

## BLOWDOWN EXPANSION AND COOLING UNITS BEX

### DESCRIPTION

The ADCA BEX series blowdown expansion and cooling units are used in modern boiler houses to cool hot waste water and steam boiler blowdown before discharging them into a pit or drain.

### OPERATION

The waste water is discharged into the unit, which is at atmospheric pressure, and the cooling water enters through a control valve controlled by a thermostat, mixing it with the hot water.

If flash steam can not be recovered or discharged to atmosphere, an additional condensing water spray system can be supplied. It is fitted into the top of the unit and can be controlled directly, either by another thermostat, or by the same command used for the automatic blowdown valve control.

### MAIN FEATURES

- Prevents thermal pollution.
- Overflow with siphon breaker.
- Easy to install.
- Reduces the flow of flash steam.

- OPTIONS:**
- Stainless steel construction.
  - Flash steam condensing spray system.
  - Complete system including all the necessary equipment (stop and check valves, thermostats, exhaust head, etc).
  - Manifold with several inlets for multi-boiler installations.
  - Manhole or handhole for inspection.
  - Fitted with support brackets for elevated installation.

- USE:** Boiler blowdown and hot waste water.

- AVAILABLE MODELS:** BEX15, 30, 40, 50, 60 and 80 – carbon steel.

- CONNECTIONS:** Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1 PN 16.  
Flanged ASME B16.5 Class 150.

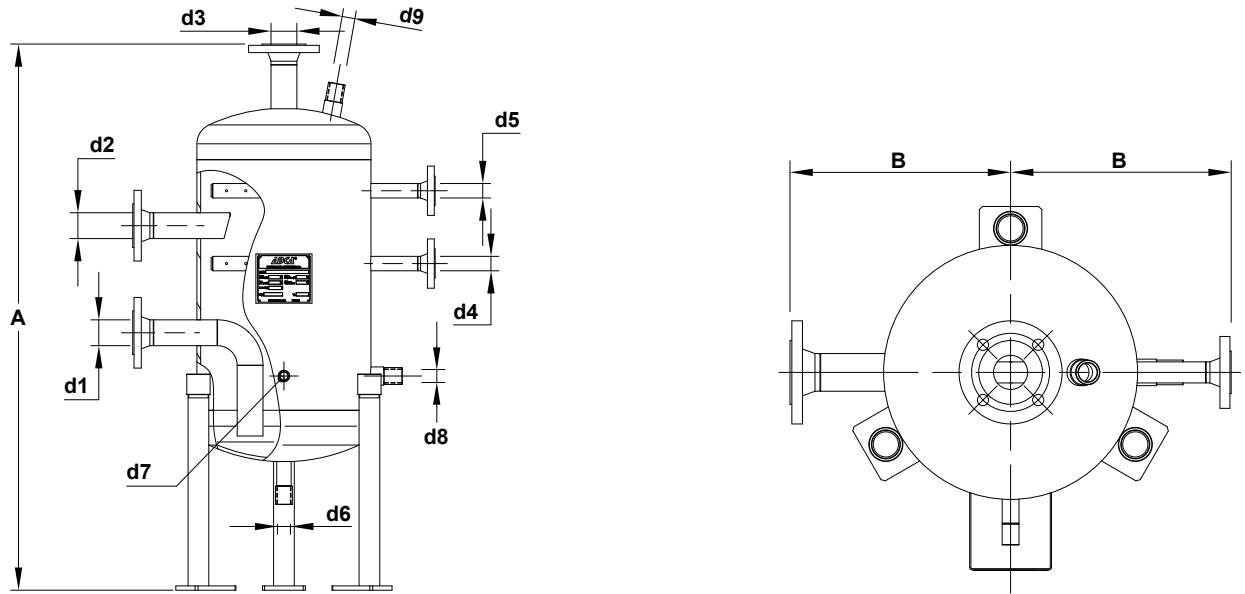
- INSTALLATION:** Vertical installation.  
The inlet of the blowdown tank is always higher than the boiler discharge valves. Therefore, the connecting pipe should have provisions made at a low point to drain the boiler.  
See IMI – Installation and maintenance instructions.



#### LIMITING CONDITIONS

PS – Maximum allowable pressure	0,5 bar
TS – Maximum allowable temperature	120 °C

Minimum operating temperature: -10 °C.  
Design code: AD-Merkblatt.  
Other conditions on request.



**DIMENSIONS (mm) \***

MODEL	A	B	d1	d2	d3	d4	d5 **	d6	d7	d8	d9 **	VOL. (L)	STW. (L) ***	WGT. (kg)
BEX15	1150	255	DN 25	DN 40	DN 40	DN 15	DN 15	1"	1/2"	1"	1"	22,9	9	41
BEX30	1245	312	DN 40	DN 40	DN 40	DN 25	DN 25	1"	1/2"	1"	1"	56,9	18	71
BEX40	1275	353	DN 50	DN 50	DN 50	DN 25	DN 25	1"	1/2"	1"	1"	92	29	102
BEX50	1430	455	DN 80	DN 50	DN 80	DN 25	DN 25	1"	1/2"	1"	1"	251	71	135
BEX60	1930	455	DN 100	DN 65	DN 100	DN 25	DN 25	1"	1/2"	1"	1"	393	125	189
BEX80	2350	530	DN 150	DN 100	DN 150	DN 40	DN 40	1 1/2"	1/2"	1"	1"	767	233	364

\* Indicative values. Final dimensions, weight and connections to be defined according to requirements.

\*\* Optional.

\*\*\* Standing water.

**SELECTION TABLE**

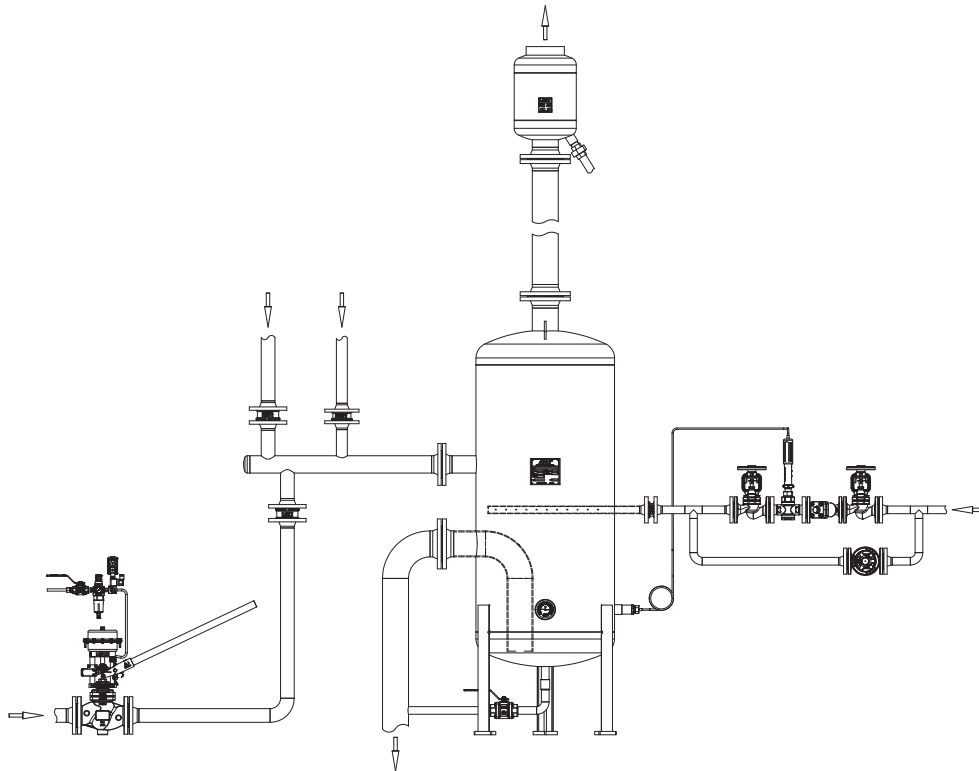
MODEL	BEX15	BEX30	BEX40	BEX50	BEX60	BEX80
HOT WATER FLOW RATE (kg/h)	150	300	600	1500	3000	5000

**CONNECTIONS**

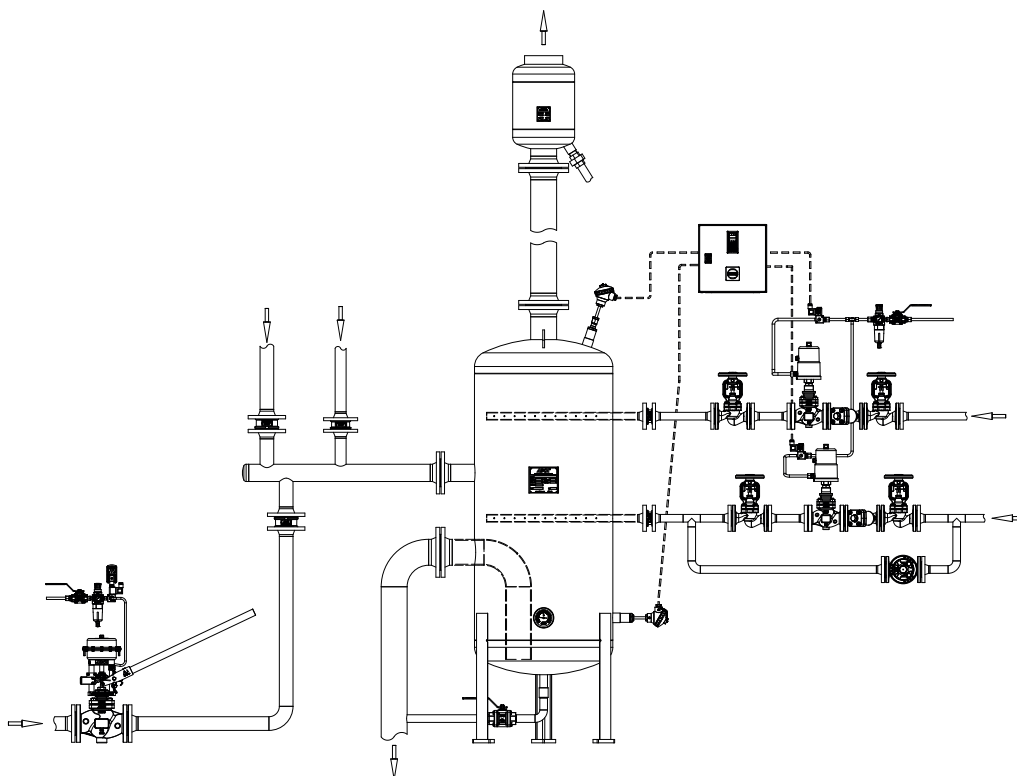
POS. N°	DESIGNATION
d1	Drain outlet
d2	Blowdown inlet
d3	Venting outlet
d4	Cooling water inlet
d5	Flash steam cooling water (optional)
d6	Drain
d7	Thermometer connection
d8	Thermostat/Temperature sensor connection
d9	Thermostat/Temperature sensor connection

## TYPICAL INSTALLATION

### WATER COOLING WITH ADCATROL TR SERIES SELF ACTING TEMPERATURE REGULATOR



### WATER COOLING AND FLASH STEAM CONDENSING WITH ADCATROL ON/OFF PNEUMATIC CONTROL VALVES



Remark: Lists of all equipments associated with each of the above installation examples can be found in assembly drawings (AD) available on request.