



FASTENING PRODUCTS

REQUEST FOR APPROVAL

TO:

NAME: _____ TITLE: _____

COMPANY: _____ PHONE: _____

FAX: _____ E-MAIL: _____

ADDRESS: _____

| | | |
|--------------------------|----------------------------|-------------------------|
| FASTENER SUBSTITUTION | FASTENER RECOMMENDATION | ALTERNATIVE FASTENER |
|--------------------------|----------------------------|-------------------------|

Please review the attached technical data and approve the (Part No. _____) for the following application(S) below:

PROJECT:

NAME: _____

ADDRESS: _____

SPECIFIED FASTENER: _____

FASTENING APPLICATION: _____

LOCATION: _____ DWG NO.: _____

SPECIFICATION REF: _____ DWG NO: _____ PAGE: _____ PARAGRAPH: _____

SUBMITTED BY:

NAME: _____

COMPANY: _____

ADDRESS: _____

PHONE: _____

FAX: _____

E-MAIL: _____

DATE: _____

FOR USE BY THE ENGINEER OR/AND ARCHITECT

APPROVED

APPROVED AS NOTED

ADDITIONAL INFORMATION REQUIRED

REJECTED, REASON FOR REJECTION:

BY: _____

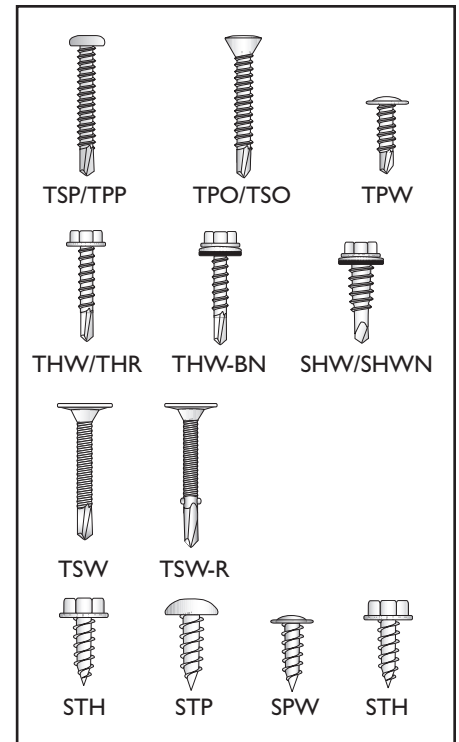
DATE: _____

| 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 | 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 |
| 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

U-DRILLS SELF DRILLING SCREWS



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 |

Ultimate Shear Data

| Size | 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 | | | | | | | | 2650 | 2820 | 3050 | 3310 |

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 | 2500 |
| #8 | |
| #10 | |
| #12 | 1800 |
| 1/4 | |

- 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.