

Head dimensions of self-piercing screws differ from those of standard tapping screws.

## HEX WASHER HEAD SLOTTED SELF-PIERCING SCREWS

Size	A		H		F		U		J		T		D		d	
	Width Across Flats		Head Height		Washer Diameter		Washer Thickness		Slot Width		Slot Depth		Major Diameter		Minor Diameter	
	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
6-18	.250	.244	.093	.080	.328	.302	.025	.015	.048	.039	.053	.033	.141	.136	.102	.096
7-16	.250	.244	.093	.080	.328	.302	.029	.017	.048	.039	.062	.040	.158	.152	.114	.108
8-15	.250	.244	.110	.096	.348	.322	.031	.019	.054	.045	.074	.052	.168	.162	.123	.116
10-16	.250	.244	.110	.096	.348	.322	.031	.019	.054	.045	.074	.052	.194	.188	.133	.126
10-12	.312	.305	.120	.105	.414	.384	.031	.019	.060	.050	.074	.052	.194	.188	.133	.126
12-11	.312	.305	.150	.133	.432	.398	.039	.022	.067	.056	.093	.077	.221	.215	.162	.155
14-10	.375	.366	.190	.171	.520	.479	.050	.029	.075	.064	.111	.082	.254	.247	.200	.178
<b>Tolerance on Length</b>								±0.05								

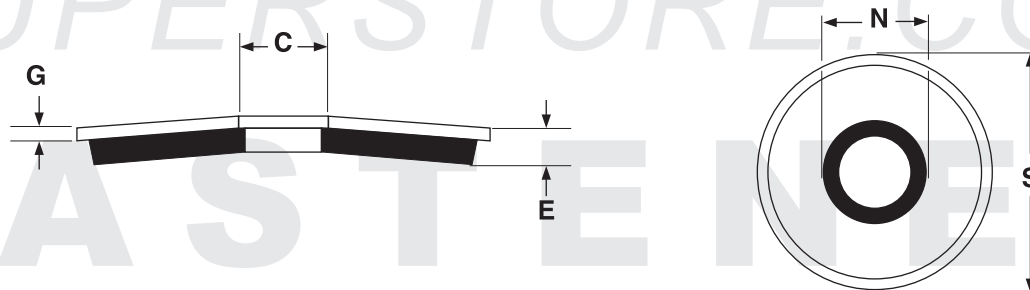
NOTE: There is no single standard for self-piercing screw dimensions. These values are offered as a guide; deviations from these specifications may occur.

<b>Description</b>	A slotted hex washer head thread forming tapping screw with a single lead thread rolled to the tip of an extra sharp point, and a second thread spaced 180° apart.
<b>Applications/Advantages</b>	May be used in thin metal (less than .050 thick). Eliminates need for pre-drilled or pre-punched holes. Undercut area beneath the head allows greater length of thread engagement. Twin lead threads help to reduce driving torque.
<b>Material</b>	AISI 1018 - 1022 or equivalent steel
<b>Heat Treatment</b>	Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum.
<b>Surface Hardness</b>	Rockwell C45 minimum
<b>Case Depth</b>	<i>No. 6 diameter:</i> .002 - .007 <i>No. 7 thru 12 diameter:</i> .004 - .009 <i>1/4" diameter:</i> .005 - .011
<b>Core Hardness (after tempering)</b>	Rockwell C28 - 38
<b>Plating</b>	See Appendix-A for plating information.

With Neo-EPDM  
Sealing Washers

Self Piercing

Self-Tapping Screws



**NEO-EPDM WASHERS USED WITH SELF PIERCING & SELF DRILLING SCREWS**

For Use with Screw of this Nominal Diameter	S		N		G	C		E	
	Outside Diameter of Steel Section		Inside Diameter of Steel Section		Thickness of Steel Section	Inside Diameter of EPDM Section		Thickness of EPDM Section	
	Max	Min	Max	Min	Ref	Max	Min	Max	Min
8	.507	.491	.212	.196	.031	.149	.126	.087	.070
10	.507	.491	.212	.196	.031	.149	.023	.087	.070
12	.558	.542	.243	.227	.031	.197	.172	.087	.070
14	.617	.601	.275	.259	.031	.232	.208	.087	.070

NOTE: There is no single standard for Neo-EPDM dimensions. These values are offered as a guide; deviations from these specifications may occur.

<b>Description</b>	A thin conically-shaped circular steel stamping with a centrally located hole, bonded to a similarly shaped rubber-like piece which as a slightly smaller outside and inside diameter. When these washers are assembled (rubber side down) to self-piercing or self-drilling screws, those fasteners become "sealing screws".
<b>Applications / Advantages</b>	When properly assembled, this washer: (a) offers protection against leakage; (b) provides load bearing qualities superior to that of a regular flat washer; (c) reduces the chance of the fastening becoming loose due to vibration; (d) minimizes damage to the mating surface caused by contact with a steel washer. Self-piercing sealing screws are used in thin metals (less than .050" thick). Self-drilling sealing screws may be used in thicker metals, depending on the diameter of the screw and length of the drill point (consult a self-drilling screw selection chart).
<b>Material</b>	<i>Steel Section of washer:</i> 20 gauge steel <i>Elastic Section of washer:</i> Style 40 EPDM sheet
<b>Hardness</b>	<i>EPDM material:</i> Shore A 65 - 75 (Durometer scale)
<b>Plating</b>	<i>Steel Section of washer:</i> Galvanized