



# CORPORATE STANDARD

AA 732 61 01

Rev. No. 01

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## TEMPERATURE STUB, SCREWED TYPE, FOR MEDIUM PRESSURE (UP TO 40 Kg/cm<sup>2</sup>)

### 1.0 SCOPE:

- 1.1 This standard specifies the requirements of temperature stubs for nominal pressure up to 40 Kg/cm<sup>2</sup>, for slant immersion for main pipe O.D's 88.9 to 159 mm and for straight immersion for main pipe O.D's of 168.3 mm and above with carbon steel materials.
- 1.2 These stubs are used for insertion of thermowells of temperature measuring instruments for media demineralised water, oil, fuel gas etc.

### 2.0 DESIGNATION:

A temperature stub for straight immersion carbon steel material length 45 mm pressure 40 kg/cm<sup>2</sup> to this standard shall be designated as follows.

#### 2.1 On Drawings and Indents :

Material specification column : AA 732 61 01

Description column : TEMP STUB STRT IMRTN L45 PR. 40

Material code column : AA 732 61 01 329

#### 2.2 **On Enquiries and Purchase orders:**

In addition to incorporating the above details, a copy of this standard shall be enclosed.

### 3.0 TECHNICAL REQUIREMENTS:

- 3.1 **Material:** Carbon steel material of ASTM A105 up to temperature of 0 – 425° C.
- 3.2 The dimensions of temperature stub for slant immersion are given in table 1. These stubs are used for main pipe O.D's of 88.9 to 159 mm.
- 3.3 The dimensions of temperature stub for straight immersion are give in table 2. These stubs are used for the main pipe O.D's of 168.3 mm and above.
- 3.4 For installation of thermowells in pipe O.D's 88.9 mm below larger pipe section of O.D 88.9 mm should be used. The mounting details are given in Annexure – 1.
- 3.5 The trading connection of the stub is M33 x 2 (6g)

### 4.0 TEST CERTIFICATES:

Three copies of the material test certificates, counter-signed by an authority recognized by IBR are to be supplied.

**Revisions :**  
Cl. 18.6.10 of MOM of WG-M&CD

**APPROVED :**  
INTERPLANT  
STANDARDIZATION COMMITTEE- (WG-M&CD)

| Rev. No. 01    | Amd.No. |        | Prepared  | Issued    | Dt. of 1st Issue |
|----------------|---------|--------|-----------|-----------|------------------|
| Dt: 01.10.2005 | Dt :    | Year : | HYDERABAD | Corp. R&D | MARCH, 1986      |



## 5.0 MARKING

5.1 The following details shall be marked on each stub

- Manufacturer's name or trade mark.
- Material specification
- Thread size

## 6.0 PACKING

Each stub shall be applied with suitable rust preventive coating and suitably packed in batches of ten numbers each and supplied with plastic end caps.

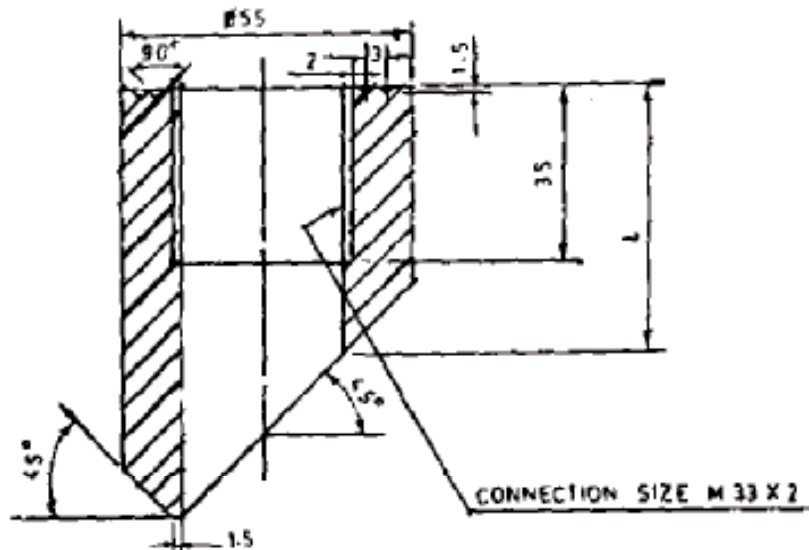


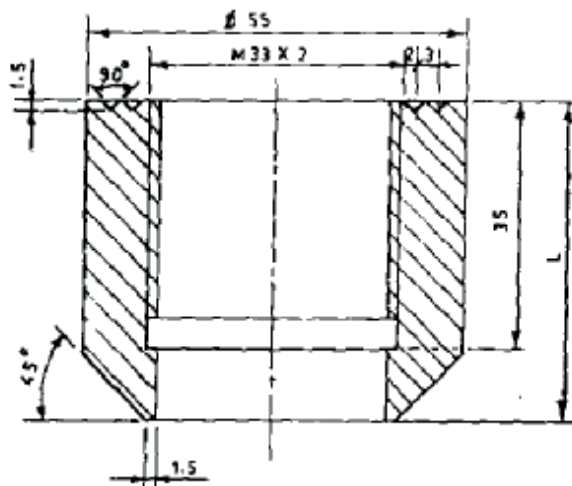
FIG - 1 - TEMPERATURE STUB FOR  
SLANT IMMERSION

TABLE 1. TEMPERATURE STUB FOR SLANT IMMERSION

| O.D. of Main pipe (mm) | Thermowell insertion Length (L1) | Length of The stub (1) | Material  | Sub Code |
|------------------------|----------------------------------|------------------------|-----------|----------|
| 88.9 mm to 159 mm      | 150                              | 64                     | ASTM A105 | 019      |

**NOTE:** 1) These stubs are used for O.D's of main pipe 88.9 to 159 mm.

- In case a suitable pipe bend is available, a straight stub can be used instead of slant stub to this standard.



**FIG. 2. TEMPERATURE STUB FOR  
STRAIGHT IMMERSION**

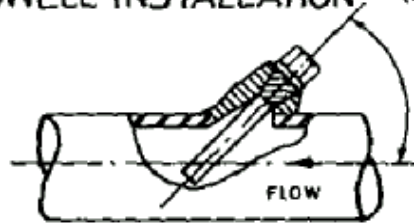
**TABLE – 2 : TEMPERATURE STUB FOR STRAIGHT IMMERSION**

| O.D. of Main pipe (mm) | Thermowell insertion Length (L1) | Length of The stub (1) | Material  | Sub Code |
|------------------------|----------------------------------|------------------------|-----------|----------|
| 168.3                  | 150                              | 64                     | ASTM A105 | 310      |
| 193.7                  | 150                              | 64                     | ASTM A105 | 310      |
| 219.1                  | 150                              | 45                     | ASTM A105 | 329      |
| 273.0                  | 150                              | 45                     | ASTM A105 | 329      |
| 323.9                  | 175                              | 45                     | ASTM A105 | 329      |
| 355.6                  | 175                              | 45                     | ASTM A105 | 329      |
| 406.4                  | 250                              | 45                     | ASTM A105 | 329      |
| 508.0                  | 250                              | 45                     | ASTM A105 | 329      |
| Above 508.0            | 325                              | 45                     | ASTM A105 | 329      |

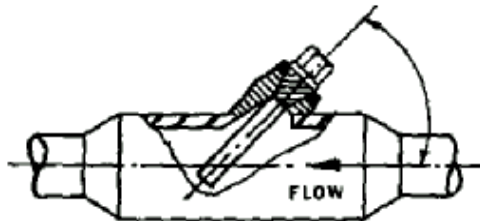
- NOTE:**
- 1) These stubs are used for O.D of main pipe having 168.3 mm and above.
  - 2) For 12 digit material code suffix sub code to the standard number
  - 3) Specific requirements of the plant shall be covered by plant annexure to this standard.



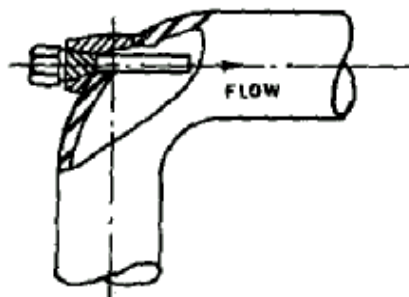
THERMOWELL INSTALLATION (ANNEXURE)



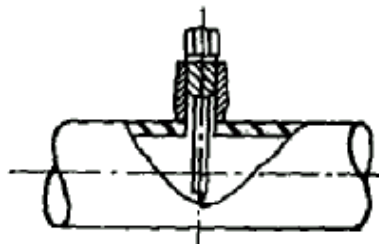
INSTALLATION TYPE-1  
FOR MAIN PIPE OD'S 88.9mm to 159mm



INSTALLATION TYPE-2  
FOR MAIN PIPE OD'S 88.9mm BELOW



INSTALLATION TYPE-3  
FOR MAIN PIPE OD'S 88.9mm BELOW



INSTALLATION TYPE-4  
MAIN PIPE OD 168.3 mm & ABOVE