

## SPI Neck Finish Specifications for Standard Closures

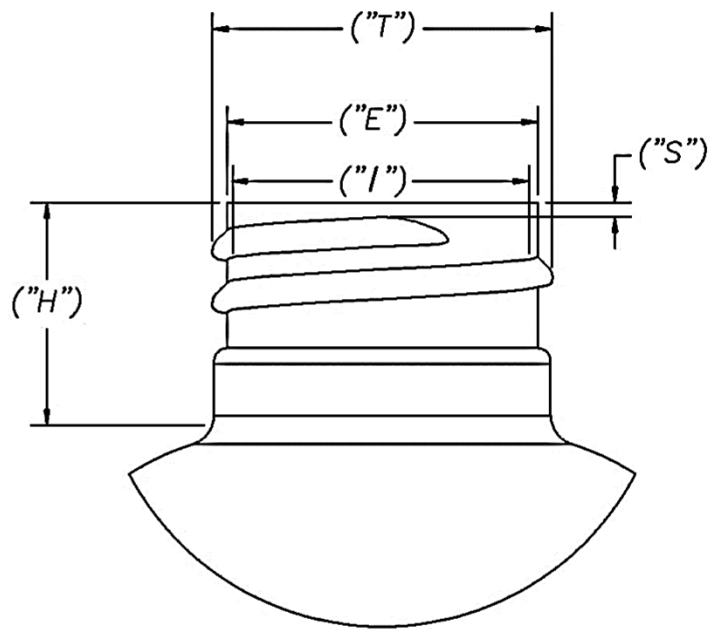
**"H"** Dimension. The height of the neck finish. Measured from the top of the neck to the point where the diameter "T," extended down, intersects the shoulder.

**"S"** Dimension. Measured from the top of the finish to the top edge of the first thread. The "S" dimension is the key factor which determines the orientation of the closure to the bottle and the amount of thread engagement between the bottle and cap.

**"I"** Dimension: The inner diameter of the bottle neck. Specifications require a minimum "I" to allow sufficient clearance for filling tubes. Linerless closures, with a plug or land seal, and dispensing plugs and fitments require a controlled "I" dimension for a proper fit.

**"T"** Dimension: The outside diameter of the thread. The tolerance range of the "T" dimension will determine the mate between bottle and closure.

**"E"** Dimension. The outside diameter of the neck. The difference between the "E" and "T" dimensions divided by two determines the thread depth. ("E" Dimension: The minor diameter measured across the root of the threads.)



MM	T		E		400H		410H		415H		S		I	THDS/ INCH
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MIN	
13	0.514	0.502	0.454	0.442					0.467	0.437	0.052	0.022	0.218	12
15	0.581	0.569	0.521	0.509					0.572	0.542	0.052	0.022	0.258	12
18	0.704	0.688	0.620	0.604	0.386	0.356	0.538	0.508	0.632	0.602	0.052	0.022	0.325	8
20	0.783	0.767	0.699	0.683	0.386	0.356	0.569	0.539	0.757	0.727	0.052	0.022	0.404	8
22	0.862	0.846	0.778	0.762	0.386	0.356	0.600	0.570	0.852	0.822	0.052	0.022	0.483	8
24	0.940	0.924	0.856	0.840	0.415	0.385	0.661	0.631	0.972	0.942	0.061	0.031	0.516	8
28	1.088	1.068	0.994	0.974	0.415	0.385	0.723	0.693	1.097	1.067	0.061	0.031	0.614	6
30	1.127	1.107	1.033	1.013	0.418	0.388					0.061	0.031	0.653	6
33	1.265	1.241	1.171	1.147	0.418	0.388			1.289	1.259	0.061	0.031	0.791	6
35	1.364	1.340	1.270	1.246	0.418	0.388					0.061	0.031	0.875	6
38	1.476	1.452	1.382	1.358	0.418	0.388					0.061	0.031	0.987	6
40	1.58	1.550	1.486	1.465	0.418	0.388					0.061	0.031	1.091	6
43	1.654	1.624	1.560	1.530	0.418	0.388					0.061	0.031	1.165	6
45	1.740	1.710	1.646	1.616	0.418	0.388					0.061	0.031	1.251	6
48	1.870	1.840	1.776	1.746	0.418	0.388					0.061	0.031	1.381	6
51	1.968	1.933	1.874	1.839	0.423	0.393					0.061	0.031	1.479	6
53	2.067	2.032	1.973	1.938	0.423	0.393					0.061	0.031	1.578	6
58	2.224	2.189	2.130	2.095	0.423	0.393					0.061	0.031	1.735	6
60	2.342	2.307	2.248	2.213	0.423	0.393					0.061	0.031	1.853	6
63	2.461	2.426	2.367	2.332	0.423	0.393					0.061	0.031	1.972	6
66	2.579	2.544	2.485	2.450	0.423	0.393					0.061	0.031	2.090	6
70	2.736	2.701	2.642	2.607	0.423	0.393					0.061	0.031	2.247	6
75	2.913	2.878	2.819	2.784	0.423	0.393					0.061	0.031	2.424	6
77	3.035	3.00	2.914	2.906	0.502	0.472					0.075	0.045	2.546	6
83	3.268	3.233	3.148	3.113	0.502	0.472					0.075	0.045	2.753	5
89	3.511	3.476	3.391	3.356	0.550	0.520					0.075	0.045	2.918	5
100	3.937	3.902	3.817	3.782	0.612	0.582					0.075	0.045	3.344	5
110	4.331	4.296	4.211	4.176	0.612	0.582					0.075	0.045	3.737	5
120	4.724	4.689	4.604	4.569	0.700	0.670					0.075	0.045	4.131	5