Qualifying Welding Procedure

Preparation and Cleaning: Wire brushing

Metal: Stainless steel 316

Position: horizontal

Manufacture:

Location: Workshop

Welding Process: Arc

Joint type: Double sided T joint.

Arc example

Arc example

Weld Procedure Number

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Process | Run | Electrode type | Electrode size | Voltage V | Current A | Type of current/ polarity | Travel speed | Metal thickness |
| Arc | 1,2 | Nicrex E316L | 2.5 mm | N/A | 85 | DC | N/A | Apply to metal thickness |

Welding procedure:

Clean metal with wire brush or grinder

Clamp the work pieces into position on the work bench

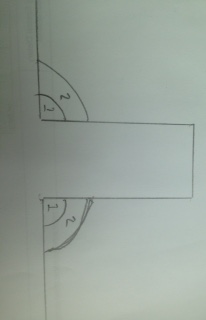
Securely place the electrode in the electrode holder

Set the correct settings on the arc welder

Weld the double sided T joint

Turn the arc welder off

Leave the weld to cool before un- clamping.



This is a drawing of the double sided T joint. The weld worked however it was not as strong as I would have liked. This could be because the first layer was not as deep as it could have been. It also could be because there were only two layers. Next time I do a double sided T joint I will make sure to do three layers.

I did an experiment weld after this on was performed and found that make sure that the first weld was right in the join and to do three layers. This greatly improved the strength of the T joint.