

**Special Features :**

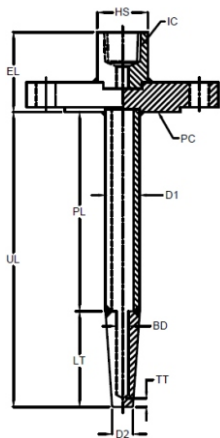
- These Thermowells are manufactured from solid bar stock pieces and welded in between as per the longer length requirement and installed into the process by using a bolted flanged connection.
- The design is suitable for all type of RTD's, Thermocouples, Mechanical as well as digital Thermometers which are having very longer length
- Full penetration welded at flange area.

**Application :**

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



**Thermowell Drawings :**



- HS - Finished Head Size
- IC - Instrument Connection
- PC - Process Connection
- BD - Bore Diameter of tail Bar Stock
- TT - Tip Thickness
- D1 - Major Diameter
- D2 - Minor Diameter
- EL - Extension Length
- UL - Insertion Length
- RL - Reduced Tip Length
- LT - Taper Length

(PT - Partial Taper)

**SELECTION OF MODEL**

**(1) MODEL CODE**

**(2) TYPE**

Partial Taper	<b>PT</b>
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**(3) FLANGE & STUB MATERIAL**

Carbon Steel	CS
AISI 304 SS	S4
AISI 316 SS	<b>S6</b>
AISI 316L SS	S6L

AISI 321 SS	S21
Hastelloy C	HT
Monel	MN
Inconel 625	IN

Titanium	TI
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Note: Other Materials are available on Request.

**(4) INSTRUMENT CONNECTION "IC"**

1/2" BSP(F)	4BF
1/2" NPT(F)	<b>4NF</b>
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.

TW8

PT

S6

4NF

# SELECTION OF MODEL

## (5) FLANGE TYPE

Normal Flange	NF	Slip-on Flange	SF
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## (6) FLANGE "PC" (SIZE & RATING)

As per ANSI, JIS, JPI, DIN etc. (Refer Flange Table for code selection)

## (7) FLANGE FACING TYPE

Raised Face	RF	Flat Face	FF	Ring type Joint	RJ
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## (8) EXTENSION / LAGGING LENGTH "EL"

EL50 (Standard)

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

## (9) FINISHED HEAD SIZE "HS"

PLEASE SPECIFY IN mm

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

## (10) TYPE OF HEAD

Round Headed with Spanner Slots*	RS
Round Headed	RH

## (11) 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

## (12) MAJOR DIAMETER

### PIPE SIZE & SCHEDULE

1/4" Sch. 40	1	3/8" Sch. 80	4	1/2" Sch. 160	7	3/4" Sch. 80	9
1/4" Sch. 80	2	1/2" Sch. 40	5	3/4" Sch. 40	8	3/4" Sch. 160	10
3/8" Sch. 40	3	1/2" Sch. 80	6				

Note: Other Pipe Sizes & Schedules are available on Request.

## (13) LENGTH OF BAR STOCK TAIL "LT"

PLEASE SPECIFY IN mm

e.g. : For 150mm Bar Stock Tail, Specify LT150

## (14) TIP THICKNESS "TT"

TT5 (Standard)

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

## (15) BAR STOCK TAIL MATERIAL

AISI 316 SS	S6	AISI 310 SS	S10
AISI 316L SS	S6L	Hastelloy C	HT
AISI 321 SS	S21	Monel	MN
		Inconel 625	IN

Note: Other Materials are available on Request.

## (16) INSERTION LENGTH "UL"

PLEASE SPECIFY IN mm

e.g. : For 1000mm, mention UL1000.

NF

XX

XX

EL50

HS28

RS

BD9

1

LT150

TT5

S6

UL1000

# SELECTION OF MODEL

## (17) OPTIONS

Plug & Chain in SS	CP
SS Tag Plate	TS
Marking by Laser	LM
Counter Flange with stud, nuts & gasket	CF

## (18) TESTS & CERTIFICATION

Ultrasonic Test	TC4	Chemical Composition Test	TT1
PMI Test	TC5	3.1B Material Conformity Certificate	TT2
IGC Test	TC6	Radiography for Welding	Tt3
Dye Penetration Test	TT4		

Example	1	2	3	4	5	6	7	8	9
SELECTION OF MODEL	TW8	PT	S6	4NF	NF	XX	XX	EL50	HS28

Example	10	11	12	13	14	15	16	17	18
SELECTION OF MODEL	RS	BD9	1	LT150	TT5	S6	UL1000	XX	XX

XX

XX

# SELECTION OF FLANGE

## AS PER DIN 2527

DN	PN	CODE
10	6	A01
	10	A02
	16	A03
	25	A04
	40	A05
	64	A06
	100	A07
	160	A08
	250	A09
	400	A10
15	6	A11
	10	A12
	16	A13
	25	A14
	40	A15
	64	A16
	100	A17
	160	A18
	250	A19
	400	A20
20	6	A21
	10	A22
	16	A23
	25	A24
	40	A25
25	6	A26
	10	A27
	16	A28
	25	A29
	40	A30
	64	A31
	100	A32
	160	A33
250	A34	
400	A35	
32	6	A36
	10	A37
	16	A38
	25	A39
	40	A40
	6	A41
	10	A42
	16	A43
	25	A44
	40	A45
40	64	A46
	100	A47
	160	A48
	250	A49
	400	A50
	6	A51
	10	A52
	16	A53
	25	A54
	40	A55
64	A56	
100	A57	
160	A58	
250	A59	
400	A60	

DN	PN	CODE
65	6	A61
	10	A62
	16	A63
	25	A64
	40	A65
	64	A66
	100	A67
	160	A68
	250	A69
	400	A70
80	6	A71
	10	A72
	16	A73
	25	A74
	40	A75
	64	A76
	100	A77
	160	A78
	250	A79
	400	A80

## AS PER JIS - B 2210

NOMINAL SIZE	RATING /CLASS	CODE
10A	5K	B57
	10K	B58
	40K	B59
15A	5K	B60
	10K	B61
	40K	B62
20A	5K	B63
	10K	B64
	40K	B65

NOMINAL SIZE	RATING /CLASS	CODE
25A	5K	B66
	10K	B67
	40K	B68
	5K	B69
32A	10K	B70
	40K	B71
	5K	B72
40A	10K	B73
	40K	B74

NOMINAL SIZE	RATING /CLASS	CODE
50A	5K	B75
	10K	B76
	40K	B77
65A	5K	B78
	10K	B79
	40K	B80
80A	5K	B81
	10K	B82
	40K	B83

## AS PER DIN 2642

DN	PN	CODE
10	10	A90
15		A91
20		A92
25		A93
32		A94
40		A95
50		A96
65		A97
80		A98

## AS PER DIN 2633

DN	PN	CODE
10	16	A81
15		A82
20		A83
25		A84
32		A85
40		A86
50		A87
65		A88
80		A89

## AS PER DIN 2635

DN	PN	CODE
10	40	A99
15		B01
20		B02
25		B03
32		B04
40		B05
50		B06
65		B07
80		B08

## AS PER ANSI B 16.5

NOMINAL SIZE	RATING /CLASS	CODE
1/2"	150	B09
	300	B10
	600	B11
	900	B12
	1500	B13
	2500	B14
	150	B15
3/4"	300	B16
	600	B17
	900	B18
	1500	B19
	2500	B20

NOMINAL SIZE	RATING /CLASS	CODE
1"	150	B21
	300	B22
	600	B23
	900	B24
	1500	B25
1 1/4"	2500	B26
	150	B27
	300	B28
	600	B29
	900	B30
1 1/2"	1500	B31
	2500	B32

NOMINAL SIZE	RATING /CLASS	CODE
1 1/2"	150	B33
	300	B34
	600	B35
	900	B36
	1500	B37
2"	2500	B38
	150	B39
	300	B40
	600	B41
	900	B42
2 1/2"	1500	B43
	2500	B44

NOMINAL SIZE	RATING /CLASS	CODE
2 1/2"	150	B45
	300	B46
	600	B47
	900	B48
	1500	B49
3"	2500	B50
	150	B51
	300	B52
	600	B53
	900	B54
3 1/2"	1500	B55
	2500	B56

## AS PER BS - 10

NOMINAL SIZE	TABLE	CODE
1/2"	D	B84
	E	B85
	F	B86
	H	B87
	J	B88
	K	B89
3/4"	D	B90
	E	B91
	F	B92
	H	B93
	J	B94
	K	B95

NOMINAL SIZE	TABLE	CODE
1"	D	B96
	E	B97
	F	B98
	H	B99
	J	C01
	K	C02
1 1/4"	D	C03
	E	C04
	F	C05
	H	C06
	J	C07
	K	C08

NOMINAL SIZE	TABLE	CODE
1 1/2"	D	C09
	E	C10
	F	C11
	H	C12
	J	C13
	K	C14
2"	D	C15
	E	C16
	F	C17
	H	C18
	J	C19
	K	C20

NOMINAL SIZE	TABLE	CODE
2 1/2"	D	C21
	E	C22
	F	C23
	H	C24
	J	C25
	K	C26
3"	D	C27
	E	C28
	F	C29
	H	C30
	J	C31
	K	C32

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