

# ALLflex®

Stainless Steel Fasteners



  
**ALLOY**  
FASTENERS



MADE IN THE USA



ISO 9001 CERTIFIED

[www.allflex-usa.com](http://www.allflex-usa.com)



# ALLflex® Stainless Steel Fasteners

## *High Performance in Dissimilar Metal Applications*

ALLflex® stainless steel thread cutting and self-tapping fasteners are made in the U.S.A. and have a proven success record in architectural applications around the world. They are the ideal fastening solution for curtain walls, windows, doors and other applications that include a dissimilar metal, such as aluminum. Stainless steel coupled with the Stalgard® GB coating gives ALLflex® superior protection in the harshest environments.

Stainless steel offers long-term corrosion resistance in aggressive environments such as coastal areas and other applications where moisture may accumulate. However, stainless steel is not always compatible when fastened to a different type of metal which may cause galvanic corrosion. To prevent this, each ALLflex® fastener is coated with Stalgard® GB (Galvanic Barrier) finish. Stalgard® GB provides far greater galvanic protection for aluminum components than plain finish 300 series stainless steel fasteners.

## 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.

**Galvanic Corrosion** occurs when dissimilar metals are joined in the presence of an electrolyte like water. 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 help prevent joint failure and retain high aesthetic quality.

## Benefits

- Type B & AB Self Tapping screws, and Type F & 23 Thread Cutting screws, in aluminum components, eliminating tapping operations allowing for a faster installation
- Stalgard® GB coating prevents galvanic reaction between stainless steel fasteners and aluminum components
- Stainless steel offers long term corrosion resistance in aggressive environments, including coastal areas
- Combination of features retains joint and material integrity to help ensure long-term quality

## Applications:

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

## Specifications:

**Materials** – 302ss, 304ss, 316ss, 410ss, 430ss

**Diameters** – #8- $\frac{3}{8}$ "

**Head Styles and Drive Systems** – Hex Washer, Phillips Pan, Phillips Flat, Phillips Flat Undercut, etc. (see chart)

**Thread and Point Styles** – Type F & 23 Thread Cutting, Type AB & B Self Tapping, etc. (see chart)

**Finish** – Stalgard® GB (Galvanic Barrier) coating

**Specials available upon request**

### SELECTION GUIDE

	Alloy Part #	Drive & Head Style	Description	Carton Quantity
<b>TYPE F THREAD CUTTING</b>	AFC412	Hex Washer	1/4-20 x 3/4	3500
	AFC416	Hex Washer	1/4-20 x 1	2500
	AFC420	Hex Washer	1/4-20 x 1-1/4	2000
	AFU216	Indented	Hex 10-24 x 1	5000
	AFU520	Indented Hex	5/16-18 x 1-1/4	1500
	AFH108	Phillips Flat	8-32 x 1/2	12000
	AFH116	Phillips Flat	8-32 x 1	7000
	AFH212	Phillips Flat	10-32 x 3/4	6000
	AFH416	Phillips Flat	1/4-20 x 1	2500
	AFR208	Phillips Flat Undercut	10-24 x 1/2	8000
	AFR308	Phillips Flat Undercut	12-24 x 1/2	5000
	AFR416	Phillips Flat Undercut	1/4-20 x 1	3000

<b>TYPE B SELF-TAPPING</b>	AFL316	Phillips Pan	12 x 1	4000
	AFB424	Hex Washer	14 x 1-1/2	2000

<b>TYPE AB SELF-TAPPING</b>	AFA212	Hex Washer	10 x 3/4	5000
	AFA216	Hex Washer	10 x 1	5000
	AFA312	Hex Washer	12 x 3/4	4000
	AFA316	Hex Washer	12 x 1	4000
	AFA324	Hex Washer	12 x 1-1/2	2500
	AFA416	Hex Washer	14 x 1	2500
	AFA420	Hex Washer	14 x 1-1/4	2000
	AFA424	Hex Washer	14 x 1-1/2	2000
	AFA524	Hex Washer	5/16 x 1-1/2	1200
	AFA616	Hex Washer	3/8 x 1	500
	AFP416	Phillips Flat Undercut	14 x 1	2500
	AFF316	Phillips Flat	12 x 1	4000
	AFF324	Phillips Flat	12 x 1-1/2	2500
	AFF416	Phillips Flat	14 x 1	2500
	AFF424	Phillips Flat	14 x 1-1/2	2000
	AFK312	Phillips Pan	12 x 3/4	4000
	AFK324	Phillips Pan	12 x 1-1/2	2500
	AFK412	Phillips Pan	14 x 3/4	3500
	AFK416	Phillips Pan	14 x 1	2500

<b>MACHINE SCREW</b>	AFD520	Hex Washer	5/16-18 x 1-1/4	1250
	AFD616	Hex Washer	3/8-16 x 1	600

† **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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### PERFORMANCE DATA

Thread/Point	Head Style	Screw Diameter	Ultimate Yield	Ultimate Tensile	Ultimate Shear	Screw Material KSI
<b>TYPE F</b>	Hex Washer	1/4	3203	3274	2259	103
	Indented Hex	#10	1798	1854	1211	106
	Indented Hex	5/16"	4976	5308	3415	101
	Flat	#8	1165	1480	1015	106
	Flat	#10	1834	2158	1362	108
	Flat	1/4	2945	3203	2123	101
	Undercut Flat	#10	1717	1839	1222	105
	Undercut Flat	#12	2243	2322	1604	96
	Undercut Flat	#14	2945	3203	2123	101
<b>Type B</b>	Phillips Pan	#12	2340	2355	1510	95
	Hex Washer	#14	3038	3233	2249	99
<b>TYPE AB</b>	Hex Washer	#10	1602	1616	1165	86
	Hex Washer	#12	2386	2399	1639	97
	Hex Washer	#14	3033	3187	2228	98
	Hex Washer	5/16"	4761	4958	3305	89
	Hex Washer	3/8"	7645	8163	5314	95
	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
<b>MACHINE SCREW</b>	Hex Washer	5/16"	4754	5017	3506	96
	Hex Washer	3/8"	7018	8127	5424	105



## Drives



HEX



HEX  
WASHER



PHILLIPS  
(TYPE I)



SQUARE



6-LOBE



HEX  
SOCKET



PHILLIPS  
(TYPE IA)



SLOTTED



ONE-WAY  
SLOT



SQUARE/PHILLIPS  
COMBINATION



SQUARE/SLOT  
COMBINATION



PHILLIPS/SLOT  
COMBINATION



IA/SLOT  
COMBINATION



6 LOBE/SLOT  
COMBINATION



TEE  
HEAD

## Thread Styles



AB



B



LEADER POINT  
B



A



F



23 (T)



25 (BT)



17



MS



PILOT  
POINT



HEADER  
POINT



C



VA



I (D)



22°  
POINT



VP



PARTICLE  
BOARD



HLB



H25



P-F



OVAL POINT



DOG POINT



PILOT POINT



CONE POINT

## Head Styles



BINDER  
HEAD



LOW PROFILE  
SOCKET HEAD CAP



PANCAKE  
HEAD



BUTTON  
HEAD



BUGLE  
HEAD



CHEESE  
HEAD



FILLISTER  
HEAD



82° FLAT  
HEAD



82° U/C  
FLATHEAD



100° FLAT  
HEAD



90° FLAT  
HEAD



IND HEX  
HEAD



HEX  
WASHER



IND HEX  
FLANGE HEAD



82° OVAL  
HEAD



90° HEAD  
HEAD



82° OVAL  
U/C HEAD



90° OVAL  
U/C HEAD



PAN HEAD  
(FOR SLOTTED  
PAN HEADS)



PAN HEAD  
(FOR RECESSED  
PAN HEADS)



PAN HEAD  
(FOR SOCKET  
PRODUCT)



ROUND  
HEAD



ROUND HEAD  
SQUARE NECK



FULL CROWN  
ROUND  
WASHER HEAD



FLAT TOP  
ROUND  
WASHER HEAD



FULL CROWN  
TRUSS HEAD



FLAT TOP  
TRUSS HEAD



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