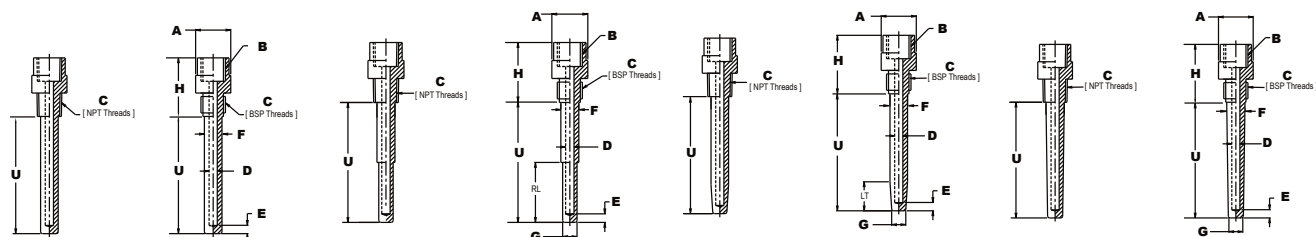




### Special Features

- Design as per PTC 19.3
- These Thermowells are manufactured from solid bar stock and installed into the process with the help of threaded process connection.
- This design is suitable for all type of RTD's, Thermocouples, mechanical as well as digital thermometers
- Available in various shapes like Straight, Straight with reduced tip, partial taper & full taper

### Thermowell Drawings



**S - Straight**

**A** - Finished Head Size  
**B** - Instrument Connection  
**C** - Process Connection  
**D** - Bore Diameter

**R - Straight Reduced Tip**

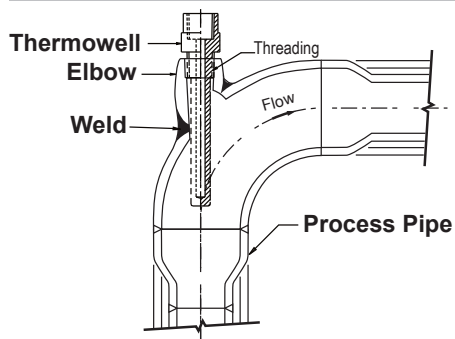
**E** - Tip Thickness  
**F** - Major Diameter  
**G** - Minor Diameter  
**H** - Extension Length

**P - Partial Taper**

**U** - Insertion Length  
**RL** - Reduced Tip Length  
**LT** - Taper Length

**F - Full Taper**

### Thermowell Installation



| How To Order   |                                    |                              |                   |                    | Example |
|--|------------------------------------|------------------------------|-------------------|--------------------|---------|
| Basic Model  |                                    |                              |                   |                    | W1      |
| Type   |                                    |                              |                   |                    |         |
| S - Straight   | R - Straight Reduced Tip           |                              | P - Partial Taper | F - Full Taper     | X       |
| Material   |                                    |                              |                   |                    |         |
| LQ Carbon Steel  | EP AISI 410 SS                     | LT Monel                     | LV Titanium       | XX                 |         |
| LP AISI 304 SS   | EQ AISI 347 SS                     | LU Inconel 600               | LW Tantalum       |                    |         |
| LM AISI 316 SS   | LO AISI 316Ti SS                   | ES Inconel 625               | LX Nickel         |                    |         |
| LN AISI 316L SS  | ER AISI 304L SS                    | ET Incolloy 800              | LY HRS 446        |                    |         |
| EN AISI 321 SS   | LR Hastelloy B                     | EU Incolloy 825              | LZ Alloy 20       |                    |         |
| EO AISI 310 SS   | LS Hastelloy C                     | MQ Brass                     | EV Kanthal        |                    |         |
| Note : Other Materials are available on request.                                     |                                    |                              |                   |                    |         |
| Instrument Connection “B”  |                                    |                              |                   |                    |         |
| 3BF 3/8” BSP (F)   | 4BF ½” BSP (F)                     | 5BF ¾” BSP (F)               | 3MF M18 x 1.5 (F) | XXX                |         |
| 3NF 3/8” NPT (F)   | 4NF ½” NPT (F)                     | 5NF ¾” NPT (F)               | 4MF M20 x 1.5 (F) |                    |         |
| 3TF 3/8” BSPT (F)  | 4TF ½” BSPT (F)                    | 5TF ¾” BSPT (F)              | 5MF M22 x 1.5 (F) |                    |         |
| 3PF 3/8” G (F)   | 4FF ½” PF (F)                      | 6BF 1” BSP (F)               | 6MF M24 x 1.5 (F) |                    |         |
|  | 4YF ½” R (F)                       | 6NF 1” NPT (F)               | 7MF M27 x 2 (F)   |                    |         |
|  | 4PF ½” G (F)                       | 6TF 1” BSPT (F)              | 9MF M33 x 2 (F)   |                    |         |
| Note : Other Connections are available on request.                                   |                                    |                              |                   |                    |         |
| Process Connection “C”   |                                    |                              |                   |                    |         |
| 3BM 3/8” BSP (M)   | 4BM ½” BSP (M)                     | 5BM ¾” BSP (M)               | 6BM 1” BSP (M)    | 4MM M 20 x 1.5 (M) | XXX     |
| 3NM 3/8” NPT (M)   | 4NM ½” NPT (M)                     | 5NM ¾” NPT (M)               | 6NM 1” NPT (M)    | 6MM M 24 x 1.5 (M) |         |
| 3TM 3/8” BSPT (M)  | 4TM ½” BSPT (M)                    | 5TM ¾” BSPT (M)              | 6TM 1” BSPT (M)   | 7MM M 27 x 2 (M)   |         |
| 3PM 3/8” G (M)   | 4FM ½” PF (M)                      | 5FM ¾” PF (M)                | 6FM 1” PF (M)     | 9MM M 33 x 2 (M)   |         |
|  | 4YM ½” R (M)                       | 5YM ¾” R (M)                 | 6YM 1” R (M)      |                    |         |
|  | 4PM ½” G (M)                       | 5PM ¾” G (M)                 | 6PM 1” G (M)      |                    |         |
| Note : Other Connections are available on request.                                   |                                    |                              |                   |                    |         |
| Finished Head Size “A” (Refer Table 1.1 for selection of Head Size for Thermowell.)  |                                    |                              |                   |                    |         |
| Please Specify in mm   |                                    |                              |                   |                    | XXX     |
| e.g. : For 28 mm Finished head Size, specify A28                                     |                                    |                              |                   |                    |         |
| Type Of Head   |                                    |                              |                   |                    |         |
| K Hex Headed*  | M Round Headed With Spanner Slots# |                              |                   |                    | X       |
| * Maximum “U” Length below thread will be 250 mm.                                    |                                    | # Except material option MQ. |                   |                    |         |
| Extension / Lagging Length “H”   |                                    |                              |                   |                    |         |
| H50 (Standard)   |                                    |                              |                   |                    | XXX     |
| For e.g. : for length 75 mm, mention H75   |                                    |                              |                   |                    |         |
| Bore Diameter “D”  |                                    |                              |                   |                    |         |
| A 6.6 mm   | B 7 mm                             | C 8.5 mm                     | D 9 mm            | X                  |         |
| E 10.5 mm  | F 11 mm                            | G 13 mm                      | H 13.5 mm         |                    |         |
| Note : Refer Table 1.3 of Thermowell Design Procedure for dimensions as per PTC 19.3 |                                    |                              |                   |                    |         |

| Major Diameter “F”   |  |   | Example |                                 |
|--|--|---|---------|---------------------------------|
| <div><div><div>S</div><div>Major Diameter “F”<br/>Please specify in mm<br/>e.g. : for 22 mm, mention F22</div></div><div><div>R</div><div>Major Diameter Of Step ‘F’<br/>Please specify in mm<br/>e.g. : for 22 mm, mention F22<br/>Minor Diameter Of Step ‘G’<br/>Please specify in mm<br/>e.g. : for 18 mm, mention G18<br/>Length Of Step ‘RL’<br/>Please specify in mm<br/>e.g. : for 100 mm step length from tip,<br/>specify RL100</div></div><div><div>P</div><div>Major Diameter Of Taper ‘F’<br/>Please specify in mm<br/>e.g. : for 22 mm, mention F22<br/>Minor Diameter Of Taper ‘G’<br/>Please specify in mm<br/>e.g. : for 18 mm, mention G18<br/>Length Of Taper ‘LT’<br/>Please specify in mm<br/>e.g. : For taper length<br/>from tip of 150 mm, specify LT150</div></div><div><div>F</div><div>Major Diameter Of Taper ‘F’<br/>Please specify in mm<br/>e.g. : for 22 mm, mention F22<br/>Minor Diameter Of Taper ‘G’<br/>Please specify in mm<br/>e.g. : for 18 mm, mention G18</div></div></div> |  |   |         | XXX<br>OR<br>XXX<br>OR<br>XXXXX |
| Note : Refer Table 1.3 of Thermowell Design Procedure for dimensions as per PTC 19.3   |  |   |         |                                 |
| Tip Thickness “E”<br>Standard Tip Thickness is 5 mm.<br>For others, please specify in mm.<br>e.g. : Specify E5 for 5 mm Tip Thickness  |  |   | XX      |                                 |
| Insertion Length “U”<br>Please specify in mm<br>e.g. : for 250 mm, mention U250<br>Note : Refer Table 1.4 of Thermowell Design Procedure for dimensions as per PTC 19.3  |  |   | XXXX    |                                 |
| Options<br>GG Plug and chain in SS                      SX SS Tag Plate                      CX Marking by Engraving<br>FW Electro polishing                      CW Marking by Laser  |  |   |         |                                 |
| Tests & Certification  |  |   | XX      |                                 |
| C1 Radiography for Bore Concentricity  |  | C7 Wake Frequency Calculations as per PTC 19.3* |         |                                 |
| C2 IBR Certification   |  | C8 Certification for Hydrogen Service           |         |                                 |
| C3 Mechanical Test   |  | C9 Certification for Oxygen Service             |         |                                 |
| C4 Ultrasonic Test   |  | T1 Chemical Composition Test                    |         |                                 |
| C5 PMI Test  |  | T2 3.1B Material Conformity Certificate         |         |                                 |
| C6 IGC Test  |  | TF Conformity as per NACE Standard              |         |                                 |
| * Please Specify Fluid, Max. Pressure, Temperature & Flow velocity for wake frequency calculations as per PTC 19.3   |  |   |         |                                 |
| Ordering Example:  |  |   |         |                                 |
| W1 . X . XX . XXX . XXX . XXX . X . XXX . X . XXX OR XXX OR XXXXX . XX . XXXX . XX   |  |   |         |                                 |
| Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing.<br>Modifications may take place and materials specified may be replaced by others without prior notice.  |  |   |         |                                 |