

Belleville Spring Washer Bolt Assembly Kits And Parts Stainless and Aluminum

1. General

This specification is for prepackaged Belleville spring washer bolt assembly kits and replacement parts. The kits will contain one bolt, one nut, two flat washers, and one Belleville spring washer. The assembly kits are used for making bolted copper and aluminum electrical connections. Replacement stainless steel parts shall be supplied separately.

2. Material

2.1 Stainless steel parts shall meet the latest requirements of ASTM F593 and F594 for the manufacturing and supply of stainless steel nut and cap screws. The bolt, nut, and flat washers shall be a Group I stainless steel alloy; i.e., 304, XM7. The Belleville spring washer shall be 17-7 PH Rockwell C 38/43 annealed and fully heat treated stainless steel; the flat deflection shall be $0.024 \pm 10\%$ with a flat load rating of 3,000 lbs. $\pm 10\%$.

2.2 Aluminum hex-head cap screws shall be 6061-T6 or 2024-T4 aluminum alloy. Aluminum finished hex-head nuts shall be 6061-T6 aluminum alloy.

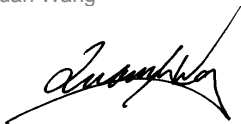
3. Kit Components

| Description | Stock No. | Bolt (in) | Nut (in) | Flat Washer (in) | Belleville Washer (in) |
|--------------------------|-----------|-----------------------------|---------------|-------------------------------|---------------------------------|
| Stainless Steel Bolt Kit | 782042 | 1/2-13 UNC x 1-1/2 SS | 1/2-13 UNC SS | 0.515 x 1.5 0.125 thick SS | 0.515 x 1.312 0.098 thick SS |
| | 782040 | 1/2-13 UNC x 2 SS | | | |
| | 782041 | 1/2-13 UNC x 2-1/2 SS | | | |
| | 014584 | 1/2-13 UNC x 3 SS | | | |
| Aluminum Bolt Kit | 782050 | 1/2-13 UNC x 1-3/4 AL | 1/2-13 UNC AL | 0.515 x 1.5 0.125 thick SS | 0.515 x 1.312 0.098 thick SS |
| | 782051 | 1/2-13 UNC x 2 AL | | | |
| | 782053 | 1/2-13 NC x 2-1/2 AL | | | |
| | 782052 | 1/2-13 NC x 3-1/2 AL | | | |
| Belleville Washer SS | 584133 | For use with 1/2-inch bolts | | | 0.515 x 1.312 0.098 thick SS |
| | 788300 | For use with 5/8-inch bolts | | | 0.656 x 1.25 0.098 thick SS |
| Flat Washer SS | 788030 | For use with 1/2-inch bolts | | 0.515 x 1.5 0.125 thick SS | – |
| | 788031 | For use with 5/8-inch bolts | | 0.656 x 1.5 0.125 thick SS | – |

Standards Coordinator
 Quan Wang

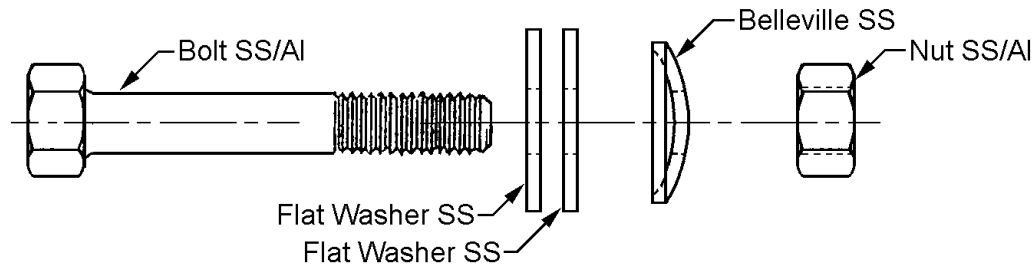
Standards Supervisor
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Bolted Electrical Connection Assembly Kits with Belleville Spring Washers



4. Packaging

- 4.1 The bolt/nut/washer assembly kits shall be shipped as a complete assembly in individual packages containing all the parts for one complete assembly kit. The packaged kits shall be clearly marked with the SCL Stock Number and the contents of the kit; e.g., alloy, size of bolt, and manufacturer of Belleville washer.
- 4.2 Individual stainless steel parts may be shipped in boxes containing up to 100 units, with each box marked indicating the part and number of units in the box; e.g., 1/2" stainless steel split lock washers, quantity: 50, 6 digit SCL Stock Number.

5. Issuance

Stock Unit: EA

6. Approved Manufacturers

SCL Material Control personnel may purchase this group of stock numbers at their own discretion.

7. Sources

SCL Construction Standard 0575.02; "Bolted Connections"