

# Welded Thermowells

## Model WTW04

According to ANSI/ASME or DIN 43772

### Features

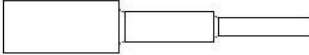
- Socket weld or Weld-in heavy duty design
- Selection of materials
- Suitable for harsh process condition
- Standard and customer specifications
- Protects measuring instruments from service
- Single piece drilled bar stock construction
- Suitable for high velocity flow, high temperature, or extremely high pressure.
- Material certificate according NACE MR0175/ISO15156-2009 and NACE MR0103-2010

### Applications

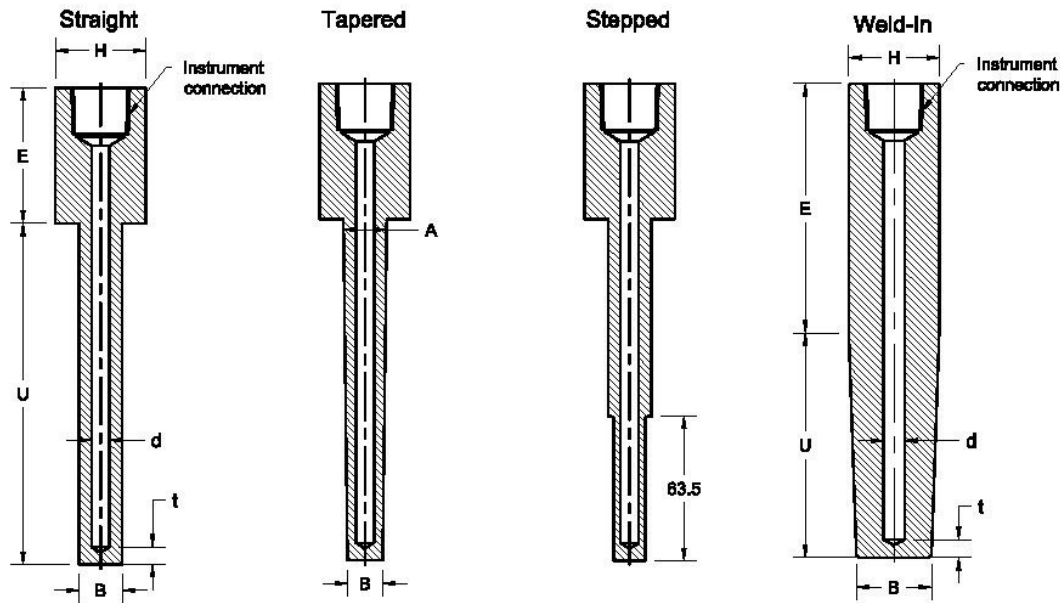
Chemical and petrochemical industry  
Machine and apparatus construction  
Food and beverage industry  
Pulp and paper industry

**2**  
YEARS  
WARRANTY



| Technical specification  | S                                                                                                                                                                                                                                    | R                                                                                    | H                                                                                     |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Socket weld design       |                                                                                                                                                   |  |  |
|                          | Single piece drilled bar stock construction                                                                                                                                                                                          |                                                                                      |                                                                                       |
| Construction shank       | Straight                                                                                                                                                                                                                             | Stepped                                                                              | Tapered                                                                               |
| Bore diameter in mm      | 6.6 7.0 9,8                                                                                                                                                                                                                          | 10.5 12.5, others on request                                                         |                                                                                       |
| Process connection       |                                                                                                                                                                                                                                      |                                                                                      |                                                                                       |
| Pipe Size [inch]         | ¾, 1, 1 ¼, 1 ½, 2, others on request                                                                                                                                                                                                 |                                                                                      |                                                                                       |
| Instrument connection    | ½" NPT (F) or ½" BSP (F)                                                                                                                                                                                                             |                                                                                      |                                                                                       |
| Material                 | Carbon steel, Stainless steel 304 (1.4301), 304L (1.4306), 316 (1.4401), 316L (1.4404), 316Ti (1.4571), 321 (1.4541)<br>Monel, Hastelloy-B, Hastelloy-C, Inconel, Tantalum, Duplex, Nickel<br>Other materials or coatings on request |                                                                                      |                                                                                       |
| Certifications & tests   | Material certificate DIN EN 10204 3.1, Hydrostatic test, Bore Concentricity test, X-ray, Hardness test, NACE compliance certificate, Wake frequency calculation according ASME PTC 19.3                                              |                                                                                      |                                                                                       |
| Accessories, options     | Cap and chain stainless steel                                                                                                                                                                                                        |                                                                                      |                                                                                       |
| Suitable for mounting of | Industrial thermometer, RTDs, Thermocouples, Temperature transmitters, Temperature switches                                                                                                                                          |                                                                                      |                                                                                       |

## General dimensions in mm



A. Root diameter  
B. Tip diameter  
E. Extension length  
H. Hub diameter  
U. Immersion Length  
d. Bore diameter  
t. Tip thickness

| Process connection | ANSI pipe Size   | H-Hub Diameter |
|--------------------|------------------|----------------|
| W75 / S75          | 3/4"             | 26.67 mm       |
| W10 / S10          | 1"               | 33.40 mm       |
| W12 / S12          | 1 1/4"           | 42.16 mm       |
| W15 / S15          | 1 1/2"           | 48.26 mm       |
| W38 / S38          | 1 1/2" OD actual | 38.10 mm       |

## Order information

| Process connection                   | U-length in mm                                                             | Instrument connection                  | Extension length                                                                                    | Shank Type                                                                        | Bore                                                                                                      | Material                                                                                                                                                                                                                      | Options                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------|----------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ANSI Pipe Size</b>                | (U...) Specify length in mm <sup>1)</sup><br>E.g. (250) for u length 250mm | (04T) 1/2" NPT(F)<br>(15T) 1/2" BSP(F) | (=) Standard, 57mm<br>(EX) Specify Extension Length in mm<br>E.g. (E100) for 100mm extension length | (S) Straight Shank<br>(H) Tapper Shank<br>(R) Stepped Shank (only for bore 6.6mm) | (6.6) 6.6mm<br>(7.0) 7.0mm<br>(8.5) 8.5mm<br>(9.8) 9.8mm<br>(10.5) 10.5mm<br>(11.0) 11mm<br>(12.5) 12.5mm | (B) Carbon steel<br>(C) 304 (1.4301)<br>(CL) 304L (1.4306)<br>(S) 316 (1.4401)<br>(SL) 316L (1.4404)<br>(SH) 321 (1.4541)<br>(ST) 316Ti (1.4571)<br>(M) Monel<br>(H) Hastelloy C<br>(N) Nickel<br>(DU) Duplex<br>(IN) Inconel | (NH) Tagging stamped<br>(CC) Cap and chain stainless steel<br><br>Certifications<br>(CDWFC) Wake frequency ASME PTC 19.3<br>(BC) Bore Concentricity test (UT)<br>(XR2) X-ray for bore concentricity<br>(CDW9) 100 bar 1 min.<br>(CD3) 3.1 Material certi.<br>(CD5) NACE Compliance<br>(CDPMI) Positive material certificate<br>(CDIBR) IBR Certificate |
| <b>Weld-in</b>                       |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (W75) 3/4"                           |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (W10) 1"                             |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (W12) 1 1/4"                         |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (W15) 1 1/2"                         |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (W38) 38.1 mm (for 1 1/2" actual OD) |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| <b>Socket weld</b>                   |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (S75) 3/4"                           |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (S10) 1"                             |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (S12) 1 1/4"                         |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (S15) 1 1/2"                         |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| (S38) 38.1 mm (for 1 1/2" actual OD) |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |
| others on request                    |                                                                            |                                        |                                                                                                     |                                                                                   |                                                                                                           |                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                        |

1) solid bar stock up to 700mm total length of thermowell, >700mm welded bar stock construction

## How to order

| Process connection | Type  | U-length | Instrument connection | Extension length | Shank Type | Bore | Material | Options |
|--------------------|-------|----------|-----------------------|------------------|------------|------|----------|---------|
|                    | WTW04 | 320      | 04T                   | =                | H          | 6.6  | SL       | NH      |