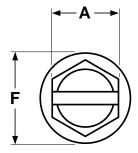
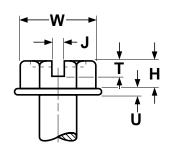
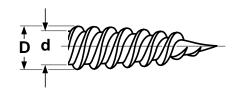
## Self-Piercing

## **Self-Tapping Screws**







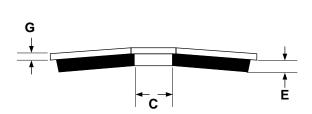
Head dimensions of self-piercing screws differ from those of standard tapping screws.

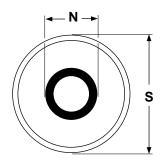
	HEX WASHER HEAD SLOTTED SELF-PIERCING SCREWS																	
	Width Across		A W		v н		F		U		J		Т		D		d	
Size			Width Across Acros		Width Across Corner	Head I	Height	Washer Diameter		Washer Thickness		Slot Width		Slot Depth		Major Diameter		Minor Diameter
	Max	Min	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	
6-18	.250	.244	.272	.093	.080	.328	.302	.025	.015	.048	.039	.053	.033	.141	.136	.102	.096	
7-16	.250	.244	.272	.093	.080	.328	.302	.029	.017	.048	.039	.062	.040	.158	.152	.114	.108	
8-15	.250	.244	.272	.110	.096	.348	.322	.031	.019	.054	.045	.074	.052	.168	.162	.123	.116	
10-12	.250	.244	.272	.110	.096	.414	.384	.031	.019	.054	.045	.074	.052	.194	.188	.133	.126	
14-10	.375	.366	.408	.190	.171	.520	.479	.050	.029	.075	.064	.111	.082	.254	.247	.200	.178	
	Tolerance on Length								±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.

Description	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.							
Applications/ Advantages	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.							
Material	AISI 1018 - 1022 or equivalent steel							
Heat Treatment	Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum.							
Surface Hardness	Rockwell C45 minimum							
Case Depth	No. 6 diameter: .002007 No. 7 thru 10 diameter: .004009 1/4" diameter: .005011							
Core Hardness (after tempering)	Rockwell C28 - 38							
Plating	See Appendix-A for plating information.							

## **Self-Piercing** Self-Tapping Screws





NEO-EPDM Washers used with Self Piercing & Self Drilling Screws										
For Use	Ş	6	١	ı	G	(	<b>:</b>	E		
with Screw of this Nominal Diameter	Outside Diam Sec			eter of Steel tion	Thickness of Steel Section	Inside Diame Sec		Thickness of EPDM Section		
Diamotoi	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	.126	.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 washers. These values are offered as a guide; deviations from these specifications may occur.

Description	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".
Applications / Advantages	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).
Material	Steel Section of washer: 20 gauge steel Elastic Section of washer: Style 40 EPDM sheet
Hardness	EPDM material: Shore A 65 - 75 (Durometer scale)
Plating	Steel Section of washer: Galvanized