

QUIK DRIVE® Auto-Feed Screw Driving Systems

Quik Drive Fasteners: Minimum Coating or Material Recommendation

Environment	Untreated	SBX/DOT & Zinc Borate	MCQ	ACQ-C, ACQ-D, CA-B, CBA-A		
				w/o Ammonia	w/ Ammonia	Higher Chemical Content
Interior Dry	Low	Low	Low	Med	Med	High
Exterior	Med	N/A	Med	Med	High	High
Higher Exposure	High	N/A	High	High	High	High

Low – Heavy zinc electroplate, yellow zinc dichromate, gray phosphate, C-3 mechanically galvanized, Climaseal®, TufCote®, clear zinc, 410 stainless steel

Med – N2000®, Quik Guard®

High – 305/316 stainless steel

- Use 305/316 stainless steel with any treatment chemical not listed above or in uncertain environmental exposure conditions.
- For wood with actual retention levels higher than 0.10 pcf (above ground) for CA-B and 0.20 pcf for CBA-A, or 0.25 pcf (above ground) for ACQ-D, ACQ-C and MCQ 305/316 stainless steel fasteners are recommended. Verify actual retention level with wood treater.
- Borate treated woods are not appropriate for outdoor use.
- Test results indicate that N2000 and Quik Guard will perform adequately, subject to regular maintenance and periodic inspection. However, the test protocol followed was a modified version of the nationally recognized test method AWPA E12-94. This test method is an accelerated test, so data over an extended period of time is not available. Also noteworthy is that tests run in a laboratory may not correlate to service conditions. If uncertain, use 305/316 stainless steel.
- Some treated wood may have excess surface chemicals making it potentially more corrosive. If you suspect this or are uncertain, use 305/316 stainless steel.
- Ammonia is typically used as a chemical carrier for difficult to treat wood species, such as, but not exclusive to, Douglas Fir and Hem Fir, which are usually found in the Western United States. Amine carriers are used in some of the Eastern species, such as Southern Yellow Pine. If uncertain, verify chemical chemical with wood treater.

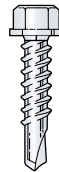
For the latest Simpson Strong-Tie® Quik Drive coating information and additional technical information on this topic, visit our website at www.strongtie.com/info.

SCREWS Self-Drilling Fasteners

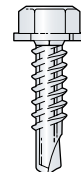
To achieve the loads shown in this catalog, the Designer must verify that the self-tapping screws used have an allowable load capacity equal to or greater than those shown in the table below.

Hex head screw sizes shown are required for connectors in this catalog. Where sheathing or finishes will be applied over the screws and low profile heads are needed, such as with bracing connectors, hurricane ties, and stud-plate ties, the Designer is to ensure that the minimum screw head diameter complies with ASME B18.6.4.

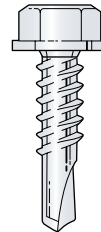
#8 x 3/4"



#10 x 3/4"



#14 x 1"



Shown
Actual Size

Minimum ASD Loads for C-CFS10 Connector Screws

Screw No. Designation	Nominal Diameter d ⁴	Washer Diameter d _w	P _{ss} /Ω	Shear					P _{ts} /Ω	Tension				
				Shear (P _{ns} /Ω, P _{ss} /Ω)						Tension: Pull-Out (P _{not} /Ω, P _{ts} /Ω)				
				Steel Thickness: mil (ga)						Steel Thickness: mil (ga)				
				33-33 (20-20)	43-43 (18-18)	54-54 (16-16)	68-68 (14-14)	97-97 (12-12)		33 (20)	43 (18)	54 (16)	68 (14)	97 (12)
#8	0.164	0.318	335	165	245	335	335	—	655	70	95	145	150	—
#10	0.190	0.375	555	175	265	535	555	555	880	85	110	180	220	355
#14 ⁷	0.242	0.500	810	200	295	605	810	810	1225	80	140	185	200	320

- The tabulated loads may be multiplied by a Factor of Safety (Ω) of 3 to determine the screw nominal strength. The LRFD load may be determined by multiplying the nominal screw load by a Resistance Factor (Φ) of 0.50.
- Self-tapping screw fasteners for steel-to-steel connections used for connectors in this catalog shall be in compliance with ASTM C1513.
- Values are based on cold-formed steel (CFS) members with a minimum yield strength, F_y, of 33 ksi and tensile strength, F_u of 45 ksi for 43 mils (18 ga) and thinner and a minimum yield strength of 50 ksi and tension strength of 65 ksi for 54 mils (16 ga) and thicker.
- Minimum base metal thickness is based on AISI General Provisions Standard Table A5.1-1. Design thickness shall be the minimum base metal thickness divided by 0.95. Design thickness for the steel sheets are: 33 mil=0.0346", 43 mil=0.0451", 54 mil=0.0566", 68 mil = 0.0713", and 97 mil = 0.1017".
- Minimum required screw length is the greater of 3/4" and the minimum length required for the screw to extend through the steel connection a minimum of (3) exposed threads per AISI General Provisions Standard Section D1.3.
- Screw diameters per 2001 AISI NAS Commentary Table C-E4-1.
- 1/4" self-tapping screws may be substituted for #14 screws.