



Vacuum Breaker

ARMSTRONG'S VACUUM BREAKER

For maximum protection against freezing and water hammer in condensing equipment under modulated control, most authorities recommend the use of a vacuum breaker.

When the steam control valve closes, the steam in the coil will condense. The existing vapor pressure in the coil will correspond to that of the temperature of the air passing over the coil — 29.56" Hg of vacuum for 50°F air temperature. Actually, a vacuum can exist in the coil with the control valve partly open and positive pressure between the control valve and the coil.

Observation of a glass drip leg, glass runout and glass trap shows that the instant a vacuum is created, gravity drainage of condensate from the coil, drip leg and trap is impossible. The accumulated condensate in the coil will freeze if the air temperature is below 32°F., above 32°F., destructive water hammer may occur when control valve reopens.

The Armstrong Vacuum Breaker is a simple, reliable device that provides a positive means to automatically relieve or "break" vacuum at a predetermined setting. The Armstrong Vacuum Breaker is not intended to control or maintain a specific degree of vacuum, they are designed to be applied to prevent damage such as:

- Freezing of coils resulting from the holdback of condensate due to an induced vacuum.
- Collapse of jackets on steam jackets and kettles caused by vacuum where steam is shut off.
- Water hammer in any heating equipment due to vacuum caused by throttling control valves.

For more information on vacuum breakers and other Armstrong products, contact your Armstrong Representative.

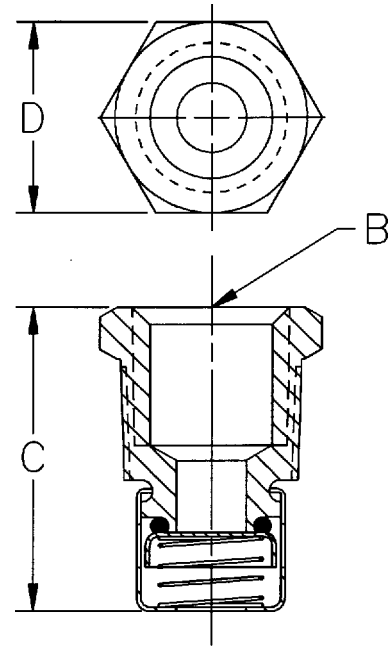
Armstrong

Physical Data

Size	1/2" NPT	3/8" NPT
"B" Pipe Connections	3/8" NPT	1/4" NPT
"C" Height (in)	1 1/4	1 3/32
"D" Width (in)	7/8" Hex	11/16" Hex

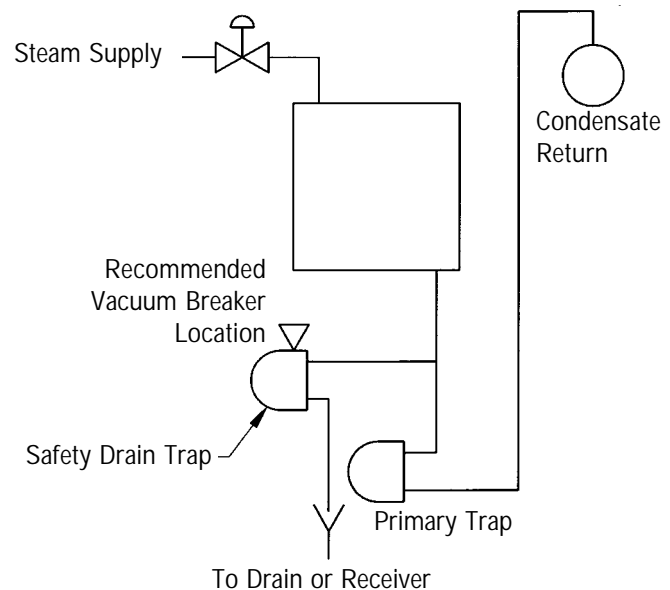
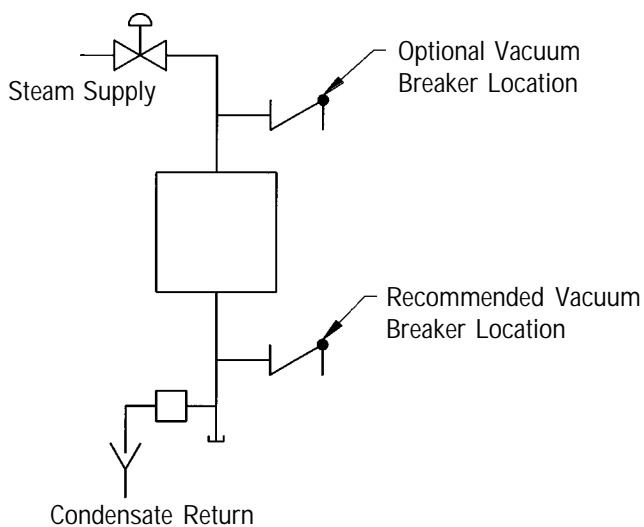
List of Materials

Body	18-8 Stainless Steel
O-Ring	EPDM
Spring	Stainless Steel
Screen	304 Stainless Steel
Valve	18-8 Stainless Steel



- Available with 1 psi ΔP^* or .35 in Hg. ΔP opening pressure.
* 1 psi ΔP Opening pressure only available in 1/2" NPT size.
- Maximum service pressure is 150 psig.
- Resistant to wear and corrosion.
- Air flow rate: 1/2" NPT is 10 SCFM @ .35" Hg differential 70°F air.
3/8" NPT is 7 SCFM @ .35" Hg differential 70°F air.

Typical Installations



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