

# Interior Weld Seams for Carbon Steel



## Material Type

All JACOB TUBING carbon steel parts are constructed from ASTM A1008-10 CS TYPE B.

## Welding Process

All tubing, including slip tubes and weld ends, is longitudinal welded, using TIG-welding method.

All elbows from 80-400mm are constructed using MIG-welding method, with elbows from 80-250mm have longitudinal welds only and elbows from 300-400mm have longitudinal welds and circumferential welds. All elbows from 450mm and larger are constructed using both MIG and TIG-welding methods, having both longitudinal welds and circumferential welds.

All t-pieces, laterals (forks) and y-branches are constructed using both MIG and TIG-welding methods, having both longitudinal welds and circumferential welds.

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

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## Welding Focus

All JACOB TUBING carbon steel parts are externally welded, with little to no clean-up on the interior of the part. If there is weld protrusion into the interior of the part, this will be ground down, but to no specific finish.

JACOB TUBING does not offer carbon steel parts with welds suitable for sanitary food-grade applications.

# Interior Weld Seams for Carbon Steel

## For Tubes



This picture shows an interior weld seam on a tube 200mm diameter, 1mm thick, 500mm long. (part #11201030).

Note that no weld 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 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, 90-degree (part #12201349).

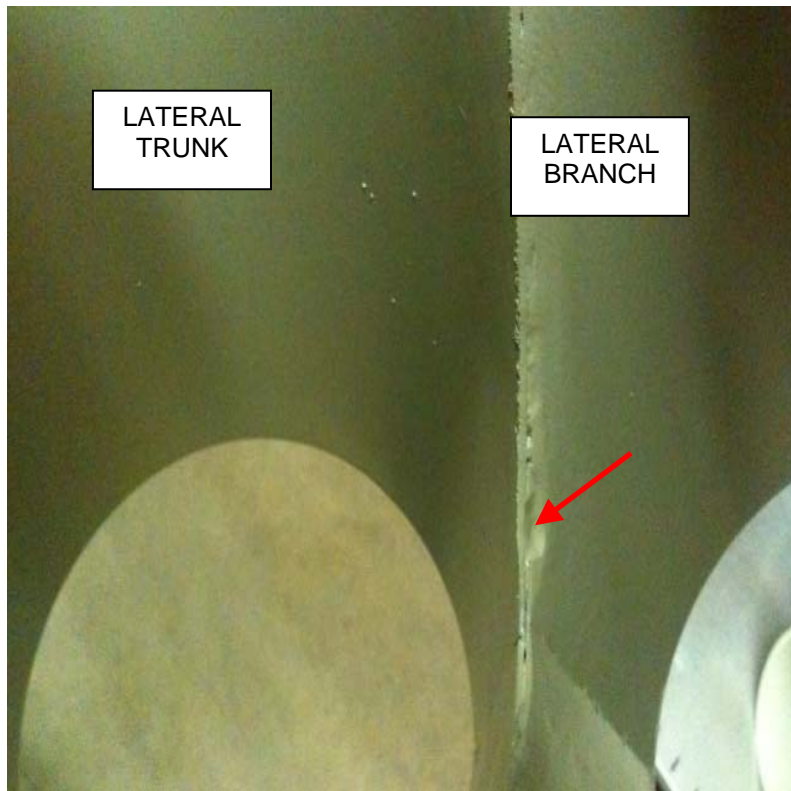
Tack welds (as indicated with the arrow) are applied to the exterior for the component and used to hold the pieces of the component together during the welding process.

These tack welds are ground down (as shown), if they protrude to the interior of the part.



This picture shows another elbow of the same specification 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 #11201230).

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

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

No cracks or crevices that result from the welding process are filled.



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

The upper arrow is indicating a tack weld.  
The lower arrow is indicating weld protrusion, which is ground down at clean-up.