

## Threaded Thermowells

### FEATURES

- One piece bar stock construction
- Stamped with mil traceable material and heat number
- Testing and certifications including Wake Frequency Calculations per ASME PTC 19.3 TW-2016
- Standard or customized shank dimensions

### TYPICAL USES

- Chemical and petrochemical plants
- Water and wastewater temperature control
- Pharmaceutical / Biotech
- Food and beverage



**Threaded Thermowells**  
1/2", 3/4", 1" threaded sizes

| SPECIFICATIONS           |  |
|--------------------------|--|
| Shank Style:             | Tapered, straight, or stepped                        |
| Process Connection Size: | 1/2, 3/4, or 1 NPT Male                              |
| Instrument Connection:   | 1/2 NPSM or 1/2 NPT Female                           |
| Bore Size:               | 0.260" or 0.385"                                     |
| Surface Finish:          | 16-32 Ra   |
| Lagging:                 | 2" if U-dimension is <3"<br>3" if U-dimension is >3" |
| Cap & Chain:             | Brass, stainless steel                               |

**TABLE 1**

| OPTIONS                        | CODE |
|--------------------------------|------|
| Stamp tag number on thermowell | NF   |
| SS tag wired to thermowell     | NH   |
| Hydrostatic test-internal      | W9   |
| Clean for oxygen service       | 6B   |
| Wake frequency calculation     | W5   |
| Material origin restriction    | UM   |

| Certificates  |       |
|---|-------|
| Certificate of conformance (per order)                      | CD-1A |
| Physical and chemical material test report (MTR's)          | W6    |
| Positive material identification (PMI), N/A on carbon steel | MQ    |
| NACE certificate of compliance                              | CD-5  |

- ### KEY BENEFITS
- Protects instrument against corrosive effects and physical damage caused by media flow
  - Permits instrument interchange or calibration check without disturbing/closing down the process
  - Tracing of material origin for quality assurance and control

**TABLE 2**

| MATERIALS           | CODE  |
|---------------------|-------|
| 304 SS              | C     |
| 316 SS              | S     |
| Monel®              | M     |
| Hastelloy B/C       | G/H   |
| Carpenter 20        | D     |
| Chrome Moly F11/F22 | FA/FB |
| Duplex 2205 S/S     | J     |
| Super Duplex S32750 | SD    |
| Iconel 600          | W     |
| Titanium            | TI    |
| Carbon Steel        | B     |

# Data Sheet

## Threaded Thermowells

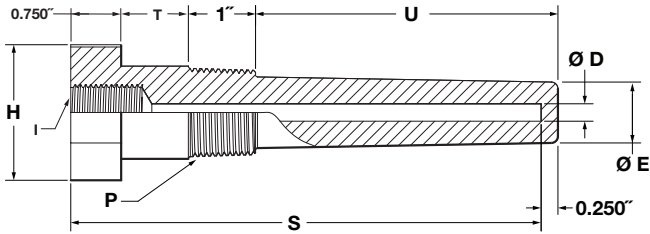
|   |          |    |   |      |   |   |   |     |   |   |     |       |
|---|----------|----|---|------|---|---|---|-----|---|---|-----|-------|
| <b>ORDERING CODE</b>  | Example: | 75 | W | 0250 | L | H | T | 260 | S | 2 | XNH | L0350 |
| <b>P-Process Connection Size</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| 50 - ½ NPT (N/A with U of 0162)   |          |    |   |      |   |   |   |     |   |   |     |       |
| 75 - ¾ NPT Male 75  |          |    |   |      |   |   |   |     |   |   |     |       |
| 10 - 1 NPT Male   |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Thermowell</b>   |          |    |   |      |   |   |   |     |   |   |     |       |
| W - Thermowell W  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>U-Process Insertion Length</b>   |          |    |   |      |   |   |   |     |   |   |     |       |
| 0162 - 1½" (Available only with "M" Process Conn. Type & N/A with ½ NPT)                                    |          |    |   |      |   |   |   |     |   |   |     |       |
| 0250 - 2½" 0250   |          |    |   |      |   |   |   |     |   |   |     |       |
| 0450 - 4½"  |          |    |   |      |   |   |   |     |   |   |     |       |
| 0750 - 7½"  |          |    |   |      |   |   |   |     |   |   |     |       |
| 1050 - 10½"   |          |    |   |      |   |   |   |     |   |   |     |       |
| 1350 - 13½"   |          |    |   |      |   |   |   |     |   |   |     |       |
| 1650 - 16½"   |          |    |   |      |   |   |   |     |   |   |     |       |
| 1950 - 19½"   |          |    |   |      |   |   |   |     |   |   |     |       |
| 2250 - 22½"   |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>I-Instrument Connection</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| Blank - ½ NPSM  |          |    |   |      |   |   |   |     |   |   |     |       |
| 2 - ½ NPT Female  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>T-Lagging</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| Blank - No lagging  |          |    |   |      |   |   |   |     |   |   |     |       |
| L - Lagging (For special lag length, see below) L   |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Shank Type</b>   |          |    |   |      |   |   |   |     |   |   |     |       |
| H - Tapered (N/A with U dimension 0162) H   |          |    |   |      |   |   |   |     |   |   |     |       |
| S - Straight  |          |    |   |      |   |   |   |     |   |   |     |       |
| R - Stepped (N/A with U dimension 0162)   |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Process Connection Type</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| T - NPT Threaded T  |          |    |   |      |   |   |   |     |   |   |     |       |
| M - Limited space threaded used with 1½" U only   |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>D-Bore Diameter</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| 260 - 0.260" 260  |          |    |   |      |   |   |   |     |   |   |     |       |
| 385 - 0.385"  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Material</b>   |          |    |   |      |   |   |   |     |   |   |     |       |
| AA - Brass  |          |    |   |      |   |   |   |     |   |   |     |       |
| B - Carbon steel  |          |    |   |      |   |   |   |     |   |   |     |       |
| C - 304 SS  |          |    |   |      |   |   |   |     |   |   |     |       |
| S - 316 SS S  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Cap and Chain</b>  |          |    |   |      |   |   |   |     |   |   |     |       |
| Blank - No cap and chain  |          |    |   |      |   |   |   |     |   |   |     |       |
| 1 - Brass   |          |    |   |      |   |   |   |     |   |   |     |       |
| 2 - SS 2  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Options (see Table 1 on page 1 for additional options (If choosing an option(s) must include an "X")</b> |          |    |   |      |   |   |   |     |   |   |     |       |
| NH - SS tag wired to thermowell X__ NH  |          |    |   |      |   |   |   |     |   |   |     |       |
| <b>Special Lagging Length</b>   |          |    |   |      |   |   |   |     |   |   |     |       |
| L - Lagging length x 100 (ex: 3.5" x 100 = L0350) L0350   |          |    |   |      |   |   |   |     |   |   |     |       |

# Threaded Thermowells

## DIMENSIONS

For reference only, consult Ashcroft for specific dimensional drawings

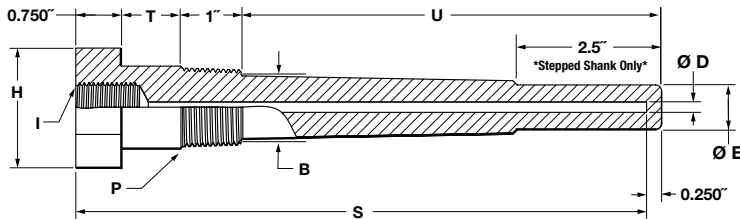
### Threaded Straight Thermowell



### Threaded Straight - 0.260" & 0.385" Bore

| P    | H      | E<br>0.260"<br>Bore | E<br>0.385"<br>Bore |
|------|--------|---------------------|---------------------|
| 1/2" | 1.125" | 0.50"               | 0.625"              |
| 3/4" | 1.125" | 0.50"               | 0.765"              |
| 1"   | 1.375" | 0.50"               | 0.765"              |

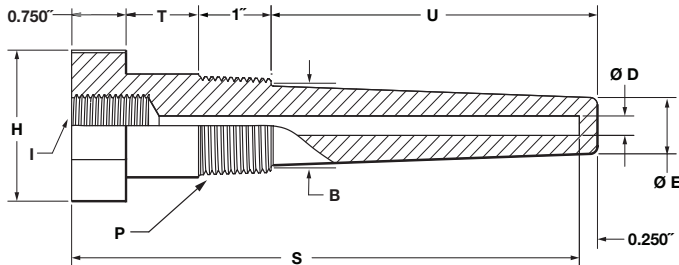
### Threaded Stepped Thermowell



### Threaded Stepped - 0.260" & 0.385" Bore

| P    | H      | B      | E<br>0.260"<br>Bore | E<br>0.385"<br>Bore |
|------|--------|--------|---------------------|---------------------|
| 1/2" | 1.125" | 0.625" | 0.50"               | —                   |
| 3/4" | 1.125" | 0.75"  | 0.50"               | 0.625"              |
| 1"   | 1.375" | 0.875" | 0.50"               | 0.625"              |

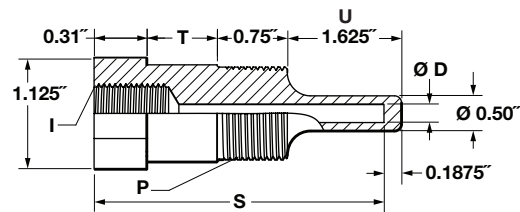
### Threaded Tapered Thermowell



### Threaded Tapered - 0.260" & 0.385" Bore

| P    | H      | B      | E<br>0.260"<br>Bore | E<br>0.385"<br>Bore |
|------|--------|--------|---------------------|---------------------|
| 1/2" | 1.125" | 0.625" | 0.50"               | —                   |
| 3/4" | 1.125" | 0.875" | 0.625"              | 0.766"              |
| 1"   | 1.375" | 1.06"  | 0.625"              | 0.766"              |

### Limited Space



### Thermowell Legend

- I - Instrument connection (1/2" NPSM is standard)
- P - Process connection
- T - Lag dimension when required
- B - Root OD
- E - Tip OD
- D - Bore diameter
- U - Insertion depth
- S - Instrument stem length or bore depth
- H - Hex size