



# Armstrong® Flash Recovery Vessels

## How much flash steam is available?

1. Follow horizontal axis right to primary discharge pressure.
2. Follow vertically up to secondary pressure curve.
3. Move left to "Percentage of flash steam."

### Example:

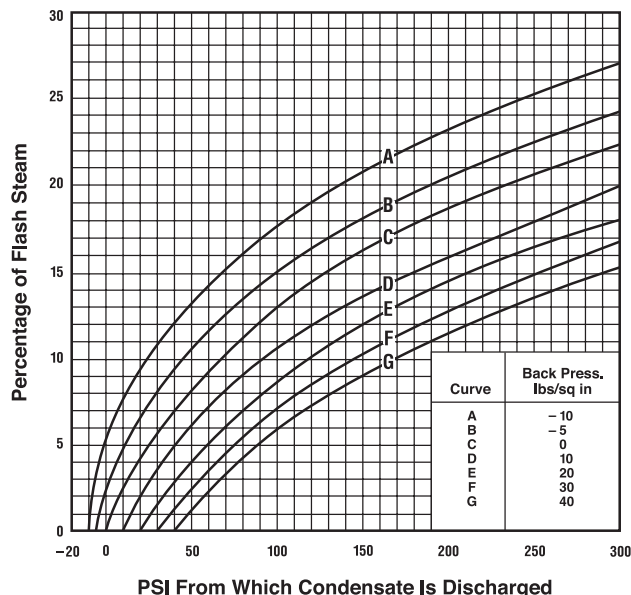
Condensate load = 10,000 lb/hr  
 Primary pressure = 100 psig  
 Secondary pressure = 10 psig

Percentage of flash = 10.6%  
 Secondary steam load = 1,060 lb/hr  
 (10,000 lb/hr x .1060 = 1,060 lb/hr)

### Selection:

Model AFT-12

## Percentage of Flash Steam Formed When Discharging Condensate to Reduced Pressure



Condensate Recovery Equipment

## Application Information

- Condensate Load to Flash Tank **6,000** lb/hr
- Pressure of Incoming Condensate **100** psig
- Flash Tank Pressure **20** psig
- Flash Percentage **9.5%**
- Flash Amount =  $A \times (D/100) = 570$  lb/hr
- Low Pressure Steam Required **2,500** lb/hr
- High Pressure Steam **200** psig
- Back Pressure **5** psig

Flash tank will accommodate (A) **6,000** lb/hr of condensate at (B) **100** psig, resulting in (E) **570** lb/hr of flash steam at (C) **20** psig. The flash tank shall be Armstrong Model AFT-12.

The back pressure regulator shall pass (E) **570** lb/hr of steam from (C) **20** psig to atmosphere. The back pressure regulator shall be Armstrong Model **1" GP-2000R**.

The pressure reducing valve shall pass (F) **2,500** lb/hr of steam from (G) **200** psig to (C) **20** psig. Pressure reducing valve shall be **3/4" GP-2000**.

The steam trap shall be an inverted bucket type with large vent and internal check valve. The steam trap will be sized using a 3:1 safety factor. The steam trap shall pass  $3 \times (A - E)$  **16,290** lb/hr at a (C - H) **15** psi differential. The steam trap shall be an Armstrong Model **2" 816 CV**.

