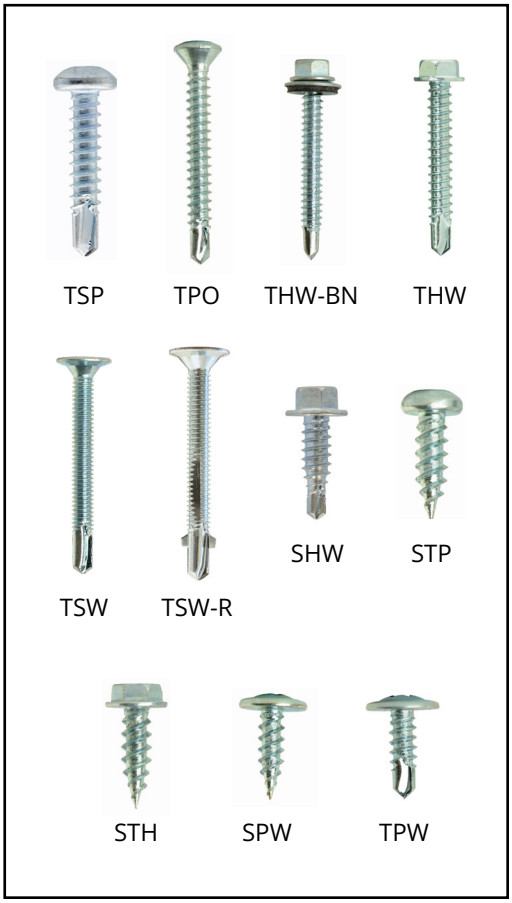
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► DESCRIPTION

UCAN U-DRILLS self drilling screws are engineered for speed, consistency and strength. They are cold formed with rolled thread for superior point strength and fast drilling performance in steel base materials up to 0.50 inch thick. The screws are available in a variety of head styles, thread lengths and drill points from #6 to 1/4" size. The U-DRILLS screws meet SAE J78-1998 standard requirements.



► MATERIAL SPECIFICATION

Material
- Cold heading quality wire
- carbon steel: AISI C1022
- stainless steel AISI 410

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 - 0.0002" as per ASTM F 1941-00
- Ruspro I coating - 1000 hrs salt spray resistance

► TECHNICAL DATA

Screw Strength Data

Size	Min. Tensile Capacity (lbf)	Min. Shear Capacity (lbf)	Min. Torsional Strength* (lb-in)	Recommended Drill Speed (rmp)
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
12-24	4491	2494	100	
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

Ultimate Pullout Data

Screw size	Point	Steel Gauge or Thickness (inch)										
		26	24	22	20	18	16	14	12	1/8	3/16	1/4
8-18	T/2	119	119	265	298	491	703	959	1558			
	T/3	120	120	239	285	470	663	910	1424	2287		
10-16	T/2				268	547	784	1033	1653			
	T/3	124	208	266	299	499	708	967	1474	2077		
10-24	T/3	121	200	251	333	495	701	900	1375	2070	2612	
12-14	T/2	156	243	283	375	605	848	1181	1856	2568	3520	
	T/3	142	211	289	341	551	575	1063	1631	2420	2998	
12-24	T/4					495	697	986	1532	2441	3485	3844
	T/5					487	699	913	1527	2207	3701	3999
1/4-14	T/3	141	231	293	346	613	680	1145	1858	2406	4550	5033
1/4-28	T/5							1145	1858	2406	4550	5033

* For working loads, the appropriate safety factor should apply.

Ultimate Shear Data

Screw	Point	Steel Gauge or Thickness (inch)										
		26	24	22	20	18	16	14	12	1/8	3/16	1/4
1/4-14	T/1	511	849	885	1244	1764						
8-18	T/2	294	496	560	740	1060	1078					
10-16	T/2	312	478	589	830	1206	1268					
8-18	T/3				730	1090	1210	1214				
10-16	T/3				728	1266	1540	1552				
12-14	T/3				769	1358	1620	1970	1986			
1/4-14	T/3				930	1442	2100	2584	2650	2820		
12-24	T/4								2048	2030		
12-24	T/5								2700	2720	2762	
1/4-28	T/5								2820	3050	3310	

* For working loads, the appropriate safety factor should apply.

► INSTALLATION

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

Screw size	Drill Speed (RPM)
#6 #8 #10	2500
#12 1/4	1800

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

For complete line of U-Drills screws please see the current UCAN contractors Price List.