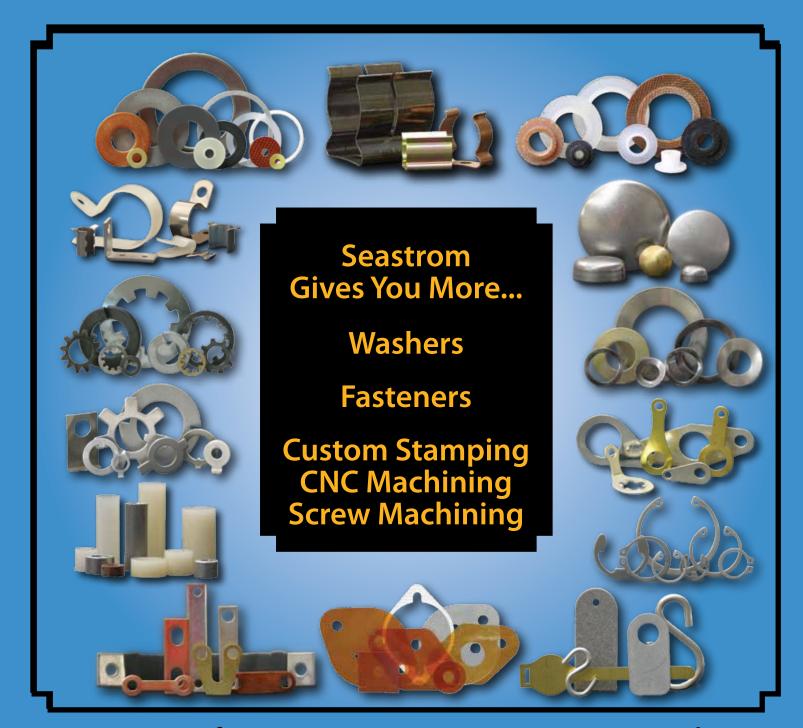


Made in the USA since 1928

# The Most Comprehensive Online Catalog for Precision Washers & Fasteners







## Seastrom Manufacturing Co., Inc. - About Us

Committed to Quality Manufacturing & Service in the United States since 1928

Seastrom is a true story of the realization of the American Dream. Seastrom was founded in Glendale, California in 1928 by Wensil Seastrom in his garage. The company resided in Glendale in several locations until 1994, when it moved to Twin Falls, Idaho. Still family owned today, Seastrom's state-of-the-art 100,000 square foot facility houses the premier stocking manufacturer of precision fasteners.

Seastrom stocks over 44,000 part numbers of a wide variety of fasteners, including flat round washers, spring clips, spacers, shoulder washers, lock washers, clamps, brackets, expansion plugs and much more. We also manufacture and supply Hiram Jones pins, terminals & connectors.

Aside from our huge inventory of stocked parts, Seastrom can modify any of our standard part numbers to meet your applications, reducing the cost of tooling.

If our standards or a modification doesn't work, Seastrom engineers will work with you to design the best and most economical part for your application.

Seastrom Manufacturing is a full service manufacturer. With Seastrom, we not only make quality parts, we help make quality products.



#### www.seastrom-mfg.com

www.seastromwashers.com

## **Seastrom Gives You More...**

Stock Standard Products and Custom Capabilities in one manufacturer

As budgets get tighter and you take on more responsibilities, Seastrom, as a full service manufacturer has the stock, personnel and expertise to help you control costs. You can choose from our huge selection of stocked standard precision hardware to find the part that meets your specifications. If stocked standards do not meet your requirements, we can partner with your company to engineer new parts and products, recommend economical purchasing, and can stock proprietary products for immediate delivery.

Seastrom emphasizes systems integration, quality engineering, high-speed production, facility-wide networking and strict project control to promote product quality, project safety and conformance to technical standards. We utilize virtually all stampable metals and non-metals. Seastrom specializes in extensive die and material changes to meet the wide variety of customer orders and our reputation for quality workmanship assures each customer that their product needs will be met. Our goal is to be your one stop partner for precision fasteners.

#### **Stock Standard Washers and Fasteners**

Seastrom manufactures and stocks the largest quantity of precision fasteners in the industry. Over 44,000 part numbers equating to over 158 million parts. This inventory gives our customers options when buying standard and specialty hardware. If we do not have exactly what you need, we may have an equivalent part close enough in size, thickness, material or plating to meet your needs. All Seastrom standard parts are listed online with their price, stock and delivery for ease of use. Online ordering is also available. If a pricing is not available an email quote request is provided for our customer's convenience.

Find all this and more at **www.seastrom-mfg.com**.

#### **Standard Part Modifications**

Seastrom's large tool and die department enables us to easily modify our standard tooling to accommodate basic standard part modifications. This enables our customers to avoid costly custom tooling when their specification is close to one of our standards (ie. modifications in length, width, number of holes, etc.)

#### **Custom Products**

Custom products are a specialty of Seastrom Manufacturing. As a full service manufacturer, we can help our customers save time and money on a custom product beginning with the design process. Seastrom has multiple methods of manufacturing (ie. Stamping, CNC, Screw Machine, Four Slide) which translates into a vast amount of knowledge that our customers can draw upon. Our in-house engineering departments can work with our customers' engineers to recommend manufacturing methods, materials, tolerances, and configurations that are possible in each method of manufacturing. All that our engineering department requires are quantities, target pricing and the ability to view the whole assembly. If you don't have the capability to make a schematic, they can do that for you, as well as reverse-engineer an existing part that you don't have dimensions for. As the project develops, quotes can be given on the parts to make sure you stay within your price point. Projects can consist of only one part, or as many as you require.

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#### **Stock Standard Washers**

See our online catalog for part numbers, price and delivery!

#### **Round Flat Washers**



5700 - 5720

#### **Shoulder Washers**



5603-05, 5607-09

#### **Countersunk Washers**



5723, 5736

**Split Washers** 



**Centering Washers** 









5745 - Style 1





**Spring Washers:** Belleville, Wave, Crescent, Dome, Single Wave





Lockwashers: External, Internal, Helical





5803 - 04

**Retention Washers** 





Finishing Washers



**Retaining Washers** 



**Terminal Cup Washers** 



**Internal Tab Washers** 







# **Stock Standard Washers, Expansion Plugs & O-Rings**

See our online catalog for part numbers, price and delivery!

#### **External Tab Washers**











**Internal & External Tab Washers** 

**Formed Key Washers** 



Miscellaneous External Shaped Washers



"C" Shaped

<u>"D" Shaped</u>

**Internal & External Notch Washers** 







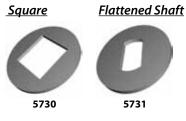
Miscellaneous Internal Shaped **Hole Washers** 



5626, 5726



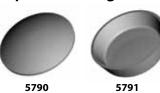
5735



Spacers



**Expansion Plugs** 



**Retaining Rings** 







**O-Rings** 







## **Stock Standard Spring Clips**

See our online catalog for part numbers, price and delivery!

## Spring Clips (Component, Fuse)





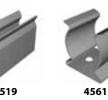


















4537













































































## **Stock Standard Clamps & Brackets**

See our online catalog for part numbers, price and delivery!

#### **Component Clamps**



2811 - Style 1



2811 - Style 2



2811 - Style 3



2811 - Style 4

5357





**Double Cable Clamps** 

5301 - Style 2



**Cord Clamp (Strain Relief)** 

**Hold Down Clamp** 



**Tube Clamps** 

5358

**Retaining Clamps** 

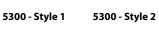




5311















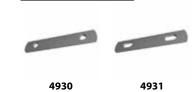
"J" Clips

5301 - Style 1



5318

Flat Brackets



**Terminal Board Bracket** 



**Mounting Bracket** 



**Angle Brackets** 

5317

4810



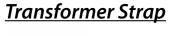














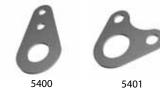




## **Stock Standard Solder Lugs**

See our online catalog for part numbers, price and delivery!

### Solder Lugs























































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## **Stock Standard Grounding Straps, Jumpers, Bus Bars & Tags**

See our online catalog for part numbers, price and delivery!

#### Solder Lugs







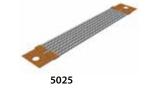








Flexible Grounding Strap



**Double Washers/Ground Straps** 



**Jumpers** 



**Bus Bars** 













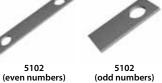


Terminal Strip



**Insulating Strips** 





## <u>Tags</u>



1028











S-Hooks





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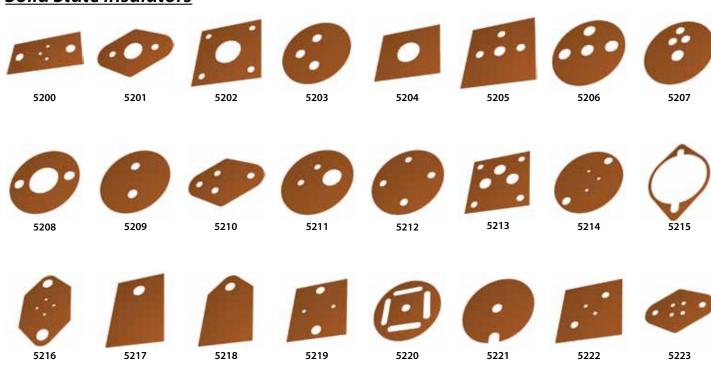




#### **Stock Standard Solid State Insulators & Push-on Nuts**

See our online catalog for part numbers, price and delivery!

#### **Solid State Insulators**





#### **Push-On Nuts**



**Formed Nuts** 



**Formed Nut Strips** 



**Tapped Nut Strips** 

## **Stock Military Standards & Hiram Jones Pins & Terminals**

See our online catalog for part numbers, price and delivery!

#### Military Standards: MS, NAS, M, AN, USAF

Time and a second as the secon					
MS	MS21258	MS35650	NAS	NAS1401	AN
MS704,	MS21315	MS35691	NAS21	NAS1411	AN231-1, -2
MS9101 - 04	MS21332	MS39085	NAS43 - 44	NAS1454	AN901
MS9165 - 68	MS22048	MS45904	NAS47	NAS1464	AN904
MS9176,	MS25081 - 82	MS51092	NAS61	NAS1515	AN970
MS9228 - 30	MS25226	MS51412	NAS128	NAS1587	AN3067W3
MS9276,	MS25440	MS51496	NAS301	NAS1635	AN3111
MS9320 - 21	MS27183	MS51535 - 36	NAS463	NAS1640	AN3195
MS9353 - 54	MS27309	MS51560	NAS500	NAS1837	AN6238
MS9366	MS29524	MS51848	NAS536	NAS6703 - 06	
MS9379 - 80	MS29532	MS51857	NAS549		USAF
MS9394 - 95	MS35140	MS51859	NAS578	M	USAF650
MS9549	MS35206	MS51867	NAS620	M24066/2, 3, 4	USAF750
MS9551 - 52	MS35333	MS51936	NAS950	M38527/08	
MS9581 - 82	MS35336	MS51957	NAS1003 - 4	M38527/8, 9	
MS9592 - 94	MS35338	MS63040	NAS1006	M43436/1	
MS9597	MS35340	MS75009	NAS1057	M45595/1, 2	
MS9599-9601	MS35430 - 31	MS75044 - 45	NAS1060	M45595/6, 7, 8	
MS14151	MS35436	MS77066	NAS1062	M49466/01	
MS15795	MS35438	MS77068 - 71	NAS1070	M70334/1	
MS16212 - 13	MS35440	MS77073 - 74	NAS1149		
MS17186	MS35443	MS90134	NAS1169		
MS17811	MS35445	MS91124	NAS1195		
MS17840	MS35649	MS91608	NAS1252		

#### **Hiram Jones: Pins, Terminals & Connectors**

**Terminal Pin Uninsulated Terminals** 

MIL-T-55155 Non-Insulated Terminals **Terminal Stud** 

**Terminal Base** Insulators

**Terminal Spacer Insulated Terminals** 

**Teflon Insulated Press-Type Terminals Terminal Standoff Bifurcated Terminals Teflon Insulated Assembled Standoff Swage Type Terminals Teflon Insulated Test Jack and Test Point** 

**Crimp and Ground Terminals Teflon Insulated Assembled Feed Thru Terminals** 











## **Custom Manufacturing Processes**

Stamping, CNC Machining, Multi-Spindle Screw Machine, Four-Slide, Secondary Operations & Assembly

#### Stamping

- High precision
- .001 to .125 thickness
- Up to 6" width
- Prototype parts
- Short & Long run capabilities

## **CNC Machining**

- High precision
- 4 Axis
- Up to 40" x 60" milling bed capability
- Up to 10" 12" turning capability
- Most all machinable metals & non-metals

#### **Multi-spindle Screw Machining**

- High precision
- Prototype
- Short and Long run capabilities
- Most all machinable metals & non-metals

#### Four-slide

- No carry strip low material waste
- Multi-bend and wrapped parts
- Ribbon or wire metallic materials
- Forming and cut aways
- Cost effective tooling
- Short and Long run capabilities
- Most machinable metals

## **Secondary Operations & Assembly**

- FOD (Foreign Object Detection)
- Wide variety of services to fulfill our customers needs (ie. tapping, riveting, etc.)
- Complete product assembly

#### **Special Packaging**

- Packaging to customer specifications
- Bar code
- **Custom labeling**
- Special quantity pack
- Skin pack

## anv .005 increment Metallic & Non-metallic materials













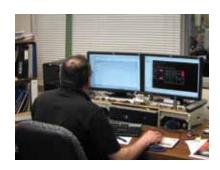


## **Value Added Services**

Engineering, Tooling Department, Quality Control, Customer Service

#### **Engineering**

Seastrom has a fully staffed engineering department to help with the design process of a new product. We have expertise in multiple methods of manufacturing which translates into a large amount of options when deciding the best and most cost effective process to create your custom product. We specialize in working closely with our customers' engineers to produce the best part for their specification.



#### **Tooling Department**

Seastrom is able to stand behind our huge offering of stock standard products due to our vast inventory of tooling. This tooling allows us to immediately manufacture our catalog products. We also design and make custom dies and tooling to our customers' product specifications. Our tooling ranges from compound inserts to complex progressive dies.



#### **Quality Control**

Our Quality Control department utilizes state of the art equipment to ensure that all Seastrom products meet all specifications. Quality Control maintains complete lot traceability, offers material and product testing, process certification, first article qualification and inspection. PPAP and AS9100 procedures are a part of the inspection process. Every job that runs through Seastrom's plant is shipped only after complete final product inspection has been performed.



#### **Customer Service**

All orders start with Customer Service. Seastrom takes pride in their friendly and courteous staff available to take your order or answer your questions. If we don't know the answer we will find out for you.



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#### **Materials & Finishes**

Seastrom offers the following standard materials and finishes. Other materials and finishes can be quoted to meet our customers' custom part specifications.

Metallic Materials: Non-Metallic Materials: Material Finishes:

Aluminum 2024 T3/T4 **Vulcanized Fibre** Glass Epoxy G10 **Beryllium Copper Glass Melamine Brass Glass Silicone** Copper Kapton Inconel **Phosphor Bronze PCTFE** Solder Mica Mylar Steel **Spring Steel** Neoprene **Nylatron** Stainless Steel (300 series)

PCTFE
Mica
Mylar
Neoprene
Nylatron
Nylon
Phenolic (CE, LE, XXXP)
Polyethylene (High Density)
PVC

Anodizing
Black Oxide
Cadmium Plate
Chem. Film
Chrome
Nickel Plate
Passivate
Phosphate
Silver Plate
Tin Plate
Tin Dip
Tin Lead Plate

**Zinc Plate** 

#### **Seastrom's Certifications**

**Titanium** 

Seastrom takes pride in its efforts to comply with all current quality, employment and environmental certifications.

Santoprene

**Teflon** 





Federal Supply Code: 86928



**PPAP** 

**REACH** 





Small Business
Drug Free Workplace



## **How to Specify Special Parts:**

The primary way to avoid the development of a special part or to minimize the cost of tooling for a special part is to include only the restrictions which are critical to the functioning of the part.

The restrictions that lead to higher production costs are:

- Over-dimensioning a part
- Non-mil standard material, thicknesses and tolerances
- Unnecessary temper and hardness ranges and heat treating
- Flatness better than .005 TIR per inch
- Tighter dimensional tolerances than necessary
- Extremely small percentage of burr or burr free condition.

If you have any questions regarding the development of a part for your application, please let one of our experienced engineers help you.



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www.seastromwashers.com





## Seastrom Manufacturing Co., Inc.

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