

THERMOWELL

Thermowells and protection tubes are used to protect temperature sensors such as thermocouples and RTDs.

It is selected in accordance with temperature measuring point conditions and desired measurement accuracy in a given application.

It should withstand the temperature, pressure, vibration and shock for long, stable operation.

Radix offers a wide range of BARSTOCK (monolithic drilled well of bar material) and FABRICATED (protection tube weld sealed at the end of drawn metal pipe) thermowells and protection tubes.

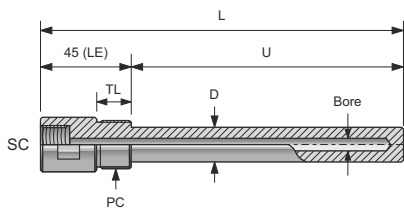
Fabricated wells are used in low pressure applications and Barstock wells in applications subjected to significantly large stresses such as high pressure gases and high speed fluids, with suitably selected shape, size and material appropriate to the temperature and operating conditions.



THREADED

MODEL : TBR200

PARALLEL SHANK



HEAVY DUTY, FOR HIGH PRESSURE APPLICATIONS

Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT

TL : Refer Table 1

U : 50 / 100 / 150... upto 1200mm

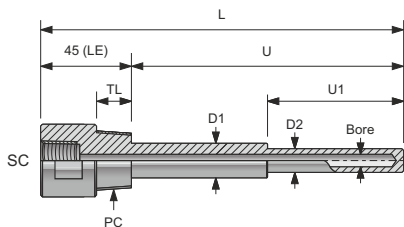
Bore : 6.5mm for 6mm dia sensors

D : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT, 25mm for 1" BSP/NPT

Other threads, lengths, sizes, materials on request

MODEL : TBR201

STEPPED SHANK



THINNER WALL AT THE TIP FOR FAST RESPONSE

Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT

TL : Refer Table 1

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT, 25mm for 1" BSP/NPT

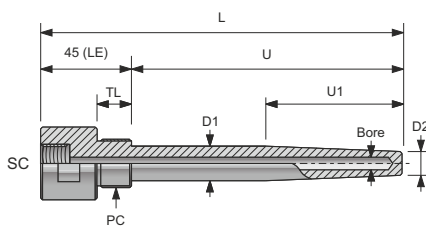
D2 : 12mm to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

MODEL : TBR202

TAPERED SHANK



HEAVY DUTY & FAST RESPONDING

Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT

TL : Refer Table 1

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT, 25mm for 1" BSP/NPT

D2 : 13mm to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, D1 - Major Diameter, D2 - Minor Diameter, PC - Process Connection, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

radix

Tel : +91 22 41929999 / 42537777

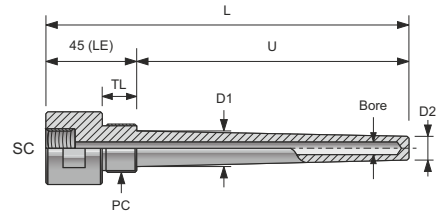
Email : sensors@radix.co.in • www.radix.co.in

HEAVY DUTY & FAST RESPONDING

Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT,
 25mm for 1" BSP/NPT
 D2 : 13mm to 16mm, to be specified
 Specify 'U'
 Other threads, lengths, sizes, materials on request

MODEL : TBR203

TAPERED SHANK

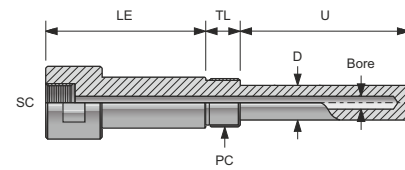


THREADED, WITH LAG EXTENSION

Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 50 / 100 / 150mm
 Bore : 6.5mm for 6mm dia sensors
 D : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT,
 25mm for 1" BSP/NPT
 Specify 'LE', 'U'
 Other threads, lengths, sizes, materials on request

MODEL : TBR250

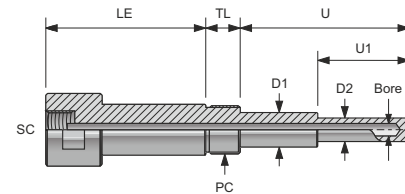
STRAIGHT SHANK



Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 50 / 100 / 150mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT,
 25mm for 1" BSP/NPT
 D2 : 12 to 16mm, to be specified
 Specify 'LE', 'U1'
 Other threads, lengths, sizes, materials on request

MODEL : TBR251

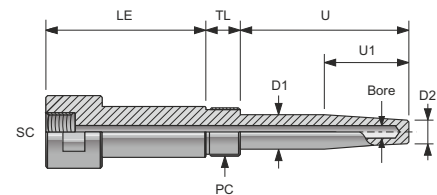
STEPPED SHANK



Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 50 / 100 / 150mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT,
 25mm for 1" BSP/NPT
 D2 : 12 to 16mm, to be specified
 Specify 'LE', 'U1'
 Other threads, lengths, sizes, materials on request

MODEL : TBR252

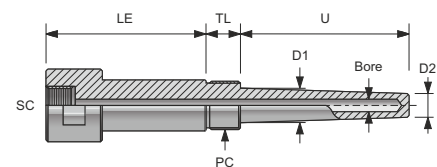
TAPERED TIP



Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 50 / 100 / 150mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 16mm for 1/2" BSP/NPT, 19mm for 3/4" BSP/NPT,
 25mm for 1" BSP/NPT
 D2 : 12 to 16mm, to be specified
 Specify 'LE', 'U'
 Other threads, lengths, sizes, materials on request

MODEL : TBR253

TAPERED SHANK

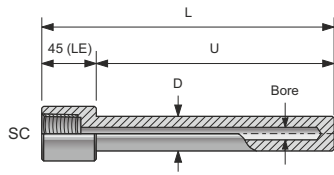


Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, D1 - Major Diameter, D2 - Minor Diameter, PC - Process Connection, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

STRAIGHT SHANK

MODEL : TBR300



SOCKET WELD

LEAKPROOF

Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

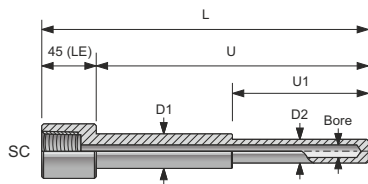
D : 16mm & 19mm

Specify 'U'

Other threads, lengths, sizes, materials on request

STEPPED SHANK

MODEL : TBR301



Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 16mm & 19mm

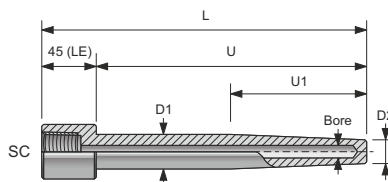
D2 : 13mm to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

TAPERED TIP

MODEL : TBR302



Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 16mm & 19mm

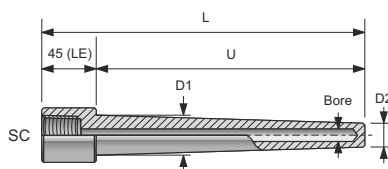
D2 : 13mm to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

TAPERED SHANK

MODEL : TBR303



Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

U : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 16mm & 19mm

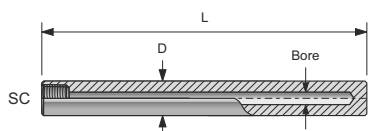
D2 : 13mm to 16mm, to be specified

Specify 'U'

Other threads, lengths, sizes, materials on request

STRAIGHT SHANK

MODEL : TBR400



WELD-IN

LEAK PROOF

Standard Material : SS304 / SS316

SC : 1/2" BSP/NPSM

L : 50 / 100 / 150... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D : 16mm for 1/4" BSP/NPT, 25mm for 1/2" BSP/NPT,

Other threads, lengths, sizes, materials on request

Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, D1 - Major Diameter, D2 - Minor Diameter, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 L : 100 / 150 / 200... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 27mm
 D2 : 13mm to 16mm, to be specified
 Specify 'U1'
 Other threads, lengths, sizes, materials on request

Standard Material : SS304 / SS316
 SC : 1/2" BSP/NPSM
 L : 100 / 150 / 200... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 27mm
 D2 : 13mm to 16mm, to be specified
 Specify 'U1'
 Other threads, lengths, sizes, materials on request

SANITARY WELLS

FOR FOOD & PHARMACEUTICAL INDUSTRY

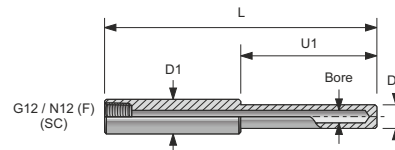
Standard Material : SS316L
 Triclover Size : 1", 2" ...
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D : 12 to 25mm, to be specified
 Other threads, lengths, sizes, materials on request

Standard Material : SS316L
 Triclover Size : 1", 2" ...
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 12 to 25mm, to be specified
 D2 : 12 to 20mm, to be specified
 Specify 'LE', 'U1'
 Other threads, lengths, sizes, materials on request

Standard Material : SS316L
 Triclover Size : 1", 2" ...
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 12 to 25mm, to be specified
 D2 : 12 to 20mm, to be specified
 Specify 'U1'
 Other threads, lengths, sizes, materials on request

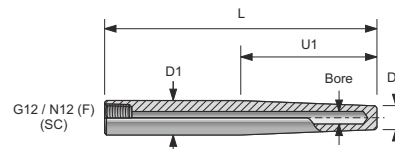
STEPPED SHANK

MODEL : TBR401



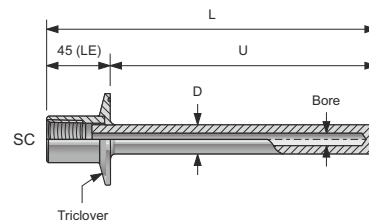
TAPERED TIP

MODEL : TBR402



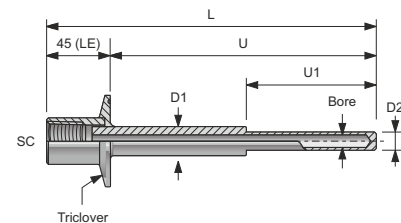
PARALLEL BARSTOCK TIP

MODEL : TBR600



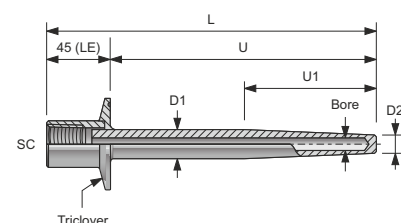
STEPPED BARSTOCK TIP

MODEL : TBR601



TAPERED BARSTOCK TIP

MODEL : TBR602

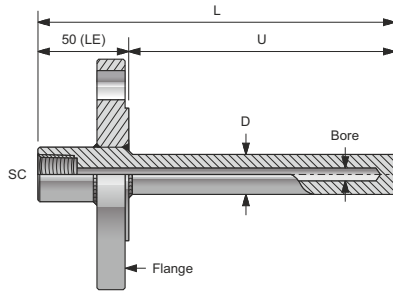


Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, D1 - Major Diameter, D2 - Minor Diameter, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

STRAIGHT SHANK

MODEL : TBR500



STANDARD DUTY

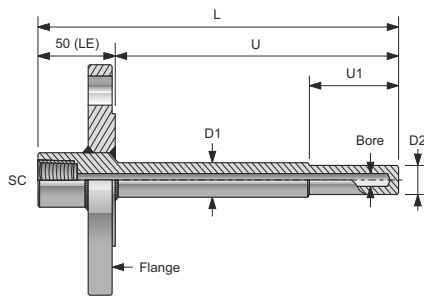
Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D : 22mm

Flange pushfit and welded as standard. Thread screwed in and welded also available

Specify 'U'
 Other threads, lengths, sizes, materials on request

STEPPED SHANK

MODEL : TBR501



STANDARD DUTY

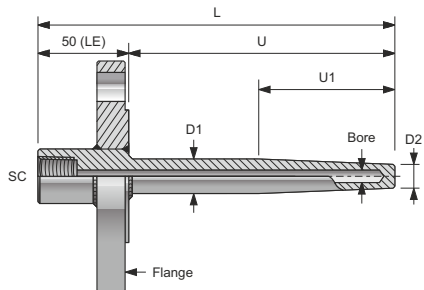
Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 22mm
 D2 : 13 to 16mm, to be specified

Flange pushfit and welded as standard. Thread screwed in and welded also available

Specify 'U1'
 Other threads, lengths, sizes, materials on request

TAPERED TIP

MODEL : TBR502



STANDARD DUTY

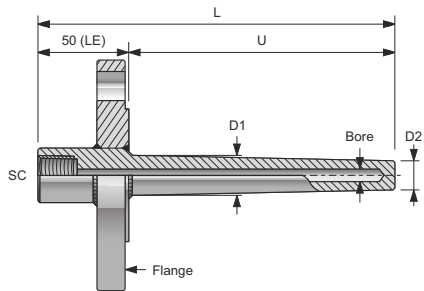
Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 22mm
 D2 : 13 to 16mm, to be specified

Flange pushfit and welded as standard. Thread screwed in and welded also available

Specify 'U1'
 Other threads, lengths, sizes, materials on request

TAPERED SHANK

MODEL : TBR503



HEAVY DUTY

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 SC : 1/2" BSP/NPSM
 U : 50 / 100 / 150... upto 1200mm
 Bore : 6.5mm for 6mm dia sensors
 D1 : 22mm
 D2 : 13 to 16mm, to be specified

Flange pushfit and welded as standard. Thread screwed in and welded also available

Other threads, lengths, sizes, materials on request

Abbreviations : SC - Sensor Connection, LE - Lag Extension, U - Insertion Length, D - Outer Diameter, D1 - Major Diameter, D2 - Minor Diameter, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

HIGH PRESSURE & CORROSIVE APPLICATIONS

Van stone thermowells are mounted using a separate and reusable backing flange, eliminating the need for expensive flange materials

Standard Shank Material : SS316 / SS316L / SS304

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D : 22mm

Other threads, lengths, sizes, materials on request

Standard Shank Material : SS316 / SS316L / SS304

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 22mm

D2 : 13 to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

Standard Shank Material : SS316 / SS316L / SS304

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

D1 : 22mm

D2 : 13 to 16mm, to be specified

Specify 'U1'

Other threads, lengths, sizes, materials on request

Standard Shank Material : SS316 / SS316L / SS304

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 1200mm

Bore : 6.5mm for 6mm dia sensors

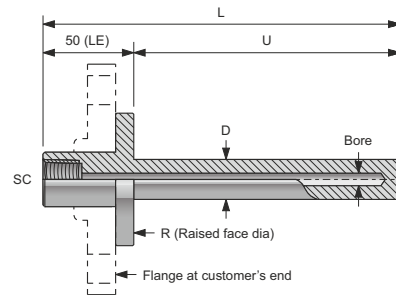
D1 : 22mm

D2 : 13 to 16mm, to be specified

Other threads, lengths, sizes, materials on request

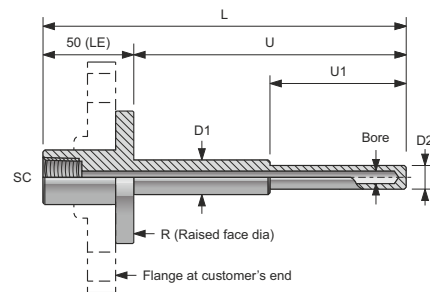
MODEL : TBR700

PARALLEL SHANK



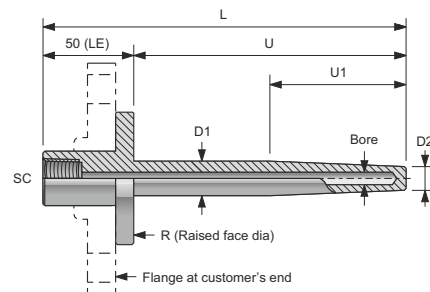
MODEL : TBR701

STEPPED SHANK



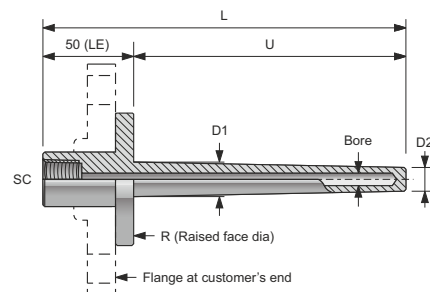
MODEL : TBR702

TAPERED TIP



MODEL : TBR703

TAPERED SHANK

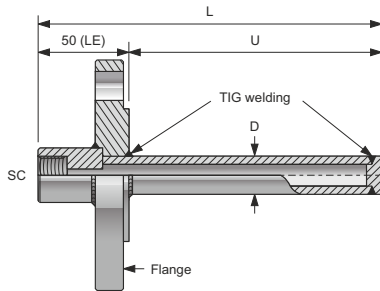


Abbreviations : SC - Sensor Connection, LE - Lag Extension, U - Insertion Length, D - Outer Diameter, D1 - Major Diameter, D2 - Minor Diameter, U1 - Insertion Length, Minor Shank

All dimensions are in mm, unless otherwise specified.

STANDARD

MODEL : TWR500



LOW PRESSURE, LOW COST

MADE OF SEAMLESS METAL PIPE

Standard Shank Material : SS304 / SS316

Standard Flange Material : SS304 / SS316

Flange : As per ANSI/BS standards

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 2000mm

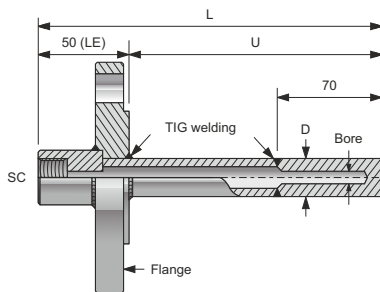
D : 12, 16, 19 & 21mm

Refer Table 2 for wall thickness

Other threads, lengths, sizes, materials on request

WITH BARSTOCK TIP

MODEL : TWR501



Standard Shank Material : SS304 / SS316

Standard Flange Material : SS304 / SS316

Flange : As per ANSI/BS standards

SC : 1/2" BSP/NPSM

U : 100 / 150 / 200... upto 2000mm

Bore : 6.5mm for 6mm dia sensors

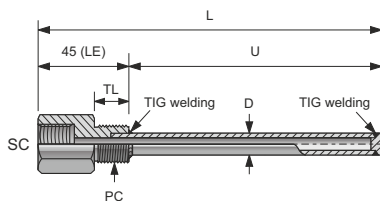
D : 12, 16, 19 & 21mm

Refer Table 2 for wall thickness

Other threads, lengths, sizes, materials on request

STANDARD

MODEL : TWH200



STANDARD DESIGN

Standard Shank Material : SS304 / SS316

SC : 1/2" BSP/NPSM

PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT

TL : Refer Table 1

U : 100 / 150 / 200... upto 2000mm

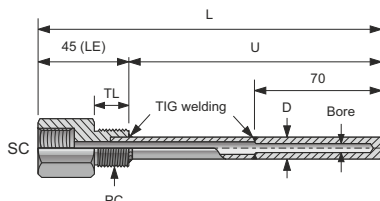
D : 12, 16, 19 & 21mm

Refer Table 2 for wall thickness

Other threads, lengths, sizes, materials on request

WITH BARSTOCK TIP

MODEL : TWH201



WITH BARSTOCK TIP

Standard Shank Material : SS304 / SS316

SC : 1/2" BSP/NPSM

PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT

TL : Refer Table 1

U : 100 / 150 / 200... upto 2000mm

Bore : 6.5mm for 6mm dia sensors

D : 12, 16, 19 & 21mm

Other threads, lengths, sizes, materials on request

Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, PC - Process Connection

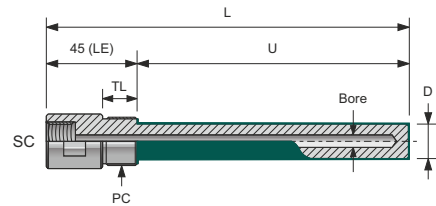
All dimensions are in mm, unless otherwise specified.

THREADED BARSTOCK

Standard Shank Material : SS304 / SS316
 Standard coating thickness : 0.5mm
 Lengths up to 1000mm
 SC : 1/2" BSP/NPSM
 PC : 1/2" BSP/NPT, 3/4" BSP/NPT, 1" BSP/NPT
 TL : Refer Table 1
 U : 100 / 150 / 200mm
 Bore : 6.5mm for 6mm dia sensors
 D : 12, 16, 20 & 22mm exclusive of coating thickness
 Other threads, lengths, sizes, materials on request

MODEL : TBC200

THREADED

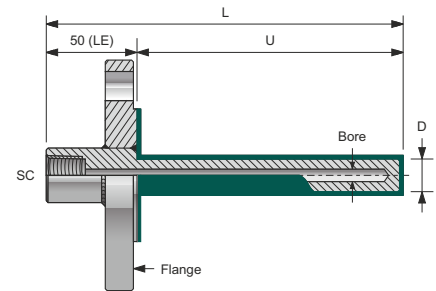


FLANGED BARSTOCK

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Standard coating thickness : 0.5mm
 Flange : As per ANSI/BS standards
 Length up to 1000mm
 SC : 1/2" BSP/NPSM, 3/4" BSP/NPSM
 U : 100 / 150 / 200mm
 Bore : 6.5mm for 6mm dia sensors
 D : 12, 16, 20 & 22mm exclusive of coating thickness
 Other threads, lengths, sizes, materials on request

MODEL : TBC500

FLANGED

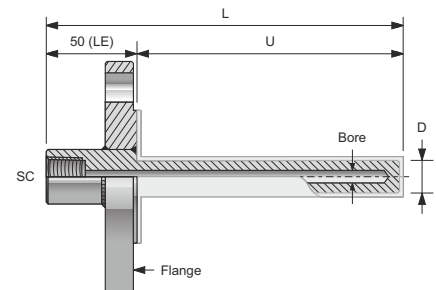


FLANGED BARSTOCK

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Standard Lining thickness : 2 - 3mm Approx.
 Lining Material : PTFE
 Flange : As per ANSI/BS standards
 Length up to 1000mm
 SC : 1/2" BSP/NPSM
 U : Custom Made
 D : 16, 19 & 22mm exclusive of lining thickness

MODEL : TBL500

FLANGED



OPTIONAL

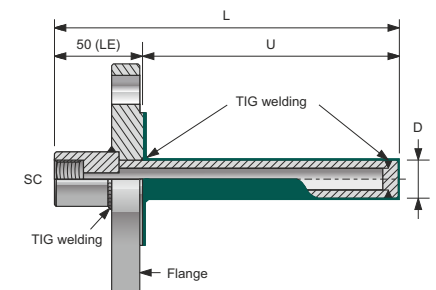
Lining Material : PFA / FEP / PP
 Flange : As per other standards
 Shank / Flange Material : Hastalloy C, Titanium ...

FLANGED BARSTOCK

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 Standard coating thickness : 0.5mm
 SC : 1/2" BSP/NPSM
 U : 100 / 150 / 200... upto 1000mm
 D : 12, 16, 19 & 21.3mm exclusive of coating thickness
 Refer Table 2 for wall thickness
 Other threads, lengths, sizes, materials on request

MODEL : TWC500

STANDARD

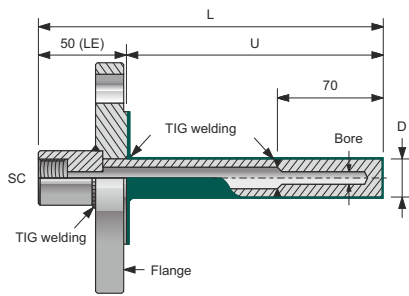


Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, PC - Process Connection

All dimensions are in mm, unless otherwise specified.

WITH BARSTOCK TIP

MODEL : TWC501

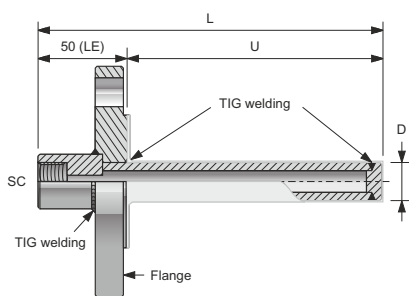


FLANGED, WITH BARSTOCK TIP

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Flange : As per ANSI/BS standards
 Standard coating thickness : 0.5mm
 SC : ½" BSP/NPSM
 U : 100 / 150 / 200... upto 1000mm
 Bore : 6.5mm for 6mm dia sensors
 D : 12, 16, 19 & 21.3mm exclusive of coating thickness
 Refer Table 2 for wall thickness
 Other threads, lengths, sizes, materials on request

STANDARD

MODEL : TWL500

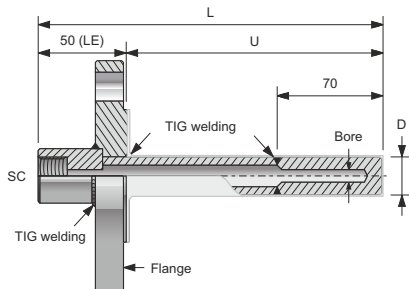


FLANGED, STANDARD

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Standard Lining thickness : 2 - 3mm Approx.
 Lining Material : PTFE
 Flange : As per ANSI/BS standards
 Length up to 2000mm
 SC : ½" BSP/NPSM
 U : Custom Made
 D : 12.7, 16, 19 & 25.4mm exclusive of lining thickness
 Optional : PFA / FEP

WITH BARSTOCK TIP

MODEL : TWL501

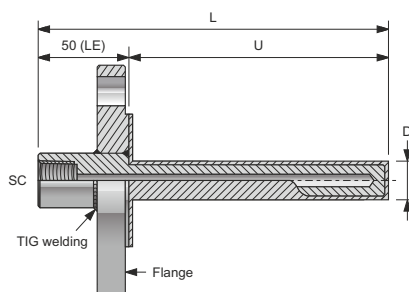


FLANGED, WITH BARSTOCK TIP

Standard Shank Material : SS304 / SS316
 Standard Flange Material : SS304 / SS316
 Standard Lining thickness : 2 - 3mm Approx.
 Lining Material : PTFE
 Flange : As per ANSI/BS standards
 Length up to 2000mm
 SC : ½" BSP/NPSM
 U : Custom Made
 Bore : 6.5mm for 6mm dia sensors
 D : ½", 16, 19 & 21.3mm exclusive of lining thickness
 Optional : PFA / FEP

WITH METAL SLEEVE

MODEL : TBS500



FLANGED, WITH METAL SLEEVE

Standard Well Material : SS316
 Sleeve Material : Titanium / Hastalloy C276 / Tantalum / Monel
 Flange : As per ANSI/BS standards
 SC : ½" BSP/NPSM
 Length up to 1000mm for barstock & 2000mm for fabricated types
 D : 21.3mm onwards

Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, PC - Process Connection

All dimensions are in mm, unless otherwise specified.

Used to protect mineral insulated and bare element thermocouples & RTDs from corrosive atmospheres, gases, flames etc. by using suitable sheath material. Give details of application, sheath material required, wall thickness, flange/thread size, length, lag extension, etc. while ordering.

WITHOUT PROCESS CONNECTION

Standard Material : SS304 / SS316 / SS310 / SS446,
Inconel 600, ...

Length 2500mm max
D : 21.3 / 26.7mm
Refer Table 2 for wall thickness

WITH ADJUSTABLE FLANGE

Cast aluminum adjustable flange in oval shape having 70mm PCD and two mounting holes, other flanges optional
Standard Material : SS304 / SS316 / SS310 / SS446,
Inconel 600, ...

Length 2500mm max
D : 21.3 / 26.7mm
Refer Table 2 for wall thickness

Standard Material : SS304 / SS316 / SS310 / SS446,
Inconel 600, ...

Length 2500mm max
D : 21.3 / 26.7mm
Bore : 6.5mm for 6mm dia sensors
Tip length (l) : To specify
Refer Table 2 for wall thickness

Standard Material : SS304 / SS316 / SS310 / SS446,
Inconel 600, ...

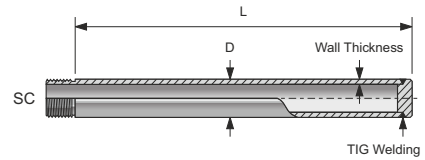
Length 1200mm max
D : 22 / 26 / 30mm
Bore : 6.5mm for 6mm dia sensors
Shank OD : To specify

Specify Shank Materials SM1 & SM2

Length 2000mm max
D : 22 / 26 / 30mm
Bore : 6.5mm for 6mm dia sensors

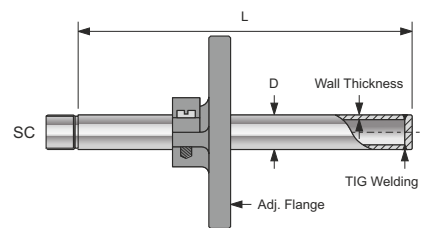
MODEL : PT200

STANDARD



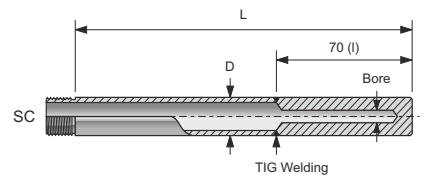
MODEL : PT207

WITH ADJ. FLANGE



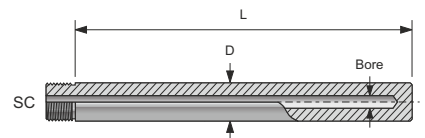
MODEL : PT300

WITH BARSTOCK TIP



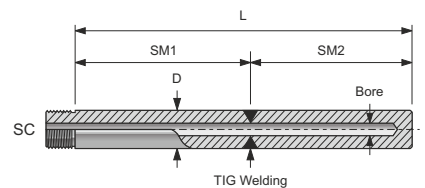
MODEL : PT400

BARSTOCK



MODEL : PT500

DUAL SHEATH

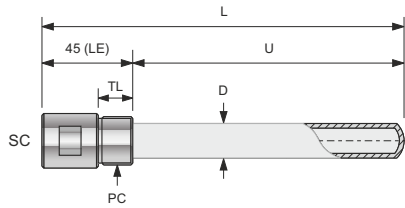


Abbreviations : SC - Sensor Connection, L - Total Length, l - Barstock Tip Length, D - Outer Diameter, SM1 & SM2 - Shank Material

All dimensions are in mm, unless otherwise specified.

SINGLE SHANK

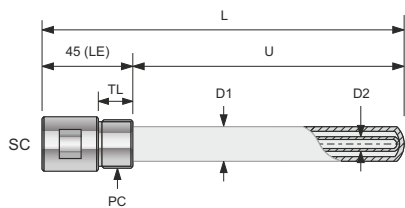
MODEL : NH200



Standard Shank Material : Recrystallised alumina
(Alsint/ KER 710), grade C-799
Process Connection Material : SS304 / SS316
SC : ½" BSP/NPSM
PC : ½" BSP/NPT, ¾" BSP/NPT, 1" BSP/NPT
U : 150 / 250 / 300 / 400 / 500... upto 1600mm
D : 12, 15, 20 & 24mm
Other threads, lengths, sizes, materials on request

DUAL SHANK

MODEL : NH201



Standard Shank Material : Recrystallised alumina
(Alsint/ KER 710), grade C-799
Process Connection Material : SS304 / SS316
SC : ½" BSP/NPSM
PC : ½" BSP/NPT, ¾" BSP/NPT, 1" BSP/NPT
U : 150 / 250 / 300 / 400 / 500... upto 1600mm
D1 : 15, 20 & 24mm
D2 : 6, 8, 12 & 15mm
Other threads, lengths, sizes, materials on request

Abbreviations : SC - Sensor Connection, LE - Lag Extension, L - Total Length, U - Insertion Length, D - Outer Diameter, TL - Thread Length, D1 - Major Diameter, D2 - Minor Diameter, PC - Process Connection

All dimensions are in mm, unless otherwise specified.

MATERIAL SELECTION

The thermowell material chosen for an installation is governed mainly by the corrosion and temperature conditions the well will face. The high polish given to stainless steel wells provides maximum corrosion resistance.

The standard well material is SS 316. Also available are SS 304, special grades of Stainless Steel (SS 310 & SS 446 etc.), Hastalloy B & C, Tantalum, Monel, Carpenter 20, Carbon steel and Inconel 600.

SELECTION OF INSERTION LENGTH (U)

Insertion length (U) is the distance between the tip of the well and bottom face of process connection (PC). For best accuracy, this length should be long enough to permit the entire temperature sensitive part of the element to project into the medium being measured. A properly installed element will project into the medium an amount equal to (its sensitive length +25mm) or more if the medium is liquid. In air or gas the element should be immersed (its sensitive length +75mm).

Thermocouples generally have short sensitive lengths. They can be used with shorter insertion length thermowells.

Radix Resistance Temperature Detectors (RTDs) have sensitive portions between 10mm & 25mm. Therefore a minimum length of 50mm must be entirely immersed in liquid for proper accuracy. Also, size of the container, walls, pipes, pipe fittings, etc. should be taken into consideration for selection of insertion length.

TABLE 1

PC	TL	SC	Size of Hex. (A/F) / Round Bar
1/2" BSP/NPT	19	1/2" BSP/NPSM	27 / 28
3/4" BSP/NPT	19	1/2" BSP/NPSM	27 / 28
1" BSP/NPT	25	1/2" / 3/4" BSP/NPSM	36

TABLE 2

D	WALL THICKNESS	MATERIAL
12	2	SS 316, SS 310
16	2	SS 316
19	2.5	SS 316, SS 310, Inconel 600
21.3	2.7 / 3.7 / 4.7	SS 316, SS 310
22	7.5	SS 310, HRS 446, Inconel 600
25	9	SS 310, HRS 446, Inconel 600
26.7	2.87 / 3.91 / 5.56	SS 310, HRS 446, Inconel 600

TABLE 3

SHANK DIA	STANDARD COLLAR SIZE		PC	SC
	DIA	LENGTH		
12	19	80	1/2" / 3/4" BSP	3/4" ET
15	22	80	1/2" / 3/4" BSP	1/2" BSP
20	27	80	1/2" / 3/4" BSP	3/4" BSP
24	32	80	1" BSP	3/4" BSP

TABLE 4

THREAD	TPI	DIAMETERS	
		MAJOR (D1)	MINOR (D2)
1/16	28	7.723	6.561
1/8	28	9.728	8.566
1/4	19	13.157	11.445
3/8	19	16.662	14.95
1/2	14	20.955	18.631
5/8	14	22.911	20.587
3/4	14	26.441	24.117
7/8	14	30.201	27.877
1	11	33.249	30.291
1 1/8	11	37.897	34.939
1 1/4	11	41.91	38.952
1 1/2	11	47.803	44.845
1 3/4	11	53.746	50.788
2	11	59.614	56.656
2 1/4	11	65.71	62.752
2 1/2	11	75.184	72.226
2 3/4	11	81.534	78.576
3	11	87.884	84.926

TABLE 5

PIPE SIZE IN INCHES	TPI - PITCH	LENGTH OF THREAD ~		NORMAL ENGAGEMENT LENGTH "A"	
		IN INCHES	IN MM	IN INCHES	IN MM
1/8"	1/26	3/8"	1/8	1/4"	1/5
1/4"	1/17	5/8"	1/14	3/8"	1/8
3/8"	1/17	5/8"	1/14	3/8"	1/8
1/2"	1/13	3/4"	1/18	1/2"	1/11
3/4"	1/13	3/4"	1/18	9/16"	1/13
1"	11 1/2	7/8"	1/21	11/16"	1/16
1 1/4"	11 1/2	1"	1/24	11/16"	1/16
1 1/2"	11 1/2	1"	1/24	11/16"	1/16
2"	11 1/2	1"	1/24	3/4"	1/18
2 1/2"	1/7	1 1/2"	2/6	15/16"	1/22
3"	1/7	1 1/2"	2/6	1"	1/24

Abbreviations : PC - Process Connection, TL - Thread Length, SC - Sensor Connection, D - Outer Diameter, D1 - Major Diameter, D2 - Minor Diameter, TPI - Thread Per Inches

All dimensions are in mm, unless otherwise specified.