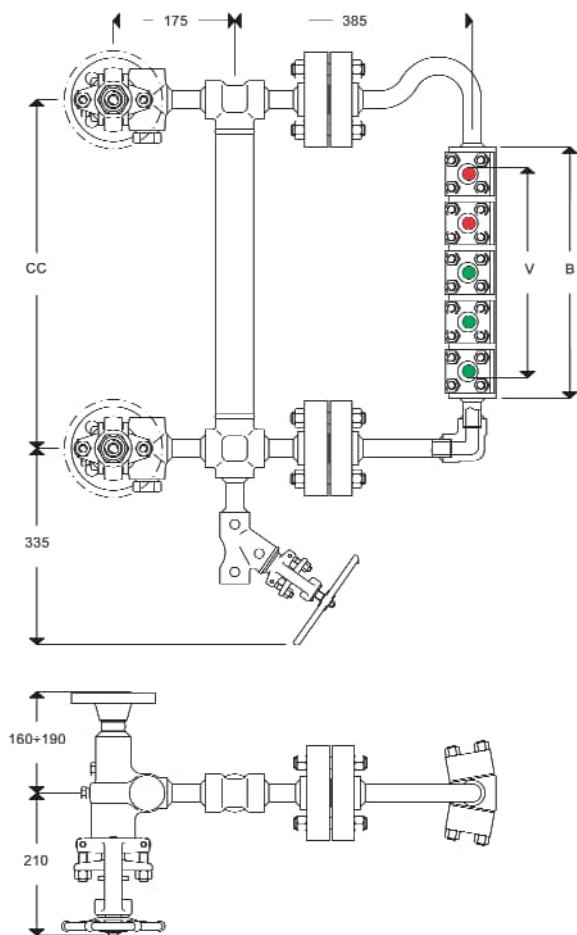


Bicolour **BONETTI** Level Gauges type BC1with G55 valves

Fig. 860

Type BC1-G55



1 According to the right or left position of the handwheel of the stop valves on the gauge body, the level gauges are named right-handed or left-handed. Fig. 860 shows a left-handed level gauge. Usually two level gauges (1 right and 1 left) are installed on steam vessel.

2 This level gauge consists of one gauge type BC1, and one set of valves type G55. It MUST be installed with the gauge body in vertical position.

G55 set is connected to a vertical pipe, which links upper and bottom gauge parts. It avoids condensate to flow through gauge body therefore granting better visibility and longer life of glasses.

Gauge body is connected to pipe/valve assembly through two flanges and can be easily removed for inspection and service.

3 This gauge consists of a central body type BC1 and a certain number of covers attached to the front and the back of the body: the covers contain small circular glasses.

Central body is manufactured of stainless steel for a longer life of the whole instrument.

The illuminator is fitted with a bicolour filter: half of it is red and half green. The illumination of the gauge is based on the difference of refractive indexes of steam and water. The light source projects its rays through the adjacent coloured filter and in the steam and water spaces these coloured light rays are refracted to a different degree depending upon the refractive index of the medium. This permits only one colour of light to

Size	Number of port-holes	C. to C. distance CC min	Length of body B	Visible length V	Weight kg
5	5	472	372	311	94
6	6	545	445	384	100
7	7	618	518	457	107
8	8	691	591	530	113
9	9	764	664	603	119
10	10	837	737	676	126
11	11	910	810	749	132

Longer or shorter visible length can be supplied on request

emerge from each medium, the other being absorbed in the wall of the gauge.

In particular the circular glasses appear:

- **RED** in correspondence of **STEAM**
- **GREEN** in correspondence of **WATER**

The level can be:

- read by observer standing directly IN FRONT of the level gauge, at the same height of body,
- or it can be outfitted with:
 - special "periscope" mirrors able to transmit the signal to the control station by means of a simple periscopic arrangement with mirrors. The mirrors (both top and bottom) are adjustable to assist alignment,
 - closed TV circuit, also transmitting a 4-20 mA signal
 - "Red Cherry" optics-fiber system: this system can transmit the red and green light signal to the control station by means of fiber-optic remote viewing device.

Ask for peculiar bulletin.

Needs of each plant should be known before stating supplying details.

4 The standard illuminator is explosion-proof and consists of a stainless steel box containing as many bulbs as the number of port holes and suitable for 12 V AC power supply. The illuminator is slotted so as to fit into the level gauge centre piece. The red and green coloured filters are placed in front of the bulbs. The red filter must be placed in correspondence of the narrow side of the gauge body; the green filter on the wide side. In this way the view of red steam and green water will be produced. Should a bulb fail it can be easily replaced by opening the backside of the illuminator. We recommend to use original bulbs as spares.

5 We manufacture BC1 gauges with adequate number of port holes on one single centre piece. Shorter or longer visible length than those listed in the table can be supplied on request.

6 Centre to centre distance (CC) shown on table are referred to bodies with holes having standard pitch of 73 mm. To meet special visibility request, different pitch length can be supplied.

7 When ordering a level gauge please state:

- Centre to centre distance between connections (CC)
- Standard, Size and Finishing of connections
- Whether right-handed or left-handed.

8 Flanges are finished to customer prescriptions. Please state:

- Standard
- Size
- Pressure class
- Finishing

The inside passage through the gauge is at least 12,5 mm.

9 Instead of flanges, connections can be delivered with welding ends (Socket welding or Butt welding). Please state connecting dimensions, size and Standard.

10 BC1 gauges are fitted with transparent glass discs

($\varnothing$ 31,6 x 12,7 mm).

Dimensions of joints and mica and Maintenance Instructions on request.

11 Operating conditions and material schedules on pages 4 and 5.

12 Applicable optionals and bolting torques on pages. 27 and 37.

13 Gauge bodies without valves can be supplied:

- end connected (threaded or flanged)
- side connected (threaded or flanged)
- back connected (threaded or flanged).

Please state connecting dimensions and Standard.

14 This level gauge is in compliance with ASME Boiler - Section I - requirements