4130 TUBING KITS

We furnish complete 4130 tubing kits for a variety of aircraft designs including the Pitts S-2B, S-2C, Spectre, Duster, Oxy and many more. The kits contain sufficient round, square, and streamline tubing to produce the pieces shown on our materials list for each design. We urge the builder to verify his own materials list against ours. Request kit list description & current quotation. Enjoy big savings by purchasing a complete tubing kit for your aircraft at one time.

TUBE SEAL (LINE OIL)

Prevents rust and corrosion inside aircraft tubing structures. Will form a tubing wall and spread over entire surface. Will penetrate and reveal small pin holes in a weld and in time, due to exposure, will congeal and seal the hole. Directions on label. One quart will treat two light aircraft fuselages.

BARGAIN BAG 4130 TUBING

Starter Kit - An assortment of 4130 tubing, rod and bar in short lengths to practice welding. At least 15 ft. of tubing in assorted sizes and wall thicknesses. Furnished subject to availability of cutoffs.

P/N 03-15900.............$27.85

AIRCRAFT SPRUCE EAST
PEACHTREE CITY, GA • (877) 477-7823

AIRCRAFT SPRUCE WEST
CORONA, CA • (877) 4-SPRUCE

Prices Subject to Change Without Notice

2-1/2

8-3/8

1-1/4

3/4

1-7/8

AIRCRAFT SPRUCE WEST
AIRCRAFT SPRUCE EAST

Prices Subject to Change Without Notice

2/1-4

2-1/2

1-1/8

1/2

5/8

1/4

3/8

7/16

1/8

5/32

32

16

8

4

2

1/2

1/8

5/32

32

16

8

4

2

1/2

1/8

5/32

32

16

8

4

2

1/2

1/8

5/32

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5/32

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1/2

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5/32

32

16

8

4

2

1/2

1/8

5/32

32

16

8

4

2

1/2
### STEEL TUBING & ROD

#### 4130 STREAMLINE TUBING MIL-T6736 NORMALIZED

The prices for streamline tubing have increased sharply. The only manufacturer of streamline tubing, Columbia Summerill, has encountered problems with cracking on the trailing edge intermittently for many years and it has been a worrisome problem for builders. In an effort to control the situation, Columbia Summerill have installed sophisticated inspection equipment in their plant to assure that no cracked tubing gets into the field again. The cost of the equipment is reflected in the prices for the tubing which must be shared by all.

### BUSHING STOCK 1015/1020 STEEL

Seamless mechanical tubing may be used either statically or dynamically. Its close tolerance, good finish and dense structure make it ideal for parts such as shafts, bushings, bearings, etc. Tensile strength 80,000 PSI. Drill or ream for proper bolt fit.

#### ROUND BRASS SEAMLESS TUBING

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<th>O.D. (In.)</th>
<th>I.D.</th>
<th>Wall (In.)</th>
<th>Part No.</th>
<th>Price / Ft.</th>
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<td>7/32&quot;</td>
<td>0.065</td>
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<td>$8.70</td>
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<td>5/32&quot;</td>
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<td>$7.05</td>
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Ordering tubing/bar by the foot. Add a dash number after part number to indicate length of tubing required. Ex: 3 ft required add -3, 03-00100-3.

#### 4130 ROUND STEEL ROD COLD FINISHED SPEC. MIL-S-6758A-NORMALIZED

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<td>10.43</td>
<td>03-20900</td>
<td>$5.35</td>
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<td>15.02</td>
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3/16" Diameter type 304 CD stainless steel rod. Used in "new canard" for Long-EZ as specified by RAF.

P/N 03-26600: $2.70/ft.

### STAINLESS STEEL TUBING

#### Tubing Type

<table>
<thead>
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<th>O.D.</th>
<th>Wall (In.)</th>
<th>Part No.</th>
<th>Price / Ft.</th>
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<td>03-16100</td>
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<td>321 Welded</td>
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<td>$20.90</td>
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<td>03-16400</td>
<td>$22.93</td>
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<tr>
<td>304 Seamless</td>
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<td>03-00148</td>
<td>$11.78</td>
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<tr>
<td>304 Seamless</td>
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<td>03-00130</td>
<td>$9.97</td>
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<td>$5.75</td>
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<tr>
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<td>304 Seamless</td>
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#### 3/8" PIPER CHANNEL

Available in mild steel. 0.020" thick. 6-ft. length.

P/N 05-04564: $8.95

### STAINLESS STEEL ROD TYPE 304 CD

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<thead>
<tr>
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<th>Price / Ft.</th>
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<td>$0.63</td>
</tr>
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<td>0.92</td>
<td>03-20200</td>
<td>$0.89</td>
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<tr>
<td>1/4</td>
<td>1.67</td>
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<td>$1.95</td>
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<tr>
<td>5/16</td>
<td>2.61</td>
<td>03-20200</td>
<td>$1.85</td>
</tr>
<tr>
<td>3/8</td>
<td>3.76</td>
<td>03-20500</td>
<td>$1.26</td>
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<tr>
<td>7/16</td>
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<tr>
<td>1</td>
<td>26.70</td>
<td>03-21200</td>
<td>$9.50</td>
</tr>
</tbody>
</table>

Ordering tubing/bar by the foot. Add a dash number after part number to indicate length of tubing required. Ex: 3 ft required add -3, 03-00100-3.
**4130 SHEET**

This chromium-molybdenum alloy is one of the most widely used aircraft steels because of its combination of weldability, ease of fabrication and mild hardenability. It will respond to heat treatment to high strength levels and yet, in the annealed condition, it has adequate strength for many applications. Used for the manufacture of parts and components. Tensile strength 75,000-85,000 PSI. Furnished cold-rolled and oiled in sheet thicknesses of .025-.125 inch. Sheared to sheet and strip sizes listed below. Subject to availability of normalized sheet, annealed 4130 sheet may be substituted.

**Prices Subject to Change Without Notice**

### 4130 STEEL STRIPS

<table>
<thead>
<tr>
<th>Thickness (In.)</th>
<th>Size</th>
<th>Part No.</th>
<th>Price</th>
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* 3-Ft. lengths available at the half price of 6' lengths.
6 ft. lengths are subject to UPS oversize charges. Consider 3 ft. lengths which ship at cheaper rates.

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**4130 STEEL SHEET**

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**4130 SHEET & STRIPS MIL-S-6345A NORMALIZED**

**WELDING WIRE**

This high quality welding rod is produced from vacuum melted material. This material has ultra-low levels of oxygen, hydrogen, and nitrogen and is extremely low in trace elements. This rod is cleaner than standard rods and is the best available for 4130 welding. .062 dia. 36" long. Approx. 32 units per pound.

P/N 03-276000..............$66.75/lb.

**BRASS BRAZING ROD**

- 1/16" P/N 03-27625..........$12.50/lb.
- 3/32" P/N 03-00118.........$11.50/lb.

**WELDING ROD NO. 7**

For big-strength welds in steel plate, sheet, structural shapes, pipe and steel castings. Supplied in 36" lengths in sizes 1/16", 3/32" and 1/8".

**NO. 32CMS** – Recommended for 4130 steel structures for most satisfactory results. This rod is heat-treatable after welding.

- 1/16" Dia. P/N 03-27900.......$9.50/lb.
- 1/8" Dia. P/N 03-27920.......$9.85/lb.

**E4340 RECTANGULAR FLAT STEEL SPEC. MIL-S-5000 ANNEALED**

This chromium-nickel-molybdenum alloy, “king” of the hardening grades of alloy steels, possesses much deeper hardenability than the 4100 series. The fatigue-tensile ratio makes it ideal for highly stressed parts such as landing gear legs, and is often referred to as “spring steel”. Tensile strength is about 110,000 PSI. It is difficult to weld but can be welded by any of the common welding processes providing the section is preheated and stress relieved after welding.

**E4340 FLAT STEEL**

- 1/4" Dia. P/N 03-26000........$2.27
- For Aluminum Welding Rod, see page 56.

**WELD BRUSH**

Stainless steel bristles set in curved wooden handle. Just right for cleaning welds. 1/2" Wide x 8" Long.

P/N 03-265000..............$2.27

**IF MFG TEST REPORTS ARE REQUIRED THERE IS A $15.00 CHARGE PER ORDER. PLEASE INDICATE AT TIME OF ORDER**
ALUMINUM – THE MOST COMMON GRADES

1100  This grade is commercially pure aluminum. It is soft and ductile and has excellent workability. It is ideal for applications involving intricate forming because it work hardens more slowly than other alloys. It is the most weldable of aluminum alloys, by any method. It is non heat-treatable. It has excellent resistance to corrosion and is widely used in the chemical and food processing industries. It responds well to decorative finishes which make it suitable for giftware.

2011  This is the most free-machining of the common aluminum alloys. It also has excellent mechanical properties. Thus, it is widely used for automatic screw machine products in parts requiring extensive machining.

2014 & 2017  The 2017 alloy combines excellent machinability and high strength with the result that it is one of the most widely used alloys for automatic screw machine work. It is a tough, ductile alloy suitable for heavy-duty structural parts. Its strength is slightly less than that of 2014.

2024  This is one of the best known of the high strength aluminum alloys. With its high strength and excellent fatigue resistance, it is used to advantage on structures and parts where good strength-to-weight ratio is desired. It is readily machined to a high finish. It is readily formed in the annealed condition and may be subsequently heat treated. Arc or gas welding is generally not recommended, although this alloy may be spot, seam or flash welded. Since corrosion resistance is relatively low, 2024 is commonly used with an anodized finish or in clad form (“Alclad”) with a thin surface layer of high purity aluminum. Applications: aircraft structural components, aircraft fittings, hardware, truck wheels and parts for the transportation industry.

3003  This is the most widely used of all aluminum alloys. It is essentially commercially pure aluminum with the addition of manganese which increases the strength some 20% over the 1100 grade. Thus, it has all the excellent characteristics of 1100 with higher strength. It has excellent corrosion resistance. It has excellent workability and it may be deep drawn or spun, welded or brazed. It is non heat treatable. Applications: cooking utensils, decorative trim, awnings, siding, storage tanks, chemical equipment.

5052  This is the highest strength alloy of the more common non heat-treatable grades. Fatigue strength is higher than most aluminum alloys. In addition this grade has particularly good resistance to marine atmosphere and salt water corrosion. It has excellent workability. It may be drawn or formed into intricate shapes and its slightly greater strength in the annealed condition minimizes tearing that occurs in 1100 and 3003. Applications: Used in a wide variety of applications from aircraft components to home appliances, marine and transportation industry parts, heavy duty cooking utensils and equipment for bulk processing of food.

5083 & 5086  For many years there has been a need for aluminum sheet and plate alloys that would offer, for high strength welded applications, several distinct benefits over such alloys as 5052 and 6061. Some of the benefits fabricators have been seeking are greater design efficiency, better welding characteristics, good forming properties, excellent resistance to corrosion and the same economy as in other non heat-treatable alloys. Metallurgical research has developed 5083 and 5086 as superior weldable alloys which fill these needs. Both alloys have virtually the same characteristics with 5083 having slightly higher mechanical properties due to the increased manganese content over 5086. Applications: unfired pressure vessels, missile containers, heavy-duty truck and trailer assemblies, boat hulls and superstructures.

5050  This alloy is generally considered to be an improved version of 3003. It has the same general mechanical properties as 3003 but appears to stand up better in actual service. It is readily workable. It can be deep drawn or spun, welded or brazed. It has excellent corrosion resistance. It is non heat-treatable. It is well suited for anodizing and has less tendency to streak or discolor. Applications same as 3003.

6061  This is the least expensive and most versatile of the heat-treatable aluminum alloys. It has most of the good qualities of aluminum. It offers a range of good mechanical properties and good corrosion resistance. It can be fabricated by most of the commonly used techniques. In the annealed condition it has good workability. In the T4 condition fairly severe forming operations may be accomplished. The full T6 properties may be obtained by artificial aging. It is welded by all methods and can be furnace brazed. It is available in the clad form (“Alclad”) with a thin surface layer of high purity aluminum to improve both appearance and corrosion resistance. Applications: This grade is used for a wide variety of products and applications from truck bodies and frames to screw machine parts and structural components. 6061 is used where appearance and better corrosion resistance with good strength are required.

6063  This grade is commonly referred to as the architectural alloy. It was developed as an extrusion alloy with relatively high tensile properties, excellent finishing characteristics and a high degree of resistance to corrosion. This alloy is most often found in various interior and exterior architectural applications, such as windows, doors, store fronts and assorted trim items. It is the alloy best suited for anodizing applications – either plain or in a variety of colors.

7075  This is one of the highest strength aluminum alloys available. Its strength-to-weight ratio is excellent and it is ideally used for highly stressed parts. It may be formed in the annealed condition and subsequently heat treated. Spot or flash welding can be used, although arc and gas welding are not recommended. It is available in the clad (“Alclad”) form to improve the corrosion resistance with the over-all high strength being only moderately affected. Applications: Used where highest strength is needed.
ALUMINUM ALLOY DESIGNATIONS

The aluminum industry uses a four-digit index system for the designation of its wrought aluminum alloys. As outlined below, the first digit indicates the alloy group according to the major alloying elements.

1XXX SERIES

In this group, minimum aluminum content is 99%, and there is no major alloying element. The second digit indicates modifications in impurity limits. If the second digit is zero, there is no special control on individual impurities. Digits 1 through 9, which are assigned consecutively as needed, indicate special control of one or more individual impurities. The last two digits indicate specific minimum aluminum content. Although the absolute minimum aluminum content in this group is 99% the minimum for certain grades is higher than 99%, and the last two digits represent the hundredths of a per cent over 99.

Thus, 1030 would indicate 99.30% minimum aluminum, without special control on individual impurities. The designations 1130, 1230, 1330, etc., indicate the same purity with special control on one or more impurities. Likewise, 1100 indicates minimum aluminum content of 99.00% with individual impurity control.

2XXX THROUGH 9XXX SERIES

The major alloying elements are indicated by the first digit, as follows:

- 2xxx Copper
- 3xxx Manganese
- 4xxx Silicon
- 5xxx Magnesium
- 6xxx Magnesium and silicon
- 7xxx Zinc
- 8xxx Other element
- 9xxx Unused series

The second digit indicates alloy modification. If the second digit is zero, it indicates the original alloy: digits 1 through 9, which are assigned consecutively, indicate alloy modifications. The last two digits have no special significance, serving only to identify the different alloys in the group.

EXPERIMENTAL ALLOYS

Experimental alloys are designated according to the four digit system, but they are prefixed by the letter X. The prefix is dropped when the alloy becomes standard. During development, and before they become standard, but they are prefixed by the letter X. The prefix is dropped when the X number is assigned. Experimental alloys in the group.

ALUMINUM TEMPER DESIGNATIONS

Temper designations of wrought aluminum alloys consist of suffixes to the numeric alloy designations. For example, in 3003-H14, 3003 denotes the alloy and “H14” denotes the temper, or degree of hardness. The temper designation also reveals the method by which the hardness was obtained. Temper designations differ between non heat-treatable alloys and heat-treatable alloys, and their meanings are given below:

NON HEAT-TREATABLE ALLOYS

The letter “H” is always followed by 2 or 3 digits. The first digit indicates the particular method used to obtain the temper, as follows:

- H1 means strain hardened only.
- H2 means strain hardened, then partially annealed.
- H3 means strain hardened, then stabilized.

The temper is indicated by the second digit as follows:

- 2 1/4 hard
- 4 1/2 hard
- 6 3/4 hard
- 8 full hard
- 9 extra hard

Added digits indicate modification of standard practice.

HEAT-TREATABLE ALLOYS

The letter “T” is always followed by one or more digits. These digits indicate the method used to produce the stable tempers, as follows:

- T3 Solution heat treated, then cold worked.
- T351 Solution heat treated, stress-relieved stretched, then cold worked.
- T36 Solution heat treated, then cold worked (controlled).
- T4 Solution heat treated, then naturally aged.
- T451 Solution heat treated, then stress relieved stretched.
- T5 Artificially aged only.
- T6 Solution heat treated, then artificially aged.
- T61 Solution heat treated (boiling water quench), then artificially aged.
- T651 Solution heat treated, stress-relieved stretched, then artificially aged (precipitation heat treatment).
- T652 Solution heat treated, stress relieved by compression, then artificially aged.
- T7 Solution heat treated, then stabilized.
- T8 Solution heat treated, cold worked, then artificially aged.
- T81 Solution heat treated, cold worked (controlled), then artificially aged.
- T851 Solution heat treated, cold worked, stress-relieved stretched, then artificially aged.
- T9 Solution heat treated, artificially aged, then cold worked.
- T10 Artificially aged, then cold worked.

Added digits indicate modification of standard practice.

COMPARISON OF MODERN & OLD SYSTEMS OF ALUMINUM ALLOY DESIGNATION

Although the old system of aluminum identification has been obsolete for many years, stock with the old markings is still occasionally found. The following comparison is presented as an aid in identifying such materials in terms of the modern system.

In the old system, alloy composition was indicated by a one- or two-digit number followed by the letter “S” to indicate that it was a wrought alloy, i.e., an alloy that could be shaped by rolling, drawing or forging. Any variation in the basic composition was indicated by a letter preceding the numerical alloy designation. For example, A17S was a modification of the basic alloy 17S. In modern terminology these two alloys are designated 2117S and 2017S, respectively. Temper was designated by a second letter: “O” for soft (annealed), “H” for strain hardness of non heat-treatable alloys, and “T” for hardness of heat-treatable alloys. Degree of hardness of non heat-treatable alloys was indicated by a fraction preceding the letter “H”. For example, 351/4H would be quarter-hard 35 alloy.

The following Table gives examples of the old and modern designations of some common aluminum alloys.
## ALUMINUM PLATE & SHEET DATA

<table>
<thead>
<tr>
<th>ALLOY</th>
<th>TEMPER</th>
<th>Flat Sheet</th>
<th>Coil Sheet</th>
<th>Cut to Length Sheet</th>
<th>Plate</th>
<th>Temper</th>
<th>Mig/Mig Welding</th>
<th>Tig Welding</th>
<th>Brazability</th>
<th>Machinability</th>
<th>Cold Workability</th>
<th>Corrosion Resistance</th>
<th>Machinability</th>
<th>Weldability</th>
<th>Welding</th>
<th>Heat Treatability</th>
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### APPROXIMATE MINIMUM RADIUS FOR 90° COLD BEND

Where range is shown, use smaller radius with extreme caution.

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### Tensile Strength - Ksi

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### Elongation in 2" or 4 times diameter

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### Ratings

- **A** - Generally weldable by all commercial procedures and methods.
- **B** - Weldable with special technique or specific applications which justify preliminary trials or testing to develop welding procedure and weld performance.
- **C** - Limited weldability because of crack sensitivity or loss on resistance to corrosion, and all mechanical properties.
- **D** - No commonly used welding methods have so far been developed.

1. Trumpet plate and plate or plate may be bent with nature of forming operation type of forming equipment and design conditions of tools. Minimum working radius for a given temper or hardest alloy and temper for a given radius can be ascertained only by actual trial under conditioned conditions of material. If range is shown, use a smaller radius with extreme caution.

2. Alclad sheet can be bent over slightly smaller radii than the corresponding tapers of the uncoated alloy.

3. Immediately after quenching, this alloy can be formed over appreciable tempers of the uncoated alloy.
### 3003H-14 SOFT ALUMINUM SHEET

<table>
<thead>
<tr>
<th>Alloy &amp; Temper</th>
<th>Surface Finish</th>
<th>Thickness (In.)</th>
<th>Wt./Sq.Ft. (Lbs.)</th>
<th>4' x 12'</th>
<th>4' x 8'</th>
<th>Price Per Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024-T3</td>
<td>Al clad</td>
<td>.016</td>
<td>230</td>
<td>.0273-30 $108.75</td>
<td>.0273-70 $52.86</td>
<td>.0273-20 $35.89</td>
</tr>
<tr>
<td>2024-0</td>
<td>Al clad</td>
<td>.020</td>
<td>286</td>
<td>.0278-10 $120.75</td>
<td>.0278-20 $80.90</td>
<td>.0278-30 $60.38</td>
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<tr>
<td></td>
<td>Bare</td>
<td>.025</td>
<td>360</td>
<td>.0279-10 $132.75</td>
<td>.0279-20 $89.94</td>
<td>.0279-30 $66.38</td>
</tr>
<tr>
<td>6061-T4</td>
<td>Bare</td>
<td>.032</td>
<td>466</td>
<td>.0280-10 $169.99</td>
<td>.0280-20 $113.89</td>
<td>.0280-30 $83.80</td>
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<tr>
<td></td>
<td>Bare</td>
<td>.040</td>
<td>576</td>
<td>.0281-10 $203.95</td>
<td>.0281-20 $151.98</td>
<td>.0281-30 $101.98</td>
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<tr>
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<td>Bare</td>
<td>.050</td>
<td>720</td>
<td>.0282-10 $221.95</td>
<td>.0282-20 $148.71</td>
<td>.0282-30 $110.98</td>
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<tr>
<td></td>
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<td>.063</td>
<td>907</td>
<td>.0283-10 $269.95</td>
<td>.0283-20 $180.87</td>
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<tr>
<td></td>
<td>Bare</td>
<td>.075</td>
<td>115</td>
<td>.0284-10 $340.80</td>
<td>.0284-20 $227.92</td>
<td>.0284-30 $199.85</td>
</tr>
<tr>
<td></td>
<td>Bare</td>
<td>.090</td>
<td>1.30</td>
<td>.0286-10 $456.95</td>
<td>.0286-20 $297.95</td>
<td>.0286-30 $221.95</td>
</tr>
<tr>
<td></td>
<td>Bare</td>
<td>.1.25</td>
<td>1.80</td>
<td>.0287-10 $631.00</td>
<td>.0287-20 $421.95</td>
<td>.0287-30 $314.98</td>
</tr>
<tr>
<td></td>
<td>Bare</td>
<td>.150</td>
<td>-</td>
<td>.0290-10 $960.00</td>
<td>.0290-20 $630.00</td>
<td>.0290-30 $454.00</td>
</tr>
<tr>
<td></td>
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<td>.190</td>
<td>2.74</td>
<td>.0291-10 $961.00</td>
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<td>.0291-30 $454.00</td>
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<tr>
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<td>Bare</td>
<td>.250</td>
<td>3.60</td>
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<tr>
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<td>4.60</td>
<td>.0293-10 $1,389.00</td>
<td>.0293-20 $926.00</td>
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<tr>
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<td>6.06</td>
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<tr>
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<td>Bare</td>
<td>.400</td>
<td>8.03</td>
<td>.0295-10 $2,385.00</td>
<td>.0295-20 $1,651.00</td>
<td>.0295-30 $1,147.00</td>
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<tr>
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<td>.500</td>
<td>1.13</td>
<td>.0296-10 $3,243.00</td>
<td>.0296-20 $2,362.00</td>
<td>.0296-30 $1,654.00</td>
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<tr>
<td></td>
<td>Bare</td>
<td>.600</td>
<td>1.75</td>
<td>.0297-10 $4,393.00</td>
<td>.0297-20 $3,071.00</td>
<td>.0297-30 $2,092.00</td>
</tr>
<tr>
<td></td>
<td>Bare</td>
<td>.750</td>
<td>2.75</td>
<td>.0298-10 $6,549.00</td>
<td>.0298-20 $4,282.00</td>
<td>.0298-30 $2,921.00</td>
</tr>
<tr>
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<td>Bare</td>
<td>.900</td>
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<td>.0299-20 $6,054.00</td>
<td>.0300-30 $3,935.00</td>
</tr>
</tbody>
</table>

For 2x2’ of aluminum piece, take 2x2’ price x 2, and then add 15%. For 2x2’ piece, change last two digits of P/N to “00”. Thicknesses of .016, .020, .025, .032, and .040 can be rolled and boxed for UPS shipment with insurance coverage, but we cannot guarantee rolled sheets will lay flat. For 2x4’ of aluminum sheet exceeding 108” length plus girth (once down and once around) must be shipped by truck. Maximum sheet size for UPS shipment is 2’ x 4’.

** Length of full sheet of .025 thickness is 10 ft. For 2’ x 4’ pcs. of 3003H-14 use "4" as last 2 digits of P/N (Ex: 03-34464)
### ROUND DRAWN ALUMINUM TUBING 2024T3

<table>
<thead>
<tr>
<th>O.D. (In.)</th>
<th>I.D. (In.)</th>
<th>Wall Thickness</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
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### ROUNDED ALUMINUM TUBING 6061-0

<table>
<thead>
<tr>
<th>Round Drawn</th>
<th>O.D. (In.)</th>
<th>I.D. (In.)</th>
<th>Wall Thickness</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Available in 6’ or 12’ lengths. Cannot be smaller pieces for shipping. Total quantity ordered must be 6 ft, 12 ft, 18 ft, 24 ft, etc. If manufacturing test reports are required, there is a minimum $15.00 charge per order. Please indicate in the special instructions box at the time of order that tests are required.

**Price:** Prices subject to change without notice.

---

### ROUND ALUMINUM TUBING 6061T6

<table>
<thead>
<tr>
<th>O.D. (In.)</th>
<th>I.D. (In.)</th>
<th>Wall Thickness</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>5/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Sold in full 8’ or 12’ lengths only. No charge for cutting to 8’ or less for UPS shipment.

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### ROUNDED ALUMINUM TUBING 6061T6 SQUARE ALUMINUM TUBING

<table>
<thead>
<tr>
<th>Size (In.)</th>
<th>Wall Thickness</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
</tr>
<tr>
<td>3/4 x 3/4</td>
<td>.049</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
</tr>
<tr>
<td>1 X 1</td>
<td>.065</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
</tr>
<tr>
<td>1 1/4</td>
<td>.075</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
</tr>
</tbody>
</table>

**Note:** Sold in full 8’ or 12’ lengths only. No charge for cutting to 8’ or less for UPS shipment.

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### 5052-0 ALUMINUM TUBING

Rigid 5052-0 aluminum alloy tubing is used for low and medium pressure hydraulic systems, fuel lines and oil lines. This tubing will withstand a higher pressure than 6003-0 tubing.

<table>
<thead>
<tr>
<th>O.D. (In.)</th>
<th>I.D. (In.)</th>
<th>Wall Thickness</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>3/32</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
<tr>
<td>1/8</td>
<td>.035</td>
<td>2066</td>
<td>03-31600</td>
<td>5.44</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Sold in full 8’ or 12’ lengths only. No charge for cutting to 8’ or less for UPS shipment.

---

### 3003-0 VERSATUBE

Soft aluminum tubing for instrument air and vacuum lines, fuel and oil lines, and primer lines.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>.020</td>
<td>820</td>
<td>03-30200</td>
<td>5.80</td>
</tr>
<tr>
<td>3/32</td>
<td>.028</td>
<td>800</td>
<td>03-30300</td>
<td>5.40</td>
</tr>
</tbody>
</table>

**Note:** *Safety factor of 20% account for full 50’ coils of Versatube.
### Round Aluminum Rod

<table>
<thead>
<tr>
<th>Dia. (In.)</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price/Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>.015</td>
<td>03-41300</td>
<td>$0.97</td>
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<tr>
<td>3/16</td>
<td>.033</td>
<td>03-41400</td>
<td>$0.89</td>
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<td>1/4</td>
<td>.059</td>
<td>03-41500</td>
<td>$0.62</td>
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<tr>
<td>5/16</td>
<td>.092</td>
<td>03-41600</td>
<td>$1.06</td>
</tr>
<tr>
<td>3/8</td>
<td>.132</td>
<td>03-41700</td>
<td>$1.20</td>
</tr>
<tr>
<td>7/16</td>
<td>.1822</td>
<td>03-41750</td>
<td>$1.66</td>
</tr>
<tr>
<td>1/2</td>
<td>.235</td>
<td>03-41800</td>
<td>$2.28</td>
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<tr>
<td>5/8</td>
<td>.368</td>
<td>03-41900</td>
<td>$3.40</td>
</tr>
<tr>
<td>3/4</td>
<td>.529</td>
<td>03-42000</td>
<td>$3.60</td>
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<tr>
<td>7/8</td>
<td>.721</td>
<td>03-42100</td>
<td>$5.50</td>
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<td>1</td>
<td>.941</td>
<td>03-42200</td>
<td>$5.90</td>
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<tr>
<td>1-1/8</td>
<td>1.205</td>
<td>03-42250</td>
<td>$7.96</td>
</tr>
<tr>
<td>1-1/4</td>
<td>1.47</td>
<td>03-42300</td>
<td>$9.50</td>
</tr>
<tr>
<td>1-3/8</td>
<td>1.800</td>
<td>03-42350</td>
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<td>2.12</td>
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<td>$16.70</td>
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<td>2</td>
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<td>5.88</td>
<td>03-42600</td>
<td>$31.80</td>
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</table>

No charge for cutting to 8 ft. or less for UPS shipment.
Over 8 ft. shipped via truck. Special sizes available (12 foot minimum)
If ordering only T3 or T4, please call 877-477-7823

### Aluminum Square & Rectangle Bar

#### Round Aluminum Rod 2024T3/2024T4

<table>
<thead>
<tr>
<th>Size (In.)</th>
<th>Wt./Ft. (Lb.)</th>
<th>Part No.</th>
<th>Price/Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 x 1</td>
<td>.150</td>
<td>03-42700</td>
<td>$1.85</td>
</tr>
<tr>
<td>1/8 x 1-1/4</td>
<td>.187</td>
<td>03-42750</td>
<td>$5.50</td>
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<tr>
<td>1/8 x 1-1/2</td>
<td>.225</td>
<td>03-42800</td>
<td>$2.80</td>
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<tr>
<td>1/8 x 2</td>
<td>.300</td>
<td>03-42900</td>
<td>$3.50</td>
</tr>
<tr>
<td>3/16 x 1/4</td>
<td>.169</td>
<td>03-43100</td>
<td>$6.97</td>
</tr>
<tr>
<td>3/16 x 1-1/4</td>
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<td>03-43200</td>
<td>$23.10</td>
</tr>
<tr>
<td>3/16 x 1-1/2</td>
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<td>03-43250</td>
<td>$6.85</td>
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<tr>
<td>1/4 x 1/4</td>
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<td>$1.65</td>
</tr>
<tr>
<td>1/4 x 3/4</td>
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<td>03-43100</td>
<td>$2.55</td>
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<td>03-43400</td>
<td>$3.35</td>
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<tr>
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<td>$3.95</td>
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<td>.450</td>
<td>03-43600</td>
<td>$4.70</td>
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<tr>
<td>1/4 x 2</td>
<td>.599</td>
<td>03-43700</td>
<td>$6.50</td>
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<td>.6818</td>
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<td>.468</td>
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<td>$7.50</td>
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<td>$6.85</td>
</tr>
<tr>
<td>3/4 x 1-1/2</td>
<td>.135</td>
<td>03-45000</td>
<td>$10.65</td>
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<tr>
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</tr>
<tr>
<td>3/4 x 2</td>
<td>.180</td>
<td>03-45100</td>
<td>$21.60</td>
</tr>
<tr>
<td>3/4 x 2-1/2</td>
<td>.225</td>
<td>03-45200</td>
<td>$15.65</td>
</tr>
<tr>
<td>1 x 1</td>
<td>.120</td>
<td>03-45300</td>
<td>$7.50</td>
</tr>
<tr>
<td>1 x 2</td>
<td>.324</td>
<td>03-45450</td>
<td>$16.50</td>
</tr>
<tr>
<td>1 x 2-1/2</td>
<td>.3030</td>
<td>03-45475</td>
<td>$27.60</td>
</tr>
<tr>
<td>1/2 x 6</td>
<td>.4002</td>
<td>03-56000</td>
<td>$35.50</td>
</tr>
</tbody>
</table>

Model sizes of aluminum rod and bar available in full 12 ft. lengths.
No charge for cutting to 8 ft. or less for UPS. Longer lengths shipped via truck.
If ordering only T3 or T4, please call 877-477-7823
Ordering tubing/bar by the foot. Add a dash number after part no., to indicate length of tubing req.
Example: 3 ft required add -3, 03-00100-3.
PIANO HINGE

MS20257P (supercedes AN257) hinge consists of two aluminum half hinges which mate and are held together by a hinge pin. Anodized finish. MS20257C is similar to MS20257P except made in stainless steel.

MS20001P aluminum hinge is extruded. The closed hinge loops cannot be pulled apart. Furnished with hinge pin. Anodized finish.

<table>
<thead>
<tr>
<th>Part No.*</th>
<th>Open Width</th>
<th>Thickness</th>
<th>Price/Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS20257P1</td>
<td>3/4&quot;</td>
<td>.032&quot;</td>
<td>$4.45</td>
</tr>
<tr>
<td>MS20257P2</td>
<td>1-1/16&quot;</td>
<td>.040&quot;</td>
<td>$5.90</td>
</tr>
<tr>
<td>MS20257P3</td>
<td>1-1/16&quot;</td>
<td>.040&quot;</td>
<td>$4.75</td>
</tr>
<tr>
<td>MS20257P4</td>
<td>1-1/2&quot;</td>
<td>.040&quot;</td>
<td>$4.83</td>
</tr>
<tr>
<td>MS20257P5</td>
<td>2&quot;</td>
<td>.051&quot;</td>
<td>$6.85</td>
</tr>
<tr>
<td>MS20001P3</td>
<td>1-1/4&quot;</td>
<td>.040&quot;</td>
<td>$28.88</td>
</tr>
<tr>
<td>MS20001P4</td>
<td>1-1/2&quot;</td>
<td>.040&quot;</td>
<td>$28.45</td>
</tr>
<tr>
<td>MS20001P5</td>
<td>3-3/4&quot;</td>
<td>.031&quot;</td>
<td>$31.50</td>
</tr>
<tr>
<td>MS20001P6</td>
<td>2&quot;</td>
<td>.050&quot;</td>
<td>$30.00</td>
</tr>
<tr>
<td>MS20257C1</td>
<td>1-1/16&quot;</td>
<td>.031&quot;</td>
<td>$8.50</td>
</tr>
<tr>
<td>MS20257C2</td>
<td>1-1/16&quot;</td>
<td>.037&quot;</td>
<td>$6.95</td>
</tr>
<tr>
<td>MS20257C3</td>
<td>1-1/4&quot;</td>
<td>.050&quot;</td>
<td>$11.90</td>
</tr>
<tr>
<td>MS20257C4</td>
<td>1-1/2&quot;</td>
<td>.062&quot;</td>
<td>$10.25</td>
</tr>
<tr>
<td>MS20257C5</td>
<td>2&quot;</td>
<td>.062&quot;</td>
<td>$16.50</td>
</tr>
</tbody>
</table>

**Note:** Add “-3” to part number for 3 ft. pc. and “-6” to part number for 6 ft. pc. Example: MS20001P6-3 is 3 ft. pc. of MS20001P6 hinge.

**WELDING ROD FOR ALUMINUM ALUMINUM**

ER4043 – A versatile alloy well suited for welding 6061T-6, 5005, and 6063. Extremely ductile. 1/16" dia. .......P/N 03-27520........ $16.60/lb.

3/32" dia. ........P/N 03-27525........ $13.50/lb.

ER5356 – Combination of strength and ductility for welding 5083, 5086, and 7000 series. Deposit can be anodized after welding. 1/16" dia. ..........P/N 03-27530........ $14.50/lb.

ER347 – Popular aircraft type, stabilized austenitic stainless alloy for welding 304L and 304L.Excellent for welding Ti stabilized grades such as 321 with high strength and elongation. 3/32" dia. ..........P/N 03-27550........ $19.65/lb.

UTP A-65 – A multi alloy wire for a wide range of base materials including stainless steel, low alloy high strength steel and especially outstanding for dissimilar metals with over 120,000 psi tensile strength and 25% elongation. Machinable. 1/16" dia. ..........P/N 03-27555........ $55.75/lb.


**BRAZING ALLOYS**

UTP 1M – High strength, machinable torch rod for steel, brass, bronze and other copper alloys. Easy to apply, high strength, and versatile all purpose brazing rod. 1/8" dia. ........P/N 03-27570........ $21.25/lb.

**MAINTENANCE**

UTP 612 – An all position mild steel coated electrode for arc welding. Operates on AC or DC current and can be welded by even the most inexperienced welder. 72,000 psi tensile strength, moisture resistant and conveniently packaged in 10 lb containers.

3/32" dia. ..........P/N 03-27575........ $14.60/lb.

1/16" dia. ..........P/N 03-27580........ $12.85/lb.

For additional Welding Equipment see pages 59-60.

**COPPER TUBING**

<table>
<thead>
<tr>
<th>O.D. (In.)</th>
<th>Wall Thickness</th>
<th>Part No.</th>
<th>Price/ft.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>.030</td>
<td>03-40900</td>
<td>$1.93</td>
</tr>
<tr>
<td>1/4</td>
<td>.030</td>
<td>03-41000</td>
<td>$2.75</td>
</tr>
<tr>
<td>5/16</td>
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<td>3/8</td>
<td>.032</td>
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</tr>
<tr>
<td>1/2</td>
<td>.032</td>
<td>03-41250</td>
<td>$3.65</td>
</tr>
</tbody>
</table>

Seamless copper tubing for primer, fuel and oil pressure lines. 20% discount for full soft coils of 50 ft. of Copper Tubing.

**COPPER BUS BAR**

.125 X 1/2" wide
P/N 03-40890 ................. $3.80/ft.

**LEAD SHEET**

Lead sheet per specification QQ-L-201, Grade B. 1/8" thick. Wt. 8 lbs/sq.ft.

P/N 03-31500 ................. $74.75/ft.

Half Sheet (24" x 36", 48 Lbs.) P/N 03-31520 ................. $447.95

Full Sheet (36" x 48", 96 Lbs.) P/N 03-31540 ................. $897.00

**RECOMMENDED WELDING ALLOYS**

UTP 621 – An all position mild steel coated electrode for arc welding. Operates on AC or DC current and can be welded by even the most inexperienced welder. 72,000 psi tensile strength, moisture resistant and conveniently packaged in 10 lb containers.

3/32" dia. ..........P/N 03-27575........ $14.60/lb.

1/16" dia. ..........P/N 03-27580........ $12.85/lb.
ACRYLIC SHEET
American made acrylic sheet Grade C to Specification LP-391 is unwhisked. When heated to forming temperature of 220-250°F, it will shrink about 2.2% in length and width and will increase .07% in thickness. When heated to a pliable state it can be drilled, sawed and machined. It has excellent resistance to weathering. It is less than half as heavy as glass and has good impact resistance. .060" or .080" thickness is generally used for side windows and .125" for windshields. Both sides are paper covered for protection. Sheet size: 48"x96". Sold in 2x2 increments only. Order by part number (see table)

<table>
<thead>
<tr>
<th>Thickness Inch</th>
<th>Weight Lb/Sq Ft</th>
<th>Part No.*</th>
<th>Price Per Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.060 Clear</td>
<td>37</td>
<td>03-499—</td>
<td>$2.50</td>
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<td>.080 Clear</td>
<td>49</td>
<td>03-499—</td>
<td>$2.75</td>
</tr>
<tr>
<td>.125 Clear</td>
<td>62</td>
<td>03-500—</td>
<td>$2.80</td>
</tr>
<tr>
<td>.125 Tinted*</td>
<td>77</td>
<td>03-501—</td>
<td>$4.06</td>
</tr>
<tr>
<td>.125 Tinted**</td>
<td>77</td>
<td>03-502—</td>
<td>$4.58</td>
</tr>
</tbody>
</table>

* Smoke tint  ** #2111 Green tint
*** Order by basic part number and add last two digits according to dimensions of piece, as follows: 2'x2' (4 Sq.Ft.), add "02"; 2'x4' (8 Sq.Ft.), add "04"; 4'x4' (16 Sq.Ft.), add "08"; 4'x8' (32 Sq.Ft.), add "10". Example: 2'x4' .080 Clear is P/N 03-49904.

LEXAN
American made Kirex polycarbonate sheet (an equivalent to G.E. Lexan) is a very strong plastic which is guaranteed by manufacturer against breakage when used as a window for a 3 year period. It will scratch like Plexiglas, but will not break. Clear, masked both sides. Sheet size: 48"x96". Sold in 2x2 increments only. Order by part number (see table)

<table>
<thead>
<tr>
<th>Thickness Inch</th>
<th>Weight Lb/Sq Ft</th>
<th>Part No.*</th>
<th>Price Per Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>.060</td>
<td>38</td>
<td>03-503—</td>
<td>$2.78</td>
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<tr>
<td>.080</td>
<td>50</td>
<td>03-504—</td>
<td>$3.15</td>
</tr>
<tr>
<td>.093</td>
<td>59</td>
<td>03-505—</td>
<td>$3.48</td>
</tr>
<tr>
<td>.125</td>
<td>78</td>
<td>03-506—</td>
<td>$3.88</td>
</tr>
</tbody>
</table>

* Order by basic part number and add last two digits according to dimensions of piece, as follows: 2'x2' (4 Sq.Ft.), add "02"; 2'x4' (8 Sq.Ft.), add "04"; 4'x4' (16 Sq.Ft.), add "08"; 4'x8' (32 Sq.Ft.), add "10". Example: 4'x4' .093 is P/N 03-50508.

CLEAR CELLULOSE ACETATE SHEET
May be used to make inspection rings, grommets and shapes which will adhere to fabric with dope or fabric cement. Sheet size: 20" x 50". Thickness: .030". P/N 03-50700—..........................$50.50/Sheet

GRAPHITE CARBON FIBER ROD
Prepreg tape has an inherent waviness which can reduce the strength and stiffness of a laminate. Graphite rod eliminates fiber waviness and unlike tape, it can be placed along any curved surface and retain fiber alignment. Graphite can be used in layers to form building blocks for stiffeners, spar caps, longeron and other axially loaded parts. Components made with Graphlite offer tension strength on the lower wing surface and compression strength on the upper surface that are almost equal. In addition, a single layer of rods is as thick as 10 layers of tape, meaning fewer passes and less effort. Graphite rods increase compression strength, reduce fabrication costs by 50%, can be laid on compound curves, and require no special storage. Available in two rod types: standard module (SM) which is 33-34 MSI and intermediate module which is 42 MSI. Sold by the roll. Typical light aircraft requires minimum of 1000 ft. Graphite rod

<table>
<thead>
<tr>
<th>Rod Type</th>
<th>Rod Diameter</th>
<th>Tensile Strength</th>
<th>P/N</th>
<th>Price per roll</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM</td>
<td>0.067</td>
<td>50</td>
<td>03-50706</td>
<td>$93.50/100 ft</td>
</tr>
<tr>
<td></td>
<td>0.125</td>
<td>50</td>
<td>03-50707</td>
<td>$168.85/12 ft</td>
</tr>
<tr>
<td>SM</td>
<td>0.158</td>
<td>50</td>
<td>03-50708</td>
<td>$153.95/100 ft</td>
</tr>
<tr>
<td></td>
<td>0.219</td>
<td>75</td>
<td>03-50710</td>
<td>$84.60/100 ft</td>
</tr>
</tbody>
</table>

NYLON
Nylon, a polyimide resin, is a light yet tough thermoplastic material. Its density is approximately . 041 lb./cu.in. It is a tough, resilient material with a low coefficient of friction. Biaxial braiding tests show that Nylon loses less material than do many metals, other plastics, and hard rubber. It can deform under load, then return to its original shape. Nylon retains its impact strength over a wide range of temperatures (-60° to 400°F). It has good resistance to most chemicals. It can be easily machined on most standard metal working machines, power hacksaws, band saws, or circular saws. It is desirable to use a saw with a coarse tooth blade.

DOW 730 SOLVENT RESISTANT SEALANT
A one part RTV paste which cures at room temp. to a tough rubbery white solid. Used for bonding, sealing and caulking where resistance to fuels, oils and solvents is required. Excellent on fuel line pipe threads, repairing fuel lines and tanks, bonding components exposed to fuels, oils & solvents. temp. range -85°F to 400°F. Stores refrigerated for years. 3 oz. tube........P/N 09-00338—..................$96.60

DOW SILASTIC RTV
General-purpose single-component silicone rubber. Adheres to metals, glass, paint, ceramics, most plastics, and wood. Cures to a firm silicone rubber in 24 hours at room temperature. Seals windshield glass, window repair, rework rubber parts. #732 RTV (Clear), 4.7 Oz. Tube........P/N 09-27800—..........................$7.95 #732 RTV (White), 4.7 Oz. Tube........P/N 09-27810—..........................$6.95 #732 RTV (Black), 4.7 Oz. Tube........P/N 09-27815—..........................$6.95 #732 RTV (Black), 3 Oz. Tube........P/N 09-27900—..........................$11.50

DOW CORNING RTV-3145 ADHESIVE / SEALANT
Sealing openings in modules and housings; adding mechanical stability to individual components; assembly of components on PWBs; sealing in and around wires and electrical leads; yoke assembly. Clear. P/N 09-02041—..................$35.75 Gray. P/N 09-02042—..................$35.50

NYLON PLATE
Nylon, a polyimide resin, is a light yet tough thermoplastic material. Its density is approximately .041 lb./cu.in. It is a tough, resilient material with a low coefficient of friction. Biaxial braiding tests show that Nylon loses less material than do many metals, other plastics, and hard rubber. It can deform under load, then return to its original shape. Nylon retains its impact strength over a wide range of temperatures (-60° to 400°F). It has good resistance to most chemicals. It can be easily machined on most standard metal working machines, power hacksaws, band saws, or circular saws. It is desirable to use a saw with a coarse tooth blade.

<table>
<thead>
<tr>
<th>Thickness Inch (In.)</th>
<th>Wt. per Sq. Ft.</th>
<th>Part No.</th>
<th>Price/ Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16</td>
<td>.39</td>
<td>03-51000</td>
<td>$6.65</td>
</tr>
<tr>
<td>1/8</td>
<td>.77</td>
<td>03-51100</td>
<td>$11.75</td>
</tr>
<tr>
<td>3/32</td>
<td>1.54</td>
<td>03-51200</td>
<td>$20.35</td>
</tr>
<tr>
<td>1/4</td>
<td>3.07</td>
<td>03-51300</td>
<td>$39.50</td>
</tr>
<tr>
<td>5/32</td>
<td>4.61</td>
<td>03-51400</td>
<td>$57.75</td>
</tr>
<tr>
<td>3/16</td>
<td>6.34</td>
<td>03-51500</td>
<td>$76.80</td>
</tr>
</tbody>
</table>

* SOLD BY THE SQUARE FOOT (12" X 12")
Smallier pieces are available. Order as follows: 6" x 6" = .25 6" x 12" = .50 12" x 12" = 1 12" x 24" = 2 12" x 36" = 3

NYLON ROUND ROD
Less 10% for 4 ft. lengths.

<table>
<thead>
<tr>
<th>Diameter (In.)</th>
<th>Part No.</th>
<th>Price/ Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
<td>03-51600</td>
<td>$0.46</td>
</tr>
<tr>
<td>1/4</td>
<td>03-51700</td>
<td>$0.59</td>
</tr>
<tr>
<td>3/16</td>
<td>03-51800</td>
<td>$1.10</td>
</tr>
<tr>
<td>1/2</td>
<td>03-51900</td>
<td>$2.25</td>
</tr>
<tr>
<td>1</td>
<td>03-52000</td>
<td>$4.45</td>
</tr>
<tr>
<td>1-1/4</td>
<td>03-52100</td>
<td>$6.50</td>
</tr>
<tr>
<td>1-1/2</td>
<td>03-52200</td>
<td>$9.60</td>
</tr>
<tr>
<td>2</td>
<td>03-52300</td>
<td>$15.75</td>
</tr>
</tbody>
</table>
## Phenolic – Acrylic – Delrin

### High Pressure Laminated Phenolic

Commonly called “Micarta”, a trademark of Westinghouse. Laminated sheets, tube and rods are produced in many grades, sizes and colors. These laminates combine a base material - canvas, linen, paper, glass cloth or Nylon cloth, with a resin-phenolic, melamine, epoxy or silicone, under high heat and pressure to produce a new material with specific characteristics. These characteristics vary with the grade and its use.

#### Grade L (Lincoln Base) Phenolic Sheet

Used for precision machining and high strength applications. Sheet Size: 36" x 48". Sold in 6" x 6", 6" x 12", 12" x 12", etc. pieces only.

<table>
<thead>
<tr>
<th>Thickness (In.)</th>
<th>Wt. (Sq. Ft./Lbs.)</th>
<th>Part No.</th>
<th>Price Per Sq. Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16</td>
<td>0.54</td>
<td>03-52400</td>
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</tr>
<tr>
<td>1/8</td>
<td>0.74</td>
<td>03-52500</td>
<td>$8.95</td>
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<tr>
<td>3/16</td>
<td>1.39</td>
<td>03-52111</td>
<td>$11.45</td>
</tr>
<tr>
<td>1/4</td>
<td>1.85</td>
<td>03-52600</td>
<td>$18.60</td>
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<td>3/8</td>
<td>2.72</td>
<td>03-52700</td>
<td>$24.75</td>
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<tr>
<td>1/2</td>
<td>3.68</td>
<td>03-52800</td>
<td>$35.65</td>
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<tr>
<td>3/4</td>
<td>5.49</td>
<td>03-52900</td>
<td>$53.75</td>
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</tbody>
</table>

#### Grade XXX (Paper Base) Phenolic Tubing

Other sizes and wall thicknesses available at comparable prices.

<table>
<thead>
<tr>
<th>O.D. (In.)</th>
<th>I.D. (In.)</th>
<th>Wall (In.)</th>
<th>Part No.</th>
<th>Price Per Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/16</td>
<td>1/16</td>
<td>1/16</td>
<td>03-53300</td>
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<td>1/4</td>
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<tr>
<td>7/8</td>
<td>3/4</td>
<td>1/16</td>
<td>03-53700</td>
<td>$17.50</td>
</tr>
</tbody>
</table>

#### Clear Extruded Acrylic Tubing

G-10 Glass Epoxy Rod - 5/8" Dia.  P/N 03-50900 ......... $19.95 Ft.

Other sizes available in 4-ft. lengths.

#### Clear PVC Pipe

Clear, rigid Schedule 40 PVC pipe for sight gauges. Used in Quickie as fuel level gauge. Excellent resistance to gasoline. Nominal 1/4" pipe size (0.54" O.D., 0.33" I.D.).

#### Weld-On Acrylic Cement

Fast Set - Clear, water thin solvent cement.  P/N 03-00107 ......... $22.65

#### Unmask

For easy removal of stubborn masking paper from plastic sheets. This works and also removes adhesive residue. Quantity Discount - 15% on 10 units on this page

- Quart       P/N 03-55100 ............ $7.85
- Gallon   P/N 03-55105 ............ $23.25

### Delrin® Rod

Delrin® is a thermoplastic acetal resin. The most important attributes of Delrin® are high mechanical strength and rigidity, fatigue endurance and high resistance to moisture, gasoline and solvents. This product contains Delrin® resin. Delrin® is a registered trademark of E. I. du Pont de Nemours & Co. Color: Natural. Sold by the foot.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Part No.</th>
<th>Price / Ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8</td>
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</tr>
<tr>
<td>3/16</td>
<td>02-52316</td>
<td>$0.72</td>
</tr>
<tr>
<td>7/32</td>
<td>02-52078</td>
<td>$3.70</td>
</tr>
<tr>
<td>1/4</td>
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<td>$0.50</td>
</tr>
<tr>
<td>3/8</td>
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</tr>
<tr>
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<td>02-52118</td>
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</tr>
<tr>
<td>5/16</td>
<td>02-52038</td>
<td>$0.80</td>
</tr>
<tr>
<td>1-1/4</td>
<td>02-52114</td>
<td>$6.95</td>
</tr>
<tr>
<td>7/32</td>
<td>02-52138</td>
<td>$9.80</td>
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<td>1/2</td>
<td>02-52012</td>
<td>$1.25</td>
</tr>
<tr>
<td>1-1/8</td>
<td>02-52113</td>
<td>$9.80</td>
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<tr>
<td>9/32</td>
<td>02-52916</td>
<td>$1.80</td>
</tr>
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<td>1-3/4</td>
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<td>$13.50</td>
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<td>5/8</td>
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<td>2&quot;</td>
<td>02-52020</td>
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### Acrylic Cutting Tool

Cut up to 1/4" thick acrylic by scribing and breaking with this cutting tool. Complete with instructions.

| P/N 03-54200 | $2.50 |

### Acrylic Drill Bits

Specially ground point, 60° included tip angle, 0° rake angle, shoulder relieved, for drilling Acrylic to prevent fractures, chipping or cracking.

With instructions.

<table>
<thead>
<tr>
<th>Drill Size</th>
<th>Part No.</th>
<th>Price Ea.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/64</td>
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<td>3/32</td>
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<tr>
<td>1/8</td>
<td>03-5450</td>
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<tr>
<td>5/32</td>
<td>03-5460</td>
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### Acrylic Cutting Tool

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<td>1/2</td>
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### DISCOAT 4220 Plexiglass Protector

General Chemical’s Discoat 4220 is a CLEAR water resistant; water based peelable temporary protective coating for Aircraft windshields & windows which provides a long lasting durable protective layer that protects form scratches and oxidation. Used for protecting canopies and windshields during construction. Discoat 4220 air dries quickly, leaving a tough, yet flexible coating that is easily removed and requires no other additional step. 4220 represents the ultimate in water-based removable coating technology. It is stabilized against brittleness and is no other additional step. 4220 is impregnated with transparent blue dye for easy visual inspection as well as identification and is non-staining and stable to 100 degrees Celsius. Approximate coverage: 35 sq. ft. per quart. May be applied by spray or brush. Minimum of 4 coats recommended for best results.

<table>
<thead>
<tr>
<th>Thinner</th>
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<td>Gallon</td>
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