

# **Material Type**

All JACOB TUBING 304 stainless steel parts are constructed from ASTM A240/A240M. All JACOB TUBING 316 stainless steel parts are constructed from ASTM A480/A480M.

# Welding Process

All tubing components are purge welded, using TIG-welding method.

Please contact the JACOB TUBING Engineering Manager with any questions about the welding process for those items not mentioned above:

JACOB TUBING L.P. 3948 Willow Lake Blvd. Memphis, TN, 38118 Phone: 901-566-1110 Fax: 901-566-1910

# Welding Focus

All JACOB TUBING stainless steel parts are externally welded with 100% penetration. Due to the purge welding process, there is little to no protrusion on the interior of the part. If there are sharp protrusions (i.e., catch points) that extend beyond the weld bead into the interior of the part, these will be ground down to eliminate the sharp protrusion, but to no specific finish. The degree of this grinding is at the discretion of the JACOB Production team.

JACOB TUBING offers stainless steel parts with welds suitable for sanitary food-grade applications. The customer must provide thorough specifications for the surface finish. This is offered at an additional cost. For further finish options, see the JACOB TUBING document "Finish options.doc."

<u>NOTE</u>: All photos in this document are intended to convey information only regarding the interior weld seams.



# For Tubes



This picture shows an interior weld seam on a tube 200mm diameter, 1mm thick, 500mm long. (part #11203030).

Note that no weld sharply protrudes to the interior of the part.



This picture shows the entire length of the interior weld seam on the same tube.

Again, no weld sharply protrudes to the interior of the part.



#### For Elbows



This picture shows an interior weld seam of an elbow 200mm diameter, 2mm thick, R=2D, 90degree (part #12203349).

All tack welds, which are used to temporarily hold the pieces together, are ground down, if they sharply protrude to the interior of the part.



This picture shows the opposite end of the same elbow (as mentioned above), in order to convey the consistency of production.



# For Laterals (Forks)



This picture shows a lateral (fork) 200mm diameter, 1.5mm thick, 30-degree (part #11203230).

Note that no weld sharply protrudes to the interior of the part.



The picture shows a different interior weld on the same fork, as mentioned above.

NOTE: This picture is looking from the bottom side of the lateral at the inside of the trunk with the branch to the left.

After welding the pieces of the lateral together, each side of the interior weld seam is ground down to eliminate any rough edges that sharply protrude off the interior surface of the part.