Extruded Engineered Shapes

- Carbon & Alloy Steel Grades
- Stainless Steel Grades
- Nickel Alloy Grades
- Titanium Grades

Cold Drawn Shapes

- Carbon and alloy
- Stainless
- Nickel alloy
- Titanium
- Copper Nickel
- Monel
- Inconel
- Hastelloy
- Others

Extruded Engineered Shapes

- Solid, Round
- Monel 400, Inconel, Hastelloy, etc.
- Exotic Alloys
- PH grades in Rounds, Hexes or Octagons
- Stainless Steels in Complex Geometries
- Carbon and Alloys

Specifications Where Applicable

- AMS-4921
- AMS-4922
- AMS-4935
- AMS-4936
- AMS-4975
- AMS-4935

- ASTM B766
- ASTM A 164
- AMS 5659
- AMS 5646
- AMS 5639
- AMS 5629

- Grades listed are current working grades. Other grades are subject to review. Grades, specifications, and tolerances can be discussed at time of inquiry. All specifications are to the latest revision. Contact us for more information.

The PLYMOUTH ADVANTAGE®

- Delivery Promise of the Day of Your Choice
- Extraordinary Service Value

Contact Us, We’re your Total Solution Provider.

In 1924, Plymouth Tube began to produce cold drawn tubing at a small, single location in Michigan. Today we provide a wide range of specialty tubing and extrusion shapes to global customers from a large network of metal-working facilities with over 1.6 million square feet of manufacturing and office space.

We believe our company is much more than just facilities – it is the sum of the efforts of many people, their abilities, expectations and how they interact with customers, suppliers and each other. We are organized for agility - decentralized enough to be easy to do business with, yet big enough to be a single source supplier. Our well-trained people are seeking to provide innovative, cost effective and timely manufacturing solutions to help our customers improve their competitiveness.

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Cold Drawn Shapes

Extruded Engineered Shapes

Tight Tolerances may be available depending on geometry, size, and material.

A-286
0.25” - 3.75” OD
Exotic Alloys
Monel 400, Inconel, Hastelloy, etc.

PH grades in Rounds, Hexes or Octagons
17-4, 17-7, 15-5, 13-8

Series 300 & 400 Stainless Steel
Stainless Steels in Complex Geometries
US Grades in Series 1000, 4000, 6000, 8000, 9000

Carbon and Alloys

- 6AL-2SN-4ZR-2MO*
- 6AL-6V-2SN
- 6AL-4V

TITANIUM GRADES*

- ALLOY 600
- ALLOY 400

NICKEL ALLOY GRADES

- 316 SERIES
- 310
- 304 SERIES
- 303

- 1040
- 1035
- 1030
- 1029
- 1018

CARBON & ALLOY STEEL GRADES

- 1215
- 10L18
- 1060
- 1050
- 1045

Bi-Metals Specifications Where Applicable

- 4340
- 4150
- 4140
- 4130
- 412
- 400 SERIES

- 9310
- 8640
- A690
- A588
- A36

GRADE 50

- 17-4 PH
- 15-5 PH
- 13-8 MO

EXTRAORDINARY SERVICE VALUE

Extraordinary Service Value
To meet special customer service needs, we offer value-added services such as Set-Aside Programs, Blocked Footage, Joint Sales Calls, Product Training and Mill Visits. This provides you with a depth of technical service and support that is unmatched in the industry, ultimately leading to the quickest turn-around possible and overall customer satisfaction. Plymouth gains more with a depth of technical service and support that is unmatched in the industry, ultimately leading to the quickest turn-around possible and overall customer satisfaction. Plymouth gains more

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Corporate Headquarters:
2090152 Warrenville Rd.
Warrenville, IL 60555 USA
Phone: 630.393.3550
Fax: 630.831.4532
Email: sales@plymouth.com
Website: www.plymouth.com

Shapes & Extrusions:
209 Commerce Court
Hopkinsville, KY 42240 USA
Phone: 270.886.6631
Fax: 270.886.5811
Email: shapes@plymouth.com
### Carbon & Alloy Steel Tubing

**ASTM A and ASME SA**

| Grades | OD Range | Wall Range | Min/Max End Finish
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Grades</td>
<td>inches</td>
<td>mm</td>
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<tr>
<td>1023-1020</td>
<td>1.250</td>
<td>31.75</td>
<td>.028 - .125</td>
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Other sizes, grades and specifications available upon request. OD/WT combinations and max length may vary based on producing mill.

### Aerospace Stainless Steel & Nickel Alloy Tubing

**AIRCRAFT SPECIFICATIONS**

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<th>Grades</th>
<th>OD Range</th>
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<th>Min/Max End Finish</th>
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<tbody>
<tr>
<td>Grades</td>
<td>inches</td>
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</tr>
<tr>
<td>304/304L</td>
<td>1.000</td>
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### Stainless Steel Tubing for General Service

**Carbon & Alloy Steel Tubing**

<table>
<thead>
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<th>Grades</th>
<th>OD Range</th>
<th>Wall Range</th>
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<td>Grades</td>
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<tr>
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**Stainless Steel Tubing**

<table>
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<th>Wall Range</th>
<th>Max Length</th>
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<tr>
<td>304</td>
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### Austenitic, Ferritic & Duplex Stainless Steel Tubing

**PRO-SHINE TUBING**

<table>
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<tr>
<td>Grades</td>
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**STAINLESS STEEL TUBING**

<table>
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</tr>
<tr>
<td>316</td>
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<td>.3175</td>
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</tbody>
</table>

### Other Sizes, Grades and Specifications

All sizes, grades and specifications available upon request. OD/Wall combinations and max length may vary based on producing mill.

### Stainless Coil Slitting & Edging

- Carbon & Alloy Steel Tubing
- Other Grades Available Upon Request
- Wall Range: Min/Max End Finish
- Max Length: For More Information, Please Contact Us

Other sizes, grades and specifications available upon request. OD/Wall combinations and max length may vary based on producing mill.
### Carbon & Alloy Steel Tubing

<table>
<thead>
<tr>
<th>Grades</th>
<th>OD Range</th>
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<th>Min Length</th>
<th>Max Length</th>
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<tbody>
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<td>100.00</td>
<td>2540</td>
<td>24.60</td>
<td>995</td>
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</tbody>
</table>

**Notes:**
- OD and Wall are nominal values.
- All dimensions are subject to standard tolerances.
- Wall thicknesses are based on standard formulas for various lengths.
- Grades include common carbon and alloy steel tubing.

### Stainless Steel Tubing

**Austenitic, Ferritic & Duplex Stainless Steel Tubing**

### Aerospace Stainless Steel & Nickel Alloy Tubing

<table>
<thead>
<tr>
<th>Grades</th>
<th>OD Range</th>
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<th>Min Length</th>
<th>Max Length</th>
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<tbody>
<tr>
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**Notes:**
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- Grades include common stainless steel and nickel alloy tubing.

### Special Shapes

**Stainless Coil Slitting & Edging**

Other sizes, grades, and specifications available upon request. OD/Wall combinations and max length may vary based on producing mill.
### Carbon & Alloy Steel Tubing

<table>
<thead>
<tr>
<th>ASTM &amp; ASME SA</th>
<th>Specifications</th>
<th>OD Range</th>
<th>Wall Range</th>
<th>Min. Wall</th>
<th>Max. Length</th>
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<tbody>
<tr>
<td>1020</td>
<td>Carbon Steel</td>
<td>1.250</td>
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<tr>
<td>4130</td>
<td>Carbon Steel</td>
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<tr>
<td>1021</td>
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<td>1.250</td>
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<td>.125</td>
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<td>20</td>
</tr>
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</table>

**Boiler and Pressure Tubing**

- **Mechanical Tubing**
- **Superheater Tubing**
- **Carbon & Alloy Steel Tubing**

**Pressure Tubing Specifications**

<table>
<thead>
<tr>
<th>Grades</th>
<th>OD Range</th>
<th>Wall Range</th>
<th>Min. Wall</th>
<th>Max. Length</th>
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<td>4130</td>
<td>3.75</td>
<td>.125</td>
<td>15.20</td>
<td>20</td>
</tr>
</tbody>
</table>

**Aircraft Specifications**

- **17-7 PH®** is an alloy produced by AK Steel.
- **Custom 455®** is an alloy produced by Carpenter Specialty Alloys.

### Austenitic, Ferritic & Duplex Stainless Steel Tubing

<table>
<thead>
<tr>
<th>ASTM &amp; ASME SA</th>
<th>Specifications</th>
<th>OD Range</th>
<th>Wall Range</th>
<th>Min. Wall</th>
<th>Max. Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>304/L, 316/L, AL6XN</td>
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<td>1.500</td>
<td>.065</td>
<td>40</td>
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</tbody>
</table>

**Pressure Tubing Specifications**

<table>
<thead>
<tr>
<th>Grades</th>
<th>OD Range</th>
<th>Wall Range</th>
<th>Min. Wall</th>
<th>Max. Length</th>
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<tbody>
<tr>
<td>304/L, 316/L, AL6XN</td>
<td>Stainless Steel Tubing</td>
<td>1.500</td>
<td>.065</td>
<td>40</td>
</tr>
</tbody>
</table>

**Ferritic Heat Exchanger Tubing**

- **304/L, 316/L, AL6XN**

**Ferritic Riser Tubing**

- **304/L, 316/L, AL6XN**

**Ferritic Downcomer Tubing**

- **304/L, 316/L, AL6XN**

**Hypalon® and Fluoroelastomers**

- **Hypalon® and Fluoroelastomers**

**Stainless Steel Slitting & Edging**

- **Stainless Steel Slitting & Edging**

**Aerospace Stainless Steel & Nickel Alloy Tubing**

<table>
<thead>
<tr>
<th>Grades</th>
<th>OD Range</th>
<th>Wall Range</th>
<th>Min. Wall</th>
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<tr>
<td>825</td>
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<tr>
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<td>1.000</td>
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<td>1.000 MW</td>
<td>26</td>
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</tbody>
</table>

Other sizes, grades, and specifications available upon request. OD/Wall combinations and max length may vary based on producing mill.
**Cold Drawn Shapes**

- **A process by which a round billet is pre-heated and, after leaving the furnace, is pulled through a series of dies or forming dies to form a profile. Exclusions can even be used to make composite profile shapes from metals which are difficult to form.**

**Extruded Engineered Shapes**

- **A process by which a bar or tube is reduced in size or changed in shape by pulling it through a series of dies or mandrels.**

**Specifications Where Applicable**

- **Profile must fit within 6.500” Diameter Circle**
- **Shape cross-section must fit within 7.75-inch (196.8 mm) diameter.**
- **5.5-inch (139.7 mm) diameter.**
- **6-inch (152.4 mm) diameter.**

**Value-Added Benefits**

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