

## Drawn Tube

Offered in Porthole (ASTM B483), Seamless (ASTM B210), Condenser (ASTM B234), and AMS-WW-T-700, and compliant to various obsolete, EU, and other foreign specifications

### Drawn Tubes production equipment

Manufacturing facilities: 13 Draw Benches in 2 production facilities (Winton, NC and Chicoutimi, Canada)

### Drawn capacities

Min OD	Max OD
0.188"	4.775"

### Cold drawn rod<sup>1</sup>

Max OD
1.750"

### Minimum Wall Thickness (dependent on OD)

Alloy <sup>2</sup>	Drawn <sup>3</sup>
1050	0.030"
1060	0.030"
1100	0.030"
3003	0.027"
6005	0.049"
6082	0.049"
6061	0.049"
6063	0.027"
6463	0.027"

### Available Temper Families<sup>4</sup>:

- O - *Annealed* - This is the lowest strength, highest ductility temper
- H - *Strain Hardened* - Used for products that have been strengthened by strain hardening, with or without subsequent heat treatment.
- T - *Solution Heat Treated* - Used for products that have been strengthened by heat treatment, with or without subsequent strain hardening.

### Surface Finishes Available

- Mill
- Bright draw
- Mechanically enhanced (polished/buffed, brushed)
- Painted
  - Wet paint
  - Powder paint
- Plating
- Anodized <sup>5</sup>
  - Standard etch (up to 27')
  - Bright dip (up to 27')
  - 2 Step black (up to 27')
  - Multiple colors
  - Frostkote (acid etch)
  - Hard coat
  - Special bendable anodized process

## Extrusions

Offered in ASTM B221 (Profiles), ASTM B308 (Structural), ASTM B317 (Electrical), ASTM B429 (Structural Pipe and Tube)

### Extrusion production equipment

Manufacturing facilities: one 9" diameter 3300MT extrusion press

### Extrusion capability

Min wt. per ft.	Max wt. per ft.
0.085#/	4.75#

Max Circle Size	Max Length
6.00"	33'

### Minimum Wall Thickness (dependent on OD)

Alloy <sup>2</sup>	Extruded <sup>3</sup>
1050	0.050"
1060	0.050"
1100	0.050"
3003	0.050"
6005	0.065"
6082	0.065"
6061	0.065"
6063	0.050"
6463	0.050"

### Available Temper Families<sup>4</sup>:

- O - *Annealed* - This is the lowest strength, highest ductility temper
- T - *Solution Heat Treated* - Used for products that have been strengthened by heat treatment, with or without subsequent strain hardening

## Fabrication capabilities<sup>6</sup>

- **Cutting**
  - Precision up to +/- .005"
  - Length .375" up to 33'
- **Forming**
  - Bending
  - Stamping
  - End-forming and flaring
- **Punching**
- **Honing**
- **Joining**
  - Adhesive bonding
  - Riveting (solid, blind, punch)
  - Screws and bolts
  - Welding (MIG, TIG)
- **Swaging**
  - Max OD 5.000"
- **Deburring**
  - Rotary knife (chamfering)
  - Brush
  - Tumble
- **Machining**
  - Drilling
  - Milling (conventional and CNC)
  - Turning (conventional and CNC)

## Packaging Options<sup>7</sup>

- Cardboard outer wrap
- Paper layer
- Paper interweave
- Bare, wood battened
- Wooden boxes
- Shrink wrap
- Cardboard boxes
- Returnable packaging
- Sleeving

### Notes:

- 1) Subject to special inquiry
- 2) Other alloys may be available subject to special inquiry
- 3) Smaller wall thicknesses may be available subject to inquiry. The tolerances and the properties of the different offered drawn tubes are compliant with the Aluminum Standard and Data published by the Aluminum Association and ASTM B483, ASTM B210, and ASTM B221
- 4) Custom tempers/alloys combinations available on request.
- 5) For more details on available anodized finishes please see: [http://www.anodizing.org/?page=reference\\_guide](http://www.anodizing.org/?page=reference_guide)
- 6) Other fabrication processes available subject to inquiries
- 7) Other custom packaging available subject to inquiries

