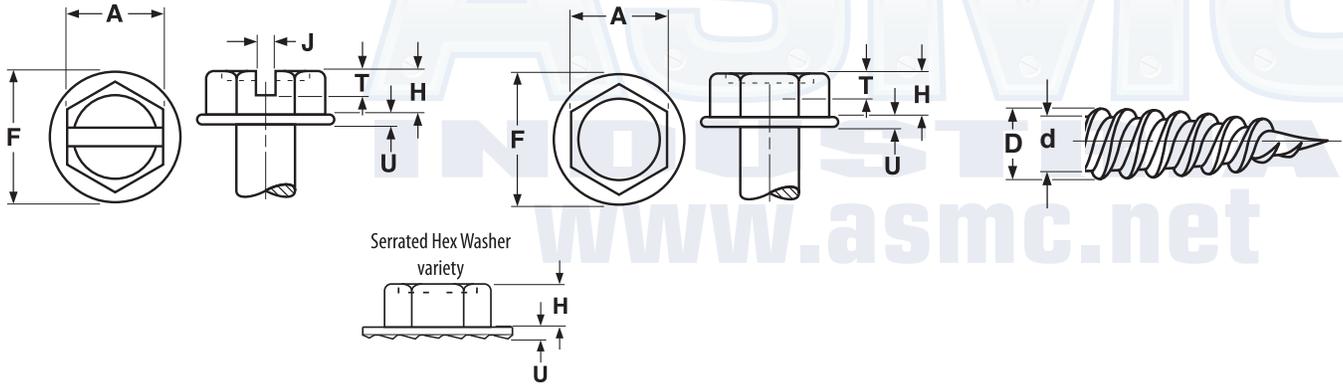


Slotted & Unslotted Hex Washer
With & Without Serrations

SELF-PIERCING



HEX WASHER HEAD SELF-PIERCING SCREWS

| Size | A | | H | | F | | U | | J | | T | | D | | d | |
|----------------------------|--------------------|------|-------------|------|-----------------|------|------------------|-------|------------|------|------------|------|----------------|------|----------------|------|
| | Width Across Flats | | Head Height | | Washer Diameter | | Washer Thickness | | Slot Width | | Slot Depth | | Major Diameter | | Minor Diameter | |
| | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min |
| 6-18 | .250 | .244 | .093 | .080 | .328 | .302 | .025 | .015 | .048 | .039 | .053 | .033 | .141 | .136 | .102 | .096 |
| 7-16 | .250 | .244 | .093 | .080 | .328 | .302 | .029 | .017 | .048 | .039 | .062 | .040 | .158 | .152 | .114 | .108 |
| 8-15 | .250 | .244 | .110 | .096 | .348 | .322 | .031 | .019 | .054 | .045 | .074 | .052 | .168 | .162 | .123 | .116 |
| 10-12 | .250 | .244 | .110 | .096 | .414 | .384 | .031 | .019 | .054 | .045 | .074 | .052 | .194 | .188 | .133 | .126 |
| | .312 | .305 | .120 | .105 | .414 | .384 | .031 | .019 | .060 | .050 | .074 | .052 | .194 | .188 | .133 | .126 |
| 10-16 | .250 | .244 | .110 | .096 | .414 | .384 | .031 | .019 | .054 | .045 | .074 | .052 | .194 | .188 | .133 | .126 |
| | .312 | .305 | .120 | .105 | .414 | .384 | .031 | .019 | .060 | .050 | .074 | .052 | .194 | .188 | .133 | .126 |
| 12-11 | .312 | .305 | .150 | .133 | .432 | .398 | .039 | .022 | .067 | .056 | .093 | .077 | .221 | .215 | .162 | .155 |
| 14-10 | .375 | .366 | .190 | .171 | .520 | .479 | .050 | .029 | .075 | .064 | .111 | .082 | .254 | .247 | .200 | .178 |
| Tolerance on Length | | | | | | | | ±0.05 | | | | | | | | |

NOTE: There is no single standard for self-piercing screw dimensions. These values are offered as a guide; deviations from these specifications may occur.

| | | |
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| Description | A hex washer head thread forming tapping screw with a single lead thread rolled to the tip of an extra sharp point, and a second thread spaced 180° apart. Head can be slotted or unslotted. The bearing surface of the washer is sometimes ordered with serrations. | |
| Applications/ Advantages | May be used in thin metal (less than .050 thick). Eliminates need for pre-drilled or pre-punched holes. Undercut area beneath the head allows greater length of thread engagement. Twin lead threads help to reduce driving torque. | The 18-8 variety offers greater corrosion resistance than the zinc-plated steel screw, but since it is not hardenable, its tip cannot puncture as wide a range of metals. The 410 stainless screw is more corrosion-resistant than a steel screw but less than the 18-8. Since the 410 screw is hardenable, it can pierce a wider variety of metals than the 18-8 type, but can become brittle in low temperatures. |
| Material | AISI 1018 - 1022 or equivalent steel | 18-8 or 410 stainless |
| Heat Treatment | Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum. | 410 stainless screws shall be hardened and tempered by heating to 1800-1900°F sufficient for austenitization, held for at least 1/2 hour and rapid air or oil-quenched, then reheating to 500-600°F for at least 1 hour and air cooled to provide the specified hardness. |
| Surface Hardness | Rockwell C45 minimum | 410 SS: Rockwell C55 minimum |
| Case Depth | No. 6 diameter: .002 - .007 No. 7 thru 12 diameter: .004 - .009 1/4" diameter: .005 - .011 | - |
| Core Hardness (after tempering) | Rockwell C28 - 38 | 410 SS: Rockwell C38 - 42 (after tempering) |
| Plating | See Appendix-A for plating information. | Stainless self-piercing screws are usually supplied plain. |