

## MPI™ 2507 Super Duplex

Tubing is an engineered part of our total system “package” - the same as any of our components. Parker’s 2507 MPI™ tubing is manufactured to a specialized and tightly controlled set of design specifications that make it different than that of standard “commercial” tubing. We have designed our products (Valves, Fittings, & Tubing) to work together as a complete system. Using Parker’s MPI™ 2507 tubing in your system will gain you the following benefits:

- **Minimum PREN of 42**  
Offers an increased chloride corrosion resistance over standard ASTM A789 tube (PREN 38).
- **6% Greater Allowable Stress** <sup>2</sup>  
Allows the tube wall to be thinner without compromising pressure holding capability.
- **Up to 19% Weight Saving**  
Critical in offshore application where every pound counts. <sup>3</sup>
- **Optimized ID (inner diameter) with up to 43% Flow Area Increase** <sup>2</sup>  
Parker has maximized flow area and minimized pressure drop which allows for more consistent fluid dynamic calculations. <sup>3</sup>
- **Finite Tight Tolerance Tube** <sup>2</sup>  
Unlike standard ASTM A789 tubing where tolerance is based on percentage of wall thickness, Parker’s MPI™ tubing offers a tolerance of ±0.003 regardless of size, for dimensional consistency from lot to lot.

**Table 5 – MPI™ 2507 Seamless Tubing <sup>1</sup> For 15,000 psi Service**

Tube Size (in.)	Nominal OD (in.)	Nominal ID (in.)	Working Pressure (psi)	MPI™ Tube Part No.
1/4	0.250	0.165	15,000	4-240 MPITUBE-2507-15K
3/8	0.375	0.250	15,000	6-240 MPITUBE-2507-15K
1/2	0.500	0.334	15,000	8-240 MPITUBE-2507-15K
3/4	0.750	0.500	15,000	12-240 MPITUBE-2507-15K
1	1.000	0.669	15,000	16-240 MPITUBE-2507-15K

**NOTES:**

Sizes 3/4” & 1” MPI™ 2507 tubing require hydraulic presetting when used with MPI™ fittings and also require -XF High Strength Ferrules.

Working pressures are calculated using an allowable stress of 41,000 psi for annealed 2507 Super Duplex tubing with a minimum tensile strength of 123,000 psi

Consult factory for pressure tables regarding other materials.

Dimensions in inches are for reference only, subject to change.

<sup>1</sup> Customer should verify acceptable corrosion resistance for the combination of 316 fittings with 2507 tubing for their specific application (media and environment). Parker recommends matching fitting material to tube material.

<sup>2</sup> When compared to standard ASTM A789 tubing

<sup>3</sup> Based on 3/8 x .083” wall (.210” ID) tubing

## Instrument Grade Nominal Wall 2507 Tubing

**Table 6 – MPI™ Fittings on Annealed 2507 Seamless Tubing <sup>1,2,3</sup>**

Tube Size (in.)	Wall Thickness								
	0.035	0.049	0.065	0.083	0.095	0.109	0.120	0.134	0.156 <sup>4</sup>
	Working Pressure (psi)								
1/4	10,600	15,000	-	-	-	-	-	-	-
3/8	6,800	9,900	13,600 <sup>4</sup>	15,000 <sup>4</sup>	-	-	-	-	-
1/2	-	7,200	9,900	13,000 <sup>4</sup>	15,000 <sup>4</sup>	-	-	-	-
5/8	-	-	7,700	10,100 <sup>4</sup>	11,800 <sup>4</sup>	13,700 <sup>4</sup>	15,000 <sup>4</sup>	-	-
3/4	-	-	6,400	8,300	9,600 <sup>4</sup>	11,200 <sup>4</sup>	12,500 <sup>4</sup>	14,100 <sup>4,5</sup>	-
1	-	-	-	6,100	7,000	8,200 <sup>4</sup>	9,100 <sup>4</sup>	10,200 <sup>4</sup>	12,100 <sup>4</sup>

<sup>1</sup> Customer should verify acceptable corrosion resistance for the combination of 316 fittings with 2507 tubing for their specific application (media and environment). Parker recommends matching fitting material to tube material.

<sup>2</sup> Tubing per ASTM A789 or UNS S32750 material is recommended. Hardness not to exceed 32 HRC.

<sup>3</sup> ASME B31.3 allowable stress of 38,700 psi for UNS 32750 (A789) and tube wall thickness tolerance of ±10% used to calculate pressure ratings. Please contact factory for assistance in calculating pressure ratings for different parameters.

<sup>4</sup> Heavier wall 2507 (high lighted fields) may require additional preset pressure. Refer to page 80 for recommended 2507 tube preset pressures.

<sup>5</sup> 15,000 psi with a minimum wall thickness of 0.127”

<sup>6</sup> Size 10 MPI is only available for 2507 tube applications.

<sup>7</sup> 2507 Super Duplex size 12 & 16 MPI Fittings shall be ordered with the -XF high strength Ferrule Option.