



Application

Continuous blowdown of steam boilers, evaporators, Quench coolers and similar installations. Regulating or dosing valve for all industries.

Description

The valve is connected to the water space of the boiler. Precise adjustment of blowdown rate by turning regulating lever on the calibrated scale plate (see charts on back page).

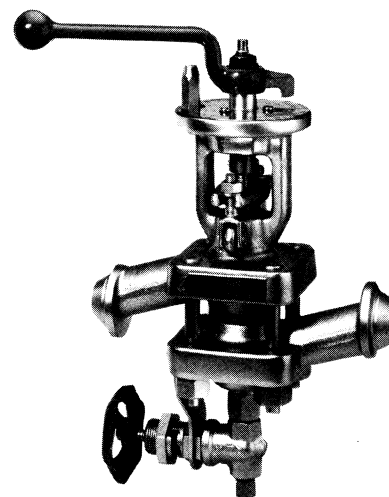
With the regulating lever in blow-off position the capacity is approximately three times the capacity at scale division 100.

The BA includes a sampling valve for checking the boiler-water concentration.

Range

If used as continuous blowdown valve (at saturation temperature):

- BA 28 max. 63 bar g (915 psig)
- BA 29 max. 94 bar g (1360 psig)
- BA 210 max. 142 bar g (2060 psig)
- BA 211 max. 226 bar g (3280 psig)



BA 28 – BA 211

Max. temperature °C		120	200	250	300	350	400	450	500	530
Max. service pressure	BA 28 PN 63/100	bar g psig	100 1450	80 1160	70 1015	60 870	56 810	50 725	—	—
	BA 29 PN 160*)	bar g psig	160 2320	130 1885	112 1625	96 1390	90 1305	80 1160	—	—
	BA 210 PN 250*)	bar g psig	250 3625	200 2900	175 2540	150 2175	140 2030	125 1810	—	—
	BA 211 PN 320*)	bar g psig	320 4640	320 4640	320 4640	320 4640	304 4410	292 4235	278 4030	237 3435

*) For relatively small capacities (see charts) use BA 29k, 210k or 211k with special stage nozzle.

Connections

Butt-weld ends for pipe according to DIN 2448:

- 30 × 2.6 to 4.5
- 31.8 × 2.6 to 5
- 33.7 × 3.6 to 6.3
- 38 × 5.6 to 8

ANSI B 36.10: 1" Schedule 80 and 160

Other dimensions or weld-neck flanges on request at extra cost.

Design

Straight-through valves with butt-weld ends, weld-neck flanges at extra cost. With GESTRA stage-nozzle, regulating lever, calibrated scale and sampling valve.

On request with electric actuator as BAE 28–211.

Materials

BA 28

- Body (two parts): forged steel C 22.8 (No. 1.0460 DIN)
- Nozzle insert: cast stainless steel G-X 22 CrMoV 12 1 (1.4931)
- Stage nozzle: stainless steel X 20 Cr 13 (1.4021)

BA 29

- Body (two parts): C 22.8 (1.0460)
- Nozzle insert*): G-X 22 CrMoV 12 1 (1.4931)
- Stage nozzle*): stainless steel X 8 CrTi 17 (1.4510)

BA 210

- Lower-body part: C 22.8 (1.0460)
- Upper-body part*): C 22.8 (1.0460)
- Nozzle insert*): G-X 22 CrMoV 12 1 (1.4931)
- Stage nozzle*): X 8 CrTi 17 (1.4510)

BA 211

- Lower-body part: forged alloy steel 13 CrMo 44 (1.7335)
- Upper-body part*): 13 CrMo 44 (1.7335)
- Nozzle insert*): G-X 22 CrMoV 12 1 (1.4931)
- Stage nozzle*): X 8 CrTi 17 (1.4510)

*) additionally armoured

A₃

**Blowdown Valves
PN 63 – 320
DN 25 mm (1")**

BA 28, BA 29, BA 210, BA 211



A Unit of Flowserve Corporation

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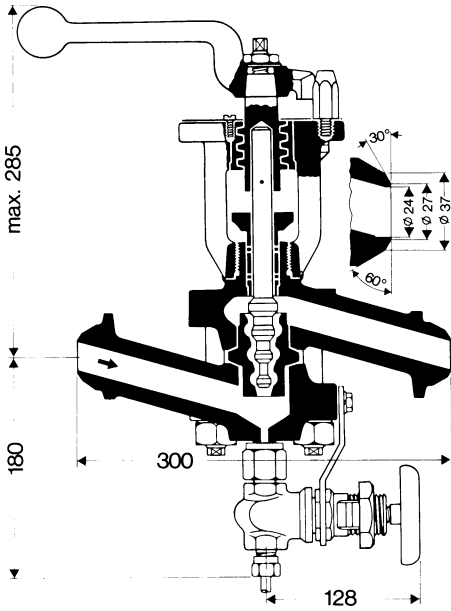
Fax (4 21) 35 03-393 · Telex 2 44 945 gb d



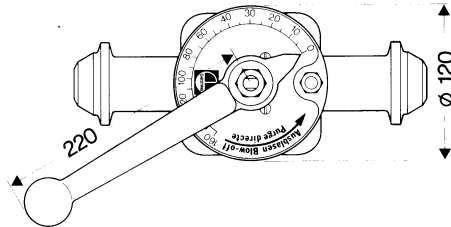
Flow Control Division

Dimensions

BA 28 – BA 211 (approx. weight 21 kg)



Sampling valve with compression fitting 8 mm O. D.



Order Specifications

Valve type, nominal pressure (PN), nominal size (DN), capacity, service pressure, back pressure, fluid, application (e.g. type of boiler).

The following test certificates can be issued on request, at extra cost:
In accordance with EN 10204-2.1, -2.2, -3.1A, 3.1B and -3.1C.

All inspection requirements have to be stated with the order. After supply of the equipment certification cannot be established. For tests and inspection charges please consult us.

Supply in accordance with our general terms of business.

Technical modifications reserved.

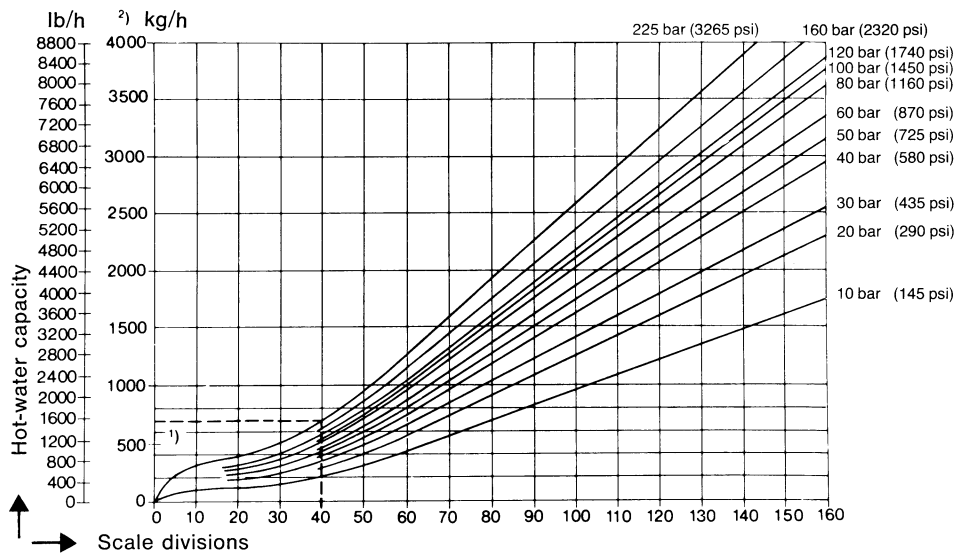
Types, Capacity, Scale Divisions

Selection of valve type according to pressure and temperature see under "Range".

Scale divisions for required capacity (blow-down quantity) see charts.

In blow-off position (regulating lever against stop) the capacity is approximately three times the capacity at scale division 100.

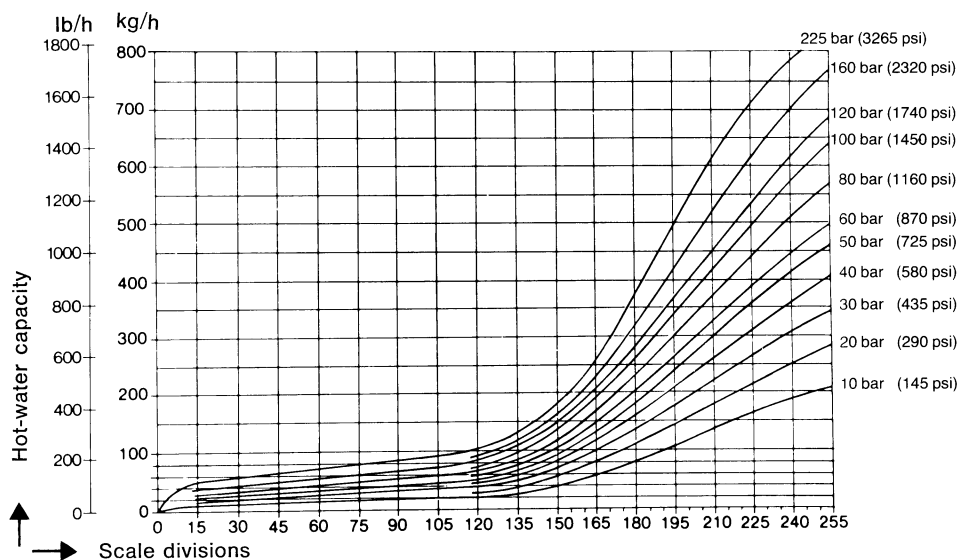
Chart 1: BA 28, 29, 210, 211



¹⁾ For relatively small quantities (see dotted lines in chart) use BA 29k, 210k or 211k (with special stage nozzle). Scale divisions according to chart 2.

²⁾ If the quantity of boiler water to be discharged is higher than the values covered by chart 1, GESTRA Reactomats BA 39 with radial stage nozzle should be used.

Chart 2: BA 29k, 210k, 211k



*) Differential pressure (working pressure) = inlet pressure minus outlet pressure.

If the boiler water is lifted after the Reactomat, the differential pressure is reduced by approximately 1 bar for 7 m (or 2 psi for 3 feet) in lift.

Enquiry Specification

Reactomats (continuous blowdown valves) with GESTRA stage nozzle, regulating lever, calibrated scale and sampling valve.

Application (optional) as continuous blow-

down valve for steam boilers, evaporators and similar installations or as regulating/dosing valve.

Indications on nominal pressure (PN), nominal size (DN), type of connection, service pressure, back pressure, temperature, fluid, application (e. g. type of boiler).