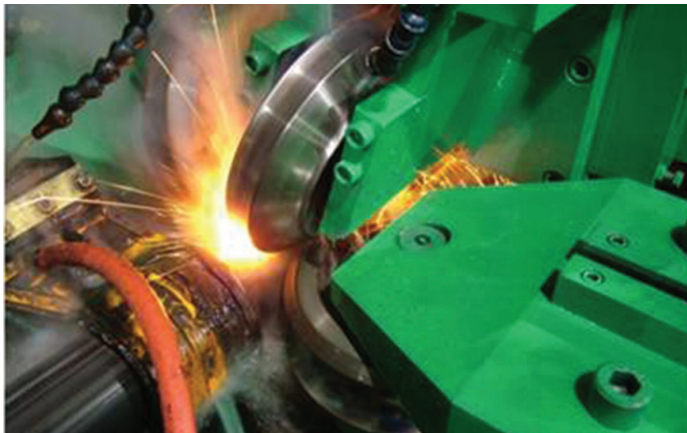
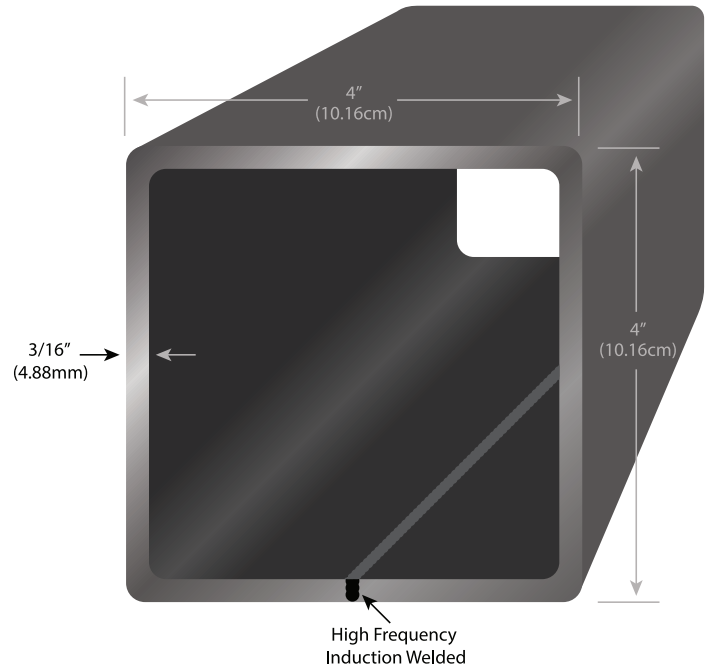


4 INCH SQUARE TUBING

- Most popular size for tooling substructure applications
- Available up to 20 ft. (6 m) lengths
- Conforms to ASTM A500 dimensional tolerances
- Stocked for immediate shipment



High Frequency Induction Welding



CHEMISTRY

Nominal

Carbon	0.02%
Manganese	0.35%
Silicon	0.20%
Nickel	36.00%
Iron	Balance
Sulphur	0.002%
Phosphorus	0.002%

COEFFICIENT OF THERMAL EXPANSION

Temperature		Mean Linear Coefficient	
°F	°C	in/in°F x10 ⁻⁶	cm/cm°C x10 ⁻⁶
200	93	0.72	1.30
300	149	1.17	2.11
500	260	2.32	4.18
700	371	4.22	7.60

AVAILABLE SIZES

Wall Thickness	Size	Nominal Weight
3/16"* (4.8 mm)	2.5" x 2.5" (6.35cm x 6.35cm)	5.82 lbs./ft (8.7 kg/m)
3/16"* (4.8 mm)	4" x 4" (10.16 cm x 10.16 cm)	9.7 lbs./ft (14.5 kg/m)
1/4"*** (6.35 mm)	4" x 4" (10.16 cm x 10.16 cm)	12.6 lbs./ft (18.8 kg/m)
1/4"*** (6.35 mm)	4" x 6" (10.16 cm x 15.24 cm)	15.1 lbs./ft (22.5 kg/m)

Custom square and rectangular sizes available from 2.5" x 2.5" to 12.0" x 12.0". Contact us with your requirements.

*Conforms to ASTM A500 dimensional tolerances

** Conforms to 2X ASTM 554 dimensional tolerances



Tool Designers and Tooling Fabricators now have the unique opportunity to design and build Invar tooling with readily available, high quality Invar tubular products.

The benefits include:

- Opportunity to optimize and refine tool designs to reduce total tool weight, speed of fabrication and overall tooling costs
- Use of standard truss designs (simplifies design and structural analysis)
- Ease of fabrication w/ less scrap loss
- Improved air flow during autoclave thermal cycles
- Innovative "hybrid" substructures, combining the best of both Invar plate (for facesheet stability) and Invar tubing (for rigid structures)

