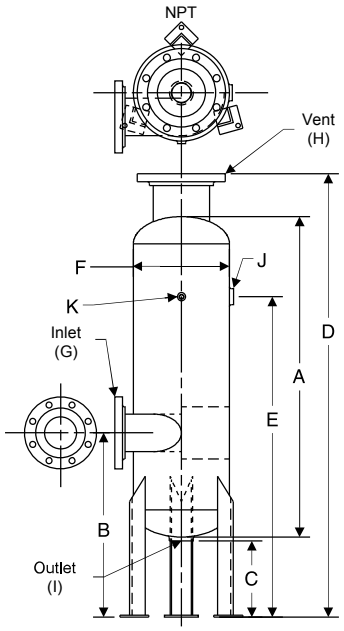
EAFT Series Flash Tanks

Carbon Steel

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



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-243) D = _____ %

E. Flash steam produced:

D x A = 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-242-1. EAFT Dimensions (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-242-2. 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.

Armstrong International SA • Parc Industriel des Hauts-Sarts (2e Avenue) • 4040 Herstal • Belgium
Tel.: +32 (0)4 240 90 90 • Fax: +32 (0)4 240 40 33
www.armstrongintenational.eu • info@armstrongintenational.eu

EAFT Series Flash Tanks

Carbon Steel

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

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:

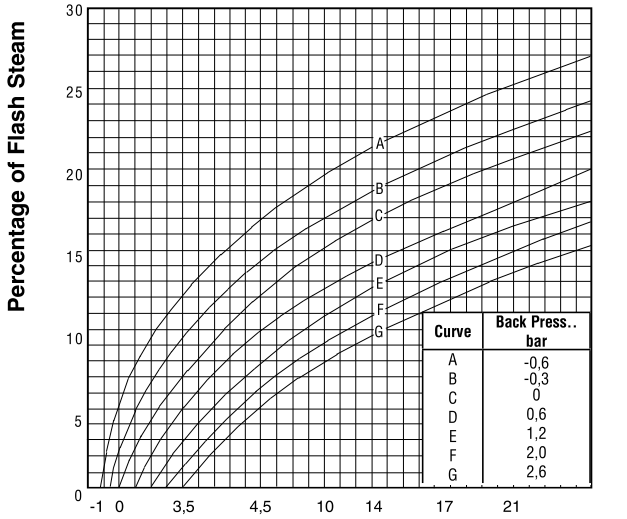
Condensate load = 4 500 kg/h
Primary pressure = 4,5 bar
Secondary pressure = 0,6 bar

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

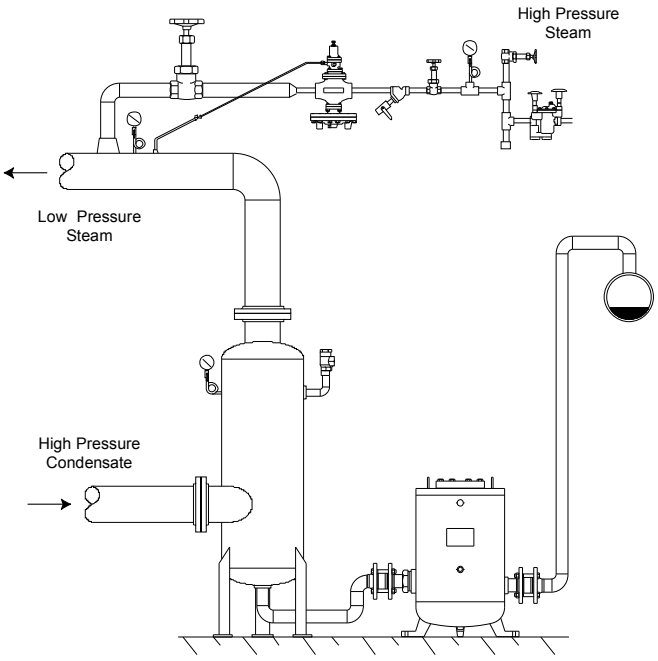
Application Information

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 x (D/100) = **257** 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**.



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