



# Welding Procedure Qualification Record (PQR) ASME IX

Energy - Downstream, Power and Manufacturing

Company Name **RVI Mosman BV**  
 Procedure Qualification Record No. **051009/05** Date **30 November 2009**  
 WPS No. **051009/05**  
 Welding Process(es) **GTAW/GMAW**  
 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 **5,49**  
 Diameter of Test Coupon **88,9**  
 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>

Filler Metals (QW-404)  
 SFA Specification **5.9**  
 AWS Classification **ER385**  
 Filler Metal F-No. **45**  
 Weld Metal Analysis A-No. -  
 Size of Filler Metal **2,4 mm**  
 Other -

Electrical Characteristics (QW-409)  
 Current **DC**  
 Polarity -  
 Amps. **80 - 130** Volts **14 - 22**  
 Tungsten Electrode Size **2,4**  
 Other -

Weld Metal Thickness **6,0**  
 Position (QW-405)  
 Position of Groove **6G**  
 Weld Progression (Uphill, Downhill) -  
 Other -

Technique (QW-410)  
 Travel Speed **7.5 cm/min**  
 String or Weave Bead **string**  
 Oscillation  
 Multipass or Single Pass (per side) **multipass**  
 Single or Multiple Electrodes **single**  
 Other -

Preheat (QW-406)  
 Preheat Temp. **20°C**  
 Interpass Temp **150 °C**  
 Other -

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Tensile Test (QW-150)						
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	19,0	5,49			604	Ductile, weld
2	19,0	5,49			600	Ductile, weld

**Guided- Bend Tests (QW-160)**

Type and Figure No.	Results
face bend 5,49x10 4xt 180	Acceptable
face bend 5,49x10 4xt 180	Acceptable
root bend 5,49x10 4xt 180	Acceptable
root bend 5,49x10 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)
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**Comments:**

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

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

Macro - Results

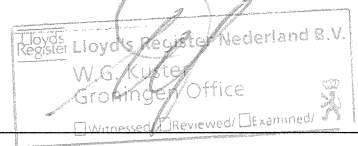
**Other Tests**

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: **MOO09-05421ASME**

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**

W.G. Kuster  
 Surveyor to Lloyd's Register Nederland B.V.

A member of the Lloyd's Register Group