

FOR

CONCENTRATED SOLAR POWER

APPLICATIONS -

- Concentrated Solar Vacuum Tubing
- Solar Thermal Tubing
- Tubing for Bellows Fabrication
- Shaped Tubing

- Formed Tubing
- Heat Exchange Tubing
- Storage Vessel Pressure Tubing

SERVICES -

- Precision Welded Assemblies
 - LaserTiGMicroTiG
- Precision Laser Cut Components

- Laser Etched Components for Traceability
- Seamless Tube Welding
- Seamless Tube Welded Assemblies

SPECIFICATIONS

SIZES

- .125"- 20" ID
- .150—22" OD

SHAPES

- Round
- Elliptical
- Rectangular Camera Corner
- Race Track
- Flattened
- Oval
- Articulated

PRESSURES

Dependent on wall thickness, material & number of plies: Vacuum to 5,000 psi.

PLIES

- Single
- Multi-ply*
- Dissimilar metal plies have been made to specific customer requirements—such as a copper inner with a stainless outer ply.

*2 to 15, dependent on wall thickness & diameters



WALL THICKNESS

- Welded, not drawn = min. wall thickness of .004"
- Welded, not drawn = min. wall thickness of .002"
- Seamless, drawn = min. wall thickness of .0005"

PRECISION TUBING



MATERIALS -

- STAINLESS STEEL
 - T− 347
 - T-304 (L)
 - T- 316 (L)/Ti
 - T-321 (L)
 - AM 350
- TITANIUM
 - Grades 1 4
 - ASTM B-265

- INCONEL
 - o 625
 - 625 LCF
 - **o** 600
 - o 718
 - X-750
- HAYNES
 - 242
 - 230

- HASTELLOY
 - B
 - O C-22
 - C-276
- MONEL 400
- ALUMINUM
- NICKEL
- INCOLOY®

Thickness range from .001" to .125"

NOTE: For Carbon Steel Coated tubing and pipe, please reference the Duraflex Carbon Steel Pipe brochure.

CERTIFICATIONS -

WELDING

- ASME , Section IX
- AWS D17.1:2001, Sect 4
- AS478 Rev L
- AS478 Rev L
- MIL-STD-130
- ASTM

QUALITY

- ISO 9001: 2000
- AS 9100B Cert.
- CAGE Code: 3XWB2
- Small Business Cert.

ENGINEERING

- Design
- Modeling
- Testing

- Failure Analysis
- FMEA
- FEA

- Pro-E
- Auto-Cad
- EJMA

New advanced Concentrated Solar Power (CSP) technology converts sunlight to heat through parabolic shaped mirrors utilizing advanced technology receivers. Power is concentrated and converted by heating closed loop transfer oil media and passing it through a series of tubing and bellows in a super efficient heat exchanger array to form high pressure steam and ultimately transfer this energy into traditional steam turbines commonly used at other conventional types of power plants. This system, in combination with massive thermal accumulators and energy storage devices, make this new form of solar generated power one of the most reliable, clean, renewable, and desirable form of energy.

Duraflex precision tubing and custom bellows have been among the first prototypes designed and developed early on as "infinite life" products to support the demand for this growing industry. Today, literally miles of Duraflex tubing and bellows products have been utilized to help make our world and our energy production safer and more reliable.