

## BAR STOCK (WELD IN / SOCKET WELD)

## **Model - TW6**

#### Special Features:

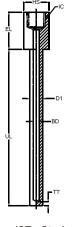
- Design as per PTC 19.3.
- These Thermowells are machined from solid bar stock and inserted into the process through direct welded attachment.
- The design is suitable for all type of RTD's, Thermocouples, Mechanical as well as digital Thermometers.
- Available in various shapes like Straight, Straight with reduced tip, Partial taper & full taper.

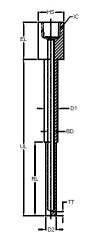
#### Application:

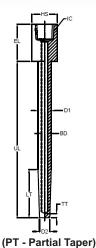
- · Chemical Plants
- **Petrochemical Plants**
- On Shore & Off Shore
- **Engineering Plants**
- Other similar process Industries

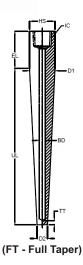


#### Thermowell Drawings:









(ST - Straight)

(SR - Straight Reduced Tip)

Note: Drawings are not to scale. All Dimensions are in mm.

HS - Finished Head Size

IC - Instrument Connection

BD - Bore Diameter

TT - Tip Thickness

D1 - Major Diameter

D2 - Minor Diameter

EL - Extension Length

UL - Insertion Length

RL - Reduced Tip Length

TW<sub>6</sub>

ST

**S6** 

LT - Taper Length

### **SELECTION OF MODEL**

#### (1) MODEL CODE

#### (2) TYPE

Straight	ST
Straight Reduced Tip	SR

Partial Taper	PT
Full Taper	FT

#### (3) MATERIAL

Carbon Steel	CS
AISI 304 SS	S4
AISI 316 SS	S6
AISI 316L SS	S6L

AISI 321 SSI	S21
AISI 310 SS	S10
Hastelloy C	HT
Monel	MN

Inconel 625	IN
Titanium	TI
Nickel	NI

Note: Other Materials are available on Request.

#### (4) INSTRUMENT CONNECTION "IC"

1/2" BSP(F)	4BF
1/2" NPT(F)	4NF
1/2" R(F)	4RF
1/2" G(F)	4GF
3/4" BSP(F)	5BF

3/4" NPT(F)	5NF
3/4" R(F)	5RF
3/4" G(F)	5GF
1" BSP(F)	6BF
1" NPT(F)	6NF

1" G(F)	6GF
1" R(F)	6RF
M18 x 1.5(F)	3MF
M20 x 1.5(F)	4MF
M22 x 1.5(F)	5MF

M24 x 1.5(F)	6MF
M27 x 1.5(F)	7MF
M33 x 1.5(F)	9MF

Note: Other Connections are available on Request.

#### (5) EXTENSION / LAGGING LENGTH "EL"

EL50 (Standard)

e.g.: For length 50mm, mention EL50.

#### (6) FINISHED HEAD SIZE "HS"

PLEASE SPECIFY IN mm

e.g.: For 28mm Finished head size, Specify HS28

#### (7) TYPE OF HEAD

Hex Headed*	HH
Round Headed	RH

<sup>\*</sup>Maximum "U" Length below thread will be 800mm.

#### (8) BORE DIAMETER "BD"

PLEASE SPECIFY IN mm

e.g.: For length 9mm, mention BD9.

Note: Refer Thermowell design procedure for dimension as per PTC 19.3

#### (9) MAJOR DIAMETER

Major Diameter "D1"
Please specify in mm
e.g. For 22mm mention D122

Major Diameter of Taper "D1" Please specify in mm e.g. For 22mm mention D122

**Minor Diameter of Taper "D2"** Please specify in mm e.g. For 18mm mention D218

RT

Major Diameter of Step "D1" Please specify in mm e.g. For 22mm mention D122

Minor Diameter of Step "D2" Please specify in mm e.g. For 18mm mention D218

**Length of Step "RL"**Please specify in mm
e.g. For 100mm step length from tip,

specify RL100

PT

**Major Diameter of Taper "D1"** Please specify in mm e.g. For 22mm mention D122

Minor Diameter of Taper "D2" Please specify in mm e.g. For 18mm mention D218

Length of Step "TL"
Please specify in mm
e.g. For taper length from tip of 150mm, specify TL150

Note: Refer Thermowell design procedure for dimension as per PTC 19.3  $\,$ 

#### (10) TIP THICKNESS "TT"

TT5 (Standard)

e.g.: For Tip Thickness 5mm, specify TT5.

#### (11) INSERTION LENGTH "UL"

PLEASE SPECIFY IN mm

e.g.: For 800mm, mention UL800.

Note: Refer Thermowell design procedure for dimension as per PTC 19.3

#### (12) OPTIONS

Plug & Chain in SS	СР
Marking by Laser	LM
SS Tag Plate	TS

4NF

EL50

HS28

НН

BD9

XX

TT5

**UL800** 

XX

#### (13) TESTS & CERTIFICATION

Radiography fo Bore Concentricity	TC1
IBR Certification	TC2
Mechanical Test	TC3
Ultrasonic Test	TC4
PMI Test	TC5
	TC6

Wake Frequency Calculations as [per PTC 19.3*	TC7
Certification for Hydrogen Service	TC8
Certification for Oxygen Service	TC9
Chemical Composition Test	TT1
3.1B Material Conformity Certificate	TT2
Conformity as per NACE Standard	TNC

<sup>\*</sup>Please specify Fluid, Max. Pressure, Temperature & Flow velocity for wake frequency calculations as per PTC 19.3.

Example	1	2	3	4	5	6	7	8	9
SELECTION OF MODEL	TW6	ST	S6	4NM	EL50	HS28	нн	BD9	XX

Example	10	11	12	13
SELECTION OF MODEL	TT5	UL800	XX	XX

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