

## SGC-B

## TWO COLOR GAUGE SERIES

### INTRODUCTION :

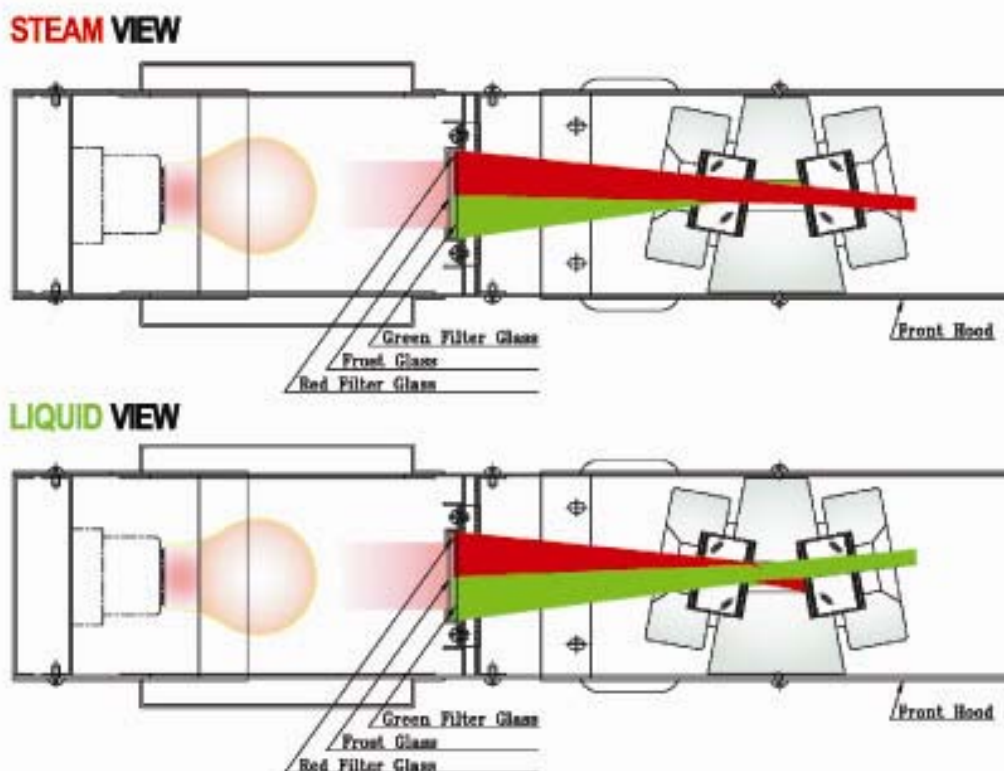
Two-Color Level Gauge is apply the principle of a difference between refractive indices of light at liquid such as water in the boiler and that of steam. In this former reason, we can observe obviously the level through the two-color level gauge series because of display the level as reliable chromatic indication in which is **GREEN** Color for water portion and **RED** Color for steam portion. With distinguishing a light into red and green color through the colored filter and its distinguished colors enter into visible window of level gauge after traveling angle is changed a little by the wedge shaped body. in the above principle, when the gauge is filled with water, The red light beam is disappear after deflected side-wards and absorbed and is filled with steam, it pass through the steam space. Therefore, only the red light beam appears in the steam space and the green light beam is vice versa against the above.

Two-Color Gauge Series is designed and manufactured based on the above principles.

### HOW IT COMPRISED

The Two-Color Illuminator is mounted the illuminator box equipped with a special filter glasses (Red and Green Colored), lamps and a frost glass for fixing color glasses at the rear of observing window of the body in the SGC-B Gauge Series. The body of SGC-B Series has wedge-shaped as shown in the sectional view on the pages after next and next.

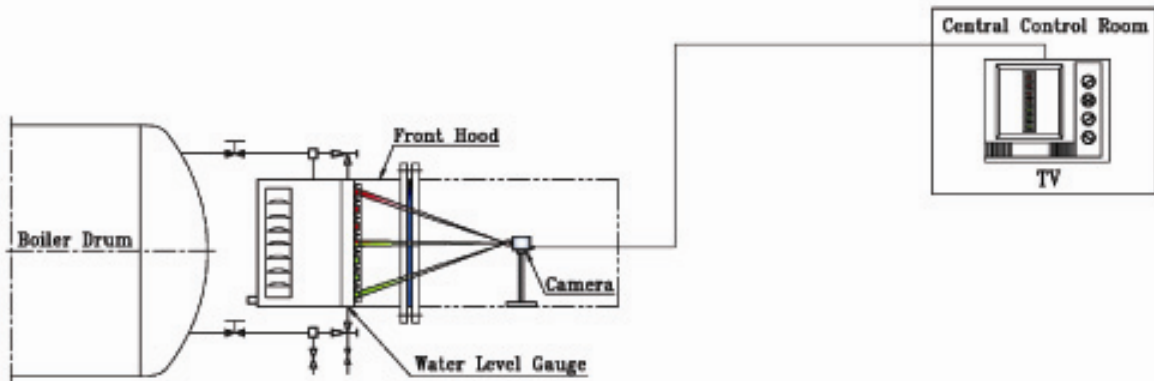
### COMPRISAL DIAGRAM



**SGG-B TWO COLOR GAUGE SERIES**

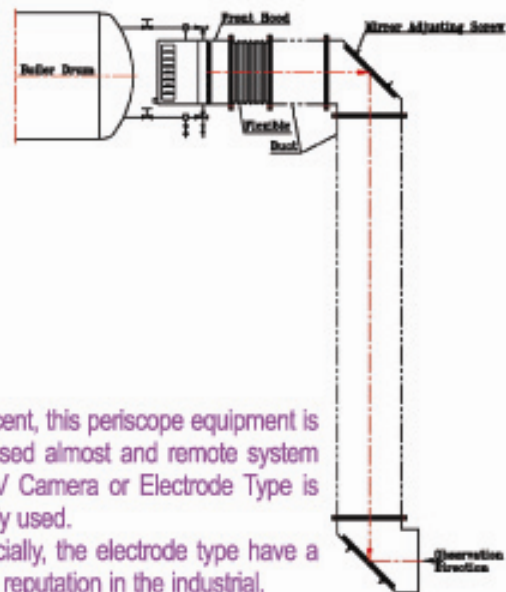
**OBSERVATION BY REMOTE SYSTEM**

With installation the TV Camera, you can observe the liquid level in the central control place apart long distance from the SGC-B Type level gauge. Liquid level will be transmitted into TV as a **GREEN** Color for liquid space and a **RED** Color for steam space.



**OBSERVATION BY PERISCOPE**

The Periscope is comprised of several hoods with reflex mirror and observation is performed at the most convenient place to an observer.



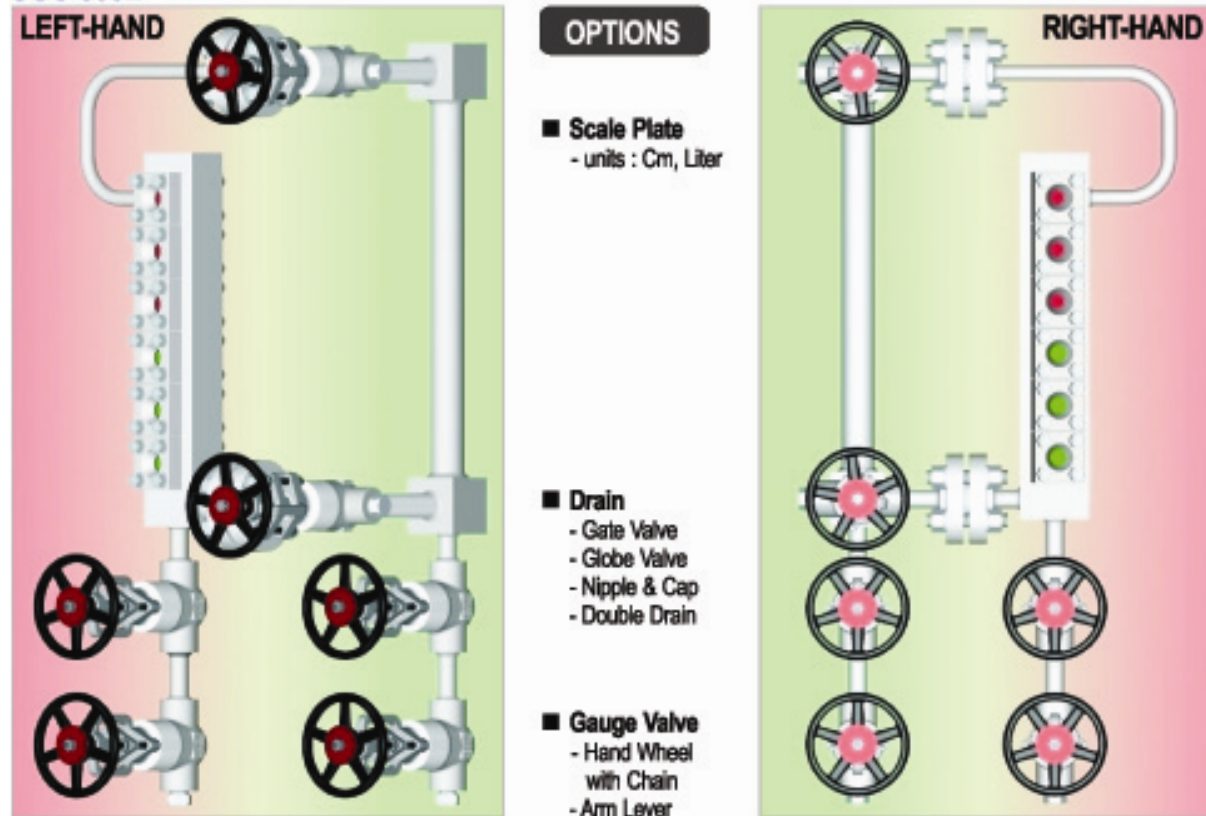
In recent, this periscope equipment is not used almost and remote system by TV Camera or Electrode Type is mostly used. especially, the electrode type have a great reputation in the industrial.

## SGC-B MULTI-PORT TYPE TWO COLOR FOR BOILER

### GENERAL DESCRIPTION

This Multi-Port type Two-Color Level Gauges are designed and manufactured to use under its services of higher pressure and temperature than conventional Reflex and Transparent type gauges. The impacts or shocks from internal pressure and thermal [=heat] are distributed uniformly to each ports. Thereby, this type is usually used on the steam boiler under the service of high pressure and temperature because of avoiding or minimizing the glass breakage / damage and increasing the structural durability.

#### SGC-300B



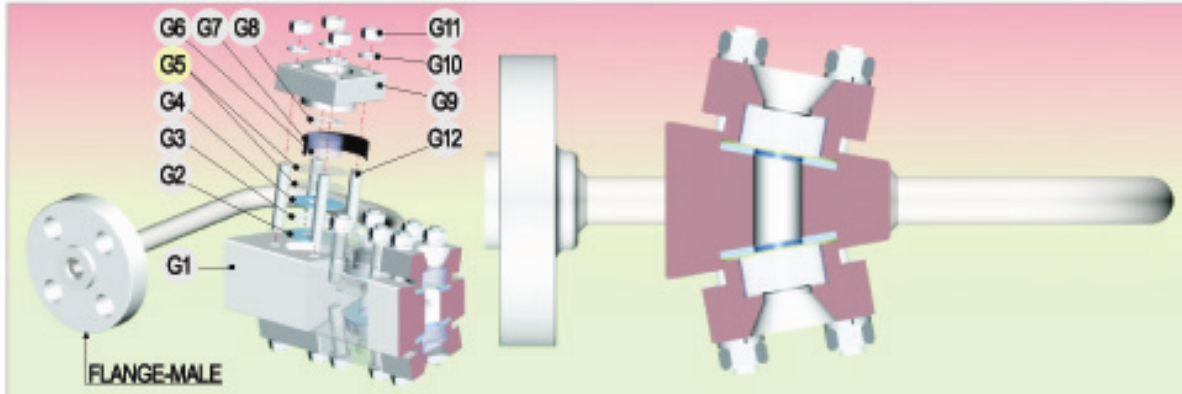
### SPECIFICATIONS

- **MATERIAL** : Carbon Steel & Stainless Steel, A182-F11, F22, F5, F9, F91, etc.
- **VISIBLE LENGTH** : Max. 1597 mm.
- **MAX. NO. OF SECTION** : 22 Ports.
- **VESSEL CONNECTION** : 3/4" or 1" Flanged ANSI 900# ~ 2500# or Socket Welds[S.W].
- **GAUGE BODY & GAUGE VALVE CON'N** : Not Rotatabl[turn to page G-9].
- **SHELL TEST PRESSURE** : 1.5 Times at the Max. Working Pressure.

☞ Others, except the above specification are available on request by customer.

**SGC-B MULTI-PORT TYPE TWO-COLOR FOR BOILER**

**SECTIONAL VIEW**



NO.	PARTS	MATERIAL	NO.	PART	MATERIAL
G1	Gauge Body	A105, Stainless Steel	G7	Packing Strip	Non-Asbestos
G2	1 <sup>st</sup> Sealing Gasket	Graphite	G8	Gasket	Aluminum
G3	Metal Sheet	304SS	G9	Gauge Cover	A105
G4	2 <sup>nd</sup> Sealing Gasket	Graphite	G10	Washer	SWRH-62B
G5	Shield	Ruby Mica	G11	Nuts	A194 Gr.2H
G6	Port Glass	Alumina-Silicate	G12	Stud-Bolts	A193 Gr.B7

**DIMENSIONAL VIEW**

MODEL	INSTALLATION DIRECTION		DIRECTION OF GAUGE FACING	DIMENSIONS		
	RIGHT-HAND	LEFT-HAND		NO. OF PORTS	C to C	V.L
SGC-300B			FRONT ONLY	6	467	397
				7	542	472
				8	617	547
				9	692	622
				10	767	697
				V.L is possible to manufacture as min. 70 mm for top side and 0 mm for bottom side base on C to C. Others, C to C & V.L are available on required spec.		

75 x No. of Ports - 53 = Visible Length.

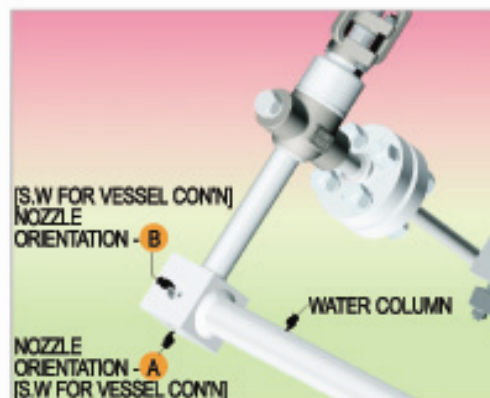
Others, except the above materials of part are available on request by customer.

## SGC-B MULTI-PORT TYPE TWO-COLOR FOR BOILER

Nozzle Orientation - A is Standard and Nozzle - B is only available on request by Customer.

### STELLITE as an option :

The stem and renewable seat with stellite reinforcement is hard and resistant to abrasion and corrosion. It prevents scorching and withstand high pressure and temperature.



**INSTALLATION :** In recent boiler installations, at least a set of this type gauge is used to a boiler which normally installs two sets of level observation system in order to prevent an occurrence of sudden and abnormal change of the water level.

**EASY AND ECONOMICAL MAINTENANCE :** Multi-Port Type Gauge have several ports for visible. It offers a feature of economical maintenance since replacement of the gauge glass can be carried out for a port only to replace independently.

**EASY LEVEL READING :** Multi-Port Type Gauge is easy to read the exact level of boiler drum far away at any frontal angle because of providing the wide visible window and an incandescent bulb beam.

NO.	PARTS
1	Water Column Block
2	Retainer
3	Pipe
4	Check Ball
5	Re-Newable Seat
6	Gauge Valve Body
7	Plug
8	Stem
9	Bonnet
10	Gland Packing
11	Gland Bolt
12	Gland Nut
13	Yoke
14	Gland
15	Gland Flange
16	Sleeve
17	Hand Wheel
18	Name Plate
19	Washer
20	Nut

