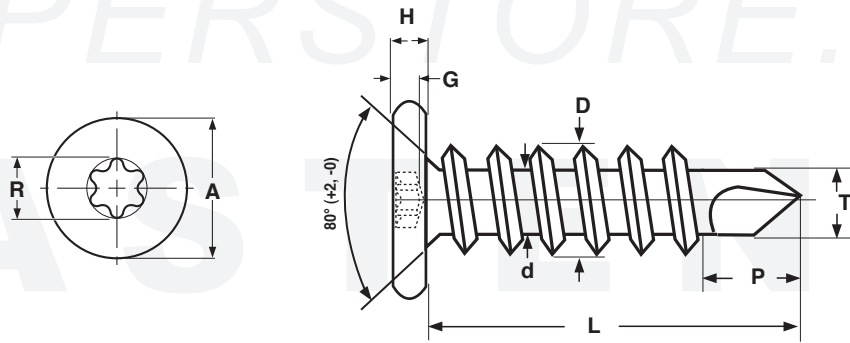


**SELF-DRILLING** Pancake Hd / Six-Lobe w/ Spaced Thread



| PANCAKE SIX-LOBE SELF-DRILLING SCREWS, SPACED THREAD AND #3 DRILL POINT |               |                            |                |       |              |       |                |                            |                |       |                    |      |                      |      |                      |
|---|---------------|----------------------------|----------------|-------|--------------|-------|----------------|----------------------------|----------------|-------|--------------------|------|----------------------|------|----------------------|
| Nominal Diam & threads per Inch   | A             |                            | H              |       | G            |       | D              |                            | d              |       | P                  |      | T                    |      | Six-Lobe Recess Size |
|   | Head Diameter |                            | Head Thickness |       | Recess Depth |       | Major Diameter |                            | Minor Diameter |       | Drill Point Length |      | Drill point Diameter |      |                      |
|   | Max           | Min                        | Max            | Min   | Max          | Min   | Max            | Min                        | Max            | Min   | Max                | Min  | Max                  | Min  |                      |
| #10 - 16  | 0.447         | 0.423                      | 0.08           | 0.068 | 0.065        | 0.05  | 0.19           | 0.18                       | 0.141          | 0.134 | 0.26               | 0.22 | 0.16                 | 0.15 | T-20                 |
| #12 - 14  | 0.447         | 0.423                      | 0.09           | 0.078 | 0.07         | 0.055 | 0.22           | 0.21                       | 0.164          | 0.156 | 0.30               | 0.26 | 0.183                | 0.17 | T-25                 |
| 1/4 - 14  | 0.525         | 0.498                      | 0.09           | 0.078 | 0.08         | 0.065 | 0.25           | 0.24                       | 0.192          | 0.184 | 0.35               | 0.31 | 0.22                 | 0.21 | T-27                 |
| Tolerance on Length   |               | 7/8 thru 1 1/2": +0, -0.05 |                |       |              |       |                | 1 5/8" & longer: +0, -0.06 |                |       |                    |      |                      |      |                      |

|                                 |   |   |
|---------------------------------|---|---|
| <b>Description</b>              | An externally threaded fastener with a low-profile, disk-shaped head, spaced thread and a drill point. The head is identically smooth on both the top and the bottom, bearing surface with a rounded edge. The top of the shank has a small section with an 80° countersink before it meets the bearing surface of the head. The recess is punched to accommodate a Phillips screwdriver. |   |
| <b>Applications/ Advantages</b> | Popular in applications that require minimal protrusion above the mating surface, including: metal roofing, steel framing, interior metal walls, HVAC applications. The Six-Lobe recess offers a positive-engaging method of transmitting drive torque with less required downward pressure.  | The 18-8 stainless drill screw offers superior corrosion resistance but is a significantly softer metal than case-hardened carbon steel. Therefore, considerably less torque should be used during installation. The 410 stainless screw will drill through harder material than the 18-8. The hardness of the material to be drilled should be a minimum of 10-20 Rockwell hardness points less than the screw's hardness. |
| <b>Material</b>                 | 1022 or equivalent steel  | 18-8 or 410 Stainless Steel   |
| <b>Heat Treatment</b>           | Fasteners are heat treated in a carbonitriding or gas-carburizing system at a minimum temperature of 625°F, or in a cyaniding system (with consent of the buyer) at a minimum temperature of 450°F.   | <b>410 SS:</b> An ideal method of hardening 410 stainless screws is a bright hardening process, which typically involves a vacuum furnace. Another key factor affecting hardness is the chemistry of the fastener--most elements have maximum values but not minimums. This fact can contribute to hardness variance.<br><br>18-8 is only hardenable by cold-working.   |
| <b>Surface Hardness</b>         | Vickers HV 545 - 655  | <b>410 SS:</b> Vickers HV 550 minimum   |
| <b>Core Hardness</b>            | Rockwell C32 - 40   | <b>410 SS:</b> Rockwell C32 - 42  |
| <b>Plating</b>                  | Steel screws are usually supplied with a clear zinc finish.   | 18-8 & 410 stainless screws are provided with commercial passivation.   |