

Washers, Aluminum Alloy, Flat and Helical Spring



1. Scope

This standard covers the requirements for aluminum alloy, flat and helical spring washers.

This standard applies to the following Seattle City Light (SCL) stock numbers:

Stock No.	Size (in)	Description
788253	1/2	Flat washer
788273	"	Helical spring washer
788254	5/8	Flat washer
788274	"	Helical spring washer

2. Application

Aluminum alloy flat and helical spring washers are used to make up bolted aluminum-to-aluminum and aluminum-to-copper electrical connections in substations, network vaults, and elsewhere.

See SCL 7846.10 for aluminum alloy hex head cap screws and SCL 7846.15 for aluminum alloy hex nuts.

3. Industry Standards

Aluminum alloy flat and helical spring washers shall meet the applicable requirements of the following industry standards:

ANSI B18.21.1-1999; Lock Washers (Inch Series)

ANSI B18.22.1-1965 (Reaffirmed 2003); Plain Washers

ASME B18.12-2001; Glossary of Terms for Mechanical Fasteners

ASTM F468-16; Standard Specification for Nonferrous Bolts, Hex Cap Screws, Socket Head Cap Screws, and Studs for General Use

4. Requirements

4.1 Flat Washers

Flat washers shall be fabricated from 2024-T4 or -T6 aluminum alloy as defined in ASTM F468.

Flat washers shall meet the dimensional requirements of ANSI B18.22.1, Table 2, for type B, Plain, Regular.

4.2 Helical Spring Washers

Helical spring washers shall be fabricated from 7075-T6 aluminum alloy as defined in ASTM F468.

Helical spring washers shall meet the dimensional requirements of ANSI B18.21.1, Table 2, Heavy Helical.

5. Packaging

Product shall be packaged to prevent damage during shipping, handling, and storage.

Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer catalog number
- Product description
- SCL stock number

Shipping containers shall be legibly marked with:

- SCL purchase order number
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6. Issuance

Stock Unit: EA

7. Approved Manufacturers

SCL Material Control personnel may identify and approve manufacturers of this group of stock numbers.

8. Sources

SCL Stock Catalog page 78-23; January 25, 2008

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