



# Welding Procedure Qualification Record

## (PQR) ASME IX

### Energy - Downstream, Power and Manufacturing

Company Name **RVI Mosman BV**Procedure Qualification Record No. **051009/03**Date **30 November 2009**WPS No. **051009/03**Welding Process(es) **GTAW**Types (Manual, Automatic, Semi-Auto. ) **Manual**

#### Joints (QW-402)



## Groove Design for Test Coupon

(For combination qualifications, the deposited weld metal thickness shall be recorded for each filler metal or process used.)

## Base Metals (QW-403)

Material Spec. **UNS N08904**Type or Grade **-**P.No. **45** to P.No. **45**Thickness of Test Coupon **1,5**Diameter of Test Coupon **18,0**Other **-**

## Postweld Heat Treatment (QW-407)

Temperature **none**Time **-**Other **-**

## Gas (QW-408)

## Percent Composition

Shielding	Gas(es)	(Mixture)	Flow Rate
	<b>Argon</b>	<b>99,995</b>	<b>12 -15</b>
Trailing	<b>Formeer 10</b>		<b>12 -15</b>
Backing	<b>Argon M21</b>	<b>80/20</b>	<b>6 - 8</b>

## Electrical Characteristics (QW-409)

Current	<b>DC</b>		
Polarity	<b>-</b>		
Amps.	<b>80</b>	Volts	<b>14</b>
Tungsten Electrode Size	<b>2,4</b>		
Other			

## Technique (QW-410)

Travel Speed	
String or Weave Bead	<b>string</b>
Oscillation	
Multipass or Single Pass (per side)	<b>multipass</b>
Single or Multiple Electrodes	<b>single</b>
Other	

## Preheat (QW-406)

Preheat Temp.	<b>20°C</b>
Interpass Temp	<b>150 °C</b>
Other	<b>-</b>

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Tensile Test (QW-150)						PQR No. <b>051009/03</b>
Specimen No.	Width in/mm	Thickness in/mm	Area in <sup>2</sup> /mm <sup>2</sup>	Ultimate Total Load lb/kN	Ultimate Unit Stress MPa	Type of Failure & Location
1	18,0	1,5			707	Ductile, weld
2	18,0	1,5			693	Ductile, weld

Guided- Bend Tests (QW-160)	
Type and Figure No.	Results
face bend 1,5x10 4xt 180	Acceptable
face bend 1,5x10 4xt 180	Acceptable
root bend 1,5x10 4xt 180	Acceptable
root bend 1,5x10 4xt 180	Acceptable

Toughness Tests (QW-170)							
Specimen No.	Notch Location	Specimen Size mm	Test Temp. °C	Impact Value J	% Shear	Mils	Drop Weight Break (Y/N)

Comments:

**Fillet-Weld Test (QW-180)**

Result- Satisfactory: Yes  No  Penetration into Parent Metal: Yes  No

Macro - Results

**Other Tests**

Type of Test **Visual, radiographic, Magnetic particle examination**

Deposit Analysis

Other

Welder's Name **M.M.J. Tijans** Clock No. - Stamp No. **104065175**

Test Conducted By: **Stork FDO Inoteq BV** Laboratory Test No: **MOO09-05440ASME**

We certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME Code.

Date Issued: **30 November 2009**

Manufacturer's Representative  
 Manufacturer **RVI Mosman BV**

  
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