

# Screwed Thermowells

## Model TWT

### Features

- Solid bore construction
- Materials according NACE MR 01-75/ISO 15156
- Selection of materials
- Standard and customer specifications
- ISO 228-1 and ANSI/ASME B1.20.1 connections

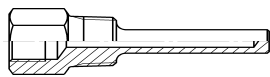
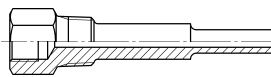
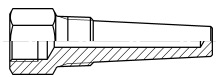
### Ratings

from 620 bar at 20 °C  
to 175 bar at 650 °C

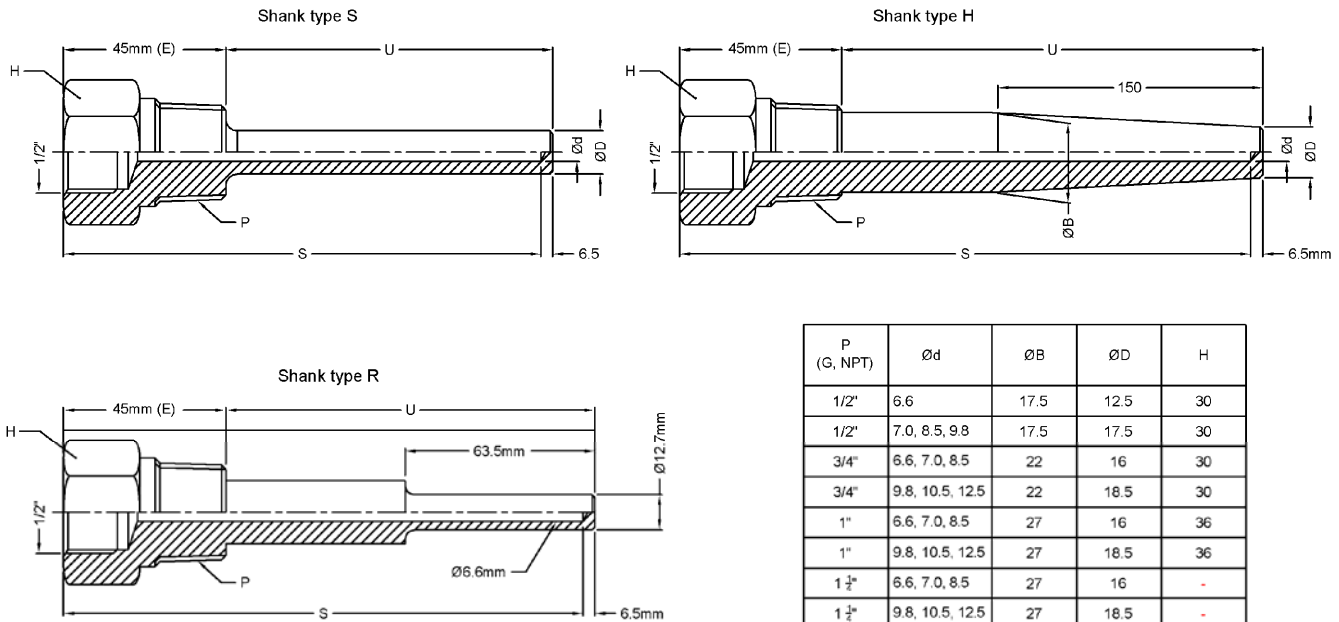
### Applications

Chemical and petrochemical industry  
Machine and apparatus construction  
Food and beverage industry  
Pulp and paper industry



Technical specification	S		R		H	
Solid bore design						
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 process connection (1/2", 3/4" or 1") and bore diameter (0,260"/6,6 mm) for standard thermowell material stainless steel 316L (1.4404) (These data don't apply to other materials)					
at process connection in inch	3/4, 1		1/2		3/4, 1	
°F °C	PSI	BAR	PSI	BAR	PSI	BAR
70 21	6500	448	6000	413	6000	413
200 93	5500	379	5200	358	5200	358
400 204	5000	345	4500	310	4500	310
600 316	4000	275	4000	275	4000	275
800 427	3800	262	3500	241	3500	241
1000 538	3500	241	3300	227	3300	227
1200 649	2500	172	2500	172	2500	172
	Bore 0,385 (9,8 mm) 40 % less					
Process connection	1/2" BSP (M), 3/4" BSP (M), 1" BSP (M) 1/2" NPT (M), 3/4" NPT (M), 1" NPT (M), 1 1/4" NPT (M) Others on request					
Instrument connection	1/2" NPT (F) or 1/2" BSP (F)					
Material	Stainless steel 304 (1.4301), stainless steel 304L (1.4306), stainless steel 321 (1.4541) Stainless steel 316 (1.4401), stainless steel 316L (1.4404), stainless steel 316Ti (1.4571) Hastelloy B, Hastelloy C, Monel, Duplex, Nickel, Inconel Other materials or coatings on request					
Certifications & tests	Material certificate 3.1.B to EN 10 204, hydrostatic test, dye penetration test, X-ray, hardness test, NACE compliance certificate					
Accessories, options	Thermometers, RTD, thermocouples					

## General dimensions in mm



P (G, NPT)	Ød	ØB	ØD	H
1/2"	6.6	17.5	12.5	30
1/2"	7.0, 8.5, 9.8	17.5	17.5	30
3/4"	6.6, 7.0, 8.5	22	16	30
3/4"	9.8, 10.5, 12.5	22	18.5	30
1"	6.6, 7.0, 8.5	27	16	36
1"	9.8, 10.5, 12.5	27	18.5	36
1 1/4"	6.6, 7.0, 8.5	27	16	-
1 1/4"	9.8, 10.5, 12.5	27	18.5	-

Note:- Hex are used only for stainless steel material, for other material thermowells are made from round bars.

## Order information

Process connection	U-length in mm	Instrument connection	Extension length	Shank type	Bore	Material	Options
(07) 1 1/4" NPT(M)	(U...) Specify length in mm <sup>2)</sup>	(04T) 1/2" NPT(F)	(=) Standard, 45mm	(S) Straight	(6.6) 6.6mm	(C) 304 (1.4301)	(NH) Tagging stamped
(06) 1" NPT(M)	E.g. (250) for u length 250mm	(15T) 1/2" BSP(F)	(EX) Specify extension length in mm E.g. (E100) for 100mm extension length	(R) Stepped	(7.0) 7.0mm	(CL) 304L (1.4306)	(CC) Cap & chain stainless steel
(05) 3/4" NPT(M)				(H) Tapered	(8.5) 8.5mm	(S) 316 (1.4401)	(BP) Buffed and polished
(04) 1/2" NPT(M) <sup>1)</sup>					(9.8) 9.8mm	(SL) 316L (1.4404)	Certification
(18) 1" BSP(M)					(10.5) 10.5mm <sup>3)</sup>	(SH) 321 (1.4541)	(CDWFC) Wake frequency ASME PTC 19.3
(17) 3/4" BSP(M)					(12.5) 12.5mm <sup>3)</sup>	(ST) 316Ti (1.4571)	(CDRH) Rockwell hardness test
(15) 1/2" BSP(M) <sup>1)</sup>						(M) Monel	(X-RAY) X-ray photo
(33) M33 x 2(M)						(H) Hastelloy C	(CDW9) 100 bar 1 min.
						(G) Hastelloy B	(CD3) 3.1 Material certificate MR-01-75
						(N) Nickel	(CD5) NACE MR0175 /ISO 15156-2003 MR-01-75 <sup>4)</sup>
						(DU) Duplex	(CDMA) NACE MR 0175 /ISO 15156-2005 <sup>5)</sup>
						(IN) Inconel	
				others on request		others on request	

1) Max bore diameter 9.8mm and for bore 7.0, 8.5 & 9.8 only shank type (S) straight is available

2) Max length for solid bar stock is 700mm for stainless steel and 600mm for other material, lengths above as fabricated bar stock

3) Not for shank type R (stepped) 4) only for material (H) and (DU) 5) only for material (SL)

## How to order

Process Connection	Type	U-length	Instrument connection	Extension length	Shank type	Bore diameter	Material	Options
05	TWT	250	04T	=	H	8.5	SL	NH

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