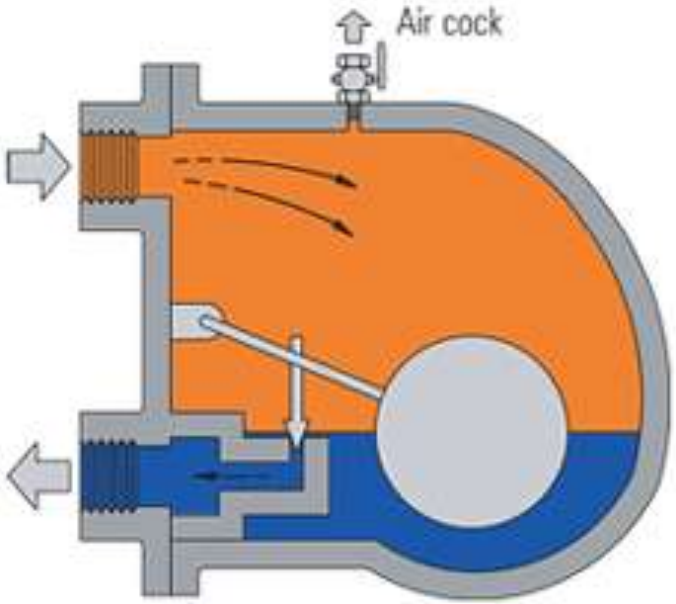


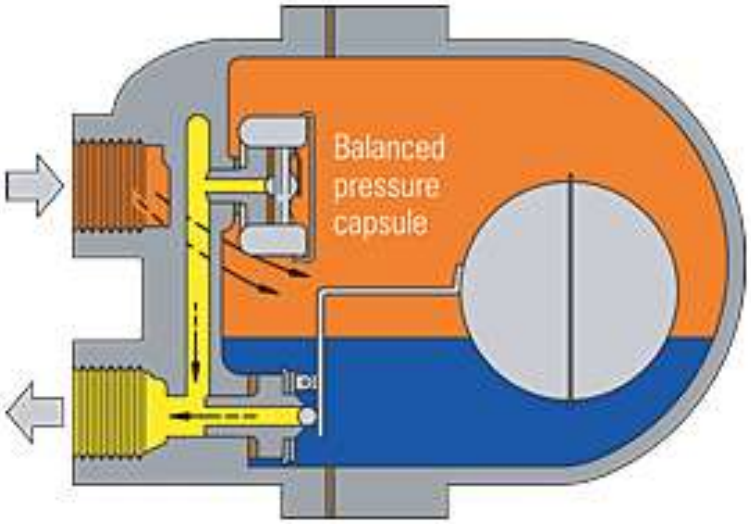
Balanced pressure steam trap with replaceable capsule




Open
Closed

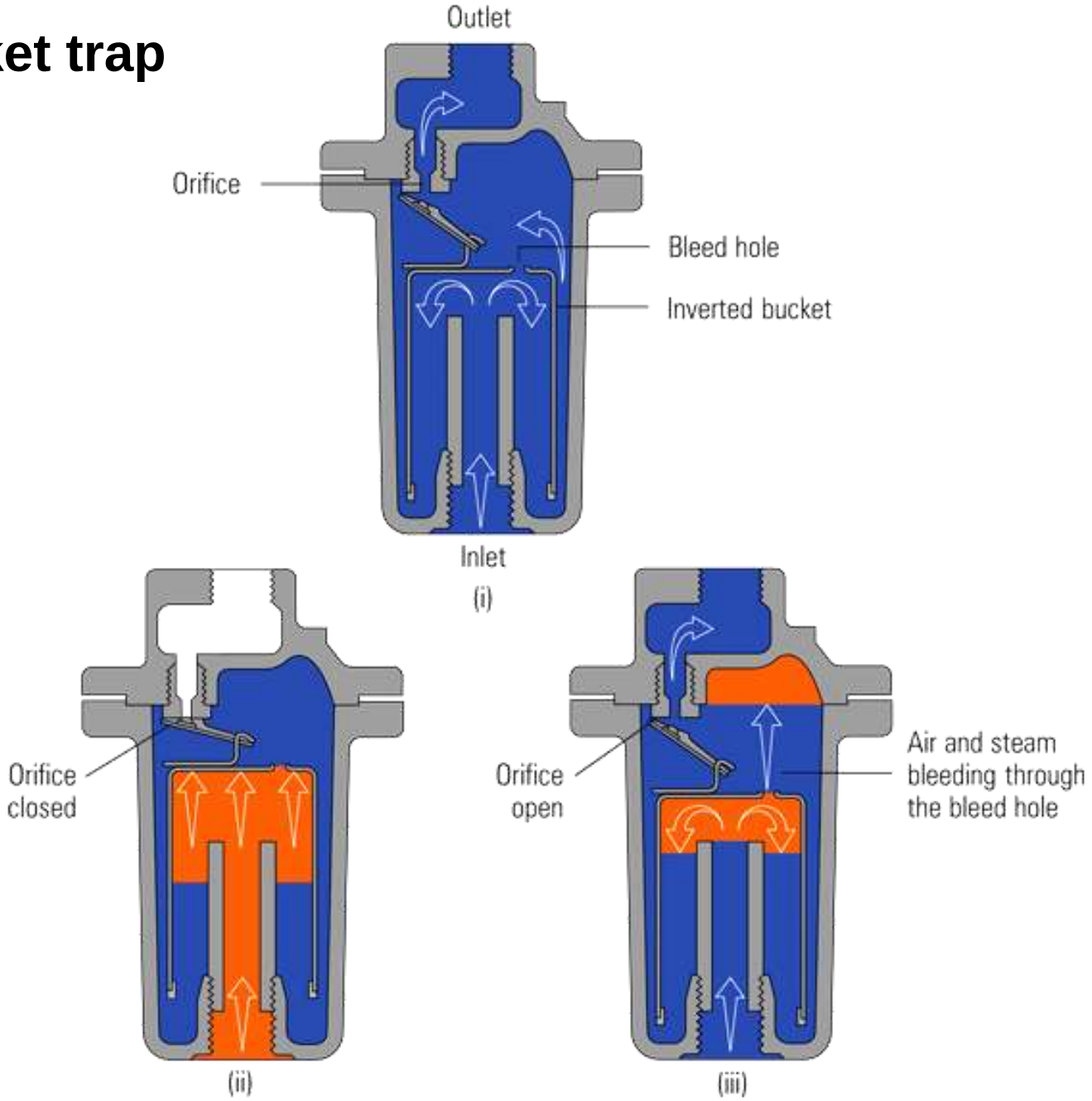
Ball float steam trap

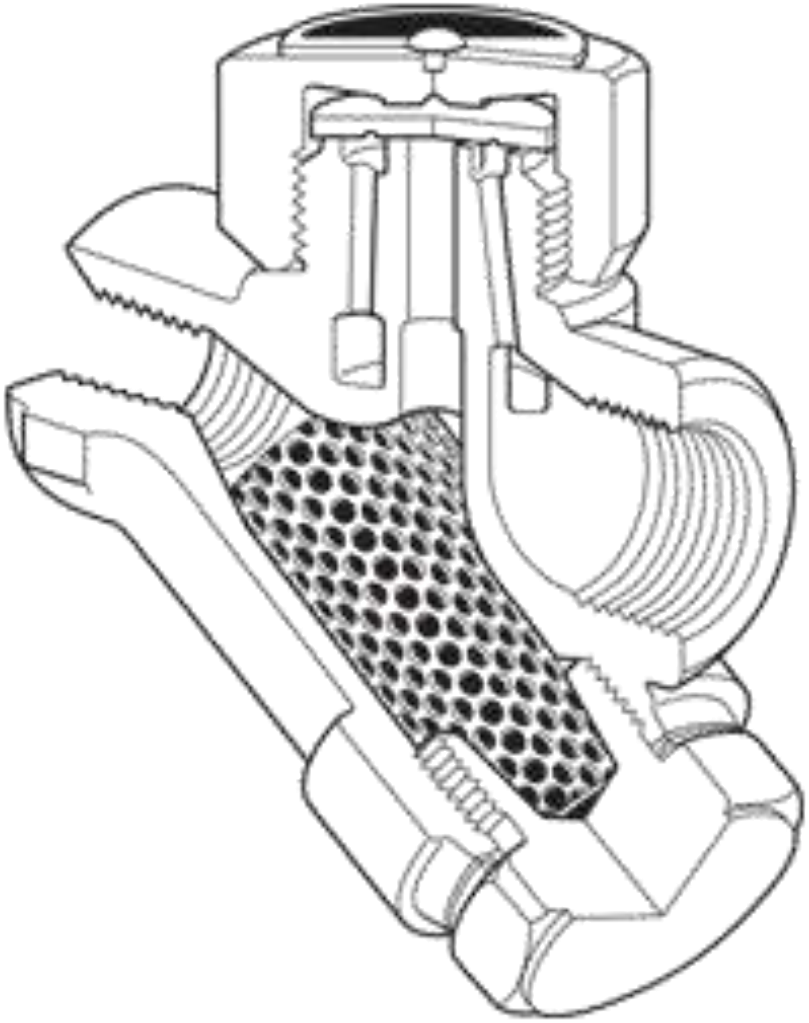


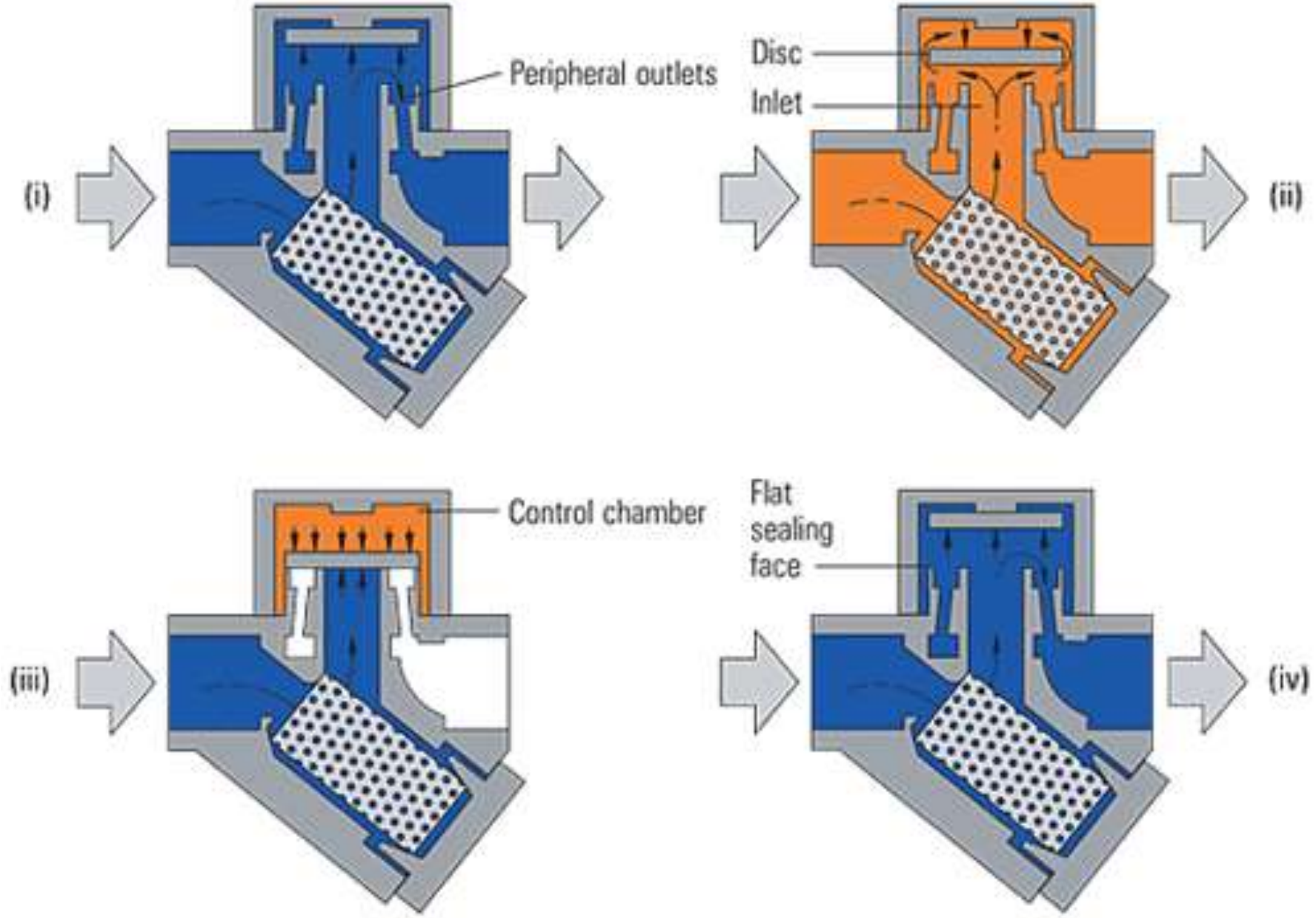


The ball float type trap operates by sensing the difference in density between steam and condensate. In the case of the trap shown condensate reaching the trap will cause the ball float to rise, lifting the valve off its seat and releasing condensate. As can be seen, the valve is always flooded and neither steam nor air will pass through it, so early traps of this kind were vented using a manually operated cock at the top of the body. Modern traps use a thermostatic air vent, as this allows the initial air to pass whilst the trap is also handling condensate.

Inverted bucket trap






Peripheral outlets
(i)
Disc
Inlet
(ii)
Control chamber
(iii)
Flat
sealing
face
(iv)