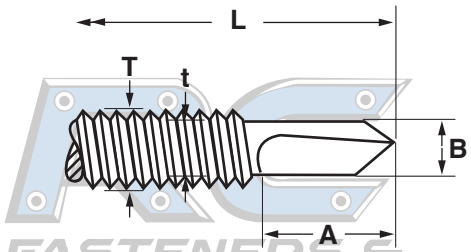
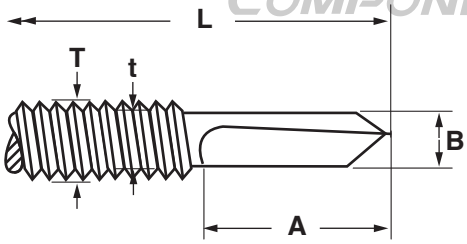
SELF-DRILLING

#4 & #5 Point with Unified Thread



#4 Point



#5 Point

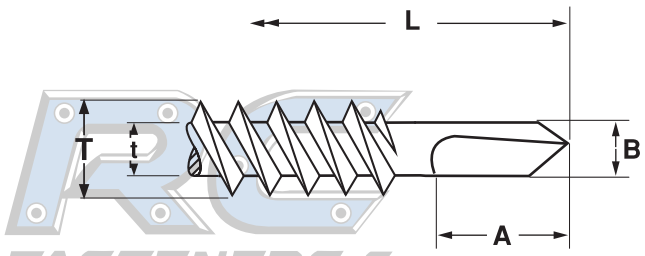
#4 & #5 Point Self Drilling Screws, Unified Thread Pitch

Diameter & Thread Pitch	Point Size	T		t		A		B		Drilling Capacity		Performance Info--STEEL Screws only		
		Major Thread Diameter		Minor Thread Diameter		Drill Point Length		Drill Point Diameter				Steel Gauge	Shear Strength (lapped steel) (lbs.)	Pullout Strength (lbs.)
		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min			
10-24	#5	.189	.181	.162	.158	.413	.373	.173	.165	.250	.125	-	-	-
12-24	#4	.216	.207	.172	.168	.523	.495	.202	.190	.312	.145	12	2000	1500
12-24	#5	.216	.207	.172	.168	.640	.603	.202	.190	.500	.250	1/8	2700	2200
												1/4	2760	4000
1/4-20	#4	.246	.239	.192	.185	.511	.471	.227	.215	.312	.145	12	1800	-
1/4-20	#5	.249	.242	.192	.185	.629	.569	.227	.222	.500	.250	12	1800	-

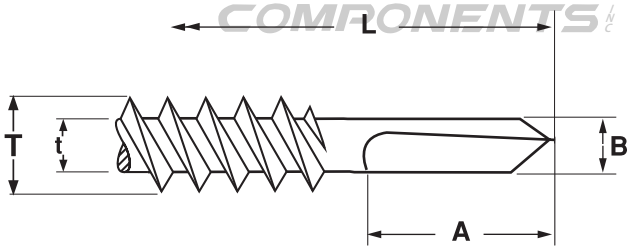
Description	A tapping screw with an integrally formed hex washer head, unified threads, and a drill point significantly longer than that of a # 2 or #3 point drill screw.	
Applications/ Advantages	Designed to drill through a greater thickness of steel than a standard self drilling screw. Although it can assist in attaching metal deck to structural steel, the #4 & #5 point self drilling screws are not structural bolts and should not be used as such.	Will drill through thicker sheets of stainless than a #2 or #3 drill point. In the absence of industry test results, each user should carefully test to see if parts will work in desired application. The hardness of the material to be drilled should be a minimum of 10-20 Rockwell hardness points less than the hardness of the fastener.
Material	AISI 1022 or equivalent steel	410 Stainless
Heat Treatment	Screws shall be quenched in liquid and then tempered by reheating to 625°F minimum.	410 stainless screws shall be hardened and tempered by heating to 1800°-1900°F sufficient for austenitization, held for at least 1/2 hour and rapid air or oil-quenched then reheating to 500°-600°F for at least 1 hour and air cooled to provide the specified hardness.
Case Hardness	Rockwell C52 -58.	410 SS: Rockwell C55 minimum
Case Depth	***No. 10 & 12 diameter:*** .004 - .009 ***1/4 and larger:*** .005 - .011	-
Core Hardness (after tempering)	Rockwell C21 - 43	Rockwell C38 - 42 (after tempering)
Shear Strength	The average ultimate values for shear strength are listed in the above table. Safety factors should be used when designing final applications.	-
Pull-out Strength	The average ultimate values for pull-out strength are listed in the above table. Safety factors should be used when designing final applications.	-
Plating	See Appendix-A for plating information.	Stainless drill screws are usually supplied without additional finish.

#4 & #5 Point with Spaced Thread

SELF-DRILLING



#4 Point



#5 Point

#4 & #5 Point Self Drilling Screws, Tapping Screw Thread

Diameter & Thread Pitch	L	Point Size	T		t		A		B		Drilling Capacity	
	Length (+0, -.050)		Major Thread Diameter		Minor Thread Diameter		Drill Point Length		Drill Point Diameter			
			Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
12-14	7/8 thru 1.25”	#4	.215	.209	.164	.157	..480	.455	.202	.188	.312	.145
12-14	3/4 thru 3”	#5	.215	.209	.164	.157	.630	.605	.202	.188	.500	.250
1/4-14	7/8 thru 3.5”	#4	.246	.240	.192	.185	.650	.625	.225	.215	.312	.145
1/4-14	1 thru 3”	#5	.246	.240	.192	.185	.755	.730	.225	.215	.500	.250
5/16-12	1 thru 1.5”	#4	.315	.307	.272	.263	.570	.515	.285	.275	.312	.110
5/16-12	1 thru 4”	#5	.315	.307	.244	.236	.708	.630	.283	.268	-	-

Description	A tapping screw with an integrally formed hex washer head, spaced threads, and a drill point significantly longer than that of a # 2 or #3 point drill screw.	
Applications/ Advantages	Designed to drill through a greater thickness of steel than a standard self drilling screw. Although it can assist in attaching metal deck to structural steel, the #4 & #5 point self drilling screws are not structural bolts and should not be used as such.	Will drill through thicker sheets of stainless than a #2 or #3 drill point. In the absence of industry test results, each user should carefully test to see if parts will work in desired application. The hardness of the material to be drilled should be a minimum of 10-20 Rockwell hardness points less than the hardness of the fastener.
Material	AISI 1022 or equivalent steel	410 Stainless
Heat Treatment	Screws shall be quenched in liquid and then tempered by reheating to 625°F minimum.	410 stainless screws shall be hardened and tempered by heating to 1800°-1900°F sufficient for austenitization, held for at least 1/2 hour and rapid air or oil-quenched then reheating to 500°-600°F for at least 1 hour and air cooled to provide the specified hardness.
Case Hardness	Rockwell C52 - 58	410 SS: Rockwell C55 minimum
Case Depth	***No. 12 diameter:*** .004 - .009 ***1/4 and larger.*** .005 - .011	-
Core Hardness (after tempering)	Rockwell C32 - 40	Rockwell C38 - 42 (after tempering)
Shear Strength	The average ultimate values for shear strength are listed in the above table. Safety factors should be used when designing final applications.	-
Pull-out Strength	The average ultimate values for pull-out strength are listed in the above table. Safety factors should be used when designing final applications.	-
Plating	See Appendix-A for plating information.	Stainless drill screws are usually supplied without additional finish.