

# TEMPERATURE CONTROLS Pty Ltd

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HERMOCOUPLES • RTD SENSORS • THERMOWELLS • EXTENSION CABLES

## Thermowells



We supply quality thermowells to suit a range of process industries, including food, beverage, pharmaceutical and petrochemical.

Thermowells are mainly custom made to suit your application and we invite our customers to send drawings of requirements to receive a competitive quotation.

Following are specifications on the standard model thermowells manufactured by Temperature Controls using modern CNC and Gun Drilling machinery.

Thermowells can be manufactured in the following materials:

- Duplex Stainless Steel
- 316 Stainless Steel
- 321 Stainless Steel
- 304 Stainless Steel
- Carbon Steel
- Chrome Molybdenum
- Inconel
- Hastalloy
- Brass
- Titanium
- Monel 400

# TEMPERATURE CONTROLS

## Thermowells

### STANDARD SPECIFICATION AND TOLERANCE

- LENGTH

± 1.5mm on all length to 300mm

± 3.0mm on all length to 1000mm

Thermowells 1000mm long and over will be drilled through, plugged and welded.

- O.D TOLERANCE ± 0.3mm

- BORE 6.5mm

- EXTERNAL SURFACE FINISH 16-32 RA

*Other finishes available on request.*

- IF HEX IS UNAVAILABLE IN REQUESTED MATERIAL, 2 SPANNER FLATS MILLED.

- WELDS

Full penetration welds are standard.

Weld procedure and qualifications available.

- LAGGING EXTENSION

If hex bar is used, hex is left unturned.

- PROCESS CONNECTION

NPT

BSPT

BSPP

- INSTRUMENT CONNECTION

1/2" BSPP Standard

BSPT

NPT

Checked with traceable GO/NOGO gauges.

- NON DESTRUCTIVE TESTING

4 Part dye penetrant test on all welds

Hydrostatic Internal pressure test (30,000 kpa 5 mins)

Certificates available including Material upon request at ordering.

- FLANGED WELLS

Manufactured in accordance with ANSI B 16.5

Raised face with spiral finish is standard

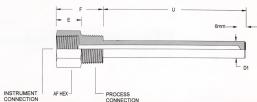
- TAGGING – Material and tag number as specified

- PLUG AND CHAIN – available for Test Wells

# TEMPERATURE CONTROLS

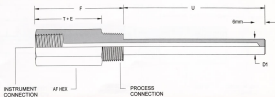
## Thermowells

### MODEL TCSP Screwed Parallel Stem



Specification	D	AF HEX	E	F
1/2" NPT/BSP	16mm	25.4mm	22mm	45mm
3/4" NPT/BSP	19mm	28.5mm	22mm	45mm
1" NPT/BSP	22mm	34.8mm	25mm	50mm

### MODEL TCSP L Screwed Parallel Stem with Lagging Extension



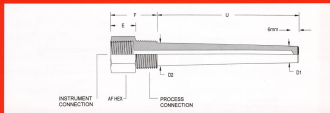
Lagging extension "T" is added to standard "E" dimension increasing overall length. All other specifications as per model TCSP

# TEMPERATURE CONTROLS

## Thermowells

**MODEL**

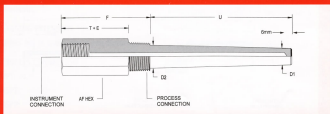
**TCST Screwed Taper Stem**



Specification	D1	D2	AF HEX	E	F
1/8" NPT/BSP	12mm	16mm	25.4mm	22mm	45mm
1/4" NPT/BSP	16mm	19mm	28.5mm	22mm	45mm
1" NPT/BSP	19mm	22mm	34.8mm	25mm	50mm

**MODEL**

**TCSTT Screwed Taper Stem with Lagging Extension**

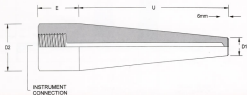


Lagging extension "T" is added to standard "E" dimension increasing overall length. All other specifications as per model TCST

# TEMPERATURE CONTROLS

## Thermowells

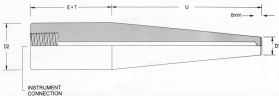
### MODEL TCWIT Weld in Taper Stem



Specification	D1	D2	E
Standard	19mm	38.1mm	45mm

*Dimension d2 is determined by customer application requirements*

### MODEL TCWITT Weld in Taper Stem with Lagging Extension

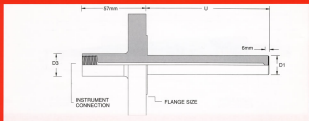


Lagging extension "T" is added to standard "E" dimension increasing overall length. All other dimensions as per model TCWIT

# TEMPERATURE CONTROLS

## Thermowells

### MODEL TCFP Flange Connection/Parallel Stem

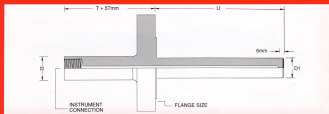


#### Specification

Flange Size	D1	D3
1" NB	22mm	31mm
1½" NB	24mm	31mm
2" NB	28mm	31mm

Flange Ratings: 150#, 300#, 600#, 900#, 1500# to suit application

### MODEL TCFPL Flange Connection/Parallel Stem with Lagging

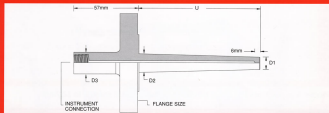


Lagging extension "T" is added to standard 57 mm "E" dimension increasing overall length. All other dimensions as per model TCFP

# TEMPERATURE CONTROLS

## Thermowells

### MODEL TCFT Flange Connection/Taper Stem

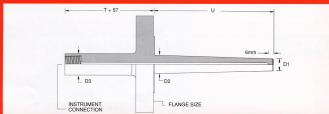


#### Specification

Flange Size	D1	D2	D3
1" NB	16mm	22mm	31mm
1 1/2" NB	18mm	24mm	31mm
2" NB	18mm	28mm	31mm

Flange Ratings: 150#, 300#, 600#, 900#, 1500#

### MODEL TCFTL Flange Connection/Taper Stem with Lagging Extension



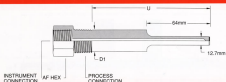
Lagging dimension "T" is added to standard 57mm "E" dimension increasing overall length. All other dimensions as per model TCFT

# TEMPERATURE CONTROLS

## Thermowells

**OPTION**

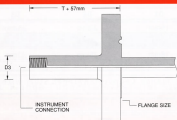
**RS Reduced Stem**



*To improve response times the end of parallel thermowells can be reduced to 12.7mm*

**OPTION**

**RTJ Flange**



**OPTION**

**PC Plug and Chain**



**Plug to screw into instrument connection for test thermowells. Supplied C/W chain**