

# Bi-Flex<sup>™</sup> 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<sup>™</sup> 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<sup>®</sup> 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.** 

### **Features**

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

Fused and hardened steel tapping threads and

drill point

Silver-colored

Stalgard® GB

entire fastener

coating over

point

300 series

stainless

steel head

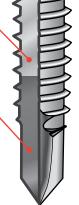
and shank

# **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 Self-drilling aluminum up to 1/2" thick
- High in-place value over the life of structures, components and systems



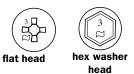


#### **Selection Guide**

	Cat. No.	Size	L Length	Drive System	Pt. Size	B Maximum Load-bearing Length*	Pieces per 1/4 Keg	Weight per 1/4 Keg
Hex Wa	sher Head							
	HFAJ110	10-16	3/4"	5/16" hex	2	0.32"	5,000	32
	HFAJ140	10-16	1-1/2"	5/16" hex	2	1.10"	2,500	39
	HFAJ185	12-14	1"	5/16" hex	2	0.50"	3,000	31
	HFAJ215	12-14	1-1/2"	5/16" hex	2	1.00"	2,500	34
	HFAJ190	12-14	1"	5/16" hex	3	0.50"	4,000	41
	HFAJ220	12-14	1-1/2"	5/16" hex	3	1.00"	2,500	34
<u> </u>	HFAJ260	12-14	2-1/2"	5/16" hex	3	2.00"	1,000	21
\$11	HFAJ240	12-14	2"	5/16" hex	2	1.50"	1,500	26
	HFAJ340	12-24	2"	5/16" hex	5	1.10"	2,000	35
s.	HFAJ415	1/4-14	1"	3/8" hex	2	0.50"	2,500	40
<u>≣</u> i	HFAJ540	1/4-20	1"	3/8" hex	3	0.50"	2,500	40
	HFAJ430	1/4-14	1-1/2"	3/8" hex	2	1.00"	1,000	30
$\mathcal{U}$	HFAJ580	1/4-20	1-1/2"	3/8" hex	3	1.00"	1,000	32
	HFAJ445	1/4-14	2"	3/8" hex	2	1.50"	1,500	25
	HFAJ610	1/4-20	2"	3/8" hex	3	1.50"	1,500	38
	HFAJ615	1/4-20	2"	3/8" hex	5	1.10"	1,500	38
	HFAJ640	1/4-20	2-1/2"	3/8" hex	3	2.00"	1,000	32
	HFAJ650	1/4-20	3"	3/8" hex	3	2.50"	500	18
	HFAJ660	1/4-20	4"	3/8" hex	3	3.50"	500	22
Flat He	ad Reamers	w/Wing	(s					
	HFBN140	10-16	1-1/2"	#2 phillips	3	0.80"	3,500	30
	HFBN345	12-24	2-13/16"	#3 phillips	5	1.71"	1,500	21
	HFBN645	1/4-20	2-13/16"	#3 phillips	5	1.71"	1,000	28
Flat He	ad Undercu	t						
B L	HFBN200	12-14	1"	#3 phillips	2	0.50"	4,000	31
	HFBN240	12-14	1-1/2"	#3 phillips	2	1.00"	2,500	29
	HFBN630	1/4-20	3"	#3 phillips	2	2.50"	500	18
	HFBN640	1/4-20	4"	#3 phillips	2	3.50"	500	22

#### 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.

### **Performance Data**

#### **Pull-Out Values**

			Pull-Out (Lbs)								
Screw	Drill Point	Drill Cap		Steel RB60-75 50 – 66KSI						Aluminum 6063-T5 22KSI	
Size	Туре		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

#### 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



## **Hurripanel Fasteners**

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