

THERMOWELLS

A thermowell is a thermally conductive socket recommended to:

- protect delicate instrument sensing elements against corrosive effects
- permit instrument interchange or calibration check without disturbing or closing down the process.

Thermowells are available for high pressures, high temperatures and high velocity applications

Selected on the basis of pressure, temperature, flow, vibration and corrosion service parameters, basic thermowell types include:

- barstock execution or built-up execution
- threaded
- socket weld
- flanged

MATERIAL

Standard materials: AISI 316 / 316-Ti / 304 / 321
 Special materials such as: Duplex / Monel / Titanium / Nickel / Hastelloy C276 / Hastelloy C4 / Inconel 600 / Incoloy 800...etc.
 Special materials (sheets) for coating wetted parts:
 Tantalum / PTFE / Hastelloy C276 / Hastelloy C4 / Zirconium

IDENTIFICATION

Every thermowell is supplied clearly identified with:
 Tag n. (if requested)
 Material and immersion length
 Flange size and rating

DOCUMENTATION AND TEST

Construction drawing
 Hydrostatic test pressure
 Dye penetrant test
 Inspection and material certificate according to EN10204 3.1.B., 3.1.C.
 Heat number stamped on well and flange
 Certificate according to NACE MR.01.75
 Tensile test, impact test
 Heat treatment certificate
 HUEY test to ASTM A 262-C
 Performance test to ASME PTC 19.3 – 1974
 Welding Procedure Specification (W.P.S.)
 Procedure Qualification Record (P.Q.R.)

OPTIONAL EXTRAS

Plug and chain
 Immersion length polished
 Degreased for oxygen service
 Extension nipples

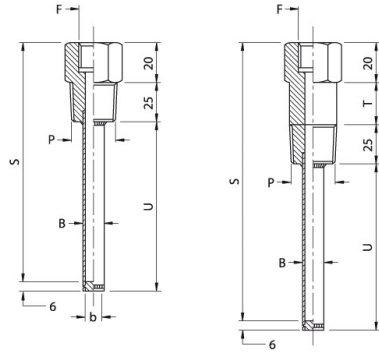
HOW TO ORDER

To order a thermowell, specify:
 Material (s.s. AISI 316, 304 ...etc.)
 Type (from barstock or built-up, threaded, flanged...etc.)
 Shank configuration (tapered, straight, stepped...etc.)
 Bore size
 External diameter
 Lagging extension if applicable
 Immersion length
 Total length
 Process connection
 Instrument connection
 Optional needed



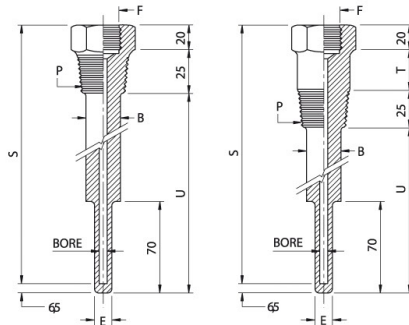
THERMOWELLS

TW 25



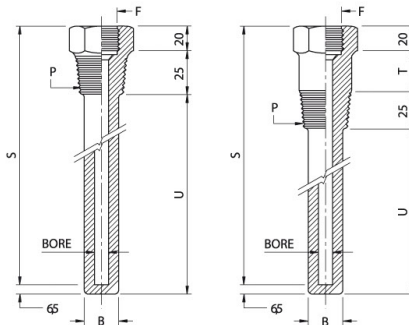
STANDARD DIMENSIONS		
Process Connection P	Tube Dimensions bxB	Hex
1/2" NPT	7x12	27
	10x12	
3/4" NPT	7x12	27
	10x12	
1" NPT	7x12	36
	10x12	

TW 100



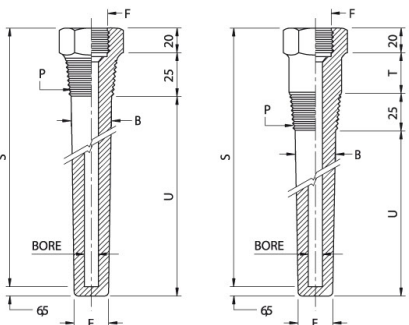
STANDARD DIMENSIONS			
Process Connection P	Bore Sizes b	Diameter B E	Hex
1/2" NPT	6,5	16 12,7	27
	9	19 15	
3/4" NPT	6,5	16 12,7	27
	9	19 15	
1" NPT	6,5	22 12,7	36
	9	22 15	

TW 250



STANDARD DIMENSIONS			
Process Connection P	Bore Sizes b	Diameter B E	Hex
1/2" NPT	6,5	16	27
	10,5	19	
3/4" NPT	6,5	16	27
	10,5	19	
1" NPT	6,5	16	36
	10,5	19	

TW 400

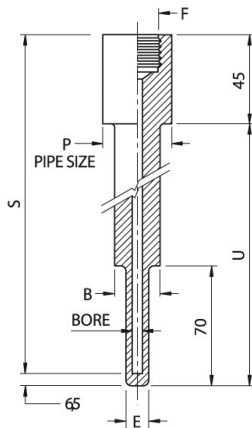


STANDARD DIMENSIONS			
Process Connection P	Bore Sizes b	Diameter B E	Hex
3/4" NPT	6,5	22 16	27
	10,5	22 19	
1" NPT	6,5	27 16	36
	10,5	27 19	

In the interest of technical progress ITEC reserves the right to modify, without prior notice, the specifications and material mentioned.

THERMOWELLS

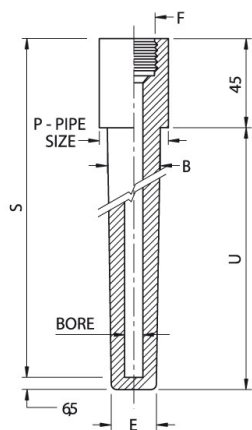
TW2 100



STANDARD DIMENSIONS

Process Connection P	Bore Sizes b	Diameter	
		B	E
3/4" PIPE (Ø 27)	6,5	19	12,7
	9	19	15
1" PIPE (Ø 33)	6,5	22	12,7
	9	22	15

TW2 400



STANDARD DIMENSIONS

Process Connection P	Bore Sizes b	Diameter	
		B	E
3/4" PIPE (Ø 27)	6,5	20	16
	10,5	20	19
1" PIPE (Ø 33)	6,5	25	16
	10,5	25	19

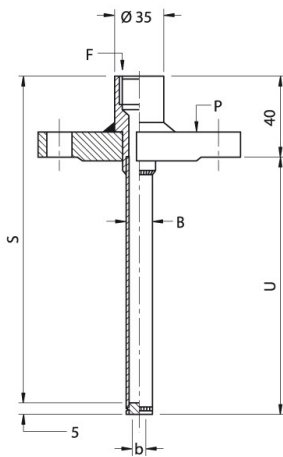
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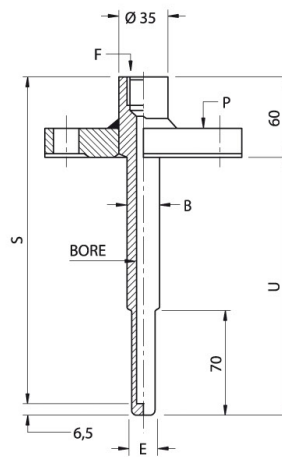
THERMOWELLS



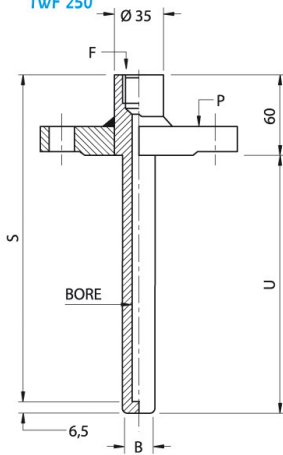
TWF 25



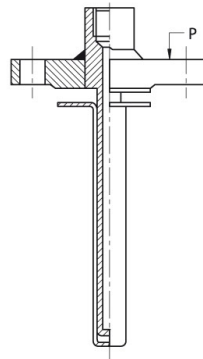
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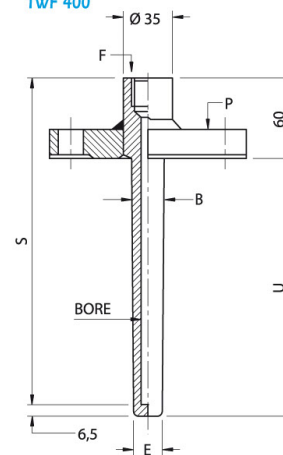
TWF 250



TWF 250 OPTIONAL EXTRA
Wetted part covered
by special material



TWF 400



STANDARD FLANGES

Sizes	Ratings
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1" - 1 1/2" - 2"	from 150 to 900 lbs
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THERMOWELL DIMENSIONS

b	B	E
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Same as threaded thermowells		
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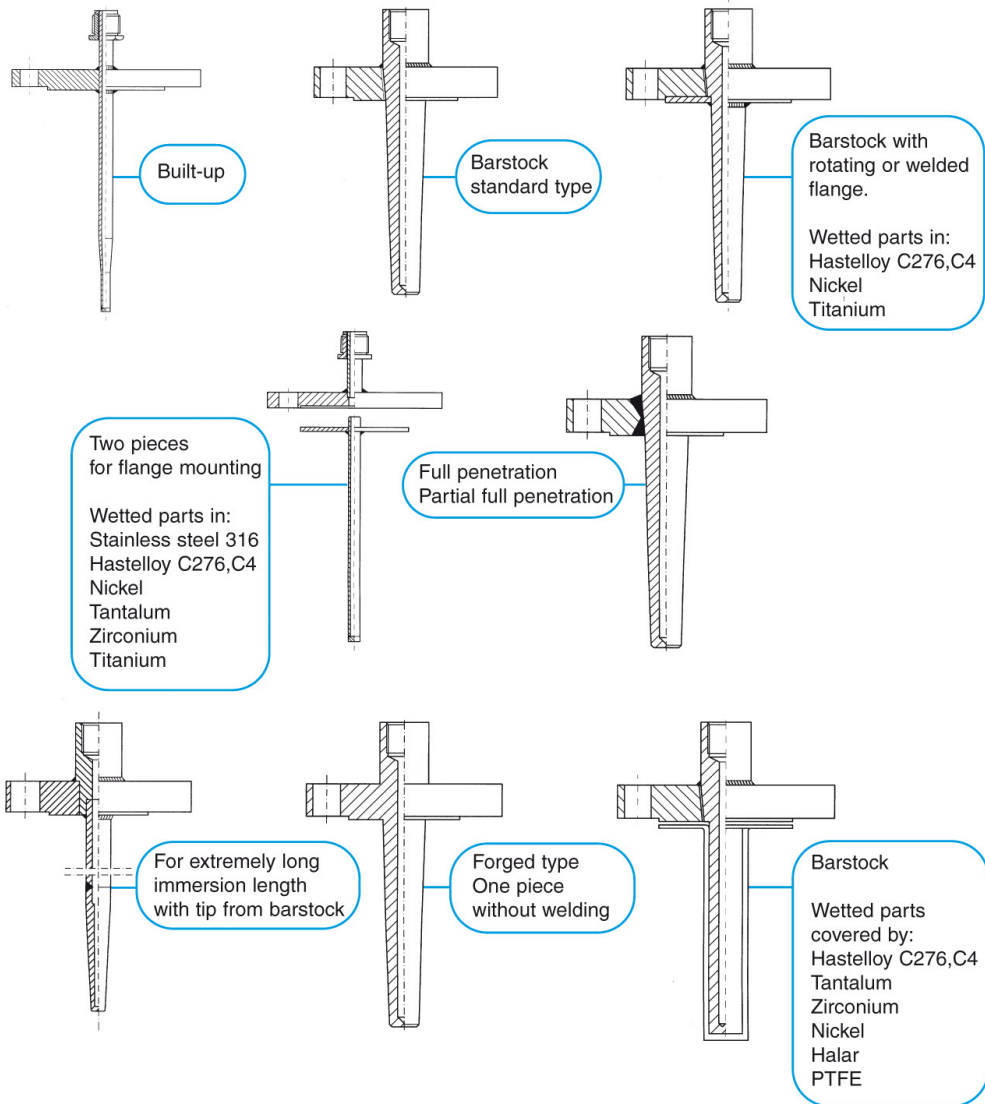
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**Calle Pirita 12450 Galpón 22
La Chimba Alto Antofagasta - Fono (55) 261 8313**

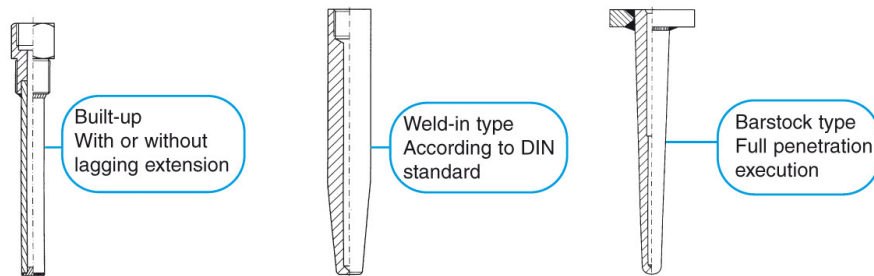
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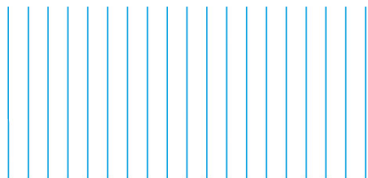
THERMOWELLS FLANGED



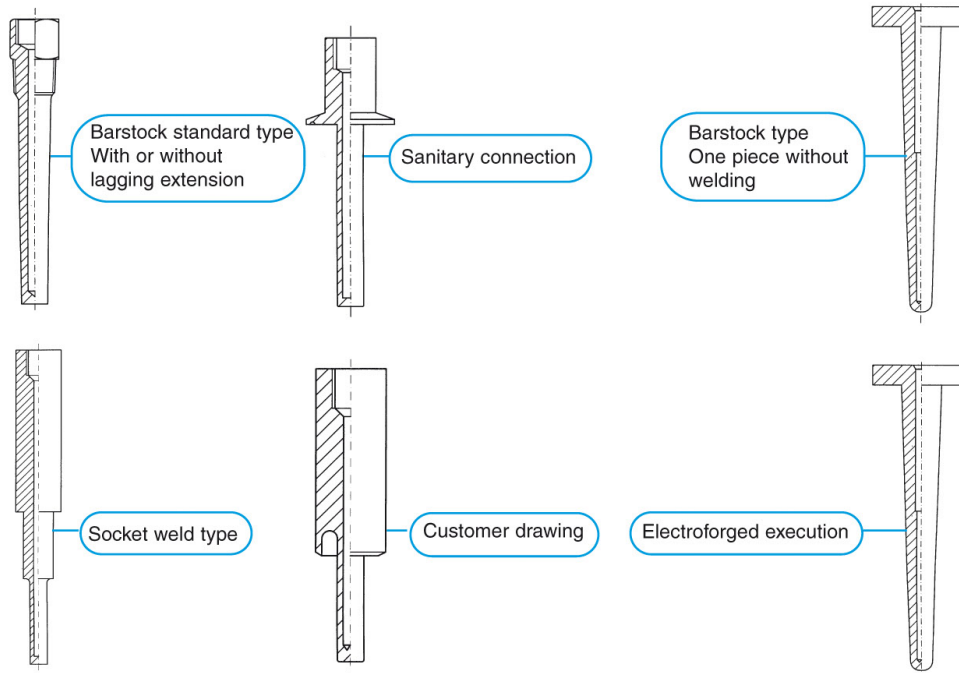
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THERMOWELLS THREADED, SOCKET WELD, WAFER





THERMOWELLS THREADED, SOCKET WELD, WAFER



HOW TO ORDER

- 1) THERMOWELL TYPE (see catalogues pages)
 - TW25 TW100 TW250 TW400 TW2100 TW2400
 - TWF25 TWF100 TWF250 TWF400
- 2) THERMOWELL MATERIAL
- 3) INSTRUMENT CONNECTION
- 4) PROCESS CONNECTION
- 5) FLANGE MATERIAL: if different from thermowell material
- 6) DIMENTION "U"
- 7) DIMENTION "T" (if lagging extension is requested)
- 8) BORE DIAMETER
- 6) EXTERNAL DIAMETER

EXAMPLE 1 : TW 400 · AISI 316 · 1/2" NPT-F · 3/4" NPT-M · U=250mm · BORE 9mm · EXTERNAL 18 TO 16mm

EXAMPLE 2 : TWF 250 · AISI 316 · 1/2" NPT-F · FLANGE 2" 300 RF · FLANGE MATERIAL MONEL 400
 U=300mm · BORE 7mm · EXTERNAL 20mm

