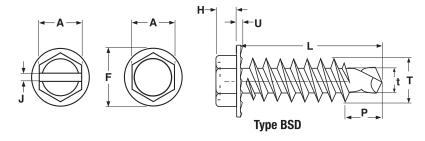
SELF- TAPPING SCREWS

SELF-DRILLING

Serrated Hex Washer, SPACED Thread



| Serrated Hex Washer Self-Drilling Screws, Spaced Thread | | | | | | | | | | | | | | | | | |
|---|----------------------|------|-------------|------|--------------------|------|---------------------|------|-------------------|------|-------------------|------|------------------------|-------------------------|-------------------------------|------|-----------------------------------|
| Nominal | Α | | н | | F | | U | | Т | | t | | | Р | Drilling trusion Thickness | | Recommended Screw Gun Speed |
| Screw Size & Threads | Width Across Head | | Head Height | | Washer Diameter | | Washer Thickness | | Major Diameter | | Minor Diameter | | Drill Point Size | Protrusion Allowance | | | |
| per Inch | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | 0.20 | Allowance | Max | Min | Max RPM |
| 6-20 | .250 | .244 | .093 | .080 | .328 | .302 | .030 | .019 | .139 | .135 | .104 | .099 | 2 | .190 | .090 | .035 | 2500 |
| 8-18 | .250 | .244 | .110 | .096 | .348 | .322 | .036 | .024 | .166 | .161 | .122 | .116 | 2 | .211 | .100 | .035 | 2500 |
| 10-16 | .312 | .305 | .120 | .105 | .414 | .384 | .036 | .024 | .189 | .183 | .141 | .135 | 2 | .235 | .110 | .035 | 2500 |
| 12-14 | .312 | .305 | .155 | .139 | .432 | .398 | .039 | .022 | .215 | .209 | .164 | .157 | 3 | .353 | .210 | .110 | 2500 |
| 1/4-14 | .375 | .367 | .190 | .172 | .590 | .551 | .050 | .029 | .246 | .240 | .192 | .185 | 3 | .393 | .220 | .110 | 2000 |
| 1/4-14 | .438 | .428 | .190 | .172 | .590 | .560 | .063 | .037 | .246 | .240 | .192 | .185 | 3 | .393 | .220 | .110 | 2000 |
| 5/16-12 | .438 | .428 | .230 | .208 | .610 | .580 | .063 | .037 | .315 | .307 | .272 | .263 | 4 | .510 | .312 | .110 | 2000 |
| 5/16-12 | .500 | .489 | .230 | .208 | .676 | .624 | .055 | .035 | .315 | .307 | .272 | .263 | 3 | - | .312 | .110 | 2000 |

1/4 & 5/16" diameters are available with multiple head dimension configurations.

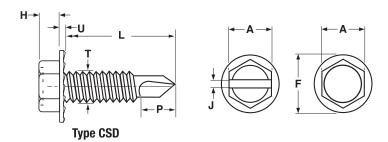
| Description | An integrally formed hex washer head screw with serrations on the bearing surface side of the washer face and a drill point. Serrations extend from outer edge of washer face to the screw shank. Thread design is spaced (like a type-BSD drill screw). | | | | | | | | | |
|--|--|---|--|--|--|--|--|--|--|--|
| Applications/ Advantages | Used to attach plywood, soft wood or metal to metal. Serrated washer design adds greater holding power to components subject to vibrations caused by repeated movements. The 1/4-inch diameter screws, for instance, are commonly used to attach reinforcing strut or L-angle to garage doors. | The 18-8 stainless drill screw offers superior corrosion resistance but is a significantly softer metal than case-hardened carbon steel. The serrations can help create a fastening more resistant to loosening. 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 | AISI 1016 - 1024 or equivalent steel | 18-8 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. | - | | | | | | | | |
| Case Hardness | Rockwell C 52 - 58 | - | | | | | | | | |
| Case Depth | #8 thru #12 Diameters: .004009 1/4" Diameter & larger: .005011 | - | | | | | | | | |
| Core Hardness | Rockwell C32 - 40 | - | | | | | | | | |
| Minimum Tor- sional Strength for ZINC-plated screws | #8 diameter: 41 lbin. #10 diameter: 55 lbin. 1/4" diameter: 132 lbin. 5/16" diameter: (no industry standard) | - | | | | | | | | |
| Plating | Serrated hex washer self-drilling screws are usually supplied with a clear zinc finish. | Stainless self-drilling screws are usually supplied without additional finish. | | | | | | | | |

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SELF-TAPPING SCREWS

Serrated Hex Washer, MACHINE SCREW Thread

SELF-DRILLING



| Serrated Hex Washer Self-Drilling Screws, Machine Screw Thread | | | | | | | | | | | | | | | |
|--|----------------------|------|-------------|------|--------------------|------|---------------------|------|-------------------|------|------------------------|------------|------|------|---------|
| Nominal | Α | | Н | | F | | U | | Т | | Drill Point Size | Р | | | |
| Screw Size & Threads per Inch | Width Across Head | | Head Height | | Washer Diameter | | Washer Thickness | | Major Diameter | | | Protrusion | | | |
| | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Size | Allowance | Max | Min | Max RPM |
| 8-32 | .250 | .244 | .110 | .096 | .348 | .322 | .036 | .024 | .163 | .157 | 2 | .162 | .100 | | 2500 |
| 10.01 | .312 | .305 | .120 | 405 | 44.4 | | 384 036 | .024 | .189 | .181 | 2 | .193 | .110 | | 0500 |
| 10-24 | | | | .105 | .414 | .384 | | | | | 3 | .258 | .175 | .110 | 2500 |
| 10-32 | .312 | .305 | .120 | .105 | .414 | .384 | 036 | .024 | .189 | .183 | 3 | .258 | .175 | .110 | 2500 |
| 12-24 | .312 | .305 | .155 | .139 | .432 | .398 | .029 | .022 | .215 | .207 | 3 | .293 | .210 | .110 | 2500 |
| 1/4-20 | .375 | .367 | .190 | .172 | .590 | .551 | .063 | .029 | .250 | .242 | 3 | .350 | .220 | .110 | 2000 |
| 1/4-20 | .438 | .428 | .190 | .172 | .590 | .551 | .063 | .029 | .250 | .242 | 2 | .275 | .175 | .035 | 2000 |
| 5/16-18 | .438 | .428 | .229 | .208 | .610 | .580 | .063 | .037 | .315 | .307 | 3 | .421 | | | |

| Description | An integrally formed hex washer head screw with serrations on the bearing surface side of the washer face and a drill point. Serrations extend from outer edge of washer face to the screw shank. Thread design is unified (type-CSD). | | | | | | | | | |
|--|--|---|--|--|--|--|--|--|--|--|
| Applications/ Advantages | Used to attach plywood, soft wood or metal to metal. Serrated washer design adds greater holding power to components subject to vibrations caused by repeated movements. The 1/4-inch diameter screws, for instance, are commonly used to attach reinforcing strut or L-angle to garage doors. | The 18-8 stainless drill screw offers superior corrosion resistance but is a significantly softer metal than case-hardened carbon steel. The serrations can help create a fastening more resistant to loosening. 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 | AISI 1016 - 1024 or equivalent steel | 18-8 or 410 Stainless | | | | | | | | |
| 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 hardering process, which typically involves a vacuum furnace. Another key factor affecting hardness is the chemistry of the fastenermost elements have maximum values but not minimums. This fact can contribute to hardness variance. 18-8 is only hardenable by cold-working. | | | | | | | | |
| Case Hardness | Rockwell C 52 - 58 | - | | | | | | | | |
| Case Depth | #8 thru #12 Diameters: .004009 1/4" Diameter & larger: .005011 | - | | | | | | | | |
| Hardness | Core: Rockwell C32 - 40 | 410 SS: Rockwell C38 - 46 (approx.) 18-8 & 316 SS: Rockwell B100 (approx.) | | | | | | | | |
| Torsional Strength for ZINC-plated screws | #8 diameter: 41 lbin., minimum #10 diameter: 55 lbin., minimum 1/4" diameter: 132 lbin., minimum | - | | | | | | | | |
| Plating | Serrated hex washer self-drilling screws are usually supplied with a clear zinc finish. | Stainless self-drilling screws are usually supplied without additional finish. | | | | | | | | |