

## BIMETALLIC STEAM TRAPS AND AIR VENTS BM20R



### DESCRIPTION

The BM20R is a series of robust and efficient bimetallic steam traps and air vents. These steam traps are recommended for steam process applications where sensible heat can be recovered, such as steam tracing lines, drip points, storage tank coils and steam air venting.

### MAIN FEATURES

- Modulating discharge.
- Discharges condensate below steam temperature. Easy condensate temperature adjustment without disconnecting the trap from the piping.
- Independent valve and seat placed in the low velocity flow area reduces erosion and extends product life.
- Low maintenance costs consequence of the split regulator design.
- Excellent air discharge.
- Freeze protection of condensate lines.
- Operates with superheated steam.
- Unaffected by water hammer and vibrations.
- Built-in strainer.



**OPTIONS:** Blowdown valve.  
Integrated check valve.

**USE:** Saturated and superheated steam.

**AVAILABLE MODELS:** BM20R – carbon steel, with external adjustable temperature control.  
Suffix CK: with integrated check valve.

**SIZES:** 1/2" to 1"; DN 15 to DN 25.

**CONNECTIONS:** Female threaded ISO 7 Rp or NPT.  
Flanged EN 1092-1 PN 40.  
Flanged ASME B16.5 Class 150 or 300.  
Socket weld (SW) ASME B16.11.  
Butt weld (BW) ASME B16.25 on request.

**INSTALLATION:** Horizontal installation is recommended, but can be installed in any position.  
See IMI – Installation and maintenance instructions.

BODY LIMITING CONDITIONS		
FLANGED PN 40 / CLASS 300 *	FLANGED CLASS 150 **	RELATED TEMPERATURE
ALLOWABLE PRESSURE	ALLOWABLE PRESSURE	
40 bar	19,3 bar	50 °C
35 bar	15,8 bar	150 °C
30,4 bar	12,1 bar	250 °C
27,6 bar	10,2 bar	300 °C

PMO – Maximum operating pressure: 17 bar.

TMO – Maximum operating temperature: 250 °C.

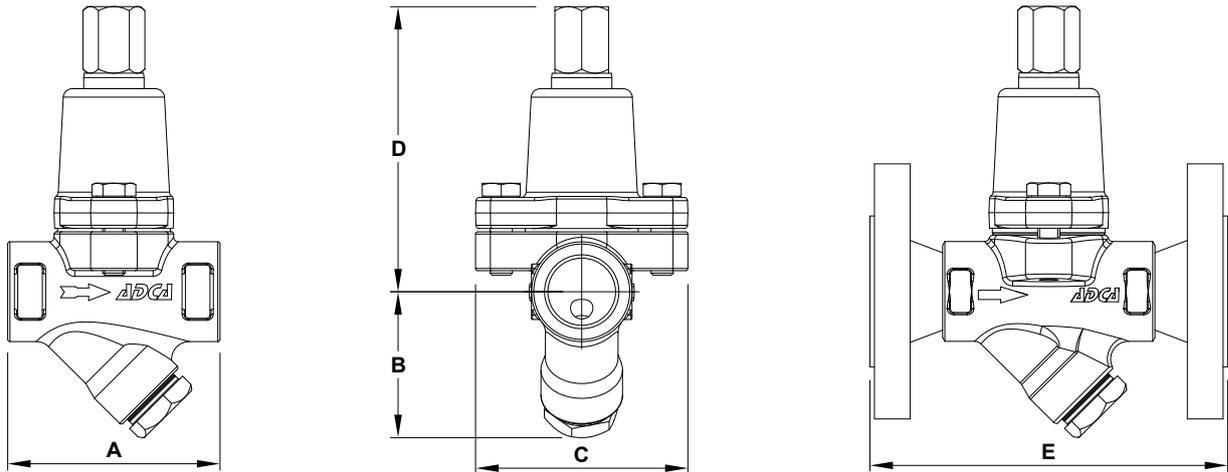
\* According to EN 1092-1:2018.

\*\* According to EN 1759-1:2004.

Body limiting conditions PN 40 or below, depending on the type of connection adopted. Rating PN 40 for threaded, SW and BW versions.

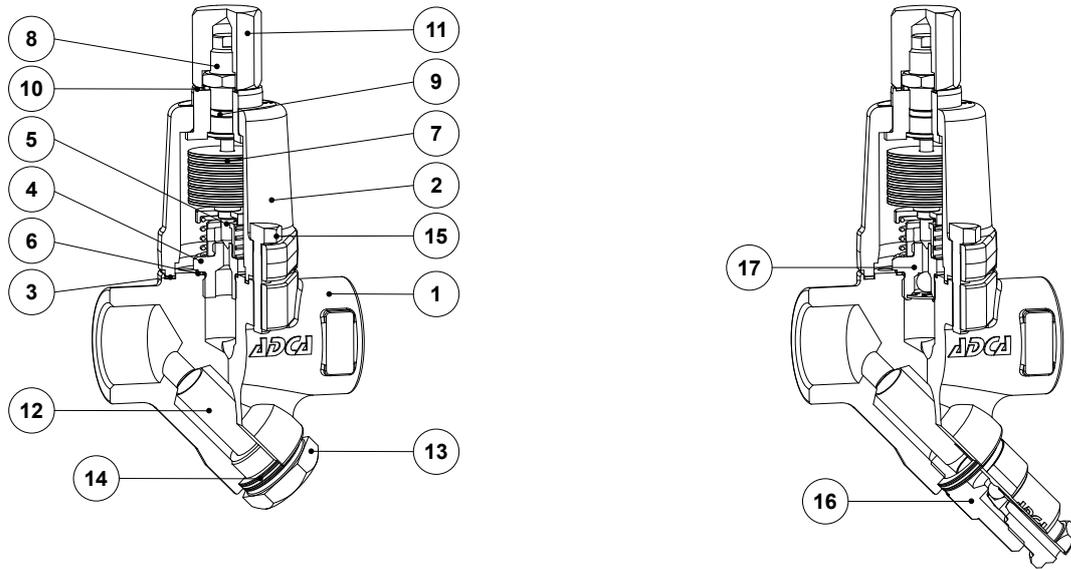
FLOW RATE CAPACITY (kg/h)												
MODEL	SIZE	TEMP. (°C) *	DIFFERENTIAL PRESSURE (bar)									
			0,5	1	2	4	6	8	10	12	14	17
BM20R	1/2" to 1" DN 15 to 25	10 **	125	200	320	410	445	485	500	540	580	600
BM20R	1/2" to 1" DN 15 to 25	20	200	300	440	550	580	600	620	670	700	720
BM20R	1/2" to 1" DN 15 to 25	40	380	500	700	970	990	1010	1050	1100	1130	1180
BM20R	1/2" to 1" DN 15 to 25	Cold	530	700	1210	1230	1320	1440	1650	1730	1780	1840

\* Condensate discharge temperature below saturation temperature; \*\* Standard factory setting.



DIMENSIONS (mm)											
SIZE	THREADED / SW					PN 40		CLASS 150		CLASS 300	
	A	B	C	D	WGT. (kg)	E *	WGT. (kg)	E *	WGT. (kg)	E *	WGT. (kg)
1/2" – DN 15	95	59	95	125	2,3	150	3,9	150	3,4	150	4,2
3/4" – DN 20	95	59	95	125	2,3	150	4,7	150	3,9	150	5,5
1" – DN 25	95	65	95	125	2,5	160	5,1	160	4,7	160	6,3

\* Other face to face dimensions on request.



MATERIALS					
POS. N°	DESIGNATION	MATERIAL	POS. N°	DESIGNATION	MATERIAL
1	Body	P250GH / 1.0460	10	* Gasket	Copper
2	Cover	P250GH / 1.0460	11	Top cap	AISI 304 / 1.4301
3	* Gasket	Stainless steel / Graphite	12	* Strainer screen	AISI 304 / 1.4301
4	* Seat	Hardened stainless steel	13	* Strainer cover	A 105 / 1.0432
5	* Plug	Hardened stainless steel	14	* Gasket	Stainless steel / Graphite
6	* Seat gasket	Copper	15	Bolt	Stainless steel A2-70
7	* Bimetallic regulator	Corrosion resistant bimetal	16	* Blowdown valve	AISI 304 (see IS BDV.010)
8	Adjusting screw	AISI 304 / 1.4301	17	* Seat with integrated check valve	Stainless steel
9	Seal ring	FPM			

\* Available spare parts.