

# Built-Up Thermowells

## Model TWB

According ANSI/ASME or DIN 43772

### Features

- Materials according ISO 15156/NACE MR 01-75
- Selection of materials
- Standard and customer specifications
- DIN and ANSI/ASME process connections
- Various pipe size

### Ratings

DIN up to PN100

ANSI/ASME up to 1500 lbs

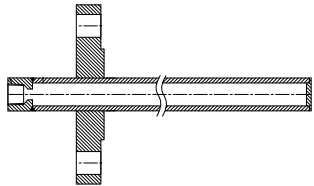
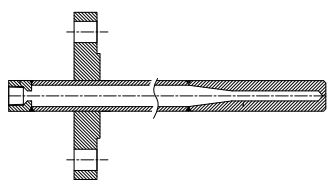
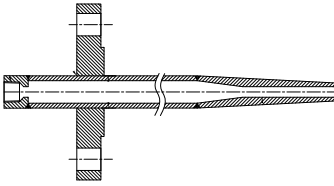
### Applications

Chemical and petrochemical industry

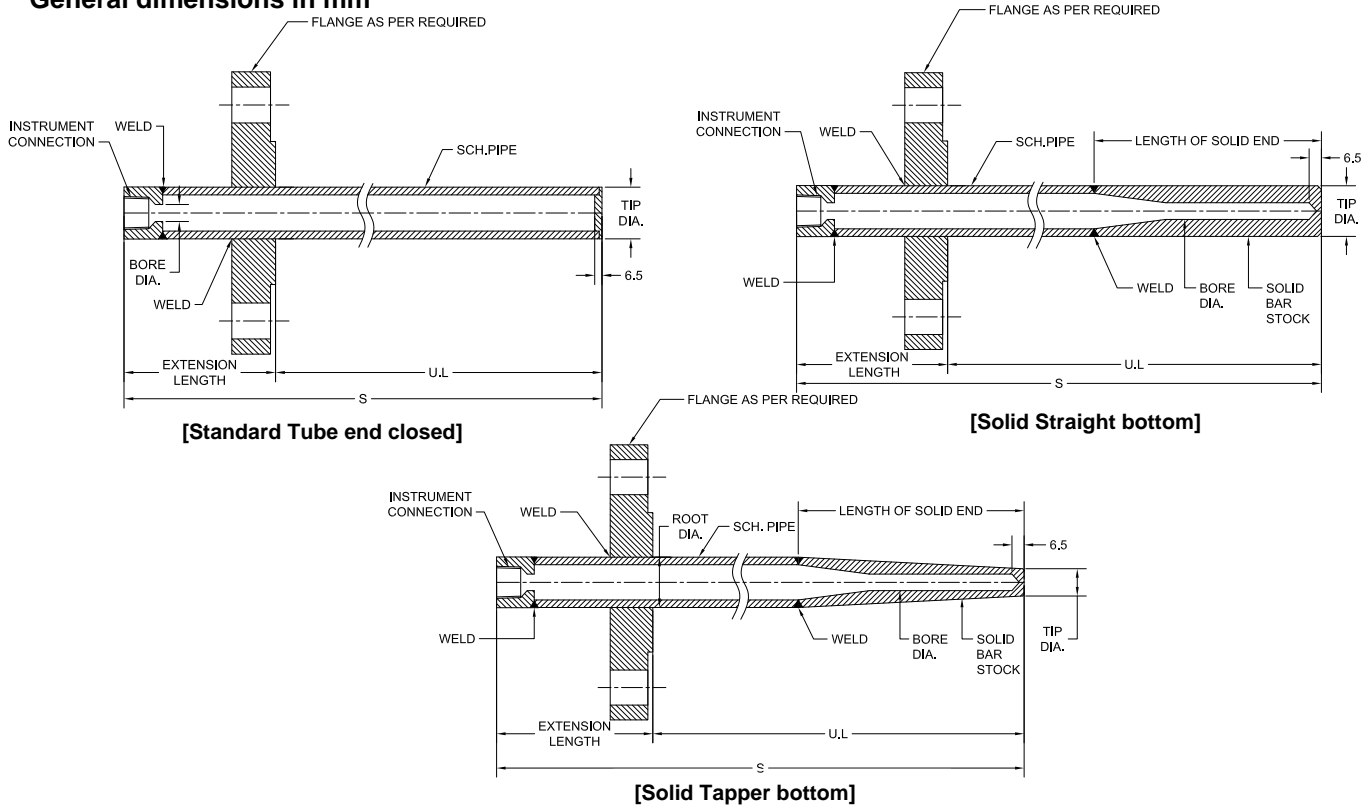
Machine and apparatus construction

Food and beverage industry

Pulp and paper industry

Technical specification	Standard (=)	SB	TB		
Built-up design					
	Built up design, Fabricated from pipe optional solid end piece according to customer specification				
Construction shank	Straight		Stepped   Tapered		
Bore diameter in mm	6.6	7.0	9,8	10.5	12.5, others on request
Pressure rating	Depending on flange rating				
Process connection	Depending on flange rating				
DIN	DN25, DN40, DN50, DN80, DN100, others on request				
Size	DN25, DN40, DN50, DN80, DN100, others on request				
Pressure class	PN10, PN16, PN25, PN40, PN64, PN100, others on request				
ANSI/ASME	1, 1½, 2, 3, 4, others on request				
Size [inch]	1, 1½, 2, 3, 4, others on request				
Pressure class [lbs]	150, 300, 600, 900, 1500				
Facing	Raised face, Flat face, Ring joint type				
	Other forms, connections or standards are available on request				
Instrument connection	½" NPT (F) or ½" BSP (F)				
Material	Carbon steel, Stainless steel 304 (1.4301), 304L (1.4306), 316 (1.4401), 316L (1.4404), 316Ti (1.4571), 321 (1.4541) Monel, Hastelloy-B, Hastelloy-C, Inconel, Tantalum, Duplex, Nickel Other materials or coatings on request				
Certifications & tests	Material certificate DIN EN 10 204 3.1, Hydrostatic test, dye penetration test, X-ray, Hardness test, ISO 15156/NACE certificate				
Accessories, options	Thermometers, RTD, thermocouples				

### General dimensions in mm



### Order information

Process connection	U-length in mm	Instrument connection	Extension length	Shank Type	Bore	Pipe Type	Material	Flange facing	Pressure rating	Dimension		
<b>ANSI Flanged</b> (10) 1" (15) 1 1/2" (20) 2" (30) 3"	(U...) Specify length in mm <sup>2</sup> E.g. (250) for u length 250mm	(04T)	(=)	(=)	(6.6)	(D) 1/2"	(B) Carbon steel	(ANSI) ANSI Flange	(ANSI) ANSI Flange	(HD) Hub dia. (RD) Root dia.		
		1/2" NPT(F)	Standard, 57mm	Standard Tube end closed	(7.0)	(E) 1/2"	(C) SS 304	(RF) Raised face	150 300 600 900 1500	<b>Options</b>		
		(15T)	(EX)	(SBX)	(8.5)	(H) 3/4"	(CL) SS 304L	(FF) Flat face <sup>1)</sup>		(NH) Stamped tag (CC) Cap & chain stainless steel		
		1/2" BSP(F)	Specify Extension Length in mm	Solid Straight bottom	(9.8)	(K) 1"	(S) SS 316 (SL) SS 316L	(RTJ) Ring joint type		(BP) Buffed and polished (FL.) Specify flange as per material code (e.g. FLM flange material Monel)		
			E.g. (E100) for 100mm extension length		(TBX)	(10.5)	(SH) SS 321 (ST) SS 316Ti			<b>Certificate</b>		
<b>DIN Flanged</b> (DN25) (DN40) (DN50) (DN80) (DN100)				(X) Please specify length of sold bottom in mm, e.g. TB150= Solid Tapper bottom, length 150mm	(12.5)	(DU) Duplex (1600) Inconel 600	(H) Hastelloy C (N) Nickel (DU) Duplex (1600) Inconel 600	(DIN) DIN flange	(DIN) DIN flange	(CDW2) Dye penetration test (CDRH) Rockwell hardness test (XR1) X-ray for weld joint (XR2) X-ray for bore concentricity (CDW9) 100 bar 1 min. (CD3) 3.1 Material certi. (CD5) NACE Certificate <sup>3)</sup> (CDMA) NACE MR 0175 / ISO 15156-2005 <sup>4)</sup> (CDPMI) Positive material certificate		
		others on request				others on request	flange material is the same as the shank material unless specified with code (FL.), see options	the flange facing depends on the process connection (nominal size and nominal pressure)				

1) only for size < 3"      3) only for material (H) and (DU)      4) only for material (SL)

### How to order

Process connection	Type	U-length	Instrument connection	Extension length	Bottom end type	Bore	Pipe type	Material	Flange facing	Pressure rating	Dimension	Options	Certificate
15	TWB	1000	04T	=	TB150	9.8	E	SL	RF	150	HD28	NH	CD5

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