# AllFlex™ 302 Stainless Steel Fasteners

High Performance in Dissimilar Metal Applications



AllFlex<sup>™</sup> 302 stainless steel thread-cutting and self-tapping fasteners are made in the U.S.A., yet have a proven success record in architectural applications around the world.

300 series stainless steel offers long-term corrosion resistance in aggressive environments such as coastal areas. In order to prevent damage when joining dissimilar materials like aluminum, each AllFlex™ fastener is coated with Stalgard® GB (Galvanic Barrier) finish. Stalgard GB coating provides far greater galvanic protection for aluminum components than plain finish 300 series stainless fasteners.

AllFlex™ fasteners are the ideal fastening solution for curtain walls, windows, doors and other applications that include aluminum and/or are in a marine environment.

### **Combats Two Types of Corrosion**

**Uniform corrosion** is the general breakdown of a metal into an oxide of the metal or other corrosion product. The most common type of uniform corrosion is the visible formation of red rust on steel. 300 series stainless steel provides excellent resistance to uniform corrosion. However, it is not always compatible with dissimilar materials. The reaction between the two can cause **galvanic corrosion**.

Galvanic corrosion occurs when dissimilar metals are joined in the presence of an electrolyte (such as water, condensation, etc.). One metal will become the anode, or sacrificial component, and the other metal will be the cathode, or the metal that does not corrode. Stalgard GB coating provides a galvanic barrier to protect aluminum from becoming sacrificial to the stainless fastener. Preserving the integrity of both the fastener and the application materials helps prevent joint failure and retain high aesthetic quality.

### **Benefits**

- Type B and AB screws roll-form threads, and Type F screws cut mating threads, in aluminum components to eliminate tapping operations and speed installation
- Stalgard coating prevents galvanic reaction between stainless steel fastener and aluminum components
- 302 stainless steel offers long-term corrosion resistance in aggressive environments, including coastal areas
- Combination of features retains joint and material integrity to help assure long-term quality





### **Applications**

- Curtain walls, including aluminum panels
- · Windows and doors
- Buildings in a marine environment
- Structures in pool and spa areas
- Hurricane protection systems
- Explosion-control systems
- Solar panels

#### **Specifications:**

Material: 302 stainless steel

**Diameters:** #10 - 1/4"

**Head Styles and Drive Systems:** Hex washer, phillips pan, phillips flat and phillips flat undercut

**Thread and Point Styles:** Type F thread-cutting, Type B self-tapping or Type AB self-tapping

Finish: Stalgard GB (Galvanic Barrier)

coating

Specials available upon request.



### **Elco Construction Products**

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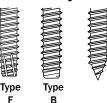
### **Selection Guide**

Elco Catalog No.	<b>Drive &amp; Head Style</b>	Description	Quantity/Carton
Type F Thread-Cutting			•
EHE310	Hex Washer	1/4-20 X 3/4	3500
EHE312	Hex Washer	1/4-20 X 1	2500
EHE314	Hex Washer	1/4-20 X 1-1/4	2000
EHE321	Phillips Flat	1/4-20 X 1	2500
EHE110	Phillips Flat Undercut	10-24 X 1/2	8000
EHE211	Phillips Flat Undercut	12-24 X 1/2	5000
ype B Self-Tapping*			
EHE336	Hex Washer	14 X 1-1/2	2000
ype AB Self-Tapping			
EHE122	Hex Washer	10 X 3/4	5000
EHE124	Hex Washer	10 X 1	5000
EHE220	Hex Washer	12 X 3/4	4000
EHE222	Hex Washer	12 X 1	4000
EHE224	Hex Washer	12 X 1-1/2	2500
EHE342	Hex Washer	14 X 1	2500
EHE344	Hex Washer	14 X 1-1/4	2000
EHE346	Hex Washer	14 X 1-1/2	2000
EHE352	Phillips Flat Undercut	14 X 1	2500
EHE232	Phillips Flat	12 X 1	4000
EHE234	Phillips Flat	12 X 1-1/2	2500
EHE362	Phillips Flat	14 X 1	2500
EHE366	Phillips Flat	14 X 1-1/2	2000
EHE240	Phillips Pan	12 X 3/4	4000
EHE244	Phillips Pan	12 X 1-1/2	2500
EHE370	Phillips Pan	14 X 3/4	3500
EHE372	Phillips Pan	14 X 1	2500

#### Performance Data<sup>†</sup>

Thread/ Point	Head Style	Screw Dia.	Ultimate Yield	Ultimate Tensile	Ultimate Shear	Screw Material KSI
Туре F	Hex Washer	1/4	3203	3274	2259	103
	Flat	1/4	2945	3203	2123	101
	Undercut Flat	#10	1717	1839	1222	105
	Undercut Flat	#12	2243	2322	1604	96
Type B	Hex Washer	#14	3038	3233	2249	99
Туре АВ	Hex Washer	#10	1602	1616	1165	86
	Hex Washer	#12	2386	2399	1639	97
	Hex Washer	#14	3033	3187	2228	98
	Undercut Flat	#14	2819	3217	2230	99
	Flat	#12	1916	2130	2230	86
	Flat	#14	1916	2130	2230	86
	Pan	#12	2819	3217	2230	99
	Pan	#14	2819	3217	2230	99

## **Thread Styles**



## **Head Styles**









AllFlex™ headmarking

† NOTE: All performance data shown is based on tests performed under laboratory conditions. 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. 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.





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<sup>\*</sup> With 1/4" lead point