

Steel Nuts



1. Scope

This standard covers the requirements for zinc-coated steel, square and hex nuts.

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

Stock Number by Type

| Nominal Size (in) | Threads per in | Hex, zinc-coated | Hex, Zinc-Coated Hot Dipped Galvanized | Heavy Hex, Zinc-Coated Hot Dipped Galvanized | Hex, Stainless Steel | Square, Zinc-Coated Hot Dipped Galvanized |
|-------------------|----------------|------------------|--|--|----------------------|---|
| 1/4 | 20 | 782982 | – | – | – | – |
| 5/16 | 18 | 782983 | – | – | – | – |
| 3/8 | 16 | 782984 | 783114 | – | – | – |
| 7/16 | 14 | 012283 | – | – | – | – |
| 1/2 | 13 | 782986 | 783116 | – | 014208 | 783076 |
| 5/8 | 11 | 010162 | 783118 | – | – | 783078 |
| 3/4 | 10 | 782989 | 783119 | – | – | 783079 |
| 7/8 | 9 | – | – | – | – | 012652 |
| 1 | 8 | – | 783121 | 013508 | – | – |

2. Application

Square nuts are generally used in the overhead system. Hex nuts are used in the underground system, networks, substations, and in a variety of other applications.

The heavy hex nut is intended to be used with the cross-plate anchor (SCL Stock No. 562058).

Standard Coordinator
Curtis Lu

Standards Engineering Supervisor
Brett Hanson

Division Director
Bob Risch

3. Industry Standards

ASME B18.2.2-1987 (R1999) - Square and Hex Nuts (Inch Series)

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

ASTM A153/A153M-2004 - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM B695-2004 - Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel

ASTM A194 / A194M - 2012a - Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both

ASTM A563-2007a - Standard Specification for Carbon and Alloy Steel Nuts

ASTM F 594-2015 - Standard Specification for Stainless Steel Nuts

4. Product Requirements

4.1 Hex Type

| | Requirements | Reference |
|-----------------------------|------------------------------|---------------------------------|
| Product Name | Hexagon nut | ASME B18.12, Section 3.2.1.14 |
| Material | Steel | ASME B18.2.2, Table 3, Note (e) |
| Dimensions | Per reference | ASME B18.2.2, Table 3 |
| Threads | Standard series UNC Class 2B | ASME B18.2.2, Table 3, Note (d) |
| Corrosion Protection | Zinc-coated, per reference | ASTM A153 or ASTM B695 |

4.2 Heavy Hex Type

| | | |
|-----------------------------|------------------------------|---|
| Product Name | Hexagon nut | ASME B18.12, Section 3.2.1.14 |
| Material | Steel | ASTM 563 (Grade DH), or ASTM 194 (Grade 2H) |
| Dimensions | Per reference | ASME B18.2.2, Table 9 |
| Threads | Standard series UNC Class 2B | ASME B18.2.2, Table 9, Note (d) |
| Corrosion Protection | Zinc-coated, per reference | ASTM A153 or ASTM B695 |

4.3 Square Type

| | Requirements | Reference |
|-----------------------------|------------------------------|---------------------------------|
| Product Name | Square nut | ASME B18.12, Section 3.2.1.29 |
| Material | Steel | ASME B18.2.2, Table 1, Note (f) |
| Dimensions | Per reference | ASME B18.2.2, Table 1 |
| Threads | Standard series UNC Class 2B | ASME B18.2.2, Table 1, Note (e) |
| Corrosion Protection | Zinc-coated, per reference | ASTM A153 or ASTM B695 |

4.4 Stainless Steel Hex Type

| | Requirements | Reference |
|-----------------------------|-------------------------------------|--|
| Product Name | Hexagon nut | ASME B18.12, Section 3.2.1.14 |
| Material | Stainless Steel (18-8, 304, or 316) | ASME B18.2.2, Table 3, Note (e); ASTM F594 |
| Dimensions | Per reference | ASME B18.2.2, Table 3 |
| Threads | Standard series UNC Class 2B | ASME B18.2.2, Table 3, Note (d) |
| Corrosion Protection | - | - |

5. Packaging

Standard package quantity shall be as follows:

| Nominal Size (in) | Quantity per Box |
|--------------------------|-------------------------|
| 1/4, 5/16, 3/8 | 50 or 100 |
| 7/16, 1/2, 5/8 | 25 or 50 |
| 3/4, 7/8, 1 | 10, 20 or 25 |

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Seattle City Light stock number
- Quantity contained

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Country of origin
- Product description
- Seattle City Light purchase order number
- Seattle City Light stock number

6. Issuance

Stock Unit: EA

7. Approved Manufacturers/Distributors

| Description | Asset Suite Vendor | Stock # | Hubbell | Hughes Brothers | MacLean Power Systems | Fastenal | Seattle Nut & Bolt | Portland Bolt |
|-------------------|---------------------------------|---------|---------|-----------------|-----------------------|----------|--------------------|---------------|
| 1/4 Hex | Fastenal | 782982 | - | - | - | 1136302 | - | - |
| 5/16 Hex | Fastenal | 782983 | - | - | - | 1136304 | - | - |
| 3/8 Hex | Fastenal | 782984 | - | - | - | 1136306 | - | - |
| 7/16 Hex | Fastenal | 12283 | - | - | - | 1136308 | - | - |
| 1/2 Hex | Fastenal | 782986 | - | - | - | 1136310 | - | - |
| 5/8 Hex | Fastenal | 10162 | - | - | - | 1136314 | - | - |
| 3/4 Hex | Fastenal | 782989 | - | - | - | 1136316 | - | - |
| 3/8 Hex Galv | Fastenal | 783114 | - | HN30 | - | 1136705 | - | 11700 |
| 1/2 Hex Galv | Fastenal, Hughes, Portland Bolt | 783116 | - | HN50 | - | 1136709 | - | 11702 |
| 5/8 Hex Galv | Fastenal, Hughes, Portland Bolt | 783118 | - | HN60 | - | 1136713 | - | 11704 |
| 3/4 Hex Galv | Fastenal, Portland Bolt | 783119 | - | HN70 | - | 1136715 | - | 11706 |
| 1 Hex Galv | SCL | 783121 | - | HN100 | - | 36719 | - | 11710 |
| 1 Hex Galv Heavy | SCL | 13508 | - | - | - | 36762 | - | 18349 |
| 1/2 Hex Stainless | Hubbell, Imported | 14208 | - | - | - | 1170714 | N05000 | 15830 |
| 1/2 Square Galv | Chance, Joslyn | 783076 | 55083P | N50 | J8562 | - | - | 11854 |
| 5/8 Square Galv | Joslyn | 783078 | 55084P | N60 | J8563 | - | - | 11856 |
| 3/4 Square Galv | Chance, Hubbell, Joslyn | 783079 | 55085P | N70 | J8564 | - | - | 11858 |
| 7/8 Square Galv | Chance, Hughes, Joslyn | 12652 | 56538P | N80 | J8564-1/2 | - | - | 11860 |

8. Sources

Lu, Curtis; SCL Standards Engineer and subject matter expert for 7829.90

Wang, Quan; SCL Standards Engineer and subject matter expert for 7829.90