

Screwed Thermowells

Model SM, ST, RT and HT



Features

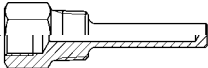
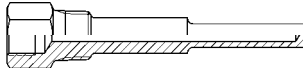
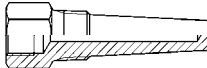
- Solid bore construction
- Materials according NACE MR 01-75/ISO 15156
- Selection of materials
- Standard and customer specifications
- ISO 228-1 and ANSI/ASME B1.20.1 connections

Ratings

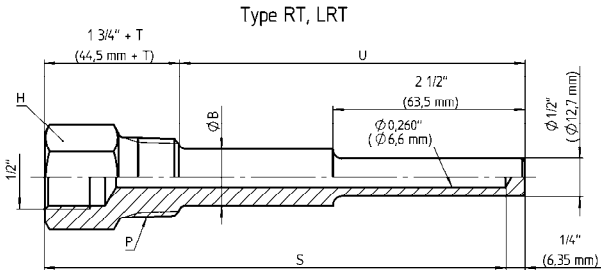
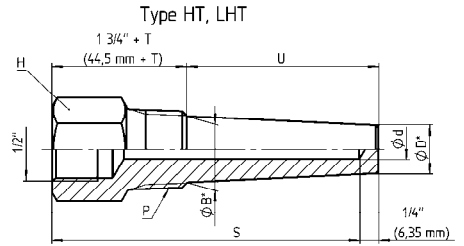
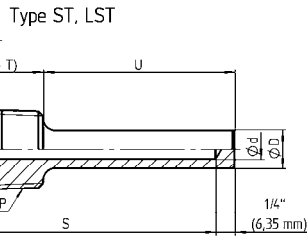
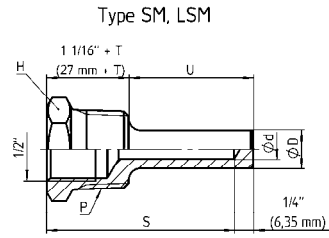
from 620 bar at 20 °C
to 175 bar at 650 °C

Applications

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

Technical specification	SM, ST	LSM, LST	RT	LRT	HT	LHT
Solid bore design						
Construction shank Lagging	Straight No Yes		Stepped No Yes		Tapered No Yes	
Standard U-length in inch in mm	1 5/8 41	2 1/2 63	4 1/2 114	7 1/2 191	10 1/2 267	13 1/2 343
Bore diameter in inch in mm	0,260 0,385 6,6 9,8 ¹⁾		7,0 10,5 ¹⁾		12,5 ¹⁾ ¹⁾ not for types RT and LRT	
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 °F °C	3/4, 1 PSI BAR		PSI BAR		1/2 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	
Process connection	G 1/2 A male, G 3/4 A male, G 1 A male according ISO 228-1 1/2 NPT male, 3/4 NPT male, 1 NPT male, 1 1/4 NPT male according ANSI/ASME B1.20.1 Others on request					
Instrument connection	1/2 NPSM female standard, optional 1/2 NPT female or G 1/2 female					
Material	Stainless steel 304 (1.4301), stainless steel 304L (1.4306), Stainless steel 316 (1.4401), stainless steel 316L (1.4404), stainless steel 316Ti (1.4571) Hastelloy B, Hastelloy C, Monel, Duplex, Nickel Other materials or coatings on request					
Certifications & tests	Material certificate 3.1 to EN 10 204, hydrostatic test, dye penetration test, X-ray, hardness test, NACE/ISO 15156 certificate					
Accessories, options	Thermometers, Pt-100, thermocouples					

General dimensions in inch (mm)



Lagging „T“		
T		U
inch	mm	inch
1-1/2	38	= 1-5/8
2	50	= 2-1/2
3	76	≥ 4-1/2

Rev. C

S	U	P	Type:			
			(G, NPT)	SM	ST	RT, HT
2-1/2	63	1-5/8	41	3/4	-	-
				1	SM	-
4	102	2-1/2	63	1/2	-	ST, -, HT
				3/4	-	ST, -, HT
				1	-	ST, -, HT
6	152	4-1/2	114	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT
9	229	7-1/2	191	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT
12	305	10-1/2	267	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT
15	381	13-1/2	343	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT
18	457	16-1/2	419	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT
24	610	22-1/2	572	1/2	-	*, RT, HT
				3/4	-	ST, RT, HT
				1	-	ST, RT, HT

For all types

P (G, NPT)	Ød		ØB / ØB*		ØD / ØD*		H (G / NPT)	
	inch	mm	inch	mm	inch	mm	inch	mm
1/2	0,26	6,6	5/8 / 5/8	16 / 16	1/2 / 1/2	12,7 / 12,7	1-1/8 / 1-1/8	30 / 30
3/4	0,26	6,6	3/4 / 7/8	19 / 22	1/2 / 5/8	12,7 / 16	1-5/16 / 1-1/8	32 / 30
1	0,385	9,8	- / 1/8	- / 22	49/64 / 49/64	19,5 / 19,5	1-5/16 / 1-1/8	32 / 30
1	0,26	6,6	7/8 / 1-1/16	22 / 27	1/2 / 5/8	12,7 / 16	1-5/8 / 1-3/8	41 / 36
1	0,385	9,8	- / 1-1/16	- / 27	49/64 / 49/64	19,5 / 19,5	1-5/8 / 1-3/8	41 / 36

- = not available

For LRT, LST, LHT: S = 1 3/4" + T + U - 1/4" * = on request
For LSM: S = 1 1/16" + T + U - 1/4"

Order information

Process connection	U-length	Instrument connection	Lagging	Shank type	Bore	Material	Options
All connections are male	Inch dimension (0162) 1 5/8" (only type SM and LSM)	All connections are female	(=) No lagging	(SM) Limit space straight (only U = 1 5/8") ¹⁾	Inch dimension (260) 0,260" (6,6 mm)	(C) 304 (1.4301)	(NH) Tagging stamped
(50) 1/2 NPT ¹⁾	(0250) 2 1/2"	(=) 1/2 NPSM	(L) With lagging (standard 1-1/2," 2" or 3" (38, 50 or 75 mm), see above table. Other lengths to be specified in inch or mm)	(ST) Straight	(385) 0,385" ¹⁾ (9,8 mm)	(CL) 304L (1.4306)	(2) Cap & chain stainless steel
(51) G 1/2 A ¹⁾	(0450) 4 1/2"	(50) 1/2 NPT		(RT) Stepped ¹⁾	others on request	(S) 316 (1.4401)	(BP) Buffed and polished
(75) 3/4 NPT	(0750) 7 1/2"	(51) G 1/2		(HT) Tapered	others on request	(SL) 316L (1.4404)	(CDW2) Dye penetration test
(76) G 3/4 A	(1050) 10 1/2"				MM dimension (... mm)	(STI) 316Ti (1.4571)	(CDRH) Rockwell hardness test
(10) 1 NPT	(1350) 13 1/2"				Standard available	(M) Monel	(X-RAY) X-ray photo
(11) G 1 A	(1650) 16 1/2"				6,6 mm	(H) Hastelloy C	Material certificates according EN 10 204
(12) 1-1/4 NPT	(2250) 22 1/2"				7,0 mm	(G) Hastelloy B	(CD2) 2.2
¹⁾ not for SM and bore 0,385 inch/9,8 mm	¹⁾ not for type SM, LSM				8,5 mm ¹⁾	(N) Nickel	(CD3) 3.1
others on request	others on request	others on request		¹⁾ only bore 0,260", 6,6 or 7 mm	9,8 mm ¹⁾	(DU) Duplex	(CD5) NACE MR01-75/ISO 15156
	MM dimension (... mm) length in mm				10,5 mm ¹⁾		Hydrostatic internal pressure test
					12,5 mm ¹⁾		(CDW9) 100 bar 1 min. (CDW4) to customer specification

Order example

Process Connection	Type	U-length	Instrument connection	Lagging	Shank type	Bore diameter	Material	Options
75	W	0250	=	L	HT	260	SL	2

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