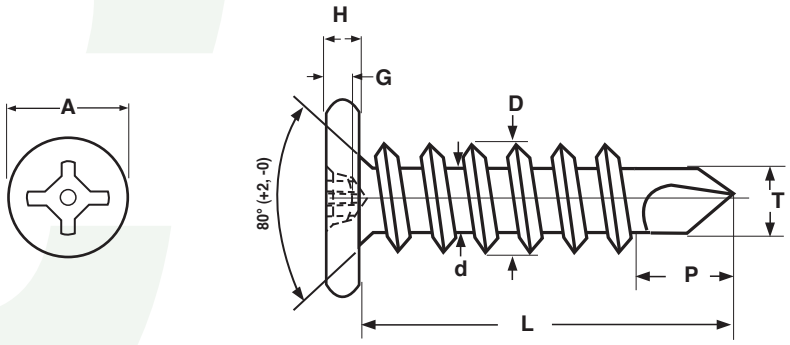
SELF- TAPPING SCREWS

Pancake Hd / Square-Phillips w/ Spaced Thread

SELF-DRILLING



PANCAKE SQUARE-PHILLIPS RECESS SELF-DRILLING SCREWS, SPACED THREAD AND #3 DRILL POINT															
Nominal Diam & threads per Inch	A		H		G		D		d		P		T		#2 Square-Phillips 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	0.075	0.06	0.19	0.18	0.141	0.134	0.26	0.22	0.16	0.15	2
#12 - 14	0.447	0.423	0.09	0.078	0.090	0.078	0.22	0.21	0.164	0.156	0.30	0.26	0.183	0.17	2
1/4 - 14	0.525	0.498	0.09	0.078	0.095	0.08	0.25	0.24	0.192	0.184	0.35	0.31	0.22	0.21	3
Tolerance on Length			7/8 thru 1 1/2": +0, -0.05						1 5/8" & longer: +0, -0.06						

Description	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.	
Applications/ Advantages	Popular in applications that require minimal protrusion above the mating surface, including: metal roofing, steel framing, interior metal walls, HVAC applications. The combined Square/Phillips recess increases productivity with excellent torque transmission and resists cam-out.	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.
Material	1022 or equivalent steel	18-8 or 410 Stainless Steel
Heat Treatment	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.	***410 SS:*** 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. 18-8 is only hardenable by cold-working.
Surface Hardness	Vickers HV 545 - 655	***410 SS***: Vickers HV 550 minimum
Core Hardness	Rockwell C32 - 40	***410 SS***: Rockwell C32 - 42
Plating	Steel screws are usually supplied with a clear zinc finish.	18-8 & 410 stainless screws are provided with commercial passivation.