

**DESCRIPTION**

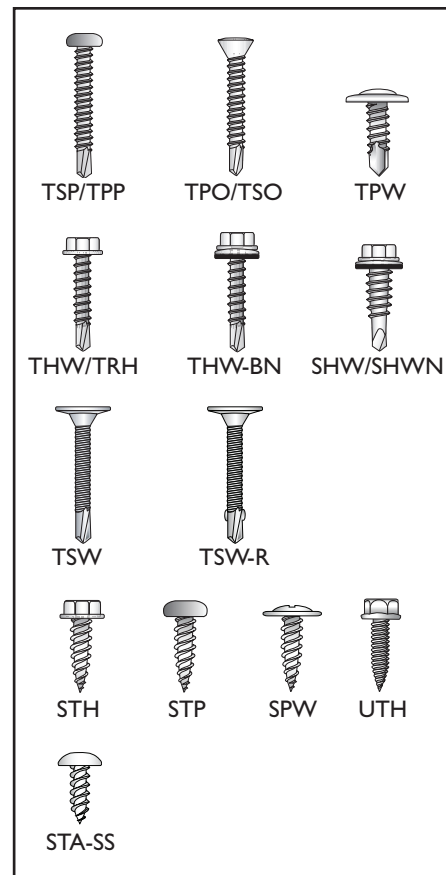
UCAN U-DRILLS® SDS Self drilling screws and U-DRILLS® STS Self tapping screws are available in an extensive variety of sizes, head styles and point configurations and are capable of drilling a wide range of steel materials. Supplied in carbon or stainless steel, and with optional RUSPRO® coating, U-DRILLS® are well suited to most self drilling and self tapping screw applications. U-DRILLS® are also ideal for use in manufacturing facilities where consistent fastener quality and speed are essential. For custom jobs, U-DRILLS® can be made to order. U-DRILLS® are produced to SAE J78-1998 specifications.

**MATERIAL SPECIFICATION**

**Material** Cold heading quality wire  
 Carbon steel: AISI C1022  
 Stainless steel: AISI 410  
 316 (STA 812BSS)

**Heat treatment** Tempered and case hardened  
 Case depth: Size #6 - 0.002" -0.007"  
 Size #8-12 - 0.004" -0.009"  
 Size 1/4" - 0.005" -0.011"

**Surface Hardness** 50-56 HRC equivalent  
**Core Hardness** 32-40 HRC equivalent



**Corrosion protection**

Zinc plating - Plating thickness (0.0002" - 0.00035") as per ASTM F 1941-00  
 RUSPRO® coating - Non-metallic, multi-layer ceramic coating, resists galvanic corrosion  
 Corrosion resistance: 1000 hrs salt spray per ASTM B117  
 20 cycles SO<sub>2</sub> per DIN 50018 - 2.0L SO<sub>2</sub>

**TECHNICAL DATA**

**Screw Strength Data**

Size	Min. Tensile	Min. Shear	Min. Torsional	Recommended Drill Speed ( rmp )
	Capacity (lbf)	Capacity (lbf)	Strength* ( lb-in)	
6-20	1102	652	30	1800 - 2500
8-18	1575	1000	42	
10-16	2100	1400	61	
10-24	2350	1500	65	
12-14	2800	2000	92	1000 - 1800
1/4-14	3850	2600	150	
1/4-20	4275	2700	168	
1/4-28	5033	3310	210	

Note: \* Minimum Torsional Strength is as per SAE J78-98

U-DRILLS® SDS  
SELF DRILLING SCREWS

Ultimate Pullout Values (lbs)

Size	Point	26 ga	24 ga	22 ga	20 ga	18 ga	16 ga	14 ga	12 ga	1/8"	3/16"	1/4"
8-18	2	119	193	265	298	491	703	959	1558			
	3	120	191	239	285	470	663	910	1424	2287		
10-16	2				368	547	784	1033	1653			
	3	124	208	266	299	499	708	967	1474	2077		
10-24	3	121	200	251	333	495	701	900	1375	2070	2612	
	2	156	243	283	375	605	848	1181	1856	2568	3520	
12-14	3	142	211	289	341	551	757	1063	1631	2420	2998	
12-24	4					495	697	986	1532	2441	3485	3844
	5					487	699	913	1527	2207	3701	3999
1/4-14	3	141	231	293	293	613	880	1145	1858	2406	4550	5033
1/4-28	5						615	872	1434	1990	4129	5054

Ultimate Shear Values (lbs)

Size	Point	26 ga	24 ga	22 ga	20 ga	18 ga	16 ga	14 ga	12 ga	1/8"	3/16"	1/4"
8-18	2	294	496	560	740	1060	1078					
	3				730	1090	1210	1214				
10-16	2	312	479	589	830	1206	1268					
	3				728	1266	1540	1552				
12-14	3				769	1358	1620	1970	1986			
1/4-14	1	511	849	885	1244	1764						
	3				930	1442	2100	2584	2650	2820		
12-24	4								2048	2030		
	5									2700	2720	2762
1/4-28	5									3550	3598	3626

INSTALLATION

U-Drills self drilling screws are installed into the base material (steel/aluminum) without pre-drilling. The length of the drill point determines the thickness of material to be drilled. For effective drilling use an 1800 – 2500 RPM electric screw gun.

- Always drive self-drilling screws perpendicular to the work surface
- Use torque control when fastening into thin sheet metal

DRIVER SIZES FOR UCAN U-DRILLS®

U-DRILLS®	Magnetic Nut Setter	Square Recess Bit	Phillips Bit
#6	1/4	1	2
#8	1/4	2	2
#10	5/16	2	2
#12	5/16	3	3
#14	3/8	3	3

