LCLS Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory Stanford Linear Accelerator Center

Table of Contents for QA Records Packages

The purpose of this form is to verify the presence of the appropriate quality assurance records for hardware shipments being installed at SLAC. This form is required to be completed by ANL LCLS project personnel prior to authorizing shipments to SLAC.

System or Component Name: LCLS Fixed Support Assembly

Date: March 27, 2008

Part/Drawing Number: L143-143080-200000

Serial Numbers: 5

Supplier Name: Hi-Tech Manufacturing Inc

PO Number: 7A-08189

Responsible LCLS Technical Lead: M. White

Reponsible Engineer(s): E. Trakhtenberg

No.	Record Name	Document number	Origin	Comments	√ Present?
1.	ANL Component Acceptance Record	LCLS	ANL	ANL Acceptance record of ANL acceptance date and applicable drawing revisions.	**Present**
2.	Dynamic CAM test results		ANL		**Present**
3.	Certificates of Conformance for Vibratory Stress Relief	NA	American Grinding	L1430802-200030, L1430802-200021, L1430802-200011	**Present**
4.	Certificates of Inspection	NA	Hi-Tech	L1430401-100101, L1430401-100201,	**Present**
5.	Certificates of Inspection	NA	Hi-Tech	L1430401-100103, L1430401-100303,	**Present**
6.	Copies of the ANL Inspection/Acceptance Report of Components for As-Built Drawings	L143-00093	Hi-Tech	Undulator Girder	**Present**
7.	Copies of the ANL Inspection/Acceptance Report of Components for As-Built Drawings	L143-00093	Hi-Tech	Interface Plate (Double CAM)	**Present**
8.	Copies of the ANL Inspection/Acceptance Report of Components for As-Built Drawings	L143-00093	Hi-Tech	Interface Plate (Single CAM)	**Present**
9.	Weld Certification	NA	~~Hi-Tech~~ Metalex	Support Girder (L1430401-10040)	**Present**
10.	Inspection Planning & Report Form	NA	Metalex	Undulator Support Girder	**Present**
11.	Certificate of compliance – Stress Test	NA	Cincinnati Steel Treating Co.	Support Girder	**Present**
12.	Certificate of Conformance	NA	Metalex	Support Girder	**Present**
13.	Calibration Certificate – CMM metric & inches	TG13480 & TG13482	American Calibration Inc.	Unit is in working condition	**Present in SM #1 QA**
14.	Various MSDS for Paint & Oil and Concrete Epoxy Grease	NA	NA	MSDS for chemicals used.	**Present** in SM #1 QA
15.	Welding Operator Qualification Test Record	NA	Bodycote Taussig Inc.	Welders qualifications	**Present**
16.	Certificates of Conformance for Support Girder raw materials	NA	Metalex	Precision Steel Services Inc., Frederick Steel Co., CMC Steel	**Present in SM #1 QA**
17.	Certificate of Compliance /Statement of Quality	NA	The Sherwin-Williams Co.		**Present**
18.	Visual Weld Inspection Report	NA	Metalex	Girder Support	**Present**
19.	Visual Weld Inspection Report	NA	HiTech	Girder Support	**Present**
20.	Gearhead Inspection Report		GAM	In Folder	**Present**

No.	Record Name	Document number	Origin	Comments	√ Present?
21.	Certification of Single Axis Table		Lintech		**Present in SM #1 QA**
22.	Certificate of Conformance for CAM Motors		Animatics	Motors – In Folder	**Present**
23.	Shipping Crate Design Approval Record	NA	Hi-Tech		**Present**
24.	Misc. Photographs	NA	Hi-Tech		

Optional notes or Comments:

The Mill Certificates for the steel dimensions, chemical composition, and tensile properties are present for Girder serial number 1 only because the material for all of the girder assemblies was purchased at one time.

Signature of person that completed this table of contents: John F Schuh Date: March 27, 2008

Concurrence signatures of this table of contents contents:

Responsible ANL LCLS Engineer: _____ Date: 03/27/08

Responsible ANL QA Coordinator: _____ Date: 3/31/08

Responsible ANL LCLS Technical Lead: _____ Date: 27 March 08

ANL LCLS Project Manager: _____ Date: 3/30/08

Distribute this completed form to: ANL Records package. ANL LCLS QA. ANL LCLS Technical Lead

LCLS Linac Coherent Light Source — Stanford Synchrotron Radiation Laboratory, Stanford Linear Accelerator Center

Component Acceptance Record

THE PURPOSE OF THIS FORM IS TO PROVIDE A RECORD OF THE ACCEPTANCE OF LCLS COMPONENTS DELIVERED BY ANL, AS WELL AS ANY ISSUES THAT MAY ARISE FROM THE ACCEPTANCE PROCESS.

System or Component Name	Part/ Drawing Number	Rev.	Qty	Serial No.	Supplier Name	ANL Purchase Order Number
Fixed Support General Assembly	*L1430802-200000*	*06*	1	05,06,07, 08 & 09	Hi- Tech Manufacturing	7A-08189
Undulator Girder Assembly	*L1430401-100396*	*03*	1	05,06,07, 08 & 09	Hi- Tech Manufacturing	7A-08189

The components appearing above are being delivered to SLAC and have been deemed to meet the requirements defined in the ANL Statement of Work Document # L143-00093-03/ SLAC No.SP-381-004-26.

ANL Approval Signatures:

LCLS Quality Assurance Coordinator at ANL — Date 10/16/07

Responsible or Chief Engineer at ANL — Date 10/19/07

LCLS Technical Lead at ANL — Date 19 Oct 2007

LCLS Project Manager at ANL — Date 10/19/07

The components appearing above have been accepted by SLAC and have been deemed to have met the requirements defined in the ANL Statement of Work Document # L143-00093-03/ SLAC No.SP-381-004-26.

SLAC Acceptance Signatures:

LCLS Quality Assurance Manager at SLAC — Date

LCLS Chief Engineer at SLAC — Date

LCLS Project Director at SLAC — Date

The LCLS Quality Assurance Manager at SLAC is responsible for retaining the original completed and for forwarding copies of the completed form to all who have signed the form

LCLS UNDULATOR SUPPORT CAM TEST DATA
ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

05-1
TIME OF TEST: 9/5/2007 9:54:21 AM

POS#1 FWD
CAM ECCEN R (MICRONS) = 2201.54
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 5.92
DEVIATION MAX (MICRONS) = 15.39
DEVIATION MIN (MICRONS) = -15.61

POS#1 BWD
CAM ECCEN R (MICRONS) = 2202.73
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 7.48
DEVIATION MAX (MICRONS) = 21.98
DEVIATION MIN (MICRONS) = -16.42

POS#2 FWD
CAM ECCEN R (MICRONS) = 2202.53
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 6.11
DEVIATION MAX (MICRONS) = 16.90
DEVIATION MIN (MICRONS) = -15.72

POS#2 BWD
CAM ECCEN R (MICRONS) = 2203.73
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 7.40
DEVIATION MAX (MICRONS) = 21.80
DEVIATION MIN (MICRONS) = -16.92

POS#3 FWD
CAM ECCEN R (MICRONS) = 2201.36
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 5.77
DEVIATION MAX (MICRONS) = 15.16
DEVIATION MIN (MICRONS) = -17.34

POS#3 BWD
CAM ECCEN R (MICRONS) = 2203.81
ROTARY POT GAIN = 345.07
POT OFFSET (DEG) = 60.73
DEVIATION RMS (MICRONS) = 7.55
DEVIATION MAX (MICRONS) = 20.55
DEVIATION MIN (MICRONS) = -16.78

=== TEST PASS! ===
--- END OF TEST ---

LCLS UNDULATOR SUPPORT CAM TEST DATA
ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

05-2
TIME OF TEST: 9/5/2007 8:52:19 AM

POS#1 FWD
CAM ECCEN R (MICRONS) = 1562.26
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 9.36
DEVIATION MAX (MICRONS) = 21.42
DEVIATION MIN (MICRONS) = -20.77

POS#1 BWD
CAM ECCEN R (MICRONS) = 1566.37
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 9.23
DEVIATION MAX (MICRONS) = 20.18
DEVIATION MIN (MICRONS) = -21.19

POS#2 FWD
CAM ECCEN R (MICRONS) = 1564.86
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 9.79
DEVIATION MAX (MICRONS) = 26.41
DEVIATION MIN (MICRONS) = -21.47

POS#2 BWD
CAM ECCEN R (MICRONS) = 1566.31
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 9.62
DEVIATION MAX (MICRONS) = 22.35
DEVIATION MIN (MICRONS) = -20.72

POS#3 FWD
CAM ECCEN R (MICRONS) = 1564.14
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 10.45
DEVIATION MAX (MICRONS) = 26.20
DEVIATION MIN (MICRONS) = -22.30

POS#3 BWD
CAM ECCEN R (MICRONS) = 1564.99
ROTARY POT GAIN = 344.19
POT OFFSET (DEG) = 64.44
DEVIATION RMS (MICRONS) = 9.60
DEVIATION MAX (MICRONS) = 21.80
DEVIATION MIN (MICRONS) = -20.29

=== TEST PASS! ===
--- END OF TEST ---

LCLS UNDULATOR SUPPORT CAM TEST DATA
ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

05-3
TIME OF TEST: 9/5/2007 8:37:01 AM

POS#1 FWD
CAM ECCEN R (MICRONS) = 1559.22
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.80
DEVIATION RMS (MICRONS) = 8.44
DEVIATION MAX (MICRONS) = 21.65
DEVIATION MIN (MICRONS) = -16.96

POS#1 BWD
CAM ECCEN R (MICRONS) = 1558.31
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.81
DEVIATION RMS (MICRONS) = 7.51
DEVIATION MAX (MICRONS) = 26.91
DEVIATION MIN (MICRONS) = -17.94

POS#2 FWD
CAM ECCEN R (MICRONS) = 1558.75
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.80
DEVIATION RMS (MICRONS) = 8.82
DEVIATION MAX (MICRONS) = 23.12
DEVIATION MIN (MICRONS) = -21.81

POS#2 BWD
CAM ECCEN R (MICRONS) = 1557.12
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.80
DEVIATION RMS (MICRONS) = 7.86
DEVIATION MAX (MICRONS) = 25.15
DEVIATION MIN (MICRONS) = -17.77

POS#3 FWD
CAM ECCEN R (MICRONS) = 1559.13
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.80
DEVIATION RMS (MICRONS) = 8.52
DEVIATION MAX (MICRONS) = 22.49
DEVIATION MIN (MICRONS) = -18.06

POS#3 BWD
CAM ECCEN R (MICRONS) = 1557.75
ROTARY POT GAIN = 346.12
POT OFFSET (DEG) = 55.81
DEVIATION RMS (MICRONS) = 7.51
DEVIATION MAX (MICRONS) = 27.92
DEVIATION MIN (MICRONS) = -16.82

=== TEST PASS! ===
--- END OF TEST ---

LCLS UNDULATOR SUPPORT CAM TEST DATA
ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

05-4
TIME OF TEST: 9/5/2007 8:22:01 AM

POS#1 FWD
CAM ECCEN R (MICRONS) = 1598.83
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 6.61
DEVIATION MAX (MICRONS) = 12.97
DEVIATION MIN (MICRONS) = -15.77

POS#1 BWD
CAM ECCEN R (MICRONS) = 1600.53
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 6.09
DEVIATION MAX (MICRONS) = 12.83
DEVIATION MIN (MICRONS) = -18.45

POS#2 FWD
CAM ECCEN R (MICRONS) = 1597.16
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 6.99
DEVIATION MAX (MICRONS) = 14.61
DEVIATION MIN (MICRONS) = -19.58

POS#2 BWD
CAM ECCEN R (MICRONS) = 1600.33
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 6.05
DEVIATION MAX (MICRONS) = 13.36
DEVIATION MIN (MICRONS) = -21.93

POS#3 FWD
CAM ECCEN R (MICRONS) = 1598.70
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 6.89
DEVIATION MAX (MICRONS) = 14.10
DEVIATION MIN (MICRONS) = -16.84

POS#3 BWD
CAM ECCEN R (MICRONS) = 1599.62
ROTARY POT GAIN = 343.73
POT OFFSET (DEG) = 60.87
DEVIATION RMS (MICRONS) = 5.79
DEVIATION MAX (MICRONS) = 13.15
DEVIATION MIN (MICRONS) = -18.26

=== TEST PASS! ===
--- END OF TEST ---

LCLS UNDULATOR SUPPORT CAM TEST DATA
ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

05-5
TIME OF TEST: 9/5/2007 10:11:51 AM

POS#1 FWD
CAM ECCEN R (MICRONS) = 1563.95
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 5.92
DEVIATION MAX (MICRONS) = 18.97
DEVIATION MIN (MICRONS) = -13.84

POS#1 BWD
CAM ECCEN R (MICRONS) = 1564.57
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 6.47
DEVIATION MAX (MICRONS) = 19.09
DEVIATION MIN (MICRONS) = -18.32

POS#2 FWD
CAM ECCEN R (MICRONS) = 1563.61
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 5.82
DEVIATION MAX (MICRONS) = 20.27
DEVIATION MIN (MICRONS) = -14.50

POS#2 BWD
CAM ECCEN R (MICRONS) = 1564.92
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 6.51
DEVIATION MAX (MICRONS) = 17.46
DEVIATION MIN (MICRONS) = -18.33

POS#3 FWD
CAM ECCEN R (MICRONS) = 1563.59
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 6.17
DEVIATION MAX (MICRONS) = 20.36
DEVIATION MIN (MICRONS) = -16.44

POS#3 BWD
CAM ECCEN R (MICRONS) = 1565.45
ROTARY POT GAIN = 345.80
POT OFFSET (DEG) = 60.78
DEVIATION RMS (MICRONS) = 7.03
DEVIATION MAX (MICRONS) = 20.24
DEVIATION MIN (MICRONS) = -18.07

=== TEST PASS! ===
--- END OF TEST ---

AMERICAN GRINDING & MACHINE CO.

2009 N. MANGO AVE. CHICAGO, IL 60639
773-889-4343 toll free: 877-988-4343
FAX 773-889-3781

CERTIFICATE OF COMPLIANCE

Customer: Hi-Tech Mfg PHONE: (847) 678-1616

4637 N. 25th Ave. FAX: (847) 678-1716

Schiller Park, IL

60176

RE: PURCHASE ORDER 17028/17213

PRINT NUMBER(S) (if applicable) L1430802-200021 — 4 pcs.

4 pcs/4 pcs. L1430802-200011 — 4 pcs

This is to certify that the services and /or material furnished by American Grinding & Machine Company on this order meets the requirements of listed purchase order and any prints furnished to us for that purchase order.

Signature of American Grinding Representative

09/10/07
Date

HI-TECH
Manufacturing, Inc.
CNC Milling & Turning
Prototypes & Special Machinery
4637 N. 25th Ave.
Schiller Park, IL 60176

Hi-Tech Manufacturing, Inc.
4637 N. 25th Ave.
Schiller Park, IL 60176
USA

Ph: (847) 678-1616
Fax: (847) 678-1617

Purchase Order

Number: 17213 Date: 09-Aug-07

To

American Grinding & Machine Co
2000 N. Mango Ave.
Chicago, IL 60639-2899
USA

Ph: (773) 889-4343 Fax: (773) 889-3781

Ship To

Hi-Tech Manufacturing, Inc.
4637 N. 25th Ave.
Schiller Park, IL 60176
USA

Ph: (847) 678-1616 Fax: (847) 678-1617

Terms	Ship Via	FOB	Issued By
	Deliver	Destination	JOE

Quantity	Description	Unit Price	Amount
	1. Please enter this order in accordance with prices, delivery and specifications shown below. 2. Please notify us immediately if you are unable to ship as specified. 3. Overshipment of product will not be accepted without prior approval form Hi-Tech. 4. UPS Ground shipments must be shipped COLLECT. Use account # 6E1-000. 5. No declared value charges will be accepted without prior approval by Hi-Tech.		
18 ea Line: 001	L1430802-200011 Rev: 03 INTERFACE PLATE (DOUBLE CAM) Due: 09-Aug-07 Vibratory Stress Relieve Job: 55420B011 Certifiate required	$0.00 ea	$0.00
2 ea Line: 002	L1430802-200021 Rev: 03 INTERFACE PLATE (SINGLE CAM) Due: 16-Aug-07 Vibratory Stress Relieve Job: 55420B021 Certifiate required	$0.00 ea	$0.00
		Total:	$0.00

AMERICAN GRINDING & MACHINE CO.

2000 N. MANGO AVE. CHICAGO, IL 60639
773-889-4343 toll free: 877-988-4343
FAX 773-889-3781

CERTIFICATE OF COMPLIANCE

Customer: Hi-Tech Mfg PHONE: (847) 678-1616

4637 N. 25th Ave. FAX: (847) 678-1716

Schiller Park, IL

60176

RE: PURCHASE ORDER 17155/17338

PRINT NUMBER(S) (if applicable) L143 0802-200030

8 pcs.

This is to certify that the services and /or material furnished by American Grinding & Machine Company on this order meets the requirements of listed purchase order and any prints furnished to us for that purchase order.

Signature of American Grinding Representative

09/10/07
Date

HI-TECH
Manufacturing, Inc.
CNC Milling & Turning
Prototypes & Special Machinery
4637 N. 25th Ave.
Schiller Park, IL 60176

Hi-Tech Manufacturing, Inc.
4637 N. 25th Ave.
Schiller Park, IL 60176
USA

Ph: (847) 678-1616
Fax: (847) 678-1617

Purchase Order

Number: 17155 Date: 06-Aug-07

To

American Grinding & Machine Co
2000 N. Mango Ave.
Chicago, IL 60639-2899
USA

Ph: (773) 889-4343 Fax: (773) 889-3781

Ship To

Aamro Corp.
3110 S. 26th Ave.
Broadview, IL 60155
USA

Ph: (708) 343-5543 Fax: (708) 343-5547

Terms	Ship Via	FOB	Issued By
	Deliver	Destination	JOE

Quantity	Description	Unit Price	Amount
	1. Please enter this order in accordance with prices, delivery and specifications shown below. 2. Please notify us immediately if you are unable to ship as specified. 3. Overshipment of product will not be accepted without prior approval form Hi-Tech. 4. UPS Ground shipments must be shipped COLLECT. Use account # 6E1-000. 5. No declared value charges will be accepted without prior approval by Hi-Tech.		
7 ea Line: 001	L1430802-200030 Rev: 01 PEDESTAL WELDMENT Due: 10-Aug-07 Vibratory Stress Relieve Job: 55420B030 Certifiate required	$0.00 ea	$0.00
		Total:	$0.00

Certificate of Inspection

HI-TECH
Manufacturing, Inc.
ISO 9001:2000
certified

This certificate is presented to

Argonne National Laboratory

Per PO # 7A-08189, part ##
L1430401-100101 (PF-381-000-13) quantity of 114pcs
L1430401-100201 (PF-381-000-23) quantity of 38pcs
Have been inspected and met all drawing requirements.

Q.C. Supervisor Muelaz 07-07-07
Date

Certificate of Inspection

HI-TECH
Manufacturing, Inc.
ISO 9001:2000
certified

This certificate is presented to

Argonne National Laboratory

Per PO # 7A-08189, part ##
L1430401-100103 (PF-381-000-15) *quantity of 136pcs*
L1430401-100303 (PF-381-002-15) *quantity of 34pcs*
Have been inspected and met all drawing requirements.

Q.C. Supervisor _____ 09-07-07
Date

LCLS Linac Coherent Light Source — Stanford Synchrotron Radiation Laboratory, Stanford Linear Accelerator Center

Procedure Number: L143-00093
Revision: 01
Issue Date: February 13, 2007

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: **HI-TECH MANUFACTURING, INC.**

PART NAME: **INTERFACE PLATE (SINGLE CAM)**

DRAWING #: **L1430802-200021 (03)**

SERIAL #: 05

P.O. #: **7A-08189**

DATE: 08-14-07

ACCEPTANCE CRITERIA

1. Visually inspect for damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Flatness of Datum A	</=.02	</=.02	<=.02	Accept/Reject
Perpendicularity of Datum B to A	</=.02	</=.02	<=.02	Accept/Reject
Parallelism of upper edge on lower Cam Block C to B	</=.02	</=.02	<=.02	Accept/Reject
Parallelism of lower edge on upper Cam Block C to B	</=.02	</=.02	<=.02	Accept/Reject
Parallelism of upper edge on upper Cam Block C to B	</=.02	</=.02	<=.02	Accept/Reject
Width of mounting surface on lower Cam Block	142.01	+.02/-.0	142.01	Accept/Reject
Width of mounting surface on upper Cam Block	142.01	+.02/-.0	142.01	Accept/Reject
Separation of inner edges of Cam Bocks	457.43	+0.08/-.08	457.45	Accept/Reject

INSPECTOR: SIMON

QA Supervisor: [illegible]

TEST EQUIPMENT USED: CMM, gage blocks, dial indicator.

COMMENTS:

LCLS Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory Stanford Linear Accelerator Center

Procedure Number: L143-00093
Revision: 01
Issue Date: February 13, 2007

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: **METALEX, INC.**

PART NAME: **UNDULATOR GIRDER ASSY**

DRAWING #: **L1430401-100400 (05)**

SERIAL #: 05

P.O. #: **7A-08189**

DATE: 09-24-07

ACCEPTANCE CRITERIA

1. Visually inspect for damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Perpendicularity of Datum B to C	</=.025	</=.025	<=.025	Accept/Reject
Perpendicularity of Datum A to C	</=.025	</=.025	<=.025	Accept/Reject
True position of 2 D2 hole to 2 D3 holes	</=.03	</=.03	<=.03	Accept/Reject
Parallelism of support pad surface to Datum C	</=.07	</=.07	#1 <=.07 #2 <=.07 #3 <=.07 #4 <=.07	Accept/Reject
Distance from Datum C to support pad surface	109.50	+.2/-.2	#1 109.47 #2 109.41 #3 109.46 #4 109.55	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaze

TEST EQUIPMENT USED: feeler gage, dial indicator, micrometer, precision square.

COMMENTS:

LCLS

Procedure Number: L143-00093
Revision: 01
Issue Date: February 13, 2007

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: **HI-TECH MANUFACTURING, INC.**

PART NAME: **INTERFACE PLATE (DOUBLE CAM)**

DRAWING #: **L1430802-200011 (03)**

SERIAL #: 05

P.O. #: **7A-08189**

DATE: 08-14-07

ACCEPTANCE CRITERIA

1. Visually inspect for damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Flatness of Datum A	<=.02	<=.02	<=.01	Accept/Reject
Perpendicularity of Datum B to A	<=.02	<=.02	<=.01	Accept/Reject
Parallelism of inner edge on Cam Block A to B	<=.02	<=.02	<=.01	Accept/Reject
Parallelism of inner edge on Cam Block B to B	<=.02	<=.02	<=.01	Accept/Reject
Parallelism of outer edge on Cam Block B to B	<=.02	<=.02	<=.01	Accept/Reject
Width of mounting surface on Cam Block B	142.01	+.02/-.0	142.02	Accept/Reject
Width of mounting surface on Cam Block A	254.00	+.02/-.0	254.01	Accept/Reject
Separation of outer edges of Cam Bocks	685.42	+0.08/-.08	685.43	Accept/Reject

INSPECTOR: Simon

QA Supervisor: Mulaza

TEST EQUIPMENT USED: CMM, gage blocks, dial indicator.

COMMENTS:

Metalex Manufacturing Inc.
5750 Cornell Road · Cincinnati, OH 45242
Phone (513) 489-0507 · Fax (513) 489-1020
EMAIL: metalex@metalexmfg.com

Metalex
Customized Machinery and Parts
ISO 9001:2000 and AS9100 CERTIFIED
Veteran Owned Business 30 Plus Years

METALEX WELD CERTIFICATION

MX JOB #: 07-7558 QTY 4 CUSTOMER: Hi-Tech Manufacturing, Inc.

PART NAME: Support Girder

PART NUMBER: L1430401-100400 REVISION: 5V

S/N: (if applicable) 7A-08198-01 thru -04

METALEX PROCEDURE # WPS 146 (K. Ballard), WPS 194-1 (G. Black)

CUST. SPECIFICATION # AWS D1.1

WELD WIRE SPEC AWS A5.20

TYPE E71T-1

HEAT 79526, 81192, 80622

DIAMETER .062

SERIAL NUMBER	WELDER
7A-08198-01	Ken Ballard
7A-08198-02	Greg Black
7A-08198-03	Ken Ballard
7A-08198-04	Greg Black

THE ABOVE PARTS LISTED WERE WELDED IN ACCORDANCE WITH THE REFERENCED WELDING SPECIFICATION.

Metalex Quality Control

7/30/07
Date

MX1025 (9/98)

Metalex Customized Machinery and Parts CERTIFIED ISO 9001 QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd ! Cincinnati, OH 45242 ! (513) 489-0507	Job No. 2007-7558	Qty 1

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process x Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L1430401-100400	REV 5V	P.O. Number 16185
	Date Rec'd N/A	P.O. No. N/A	Part Name Undulator Support Girder		
At Oper. 170	Serial Numbers: 05		Customer Name Hi-Tech Manufacturing		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
**** ALL DIMENSIONS TO BE RECORDED IN MILLIMETERS ** ** ALL TEMPERATURES TO BE RECORDED IN CELSIUS ****					
ALL DIMENSIONS APPLY AT A TEMPERATURE OF 20 DEGREES CELSIUS. PART MUST BE IN THERMAL EQUILIBRIUM DURING MEASUREMENTS AND AT THE SAME TEMPERATURE AT THE BEGINNING AND CONCLUSION OF THE MEASUREMENTS WITHIN +/-2 DEG. CELSIUS.					
PART TEMPERATURE ***BEFORE*** INSPECTION (Record in Celsius)	SOW 4.5.4	CONTACT THERMOMETER MX1794	20.41° C	MTX QC 8	
PART TEMPERATURE ***DURING*** INSPECTION (Record in Celsius)	SOW 4.5.4	CONTACT THERMOMETER MX1794	20.40° C	MTX QC 8	
PART TEMPERATURE ***AFTER*** INSPECTION (Record in Celsius)	SOW 4.5.4	CONTACT THERMOMETER MX1794	20.39° C	MTX QC 8	
CRITICAL DIMENSIONS PER SECTION 4.5.2.2 OF DOC. # L143-00093					
SHEET 2 – TOP VIEW					
A) Flatness of Datum B of .030 [.001]	N/A	CMM MX1269	.017	MTX QC 8	
B) *Perpendicularity of Datum B to Datum C* ⊥ | .25 [.010]|A|C	E8	CMM MX1269	.017	MTX QC 8	
C) Flatness of datum A of .030 [.001]	N/A	CMM MX1269	.018	MTX QC 8	
D) *Perpendicularity of Datum A to Datum C* ⊥ | .25 [.010]|C	D8	CMM MX1269	.023	MTX QC 8	
E) 9X ∅ 6.338 – 6.350 *marked "D1", "D2" & "D3"*	E7 E6 E3	CMM MX1269	6.338 - 6.343 ∅	MTX QC 8	
F) *True position of "D3" holes* 2X ⊕ | .1 [.004]|A|B|C ⊕ | .03 [.0012]B|C	E3	CMM MX1269	.097 .096 .002	MTX QC 8	
F) *True position of "D2" holes* 2X ⊕ | .1 [.004]|A|B|C ⊕ | .03 [.0012]B|C	E6	CMM MX1269	.091 & .086 .004	MTX QC 8	
F) *Locations of "D1" holes* 444.50 [17.500]	E7	CMM MX1269	444.570	MTX QC 8	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 2	QTY ACC	QTY REJ
MTX QC 8	THOMAS G COOK	7/31/07		1	0

MX1010 (7/98)

Metalex Customized Machinery and Parts CERTIFIED ISO 9001 QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd ! Cincinnati, OH 45242 ! (513) 489-0507	Job No. 2007-7558	Qty 1

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process x Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L1430401-100400	REV 5V	P.O. Number 16185
	Date Rec'd N/A	P.O. No. N/A	Part Name Undulator Support Girder		
At Oper. 170	Serial Numbers: 05		Customer Name Hi-Tech Manufacturing		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
1968.50 [77.500]	E4	CMM MX1269	1968.505	MTX QC 8	
3492.50 [137.500]	E2	CMM MX1269	3492.445	MTX QC 8	
2X 523.6 [20.61]	E1	CMM MX1269	523.577 523.586 523.573	MTX QC 8	
3185.26 [125.404]	D2	CMM MX1269	3185.208	MTX QC 8	
845.29 [33.179]	D6	CMM MX1269	845.353	MTX QC 8	
2X 95.10 [3.744]	D8	CMM MX1269	95.097 95.115	MTX QC 8	
SHEET 2 – SIDE VIEW					
A) -C- ⌭ .030 [.0012] 2X Surface "J"	C8	CMM MX1269	.009	MTX QC 8	
B) -C- ⌭ .05 [.002]	C8	CMM MX1269	.046	MTX QC 8	
SHEET 2 – BOTTOM VIEW					
A) 2X 749.78 ± .15	C7	CMM MX1269	749.787 749.804	MTX QC 8	
B) 2X 2340.00 ± .15	C5	CMM MX1269	2339.935 2339.934	MTX QC 8	
C) 4X // .05 [.002] B	B2	CMM MX1269	.004 .007 .017 .015	MTX QC 8	
D) 4X // .030 [.0012] A	B7	CMM MX1269	.011 .028 .003 .001	MTX QC 8	
SHEET 3 – SECTION B-B					
E) // .07 [.003] C	C2	CMM MX1269	.023	MTX QC 8	
F) 4X 109.47 ± .08	C2	CMM MX1269	109.494 – 109.512	MTX QC 8	
ALL OTHER FEATURES ARE ACCEPTED PER METALEX OPERATOR ACCEPTANCE PROGRAM (OAP) MXWI17001 & OPERATOR SIGNOFF OF ROUTER OPERATIONS FOR COMPLIANCE TO ALL DRAWING FEATURES GENERATED WITHIN THAT DEFINED OPERATION.		ROUTER SIGNOFF MX5009	CONFORMS ↓	MTX QC 8	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 2	QTY ACC	QTY REJ
MTX QC 8	THOMAS G COOK	7/31/07		1	0

The Cincinnati Steel Treating Co
5701 Mariemont Ave.
Cincinnati, Ohio 45227 (513) 271-3173

Certification ID
36335

Order ID
96401

CERTIFICATION OF COMPLIANCE

CUSTOMER

Metalex Mfg., Inc.
5750 Cornell Road

Cincinnati OH
Blkt Ord # 45242

Purchase Order 71627 **Customer Cust**

Qty	Part No / Description	Material
4	L1430401-100400 SUPPORT GIRDER REV#5, S/N 7A-08198-05, 7A-08198-06, 7A-08198-07, 7A-08198-08	A36

STRESS RELIEVE PER AWS D1.1 REV. 2004.
NOTE: SUPPORT TO PREVENT DISTORTION.
HEAT TREAT CHARTS REQUIRED.
CERTIFICATIONS REQUIRED.

RESULTS

THE ABOVE PARTS HAVE BEEN HEAT TREATED TO THE FOLLOWING:

HEAT TREATMENT STRESS RELIEVED PER AWS D1.1 REV 2004

WE HEREBY CERTIFY THAT THE ABOVE PARTS WERE PROCESSED IN ACCORDANCE WITH THE SPECIFICATIONS AND INSTRUCTIONS SPECIFIED ON THE ABOVE PURCHASE ORDER AND THAT THE RESULTS AND REPORT THEREOF ARE AS STATED. ALL TESTING AND INSPECTION PROCEDURES EMPLOYED WERE IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS AND THE RESULTS THEREOF ARE ON FILE.

NAME JAMES M. HUNT
TITLE QA MANAGER
DATE 7/6/2007

METALEX
Q. A. DEPT
ACCEPTED
DATE 7/11/07
BY TC

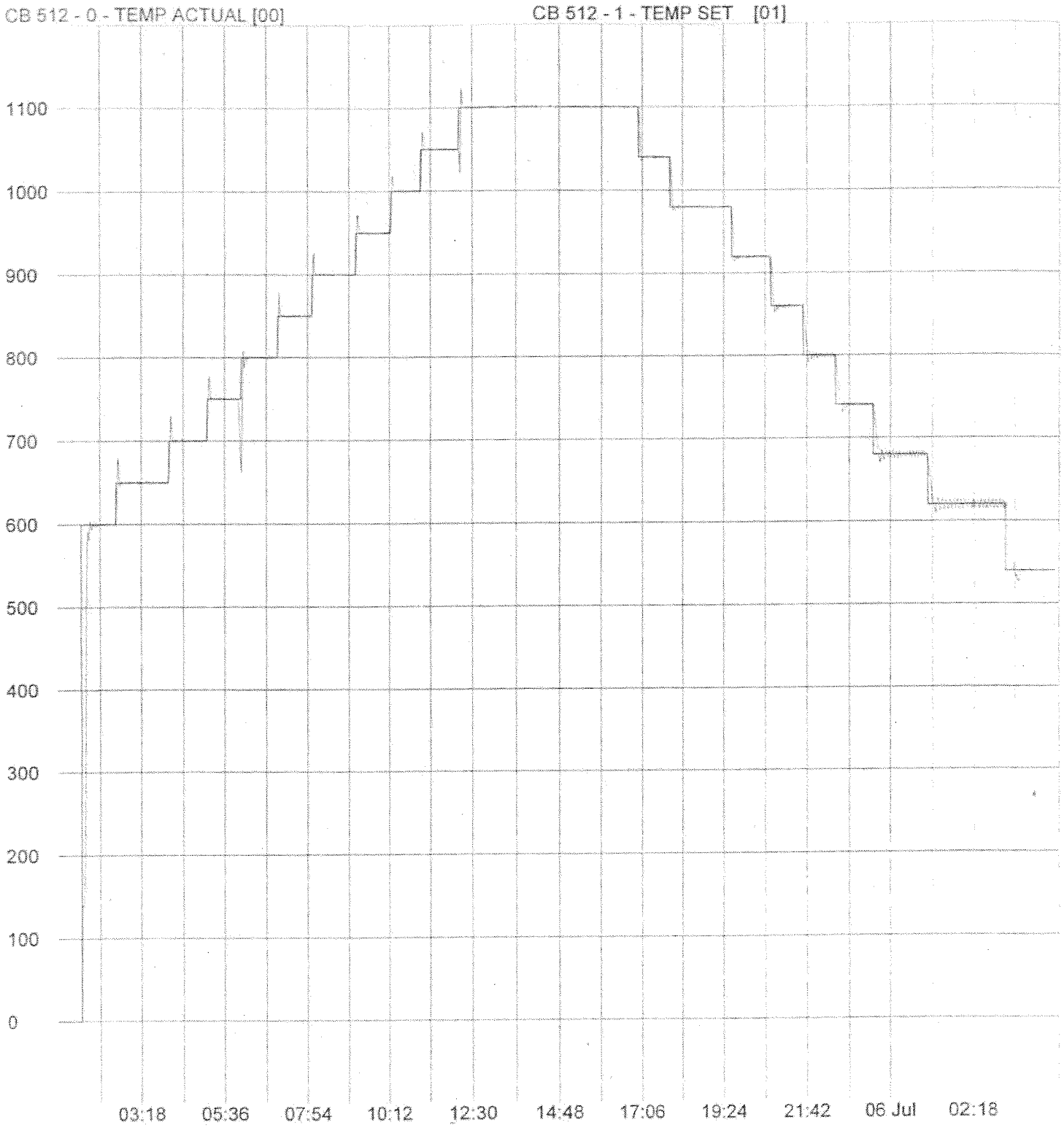
MTX
JUL 29

Hi-Tech 7558

Datalog Report

Start: 7/5/2007 1:00:00 AM
End: 7/6/2007 4:30:00 AM
Sample every 1 minute(s)
Printed 7/6/2007 10:41:01 AM

Customer: METALEX MFG.
Part#: L1430401-100400
PO#: 71627
CST Order #: 96401



Metalex Manufacturing Inc.
5750 Cornell Road · Cincinnati, OH 45242
Phone (513) 489-0507 · Fax (513) 489-1020
EMAIL: metalex@metalexmfg.com

Metalex
Customized Machinery and Parts
ISO 9001:2000 and AS9100 CERTIFIED
Veteran Owned Business 30 Plus Years

CERTIFICATE OF CONFORMANCE

Date: 09/12/2007
Customer: Hi-Tech Manufacturing, Inc.
4637 N. 25th Ave.
Schiller Park, IL 60176

Attention: Simon Sorsher

Metalex Job# 2007-7558
Purchase Order # 16185
MX Packing List # 40943 & 41061

Metalex certifies that all material, processes, procedures, and dimensions are as called for on the purchase order, drawings, and/or amendments supplied by you.
All information concerning this part or parts, units and/or assemblies are on file at Metalex Manufacturing, Inc.

ITEM	QTY	PART NUMBER	REV	PART NAME	ID # *
001	7	L1430401-100400	6	Support Girder	See Below

*IDENTIFICATION NUMBER INCLUDES SERIAL #, HEAT #, AND/OR LOT #.

COMMENTS: "FIRST ARTICLE" submitted on Metalex Shipper # 408586, dated 08/13/07 (S/N: 7A-08198-01).

Applicable serial numbers of this shipment are 7A-08198-05 thru 7A-08198-09, 7A-08198-011, and 7A-08198-012.

Some internal documents in this quality package may contain documents certfiying to revision level "5" or "5V". Metalex certifies these documents and processes conform to the rev 6 revision level and the parts conform to revision level "6".

Metalex is in compliance with Statement of Workscope Document No. L143-00093, Revision New, dated 12/12/06.

Manufactured from Metalex purchased material. Reference heat numbers: T7257, T7232, T7130, T7141, U9728, 0129862, X25899, J62810, JF6843, J70358, and 478765.

Metalex Representative Signature	Print Name	Date
	Thomas Clark	9/12/07

MX1011 (05/05)

Bodycote Taussig Inc.
Metallurgical & Materials Engineers

AWS WELDER AND WELDING OPERATOR QUALIFICATION TEST RECORD

WELDER OR WELDING OPERATOR'S NAME: Tadeusz Sutowski I.D. #39
WELDING PROCESS: GMAW MANUAL _____ SEMIAUTO XXX MACHINE _____
POSITION: 4G - Overhead PROGRESSION: N/A
WPS NO.: AWS Prequalified TYPE OF JOINT TESTED: Single V Groove
BASE METAL SPECIFICATION: ASTM A36, Qualifies All Groups
PIPE DIAMETER: N/A JOINT THICKNESS: 3/8"
QUALIFICATION RANGES: 3/4" Max. Groove/Unlimited Fillet, Flat, Horiz., Overhead

FILLER METAL

SPECIFICATION NO.: AWS A5.18 CLASSIFICATION: ER80S-D2 F NO.: N/A
DIAMETER: .035" FLUX/SHIELDING GAS: AR/O_2 - 92/8 FLOW RATE: 25 cfh
BACKING OR BACK GOUGING METHOD: None

VISUAL INSPECTION RESULTS

APPEARANCE: Satisfactory UNDERCUT: None POROSITY: None

GUIDED BEND TEST RESULTS

TYPE	RESULTS	TYPE	RESULTS
FACE	PASS	ROOT	PASS

FILLET TEST RESULTS

SIZE: N/A FRACTURE TEST: N/A MACROETCH: N/A
LOCATION, NATURE, SIZE OF DISCONTINUITIES NOTED: N/A

TEST CONDUCTED BY: **BODYCOTE TAUSSIG, INC.** LABORATORY NO.: 134477

AWS QC1 LAWRENCE E. SMETANA 79080061 CWI

PER: _____ TEST DATE: March 20, 1997
Lawrence E. Smetana, CWI

WE, THE UNDERSIGNED, CERTIFY THAT THIS RECORD IS CORRECT AND THAT THE WELDS WERE PREPARED AND TESTED IN ACCORDANCE WITH AWS D1.1- 1996

MANUFACTURER OR CONTRACTOR: Hi-Tech Manufacturing
AUTHORIZED BY/DATE: _____

THIS CERTIFICATE OR REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF BODYCOTE TAUSSIG, INC.

Metalex PO#: 71829-BL-7558

Certificate of Conformance

Customer: Metalex Mfg. Inc.
Address: 5750 Cornell Rd.
Cincinnati, Oh. 45242
Attention: Quality Engineering Dept.

METALEX
Q. A. DEPT
ACCEPTED
DATE 7/16/09
BY TC
MTX QC 20

Item	Qty.	Part Number	Rev.	Part Name	Job #
				~~BATCH#~~ OE 16376	
1	5	B62WZ11		TILECIAD H.S. SW4026	7558
				Shelf life 36 months	

SHERWIN WILLIAMS certifies that all materials, processes, etc. furnished to
Supplier Name

Metalex, for the purchase order number stated above, comply with all conditions stated in the P.O. for the items shown.

Signed/Dated: 7-16-
Supplier Quality Rep.

cc: Hardcopy P.O. Books
MX4012 (5/95)

Metalex Manufacturing
L1430401-100400 Girder Support
Hi-Tech Purchase Order No. 16185

Visual Weld Inspection Report

Metalex Job: 2007-7558 Serial Number: 7A-08198- (05)

Welding and Visual Welding Inspection Requirements:

Per SOW L143-00093 Section 4.1.4.2: For all welded parts, the welding practice shall conform to the Structural Welding Code, ANSI/AWS D1.1-D1.1M:2004..

Per SOW L143-00093 Section 4.1.4.2.2: All structural welds shall be visually inspected as defined in section 6.9 of the Structural Welding Code. The contractor shall certify that the welds were inspected and were acceptable.

Part Print L1430401-100400 sheet 1 of 3.

Fabrication Stage#1

Features: W1 and W2

Acceptable (Y/N) YES Initial: B.H. MTX QC 16 Date: 6/27/07

Fabrication Stage#2

Features: W3, W4 and W5

Acceptable (Y/N) YES Initial: B.H. MTX QC 16 Date: 6/28/07

Fabrication Stage#3

Features: W6, W7, W8, W9, W10, W11 and W12

Acceptable (Y/N) YES Initial: B.H. MTX QC 16 Date: 7/2/07

Verification of completion of weld visual inspection:

Completed By: [signature] MTX QC 16 Date: 7/2/07

Hi-Tech Manufacturing, Inc.
CNC Milling & Turning
Prototypes & Special Machinery
General Machining & Heliarc Welding Facilities
ISO 9002 Registered
4637 N. 25th Ave., Schiller Park, IL 60176
Phone (847) 678-1616, Fax (847) 678-1617

Visual Weld Inspection Report.

Per Statement of Work # L143-00093 Section 4.1.4.2, Motion System Assembly ## L1430401-100396 and L1430802-200000, contract # 7A-08189, for all welded parts, the welding practice shall conform to the Structural Welding Code, ANSI/AWS D1.1-D1.1 M:2004.

Part Print L1430802-200030 sheet 1 of 2. **Quantity: 76 pcs**

Fabrication Stage #1

Features: # 1, 4, 2, 3

Acceptable (Y/N) Y **Initials:** S. S. **Date:** 11-16-07

Verification of completeon of weld visual inspection:

Completed by: Sangan Sorsy **Date:** 11-17-07

Weld Certificate

HI-TECH
Manufacturing, Inc.
ISO 9001:2000 certified

This certificate is presented to

Argonne National Laboratory

*Per PO # 7A-08189, part #**L1430802-200030** quantity of **76**pcs*

Procedure: #PQR101
Customer Specification: #AWS D1.1
Weld wire Spec: #AWS A5.28, Type: ER80S-D2, Heat: 83479, Dia: .045
Welder: Tadeusz Sutowski

Have been welded in accordance with the referenced welding specification.

Q.C. Supervisor Mustafa A. Faraoqi 11-17-07
Date

GAM Inpsection Form

Record No. QRO-005-02
Revised: 09/29/05

Order #: 206059 **Customer:** IMAC Motion Cont **Serial #'s** G45319-G45373

Part Number: 700402 **Type Code:** UPL-N23-010G **Qty:** 55

Verify mounting dimensions

Motor Mfg: NEMA Standard **Model:**

- [x] Check Pilot Diameter =
  ** Check for EVERY adapter **
- [x] Check pilot height >
- [x] Check bolt circle = .
- [x] Check hole size fits for:
- [x] Check hole depth for flange thickness:
- [x] Check shaft diameter =
  ** Check for EVERY gearbox **
- [x] Check shaft engagement >
- [x] Verify ratio and "smoothness" of gearbox by spinning input
- [x] Verify mounting bolts are correct qty and type of for all applicable adapters.
- [x] Verify access hole plug is present and clamping ring bolt is accessible.
- [x] Place bolts, plugs, and loose gears in a bag and wire to each individual gearbox.
- [x] Verify key and keyways, if applicable
- [x] Verify output coupling bore size, if applicable
- [x] Verify shrink disc is present, if applicable
- [x] Verify order is complete.

Assemble gearbox / verify appearence and label

- [x] Clean gearbox and paint if necessary
- [x] Mount input coupling to gearbox if applicable.
- [x] Mount input adapter / lantern to gearbox if applicable
- [x] Verify label is correct to order
- [x] Apply label to gearbox on a flat surface on gearbox.
- [x] Apply clear plastic overlay label to top of original label.

Customer Specific Notes (Inspection)

None

Verify special options

- [x] **Notes:**

Gearbox should include a 1/4" ID bushing. Check fit and place in bag with bolts.

Shipping Special Instruction

Packaged By: _____ Date: _____

Inspected By: Biel Date 08-13-07

08-14-07

GAM Inpsection Form

Record No. QRO-005-02
Revised: 09/29/05

Order #: 206059 **Customer:** IMAC Motion Cont **Serial #'s** G46012-G46026

Part Number: 701058 **Type Code:** EPL-N34-490G-[N23-B01] **Qty:** 15

Verify mounting dimensions

Motor Mfg: NEMA Standard **Model:** N23 - 3/8"

- ☑ Check Pilot Diameter = 1.5
  ** Check for EVERY adapter **
- ☑ Check pilot height > 0.06
- ☑ Check bolt circle = 2.625
- ☑ Check hole size fits for: .205
- ☑ Check hole depth for flange thickness: 0.25
- ☑ Check shaft diameter = 0.375
  ** Check for EVERY gearbox **
- ☑ Check shaft engagement > 0.82
- ☑ Verify ratio and "smoothness" of gearbox by spinning input
- ☑ Verify mounting bolts are correct qty and type of for all applicable adapters.
- ☑ Verify access hole plug is present and clamping ring bolt is accessible.
- ☑ Place bolts, plugs, and loose gears in a bag and wire to each individual gearbox.
- ☑ Verify key and keyways, if applicable
- ☑ Verify output coupling bore size, if applicable
- ☑ Verify shrink disc is present, if applicable
- ☑ Verify order is complete.

Assemble gearbox / verify appearence and label

- ☑ Clean gearbox and paint if necessary
- ☑ Mount input coupling to gearbox if applicable.
- ☑ Mount input adapter / lantern to gearbox if applicable.
- ☑ Verify label is correct to order
- ☑ Apply label to gearbox on a flat surface on gearbox.
- ☑ Apply clear plastic overlay label to top of original label.

Customer Specific Notes (Inspection)

None

Verify special options

☑ **Notes:**

If order is for IMAC, make a copy of the inspection sheet and send in box for customer.

Shipping Special Instruction

Packaged By:_____ Date:_____

Inspected By: BJK Date: 9.24.07

LINTECH
1845 Enterprise Way
Monrovia, CA 91016-4272
Phone: 626.358.0110 – Fax: 626.303.2035

CERTIFICATION

Date: 08/15/2007
Sales Order No.: 42873
Pick List No.: 52559

Sold To:
IMAC
1301-A Bowes Road
Elgin, IL 30123

Order No.: 7396

Ship To:
Hi-Tech Manufacturing
4637 No. 25th Ave.
Schiller Park, IL 60176

Order No.: None

Seller hereby certifies as follows - that all materials, parts and processes furnished against the above referenced purchase order were produced in conformance with all applicable specifications as referenced therein, and are on file subject to examination.

Quantity Shipped	Part Number/Description	Serial Number
(10)	206821 Rev."F" Single Axis Table	AA00733003 AA00733004 AA00733005 AA00733006 AA00733007 AA00733008 AA00733009 AA00733010 AA00733011 AA00733012

By: _____
Q.C. Manager

LINTECH

1845 Enterprise Way
Monrovia, CA 91016-4272
Phone: 626.358.0110 – Fax: 626.303.2035

CERTIFICATION

Date: 08/22/2007
Sales Order No.: 42873
Pick List No.: 52621

Sold To:
IMAC
1301-A Bowes Road
Elgin, IL 30123

Order No.: 7396

Ship To:
Hi-Tech Manufacturing
4637 No. 25th Ave.
Schiller Park, IL 60176

Order No.: None

Seller hereby certifies as follows - that all materials, parts and processes furnished against the above referenced purchase order were produced in conformance with all applicable specifications as referenced therein, and are on file subject to examination.

Quantity Shipped	Part Number/Description	Serial Number
(10)	206821 Rev."F" Single Axis Table	AA00734009 AA00734010 AA00734011 AA00734012 AA00734013 AA00734014 AA00734015 AA00734016 AA00734017 AA00734018

By: _____
Q.C. Manager

From: Simon Sorsher
Date: 1/17/2008 9:04:40 AM
To: Simon Sorsher
Subject: Fw: Re: FW: Argonne Exploded View

-------Original Message-------

From: Emil Trakhtenberg
Date: 1/17/2008 8:52:44 AM
To: Simon Sorsher; Marion M. White
Subject: Re: FW: Argonne Exploded View

Simon,
Design of the crate for the SMS pedestal is approved.
Thank you,
Emil