

## ADCATHERM BOILER FEED TANKS BFT

### DESCRIPTION

The BFT boiler feed tank is one of the most important devices in a boiler room. Its main function is to store the make-up water and condensate, assuring a reserve of treated water to supply to the steam boilers.

The make-up water has to be softened to prevent scale formation on the boiler and the oxygen also has to be removed, so that corrosion in the boiler and steam system is avoided (this situation is normally handled by specialists).

The consumption of chemicals used to eliminate the oxygen can be drastically reduced if you use one of the several ADCATherm thermal degasification processes (ADG, TDG, FCD) for the removal of oxygen and other non-condensable gases (mainly carbon dioxide).

Even if you choose not to use one of the mentioned systems, the ADCATherm boiler feed tanks will always be optimized according to the existing needs, therefore being able to include water pre-heating, as well as other features obvious to a true steam expert, but not to a simple tank manufacturer.



### MAIN FEATURES

Sandblasted and metalized internally and externally (externally painted).

Prevents energy wasting.

Can be installed on new or existing systems.

**OPTIONS:** Vertical and special designs for different applications.  
Complete stainless steel construction.  
Complete system including all the necessary equipment.  
Vent condenser for energy recovery.

**USE:** Steam boiler feed water.

### AVAILABLE

**MODELS:** BFT – standard horizontal design.  
BFT/ADG or TDG – vessel and correspondent deaerator dome.  
BFTV – special vertical design.

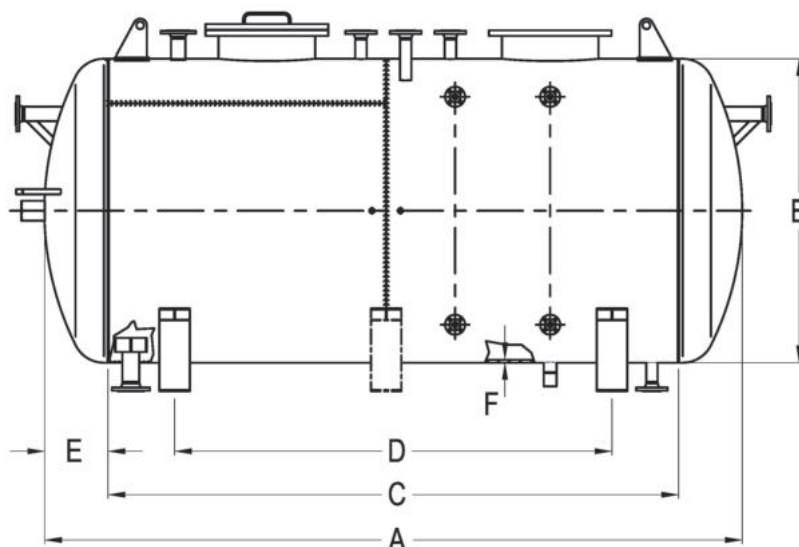
**CONNECTIONS:** Flanged EN 1092-1 or ASME.  
ISO or NPT threaded sockets.  
Different connections on request.

**CONSTRUCTION:** Carbon steel with internal stainless steel components.

**INSTALLATION:** See ADG/TDG catalogues for typical installations. Standard horizontal install. Vertical on request. Final dimensions and connections according to the drawing supplied after order confirmation. Insulation (not included) recommended after installation.

| LIMITING CONDITIONS                |         |
|------------------------------------|---------|
| PS – Maximum allowable pressure    | 0,5 bar |
| TS – Maximum allowable temperature | 120 °C  |

Minimum operating temperature: -10 °C;  
Design code: AD-Merkblatt.  
Remark: other conditions and CE marking on request.



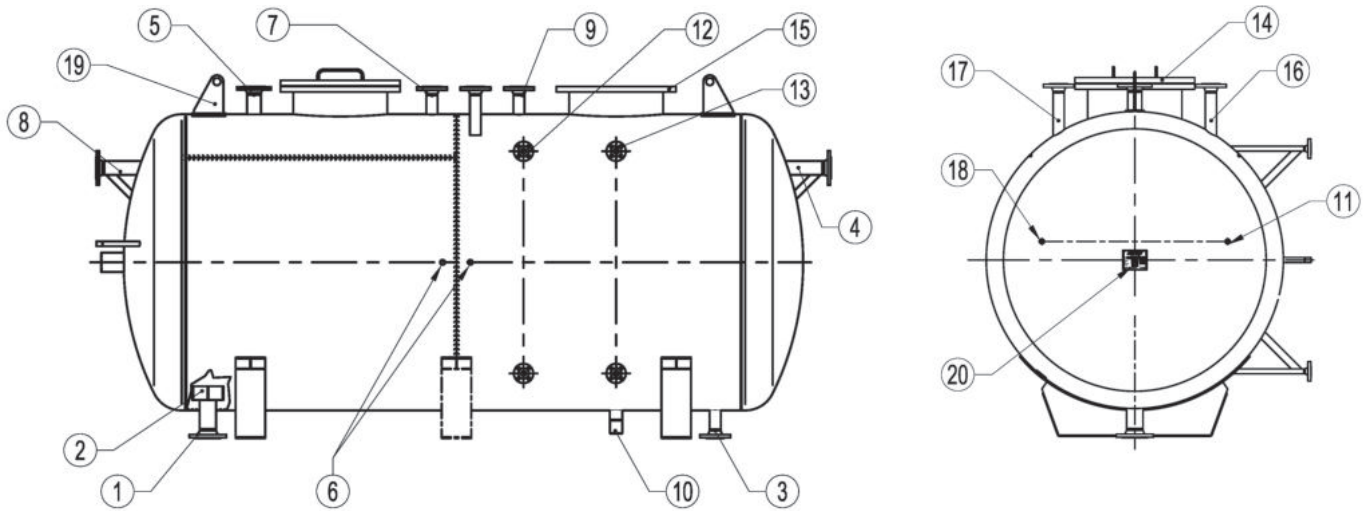
| DIMENSIONS (mm) |              |      |      |      |      |     |   |             |
|-----------------|--------------|------|------|------|------|-----|---|-------------|
| MODEL           | CAPACITY (L) | A    | B    | C    | D    | E   | F | WEIGHT (kg) |
| BFT-500         | 537          | 1800 | 640  | 1500 | 900  | 150 | 4 | 180         |
| BFT-750         | 856          | 1860 | 800  | 1500 | 900  | 180 | 5 | 290         |
| BFT-1000        | 1107         | 2360 | 800  | 2000 | 1200 | 180 | 5 | 350         |
| BFT-1250        | 1336         | 1920 | 960  | 1500 | 900  | 210 | 5 | 360         |
| BFT-1500        | 1698         | 2420 | 960  | 2000 | 1200 | 210 | 5 | 410         |
| BFT-2000        | 2248         | 2480 | 1080 | 2000 | 1200 | 240 | 6 | 570         |
| BFT-2500        | 2706         | 2980 | 1080 | 2500 | 1500 | 240 | 6 | 665         |
| BFT-3000        | 3068         | 2560 | 1280 | 2000 | 1200 | 280 | 7 | 795         |
| BFT-3500        | 3711         | 3060 | 1280 | 2500 | 1500 | 280 | 7 | 920         |
| BFT-4000        | 4176         | 2660 | 1500 | 2000 | 1200 | 330 | 8 | 1160        |
| BFT-5000        | 5060         | 3160 | 1500 | 2500 | 1500 | 330 | 8 | 1335        |
| BFT-6000        | 5943         | 3660 | 1500 | 3000 | 1800 | 330 | 8 | 1510        |

Remarks: approximate dimensions. Consult manufacturer for certified dimensions.  
Pipe connections and location approved after order confirmation.

| MATERIALS          |                                |
|--------------------|--------------------------------|
| DESIGNATION        | MATERIAL                       |
| Cylindrical shell  | EN 10025 / S235JR / 1.0038     |
| Domed ends         | EN 10025 / S235JR / 1.0038     |
| Inlet/outlet pipes | EN 10216-2 / P235GH / 1.0345   |
| EN flanges         | EN 10222-2 / P250GH / 1.0460   |
| ASME flanges       | ASTM A105 / 1.0432             |
| Sockets            | ASTM A105 / 1.0432             |
| Internals          | EN 10028-7 / AISI 316 / 1.4401 |
| Supports           | EN10025 / S235JR / 1.0038      |
| Bolts              | Steel 8.8                      |

EN 10204 3.1 certificate available on request.

| THERMAL DEAERATOR DATA INQUIRY     |  |                |
|------------------------------------|--|----------------|
| Make-up water pressure             |  | bar            |
| Make-up water temperature          |  | °C             |
| Make-up water flow rate            |  | kg/h           |
| Condensate return pressure         |  | bar            |
| Condensate temperature             |  | °C             |
| Condensate flow rate               |  | kg/h           |
| Saturated heating steam pressure   |  | bar            |
| Feed water tank required capacity  |  | m <sup>3</sup> |
| Max. deaerated water flow required |  | kg/h           |



**CONNECTIONS \***

| POS. N° | DESIGNATION             | REMARKS   |
|---------|-------------------------|---|
| 1       | Boiler feed pump supply | Larger diameter to optimize pressure loss (preventing cavitation)     |
| 2       | Anti vortex             | –   |
| 3       | Drain                   | To be connected to a BEX (always at a lower level than the feed tank) |
| 4       | Overflow                | Float trap or "U" bend (only for atmospheric)                         |
| 5       | Heating steam           | Can be located at the domed ends                                      |
| 6       | Chemical dosing         | Can be located at the domed ends                                      |
| 7       | Condensate return       | Only if not connected to a dearetor dome                              |
| 8       | Soft water inlet        | Only if not connected to a dearetor dome                              |
| 9       | Vent outlet             | Only if not connected to a dearetor dome                              |
| 10      | Recirculating pump      | Recommended for atmospheric design only                               |
| 11      | Temperature indicator   | Can be located at the domed ends                                      |
| 12      | Level indicator         | Can be located at the domed ends                                      |
| 13      | Level controller        | Can be located at the domed ends                                      |
| 14      | Headhole                | DN 300 PN 6 up to 1000 L  |
| 14      | Manhole                 | DN 500 PN 6 for 1250 L and above                                      |
| 15      | Dome flange             | For ADG or TDG  |
| 16      | Vacuum valve            | For pressurized systems only  |
| 17      | Safety valve            | For pressurized systems only  |
| 18      | Temperature control     | Suitable for electrical or self operated valve control                |
| 19      | Lifting eyes            | –   |
| 20      | Name plate              | –   |

\* Sizes to be defined according to the real flow conditions.