

Bi-Flex™ Bi-Metal Fasteners: The corrosion resistance of 300 series stainless steel and the efficiency of drillscrews

Owners, architects and, design engineers expect longer life cycles from buildings. Extended warranties and use of more sustainable materials add up to greater expectations for performance – from structural integrity to the purely aesthetic – of all building components.

The Solution: Bi-Flex™ Bi-Metal Self-Drilling Fasteners

- Made of 300 series (18-8) stainless steel alloy to provide unmatched corrosion resistance in your toughest applications
- Fused and hardened steel drill point and lead threads quickly drill and tap structural steel and aluminum up 1/2" thick
- Coated with silver-colored Stalgard® GB, a galvanic barrier to protect aluminum components from accelerated corrosion when in contact with 300 series stainless steel
- 300 series stainless alloy is virtually immune to delayed embrittlement failures seen with hardened 400 series stainless self-drilling fasteners

Prevent Corrosion in Your Applications

- Exposed anchoring/coastal/aggressive environments
- Curtain wall/window wall systems/rain screen systems
- Windows/doors/awnings/thresholds
- Panel systems to steel or aluminum framing
- Aluminum enclosures
- ACQ-treated wood
- Brick veneer anchoring
- Solar panel systems

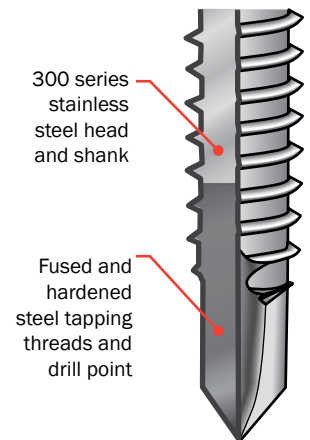
You won't find a better, easier-to-install or more reliable 300 series stainless steel self-drilling screw, for your toughest construction applications, than Elco's line of Bi-Flex fasteners.

Approvals – NEW

- City of Los Angeles (COLA) Research Report: RR25886 (CSI #05 05 23)

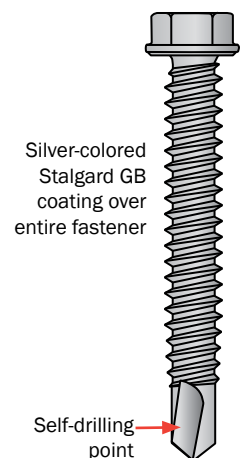
Features

- Bi-metal technology – 300 (18-8) stainless steel head and shank
- Fused and hardened steel tapping threads and drill point
- Silver-colored Stalgard GB coating
- Wide variety of sizes and head styles

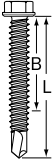


Benefits

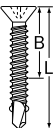
- Outstanding corrosion resistance and long service life
- High strength, ductility and reliability
- Virtually immune to delayed embrittlement failures
- Greater galvanic compatibility in dissimilar metal applications involving aluminum
- Quickly drill and tap into steel or aluminum up to 1/2" thick
- High in-place value over the life of structures, components and systems



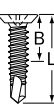
Selection Guide

	Catalog No.†	Dia. – TPI	L Length	Drive System	Pt. Size	B Maximum Load-bearing Length*	Pieces per 1/4 Keg	Weight per 1/4 Keg
Hex Washer Head								
	EAJ110	10-16	3/4"	5/16" hex	2	0.320"	5,000	32
	EAJ140	10-16	1-1/2"	5/16" hex	2	1.10"	2,500	39
	EAJ185	12-14	1"	5/16" hex	2	0.500"	3,000	31
	EAJ215	12-14	1-1/2"	5/16" hex	2	1.00"	2,500	34
	EAJ190	12-14	1"	5/16" hex	3	0.500"	4,000	41
	EAJ220	12-14	1-1/2"	5/16" hex	3	1.00"	2,500	34
	EAJ260	12-14	2-1/2"	5/16" hex	3	2.00"	1,000	21
	EAJ240	12-14	2"	5/16" hex	2	1.500"	1,500	26
	EAJ340	12-24	2"	5/16" hex	5	1.100"	2,000	35
	EAJ415	1/4-14	1"	3/8" hex	2	0.500"	2,500	40
	EAJ540	1/4-20	1"	3/8" hex	3	0.500"	2,500	40
	EAJ430	1/4-14	1-1/2"	3/8" hex	2	1.00"	1,000	30
	EAJ580	1/4-20	1-1/2"	3/8" hex	3	1.00"	1,000	32
	EAJ445	1/4-14	2"	3/8" hex	2	1.500"	1,500	25
	EAJ610	1/4-20	2"	3/8" hex	3	1.500"	1,500	38
	EAJ615	1/4-20	2"	3/8" hex	5	1.100"	1,500	38
	EAJ640	1/4-20	2-1/2"	3/8" hex	3	2.000"	1,000	32
	EAJ650	1/4-20	3"	3/8" hex	3	2.500"	500	18
	EAJ660	1/4-20	4"	3/8" hex	3	3.500"	500	22
	EAJ690C	1/4-20	8"	3/8" hex	5	7.10"	150	15

Flat Head Reamers w/wings

	EBN140	10-16	1-1/2"	#2 phillips	3	0.800"	3,500	30
	EBN345	12-24	2-13/16"	#3 phillips	5	1.710"	1,000	21
	EBN645	1/4-20	2-13/16"	#3 phillips	5	1.710"	1,000	28

Flat Head Undercut

	EBN200	12-14	1"	#3 phillips	2	0.500"	4,000	31
	EBN240	12-14	1-1/2"	#3 phillips	2	1.00"	2,500	29
	EBN630	1/4-20	3"	#3 phillips	2	2.500"	500	18
	EBN640	1/4-20	4"	#3 phillips	2	3.500"	500	22

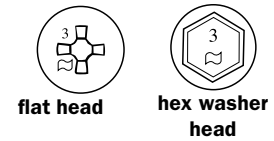
Performance Data

Pull-Out Values

Screw Size	Drill Point Type	Drill Cap (in.)	Pull-Out (Lbs)								
			Steel RB60-75 50 – 66KSI						Aluminum 6063-T5 22KSI		
			18 ga.	16 ga.	14 ga.	12 ga.	1/8"	3/16"	1/4"	1/8"	1/4"
10-16	2	0.150	455	677	793	1394	1906	-	-	994	-
10-16	3	0.187	-	616	684	1242	1605	1527	-	961	-
12-14	2	0.187	528	750	892	1536	2602	2514	-	1132	-
12-14	3	0.210	417	679	802	1371	2028	2499	-	974	-
12-24	5	0.500	-	-	-	-	-	2110	2781	538	1995
1/4-14	2	0.210	619	885	1082	1830	2943	3535	-	1310	-
1/4-20	3	0.312	-	680	780	1442	2623	3684	4069	1037	2786
1/4-20	5	0.500	-	-	-	-	-	-	2622	-	1724

Identification

The head marking consists of the number "3" above the Elco® logo as shown below.



* The load-bearing length is the length of 300 series stainless under the hex head or including the flat head. Hardened steel length (lead threads and point) should be through the connection and not in the load-bearing section of the connection.

NOTE: All performance data shown is based on tests performed under laboratory conditions at independent construction testing facilities. The appropriate safety factor should be applied and code requirements factored into specification and use of these fasteners. A safety factor of 4:1 or 25% of the ultimate average values shown is generally accepted as an appropriate working load. Final determination of the appropriate safety factor and use of these fasteners is the sole responsibility of the user, specifying Engineer, Architect or other responsible person designing the connection. Due to a wide variety of application conditions or intervening factors not under our control, we assume no liability for the use of the information provided in this document. For additional product information and technical assistance, please contact Elco directly at 1-800-435-7213.

Ultimate Strengths**

Size	Tensile (Lbs)	Shear Average Lbs Ultimate
10-16	1847	1282
12-14	2628	1950
12-24	2734	2284
1/4-14	3459	2676
1/4-20	4124	2860

** Values are for 300 series stainless fastener threaded shank



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