



Electro Mechanical Solutions, Inc.
1555 Gunn Hwy
Odessa, FL 33556

Welder or Welding Operator Qualification Test Record (WPQR)

Welder's Name: Main, Travis Stamp: 0001

Test WPS No.: EMS.GTAW.ALO1 Rev.: 0 WPQ No.: 3048-4

Date: 9/26/2019 Page 1

Type of joint welded: Pipe Groove weld

Joint type(s) qualified: All applicable groove, fillet, plug, and slot welds

Base metal(s) welded: 6061 T6 to 6061 T6

Variables (Table 4.12)	Actual Values Used	Range Qualified
	GTAW / Manual	GTAW / Manual and Semiautomatic:
Welding process / type: <u>—</u>		
Base metal thickness - groove (in.):	<u>0.154</u>	<u>1/8" to 3/4" PJP to unlimited</u>
Base metal thickness - fillet (in.):	<u>N/A</u>	<u>1/8" to unlimited</u>
Pipe diameter - groove (in.):	<u>2.375</u>	<u>3/4" to 4"</u>
Pipe diameter - fillet (in.):	<u>N/A</u>	<u>3/4" to 4"</u>
Box tube size (in.):	<u>N/A</u>	<u>All sizes</u>
Dihedral angle - fillet:	<u>N/A</u>	<u>30° to unlimited</u>
Backing:	<u>No backing used</u>	<u>With or without backing</u>
Filler metal classification:	<u>ER5653</u>	
Filler metal specification:	<u>5.10</u>	
Filler metal F-No.:		<u>N/A</u>
Welding position - groove:	<u>6G - 45 degree pipe</u>	<u>All Positions</u>
Welding position - fillet:	<u>N/A</u>	<u>All Positions</u>
Weld progression:	<u>Vertical up</u>	<u>Vertical up</u>
Shielding gas:	<u>100% Argon</u>	
Welding current / polarity:	<u>DCEP (reverse)</u>	
Transfer mode (GMAW):	<u>N/A</u>	<u>N/A</u>
Single / multiple electrode:	<u>N/A</u>	<u>N/A</u>

Notes:

Visual inspection acceptable: Yes Other test results: _____

Guided Bend Test (4.22.5)

Figure Number and Type	Result	Figure Number and Type	Result
<u>None</u>		<u>None</u>	
<u>None</u>		<u>None</u>	
<u>None</u>		<u>None</u>	

Organization: NDE

Test No.: 3048-2

Inspected by: Steve Bartholome 9/25/2019
Date

Radiographic Test Results (4.31.3.2)

Film ID No.	Result	Remarks	Film ID No.	Result	Remarks
<u>A</u>	<u>Acceptable</u>		<u>B</u>	<u>Acceptable</u>	
<u>C</u>	<u>Acceptable</u>				

Organization: NDE

Test No.: 3048

Interpreted by: Nelson Guerrero 9/25/2019 RT Level II
Date

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded and tested in conformance with the requirements of AWS D1.2.

Manufacturer or Contractor: EMS, Inc.

Certified By: Steve Bartholome 9/26/19 AWS CWI
Date





Electro Mechanical Solutions, Inc.
1555 Gunn Hwy
Odessa, FL 33556

Welder or Welding Operator Qualification Test Record (WPQR)

Welder's Name: Main, Travis Stamp: 0001

Test WPS No.: EMS.GTAW.CS01 Rev.: 0 WPQ No.: 3048-1

Date: 9/26/2019 Page 1

Type of joint welded: Pipe Groove weld

Joint type(s) qualified: All applicable groove, fillet, plug, and slot welds

Base metal(s) welded: ASTM A 106, Grade B to ASTM A 106, Grade B

Variables (Table 4.12)	Actual Values Used	Range Qualified
	GTAW / Manual	GTAW / Manual and Semiautomatic:
Welding process / type:	GTAW / Manual	GTAW / Manual and Semiautomatic:
Base metal thickness - groove (in.):	0.154	1/8" to 3/4" PJP to unlimited
Base metal thickness - fillet (in.):	N/A	1/8" to unlimited
Pipe diameter - groove (in.):	2.375	3/4" to 4"
Pipe diameter - fillet (in.):	N/A	3/4" to 4"
Box tube size (in.):	N/A	All sizes
Dihedral angle - fillet:	N/A	30° to unlimited
Backing:	No backing used	With or without backing
Filler metal classification:	ER70S-6	
Filler metal specification:	5.18	
Filler metal F-No.:	6	N/A
Welding position - groove:	6G - 45 degree pipe	All Positions
Welding position - fillet:	N/A	All Positions
Weld progression:	Vertical up	Vertical up
Shielding gas:	100% Argon	
Welding current / polarity:	DCEP (reverse)	
Transfer mode (GMAW):	N/A	N/A
Single / multiple electrode:	N/A	N/A

Notes:

Visual inspection acceptable: Yes Other test results: _____

Guided Bend Test (4.22.5)

Figure Number and Type	Result	Figure Number and Type	Result
None		None	
None		None	
None		None	

Organization: NDE

Test No.: 3048

Inspected by: Steve Bartholome 9/25/2019
Date

Radiographic Test Results (4.31.3.2)

Film ID No.	Result	Remarks	Film ID No.	Result	Remarks
A	Acceptable		B	Acceptable	
C	Acceptable				

Organization: NDE

Test No.: 3048

Interpreted by: Nelson Guerrero 9/25/2019 RT Level II
Date

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded and tested in conformance with the requirements of Clause 4 of AWS D1.1/D1.1M Structural Welding Code - Steel.

Manufacturer or Contractor: EMS, Inc.

Certified By: Steve Bartholome 9/26/19 AWS CWI
Date



Steven A Bartholome Jr
CWI 08051891
QC1 EXP. 5/1/2020