

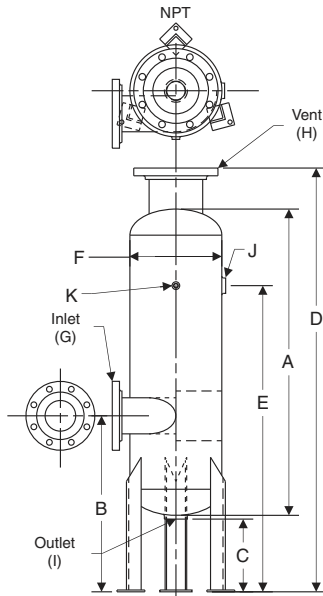


# EAFT Series Flash Tanks

Carbon Steel

For condensate capacities up to 9 070 kg/h... Flash steam up to 1 360 kg/h

Condensate Recovery Equipment



## Features

- CE marked vessels
- Standard pressure rating 10 bar (other pressure ratings available upon request)
- Standard models are designed and sized to cover a wide range of applications and loads
- Flash vessels are designed to provide low velocity flash steam with no water carryover
- Quick payback for flash recovery investment
- Special tanks available upon request

## Flash Steam Savings Analysis

### Part I: Determining the amount of flash steam produced

- A. Condensate Load                      A = \_\_\_\_\_ kg/h  
 B. Annual hours of operation            B = \_\_\_\_\_ h/year  
 C. Steam Cost                                C = \_\_\_\_\_ €/ton  
 D. Flash steam percentage from chart (on page CRE-257)                      D = \_\_\_\_\_ %  
 E. Flash steam produced:  
      $D \times A = \text{flash steam produced}$       E = \_\_\_\_\_ kg/h

### Part II: Determining value of the flash steam

- F. Annual flash steam savings:  
     
$$F = \frac{E \times B \times C}{1\ 000}$$
                                      F = \_\_\_\_\_ €/year

**Table CRE-256-1. EAFT Dimensions and Weights (in mm)**

| Model No. | EAFT-6      | EAFT-8  | EAFT-12 | EAFT-16 |
|-----------|-------------|---------|---------|---------|
| A         | 914         | 914     | 1 016   | 1 058   |
| B         | 559         | 584     | 584     | 660     |
| C         | 254         | 254     | 221     | 254     |
| D         | 1 270       | 1 301   | 1 407   | 1 452   |
| E         | 965         | 932     | 1 016   | 1 058   |
| F         | 273         | 273     | 406     | 406     |
| G         | 2" 150#     | 3" 150# | 4" 150# | 6" 150# |
| H         | 2 1/2" 150# | 4" 150# | 6" 150# | 6" 150# |
| I         | 1 1/2"      | 1 1/2"  | 2"      | 2"      |
| J         | 3/4"        | 1"      | 1 1/2"  | 2"      |
| K         | 1/2"        | 1/2"    | 1/2"    | 1/2"    |

**Note:** Standard connections "G" and "H" are flanged ANSI 150#, all others are NPT. Available also with DIN flanged PN40 "G" and "H" connections, all others being BSPT. Special sizes available upon request.

**Table CRE-256-2. EAFT Capacities**

| Model No. | Maximum Condensate Load | Maximum Flash Load |
|-----------|-------------------------|--------------------|
|           | kg/h                    | kg/h               |
| EAFT-6    | 900                     | 230                |
| EAFT-8    | 2 270                   | 450                |
| EAFT-12   | 4 540                   | 900                |
| EAFT-16   | 9 070                   | 1 360              |

Maximum Allowable Pressure (Vessel Design): 10 bar.

Maximum Allowable Temperature: 260°C.

Maximum Operating Pressure: 10 bar.

All models are CE Marked according to the PED (97/23/EC).

*All dimensions and weights are approximate. Use certified print for exact dimensions. Design and materials are subject to change without notice.*

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## 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:

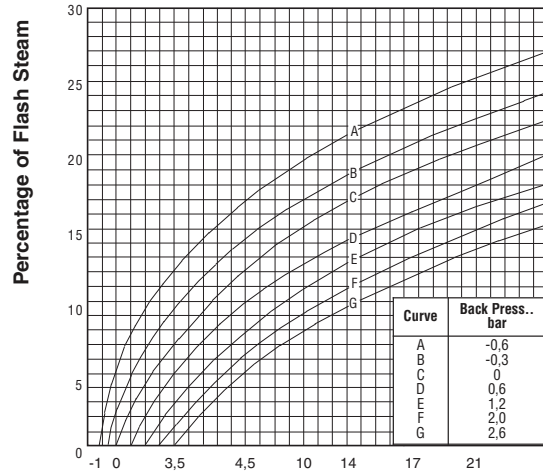
Condensate load = 4 500 kg/h  
 Primary pressure = 4,5 bar  
 Secondary pressure = 0,6 bar

Percentage of flash = 10,6%  
 Secondary steam load = 464 kg/h  
 (4 500 kg/h x 0,106 = 464 kg/h)

### Selection:

Model EAFT-12

Percentage of Flash Steam formed when discharging Condensate to Reduced Pressure



Pressure in bar from which Condensate is discharged

Condensate Recovery Equipment

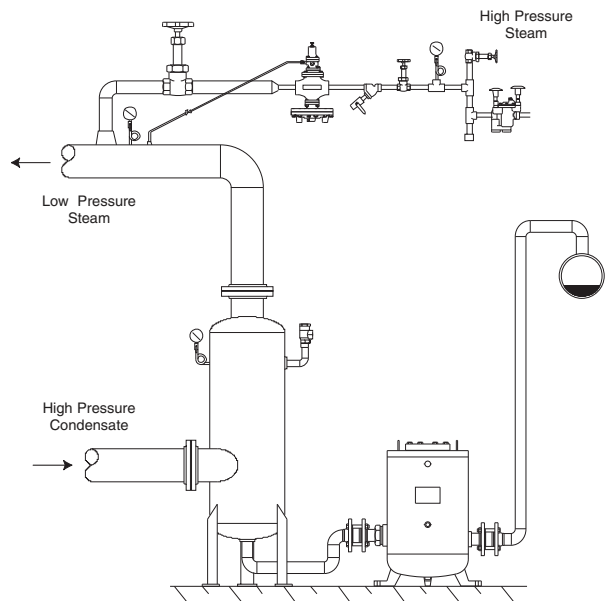
## Application Information

- A. Condensate Load to Flash Tank: **2 700 kg/h**
- B. Pressure of Incoming Condensate: **6,5 bar**
- C. Flash Tank Pressure: **1,2 barg**
- D. Flash Percentage: **9,5%**
- E. Flash Amount =  $A \times (D/100) = 257 \text{ kg/h}$
- F. Low Pressure Steam Required: **1 150 kg/h**
- G. High Pressure Steam (used as Motive): **5 bar**
- H. Back Pressure: **2 bar**

Flash tank will accommodate (A) **2 700 kg/h** of condensate at (B) **6,5 bar**, resulting in (E) **257 kg/h** of flash steam at (C) **1,2 barg**. The flash tank shall be Armstrong Model EAFT-12.

The pressure reducing valve shall pass (F) **1 150 kg/h** of steam from (G) **14 barg** to (C) **1,2 barg**. Pressure reducing valve shall be GP-2000 in DN20.

Considering that back pressure (4) is **2 bar**, it will always be higher than the Flash Tank Pressure (C), which is **1,2 bar**. That is why, a Pumping Trap is necessary. The Pumping Trap shall be an Armstrong EPT-408 as it should discharge (A - E) **2 143 kg/h** with a motive pressure of **5 bar**.



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