

# U-Bend Tubing

## Direct from the Mill

The leading supplier of world-class straight lengths and coil tubing offers advanced capabilities with its integrated in-line U-Bend Manufacturing Center that includes:

- Laser Welding
- Bending
- Drawing
- Environmentally-gentle bright annealing
- In-line QA test points, including:
  - Before bending—Eddy Current, Ultrasonic, and Pressure Decay
  - After bending—Hydrostatic and Air Under Water

**Advantages of RathGibson's unique Direct-to-Bend manufacturing:**

- Repeatable and predictable tube quality
- Improved ease of tube fit and heater assembly
- Fast delivery
- Increased efficiencies
- Minimized in-process material handling
- Lower than 5,000 psi residual stress for SCC susceptible alloys

**RathGibson's U-Bend Tubing is used in Heat Exchanger applications in the following industries:**

- Power Generation
- Chemical
- Petrochemical
- Food



make the connection

# We are clearing the air!

RathGibson's dedicated U-Bend production facility incorporates an environmentally-friendly bright annealing process. Our low oxidation, acid-free process complies with ASTM/ASME 688 and 803 Feedwater Heater specifications.

## RathGibson U-Bend Tube Size General Guidelines for OD/Wall Combinations\*

OD	Wall Thickness					
	.035" (.889 mm)	.049" (1.245 mm)	.065" (1.651 mm)	.083" (2.108 mm)	.095" (2.413 mm)	.120" (3.048 mm)
1/2" (12.7 mm)	✓	✓	✓	R/S	R/S	R/S
5/8" (15.875 mm)	✓	✓	✓	✓	R/S	R/S
3/4" (19.05 mm)	✓	✓	✓	✓	✓	R/S
1" (25.4 mm)		✓	✓	✓	✓	✓

**R** Redrawn

**S** Seamless

Depending upon bend radius, some inner tube rows may require an increase in wall thickness

\*Please note that these are guidelines only

## Product Alloys

### Stainless Steel

304/304L/304LN/  
304H/304N  
316/316L/316H  
317/317L  
309S/309H  
310S/310H  
321/321H  
347/347H

### Duplex Stainless Steel

Duplex 2205  
Lean Duplex 2003  
Lean Duplex 2101  
Lean Duplex 2304  
Super Duplex 100  
Super Duplex 2507

### Super Austenitic

6-Moly 6XN  
6-Moly 254  
825  
904L

### Super Ferritics/Ferritics

S44627  
439  
446  
18 SR™

Acknowledgement: 18 SR™ is a trademark of the AK Steel Corporation.

The information herein was correct at the time of publication and is subject to change without notice.

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