

**ITEM: TUBULAR LEVEL GAUGE as per Specification No.:
PCPS:81:132/00**

One "SET" of Tubular level gauge consists of

- 1. Isolating valves - 2 Nos.**
- 2. Glass Tube - 1 No.**
- 3. Packing ring - 1 set**
- 4. Glass Protector - 1 No.**
- 5. Aluminium Scale- 1 No.**

REMARKS:

1. THE VENDOR SHALL SUBMIT ALL THE CREDENTIALS AS PER PQR REQUIREMENT.
2. THE VENDOR SHALL SUBMIT THE QUALITY PLAN.



Technical Pre-Qualification Requirement for Tubular Level Gauge

1. The BIDDER / VENDOR (OEM) shall have should have supplied tubular level gauge (TLG) as per this specification requirements and the same TLG should have been commissioned in at least one plant of steam generating units and are in successful operation for a period of not less than 1 year as on the date of techno-commercial bid opening.
2. Only those vendors, who have manufactured, supplied and commissioned at least ONE number of TLG in the last five years as on date of this tender opening, should quote.
3. The supplier has to submit **anyone** of the following supporting documents meeting the above pre-qualifying requirement.
 - a) Copy of minimum one (1) performance certificate in English from end user along with copy of related PO/LOI/LOA/WO specifying that the product / equipment is running successfully for one (1) year from date of commissioning meeting pre-qualifying requirement.
 - b) Minimum two PO/LOI/LOA/WO placed with a minimum gap of one (1) year from same purchaser meeting the minimum pre-qualifying requirement.
 - c) Minimum three customers/ third party's inspection reports/ test certificates/ commissioning certificates meeting the minimum pre-qualifying requirement.



Specification No.: PCPS:81:132/00

Standard Technical Specification for Supply of Tubular Level Gauge

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Features Required on Water Level Gauges

	Prepared	Reviewed	Approved	Date	Revision
Name	Madhavanand Diwedi	M.Shyam Sundar	N.Kathirvel	24.10.15	00
Sign					



I Engineering specification I

1.1 General information:

This Specification covers the Design. Manufacture and supply of Tubular Level Gauge for HRSG. This is essential for viewing the level of water level inside the Intermittent and continuous blow down tanks.

2.1 SCOPE OF SUPPLY

The supply of the gauge shall be made as a complete assembly of water level gauge for blow down tank as per the specification enclosed.

3.1 FEATURES REQUIRED ON WATER LEVEL GAUGES

- a. Top and bottom valve of the water level gauge assembly shall be provided with hand wheel. The hand wheels shall have open and closed direction marked on them. The valve shall close when the hand wheels are rotated in clock-wise direction .
- b. Water level gauge glass should be toughened one, to resist mechanical and thermal shock and shall neither be less than ½” nor greater than ¾” outside diameter. It shall fully comply with the requirement of Indian Boiler Regulation.

4.1 Specification

- a. Service : Water Level Indication
- b. Design Pressure : 10.0
(Kg/Sq.cm(g))
- c. Design Temperature : 183 Deg. C
- d. Operating Pressure : 5.0
(Kg/Sq.cm(g))
- e. Operating Temperature : 158 Deg. C
- f. Medium : Steam & Water at Saturation temperature.
- g. Centre line distance
between top & bottom : 762 mm
flanges
- h. Top & Bottom Flange : NB-25mm [SCH.40]
Size

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- i. Flange Standard : As Per ANSI B16.5.(1"-ANSI 150#)
- j. Top and Bottom Valve : Auto Shut Off Ball.
- k. Valve Type : Check Valve.
- l. Gauge Protection : Steel Protection.
- m. Valve Body Material : SA105 or equivalent.
- n. Gauge Type : Thick walled Borosilicate Glass
- o. Scales : Aluminum Scale With Black Engravings
Graduated In mm
- p. Gauge Drain Connection : Socket Weld To Suit 1" SCH.40
- q. Test Certificate : Test Certificate For Hydraulic Test at Two Times
Design pressure to be furnished.

5.1 Inspection and Testing

- a. Inspection and testing are to be done as per IBR.
- b. Test Certificate for Hydraulic Test at Two Times Design pressure to be furnished.
- c. All valves shall be hydrostatically tested in accordance with IBR.

6.1 Documents- to be submitted along with the offer

- a. General arrangement drawing of the water level gauge with over all dimensions and weight.
- b. Cross sectional drawing of the water level gauges with all parts identified.
- c. Commissioning spares and recommended spares shall be identified with offer price valid for 2 years.
- d. The proposed packing list, with list of items for despatch.

7.1 Final Documents to be supplied after PO

- a. General arrangement drawings of the water- 1 soft copy with 3 hard copies
level gauge
- b. Cross sectional drawing of the water level gauge with all parts indicated - 1 soft copy with 3 hard copies
- c. Relevant water level gauge Catalogue - 1 soft copy with 3 hard copies

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- d. O & M manual - 1 soft copy with 3 hard copies
- e. Test certificate for raw materials - 3 copies & 1 Reproducible copy
- f. IBR forms III-c-certificates

8.1 Check list for Tubular level gauge

S.No	Description	Vendor Confirmation (Mark ✓ to confirm)	
		Yes	No
I	Along with the offer:		
a.	General arrangement drawing of the water level gauge with over all dimensions and weight		
b.	Cross sectional drawing of the water level gauges with all parts identified		
c.	Commissioning spares and recommended spares shall be identified with offer price valid for 2 years.		
d.	The proposed packing list, with list of items for despatch		
II	After placement of order:		
a.	General arrangement drawings of the water level gauge - 1 soft copy with 3 hard copies		
b.	Cross sectional drawing of the water level gauge with all parts indicated - 1 soft copy with 3 hard copies		
c.	Relevant water level gauge Catalogue - 1 soft copy with 3 hard copies		
d.	O & M manual - 1 soft copy with 3 hard copies		
e.	IBR forms III-c-certificates		
III	GENERAL:		
<i>Without the above Details/confirmation the Offer will be treated as Incomplete and Liable for Rejection.</i>			

We confirm that all the details are furnished as per above check list.

Date:

(Authorized signature of the vendor)

With office seal

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