

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: Jan 15, 2008

Part/Drawing Number: L143-143080-200000 Serial Numbers: 20

Supplier Name: Hi-Tech Manufacturing Inc PO Number: 7A-08189

Responsible LCLS Technical Lead: M. White Responsible 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, L1430401-100103, L1430401-100303, | Present |
| 5. | Certificates of Inspection | NA | Hi-Tech | Undulator Girder | Present |
| 6. | Copies of the ANL Inspection/Acceptance Report of Components for As-Built Drawings | L143-00093 | Hi-Tech | Interface Plate (Double CAM) | Present |
| 7. | Copies of the ANL Inspection/Acceptance Report of Components for As-Built Drawings | L143-00093 | Hi-Tech | Interface Plate (Single CAM) | Present |
| 8. | Report of Components for As-Built Drawings | L143-00093 | Hi-Tech | Support Girder (L1430401-10040) | Present |
| 9. | Weld Certification | NA | Hi-Tech | Support Girder | 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 |
| 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? Present in SM #1 QA |
|-----|---|-----------------|-----------|--------------------|---------------------------------|
| 21. | Certification of Single Axis Table | | Limtech | | Present |
| 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 Schuck

Date: 1/31/08

Concurrence signatures of this table of contents contents:

Responsible ANL ICLS Engineer:

[Signature]

Date: 02/01/08

Responsible ANL QA Coordinator:

[Signature]

Date: 2/1/08

Responsible ANL ICLS Technical Lead:

[Signature]

Date: 01/26/08

ANL ICLS Project Manager:

[Signature]

Date: 2/1/08

Distribute this completed form to: ANL Records package, ANL ICLS QA, ANL ICLS Technical Lead

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 | 07 | 10 5 | 19, 20, 21, 22, 23 | Hi- Tech Manufacturing | 7A-08189 |
| Undulator Girder Assembly | L1430401-100396 | 04 | 1 5 | 19, 20, 21, 22, 23 | 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

1/9/08

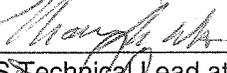
Date



Responsible or Chief Engineer at ANL

01/09/08

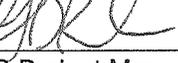
Date



LCLS Technical Lead at ANL

09-Jan 2008

Date



LCLS Project Manager at ANL

09 Jan 2008

Date

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

20-1

TIME OF TEST: 10/29/2007 11:00:50 AM

POS#1 FWD

CAM ECCEN R (MICRONS) = 2192.22

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 9.49

DEVIATION MAX (MICRONS) = 22.66

DEVIATION MIN (MICRONS) = -25.69

POS#1 BWD

CAM ECCEN R (MICRONS) = 2195.49

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 10.93

DEVIATION MAX (MICRONS) = 25.08

DEVIATION MIN (MICRONS) = -25.36

POS#2 FWD

CAM ECCEN R (MICRONS) = 2193.92

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 9.31

DEVIATION MAX (MICRONS) = 26.07

DEVIATION MIN (MICRONS) = -22.29

POS#2 BWD

CAM ECCEN R (MICRONS) = 2195.02

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 11.08

DEVIATION MAX (MICRONS) = 24.95

DEVIATION MIN (MICRONS) = -26.00

POS#3 FWD

CAM ECCEN R (MICRONS) = 2194.44

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 10.86

DEVIATION MAX (MICRONS) = 24.06

DEVIATION MIN (MICRONS) = -26.41

POS#3 BWD

CAM ECCEN R (MICRONS) = 2195.25

ROTARY POT GAIN = 345.46

POT OFFSET (DEG) = 59.60

DEVIATION RMS (MICRONS) = 11.22

DEVIATION MAX (MICRONS) = 24.42

DEVIATION MIN (MICRONS) = -25.42

=== TEST PASS! ===

--- END OF TEST ---

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

20-2

TIME OF TEST: 11/1/2007 1:48:50 PM

POS#1 FWD

CAM ECCEN R (MICRONS) = 1535.58
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 36.65
DEVIATION RMS (MICRONS) = 7.48
DEVIATION MAX (MICRONS) = 17.16
DEVIATION MIN (MICRONS) = -20.21

POS#1 BWD

CAM ECCEN R (MICRONS) = 1538.23
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 58.64
DEVIATION RMS (MICRONS) = 6.98
DEVIATION MAX (MICRONS) = 17.23
DEVIATION MIN (MICRONS) = -22.33

POS#2 FWD

CAM ECCEN R (MICRONS) = 1535.46
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 58.64
DEVIATION RMS (MICRONS) = 7.23
DEVIATION MAX (MICRONS) = 21.13
DEVIATION MIN (MICRONS) = -18.85

POS#2 BWD

CAM ECCEN R (MICRONS) = 1538.39
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 58.64
DEVIATION RMS (MICRONS) = 6.97
DEVIATION MAX (MICRONS) = 16.77
DEVIATION MIN (MICRONS) = -22.96

POS#3 FWD

CAM ECCEN R (MICRONS) = 1535.18
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 11.51
DEVIATION RMS (MICRONS) = 7.60
DEVIATION MAX (MICRONS) = 20.85
DEVIATION MIN (MICRONS) = -20.58

POS#3 BWD

CAM ECCEN R (MICRONS) = 1538.46
ROTARY POT GAIN = 348.04
POT OFFSET (DEG) = 36.65
DEVIATION RMS (MICRONS) = 6.93
DEVIATION MAX (MICRONS) = 15.71
DEVIATION MIN (MICRONS) = -21.92

=== TEST PASS! ===

--- END OF TEST ---

ADVANCED PHOTON SOURCE
ARGONNE NATIONAL LAB

20-3

TIME OF TEST: 11/1/2007 1:30:57 PM

POS#1 FWD

CAM ECCEN R (MICRONS) = 1577.35
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.74
DEVIATION RMS (MICRONS) = 8.40
DEVIATION MAX (MICRONS) = 23.02
DEVIATION MIN (MICRONS) = -20.89

POS#1 BWD

CAM ECCEN R (MICRONS) = 1577.10
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.75
DEVIATION RMS (MICRONS) = 8.73
DEVIATION MAX (MICRONS) = 24.76
DEVIATION MIN (MICRONS) = -23.86

POS#2 FWD

CAM ECCEN R (MICRONS) = 1577.59
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.74
DEVIATION RMS (MICRONS) = 8.73
DEVIATION MAX (MICRONS) = 25.65
DEVIATION MIN (MICRONS) = -22.04

POS#2 BWD

CAM ECCEN R (MICRONS) = 1575.49
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.74
DEVIATION RMS (MICRONS) = 8.81
DEVIATION MAX (MICRONS) = 22.88
DEVIATION MIN (MICRONS) = -24.21

POS#3 FWD

CAM ECCEN R (MICRONS) = 1578.41
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.74
DEVIATION RMS (MICRONS) = 9.15
DEVIATION MAX (MICRONS) = 22.46
DEVIATION MIN (MICRONS) = -23.93

POS#3 BWD

CAM ECCEN R (MICRONS) = 1575.76
ROTARY POT GAIN = 347.84
POT OFFSET (DEG) = 59.74
DEVIATION RMS (MICRONS) = 9.11
DEVIATION MAX (MICRONS) = 26.68
DEVIATION MIN (MICRONS) = -24.41

=== TEST PASS! ===

--- END OF TEST ---

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

20-4

TIME OF TEST: 11/1/2007 2:03:54 PM

POS#1 FWD

CAM ECCEN R (MICRONS) = 1583.69
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 13.69
DEVIATION MAX (MICRONS) = 39.53
DEVIATION MIN (MICRONS) = -26.60

POS#1 BWD

CAM ECCEN R (MICRONS) = 1586.92
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 12.23
DEVIATION MAX (MICRONS) = 38.39
DEVIATION MIN (MICRONS) = -26.13

POS#2 FWD

CAM ECCEN R (MICRONS) = 1582.67
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 13.74
DEVIATION MAX (MICRONS) = 38.52
DEVIATION MIN (MICRONS) = -26.73

POS#2 BWD

CAM ECCEN R (MICRONS) = 1585.44
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 12.30
DEVIATION MAX (MICRONS) = 38.86
DEVIATION MIN (MICRONS) = -26.26

POS#3 FWD

CAM ECCEN R (MICRONS) = 1582.58
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 14.04
DEVIATION MAX (MICRONS) = 38.17
DEVIATION MIN (MICRONS) = -25.41

POS#3 BWD

CAM ECCEN R (MICRONS) = 1584.80
ROTARY POT GAIN = 342.34
POT OFFSET (DEG) = 60.62
DEVIATION RMS (MICRONS) = 12.23
DEVIATION MAX (MICRONS) = 38.02
DEVIATION MIN (MICRONS) = -25.68

=== TEST PASS! ===

--- END OF TEST ---

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

20-5

TIME OF TEST: 11/3/2007 8:45:35 AM

POS#1 FWD

CAM ECCEN R (MICRONS) = 1582.94
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 5.39
DEVIATION MAX (MICRONS) = 13.63
DEVIATION MIN (MICRONS) = -16.02

POS#1 BWD

CAM ECCEN R (MICRONS) = 1583.95
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 4.75
DEVIATION MAX (MICRONS) = 17.16
DEVIATION MIN (MICRONS) = -13.89

POS#2 FWD

CAM ECCEN R (MICRONS) = 1581.06
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 5.10
DEVIATION MAX (MICRONS) = 17.08
DEVIATION MIN (MICRONS) = -13.43

POS#2 BWD

CAM ECCEN R (MICRONS) = 1583.32
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 4.91
DEVIATION MAX (MICRONS) = 15.29
DEVIATION MIN (MICRONS) = -13.86

POS#3 FWD

CAM ECCEN R (MICRONS) = 1580.73
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 5.48
DEVIATION MAX (MICRONS) = 13.13
DEVIATION MIN (MICRONS) = -15.38

POS#3 BWD

CAM ECCEN R (MICRONS) = 1582.65
ROTARY POT GAIN = 347.33
POT OFFSET (DEG) = 61.26
DEVIATION RMS (MICRONS) = 4.89
DEVIATION MAX (MICRONS) = 15.49
DEVIATION MIN (MICRONS) = -14.71

=== TEST PASS! ===

--- END OF TEST ---



AMERICAN GRINDING & MACHINE CO.

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

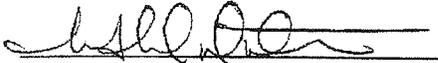
CERTIFICATE OF COMPLIANCE

Customer: Hi-Tech Mfg PHONE: (847) 678-1616
4637 N. 25th Ave. FAX: (847) 678-1716
Schiller Park, IL
60176

RE: PURCHASE ORDER 16845

PRINT NUMBER(S) (if applicable) L1430802-200030

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

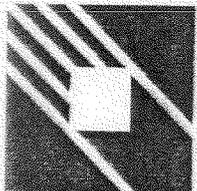
7119107
Date

Certificate of Inspection

This certificate is presented to

Argonne National Laboratory

Per PO # 7A-08189, part #
L1430401-100103 (PF-381-000-15) quantity of 16pcs
L1430401-100303 (PF-381-002-15) quantity of 4pcs
Have been inspected and met all drawing requirements.



P.T. TUECH

Manufacturing, Inc.

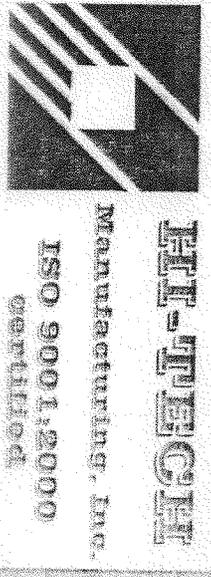
ISO 9001:2000
certified

Q.C. Supervisor

Musclage

09-07-07
Date

Certificate of Inspection



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.*

O.C. Supervisor Muelaga 01-07-07
Date

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: METALEX, INC.

PART NAME: UNDULATOR GIRDER ASSY

DRAWING #: L1430401-100400 (05)

SERIAL #: 20

P.O. #: 7A-08189

DATE: 12-19-07

ACCEPTANCE CRITERIA

1. Visually inspect for damage. Accept/Reject

CRITICAL DIMENSIONS (mm)

| FEATURE | TARGET | TOLERANCE | MEASURED VALUE | |
|---|-------------|---------------|-------------------|---------------|
| Perpendicularity of Datum B to C | $\leq .025$ | $\leq .025$ | $\angle = .025$ | Accept/Reject |
| Perpendicularity of Datum A to C | $\leq .025$ | $\leq .025$ | $\angle = .025$ | Accept/Reject |
| True position of 2 D2 hole to 2 D3 holes | $\leq .03$ | $\leq .03$ | $\angle = .03$ | Accept/Reject |
| Parallelism of support pad surface to Datum C | $\leq .07$ | $\leq .07$ | #1 $\angle = .07$ | Accept/Reject |
| | | | #2 $\angle = .07$ | |
| | | | #3 $\angle = .07$ | |
| | | | #4 $\angle = .07$ | |
| Distance from Datum C to support pad surface | 109.50 | $+ .2 / - .2$ | #1 109.39 | Accept/Reject |
| | | | #2 109.41 | |
| | | | #3 109.44 | |
| | | | #4 109.47 | |

INSPECTOR: Simon

QA Supervisor: Muelaza

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

COMMENTS:

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 #: 20

P.O. #: 7A-08189

DATE: 08-20-07

ACCEPTANCE CRITERIA

| | |
|---------------------------------|---------------|
| 1. Visually inspect for damage. | Accept/Reject |
|---------------------------------|---------------|

CRITICAL DIMENSIONS (mm)

| FEATURE | TARGET | TOLERANCE | MEASURED VALUE | |
|---|------------|-------------|----------------|---------------|
| Flatness of Datum A | $\leq .02$ | $\leq .02$ | $\leq .02$ | Accept/Reject |
| Perpendicularity of Datum B to A | $\leq .02$ | $\leq .02$ | $\leq .02$ | Accept/Reject |
| Parallelism of inner edge on Cam Block A to B | $\leq .02$ | $\leq .02$ | $\leq .02$ | Accept/Reject |
| Parallelism of inner edge on Cam Block B to B | $\leq .02$ | $\leq .02$ | $\leq .02$ | Accept/Reject |
| Parallelism of outer edge on Cam Block B to B | $\leq .02$ | $\leq .02$ | $\leq .02$ | Accept/Reject |
| Width of mounting surface on Cam Block B | 142.01 | +0.02/-0 | 142.01 | Accept/Reject |
| Width of mounting surface on Cam Block A | 254.00 | +0.02/-0 | 254.01 | Accept/Reject |
| Separation of outer edges of Cam Blocks | 685.42 | +0.08/-0.08 | 685.43 | Accept/Reject |

INSPECTOR: Simon

QA Supervisor: Murphy

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

COMMENTS:

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 #: 20

P.O. #: 7A-08189

DATE: 08-20-07

ACCEPTANCE CRITERIA

| | |
|---------------------------------|----------------------|
| 1. Visually inspect for damage. | <u>Accept/Reject</u> |
|---------------------------------|----------------------|

CRITICAL DIMENSIONS (mm)

| FEATURE | TARGET | TOLERANCE | MEASURED VALUE | |
|---|------------|-------------|----------------|----------------------|
| Flatness of Datum A | $\leq .02$ | $\leq .02$ | $\angle = .01$ | <u>Accept/Reject</u> |
| Perpendicularity of Datum B to A | $\leq .02$ | $\leq .02$ | $\angle = .01$ | <u>Accept/Reject</u> |
| Parallelism of upper edge on lower Cam Block C to B | $\leq .02$ | $\leq .02$ | $\angle = .01$ | <u>Accept/Reject</u> |
| Parallelism of lower edge on upper Cam Block C to B | $\leq .02$ | $\leq .02$ | $\angle = .01$ | <u>Accept/Reject</u> |
| Parallelism of upper edge on upper Cam Block C to B | $\leq .02$ | $\leq .02$ | $\angle = .01$ | <u>Accept/Reject</u> |
| Width of mounting surface on lower Cam Block | 142.01 | +0.02/-0 | 142.02 | <u>Accept/Reject</u> |
| Width of mounting surface on upper Cam Block | 142.01 | +0.02/-0 | 142.02 | <u>Accept/Reject</u> |
| Separation of inner edges of Cam Blocks | 457.43 | +0.08/-0.08 | 457.47 | <u>Accept/Reject</u> |

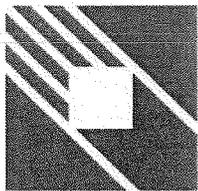
INSPECTOR: Simon

QA Supervisor: Mulega

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

COMMENTS:

Weld Certificate



PTT-JEGER
Manufacturing, Inc.
ISO 9001:2000
certified

This certificate is presented to

Argonne National Laboratory

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

Procedure: #PQR101

Customer Specification: #AWS D1.1

Weld wire Spec: #AWS A5.28, Type: ER80S-D2, Heat: 83479, Dia: .045

Welder: Tadewasz Sutowski

Have been welded in accordance with the referenced welding specification.

Q.C. Supervisor

Musky A. Kennedy

11-17-07
Date

| | | | | | |
|--|------------------------------|---|--|--|-----------------|
|  Metalex Customized Machinery and Parts <small>CERTIFIED ISO 9001 QUALITY MANAGEMENT</small> | | INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd Cincinnati, OH 45242 (513) 489-0507 | | Job No. 2007-7558 | Qty 1 |
| Inspection Origin <input type="checkbox"/> Receiving <input type="checkbox"/> In-Process <input checked="" type="checkbox"/> Final <input type="checkbox"/> Rework/Repair <input type="checkbox"/> First Article | | Vendor (Sub-Tier Source) Identification Vendor Name N/A Date Rec'd N/A P.O. No. N/A | | Customer Identification Part No. L1430401-100400 REV 6 P.O. Number 16185 Part Name Undulator Support Girder | |
| At Oper. 170 | Serial Numbers: 20 | 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 | 20.30° C | MTX QC 8 | |
| PART TEMPERATURE DURING INSPECTION (Record in Celsius) | SOW 4.5.4 | CONTACT THERMOMETER MX1794 | 20.33° C | MTX QC 8 | |
| PART TEMPERATURE AFTER INSPECTION (Record in Celsius) | SOW 4.5.4 | CONTACT THERMOMETER MX1794 | 20.32° 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 | .028 | MTX QC 8 | |
| B) Perpendicularity of Datum B to Datum C .25 [.010] A C | E8 | CMM MX1269 | .030 | MTX QC 8 | |
| C) Flatness of datum A of .030 [.001] | N/A | CMM MX1269 | .010 | MTX QC 8 | |
| D) Perpendicularity of Datum A to Datum C .25 [.010] C | D8 | CMM MX1269 | .011 | MTX QC 8 | |
| E) 9X ϕ 6.338 - 6.350 marked "D1", "D2" & "D3" | E7 E6 E3 | CMM MX1269 | 6.339 - 6.350 | MTX QC 8 | |
| F) True position of "D3" holes 2X ϕ .1 [.004] A B C ϕ .03 [.0012] B C | E3 | CMM MX1269 | .006 \pm .028 .010 | MTX QC 8 | |
| F) True position of "D2" holes 2X ϕ .1 [.004] A B C ϕ .03 [.0012] B C | E6 | CMM MX1269 | .038 \pm .005 .025 | MTX QC 8 | |
| F) Locations of "D1" holes 444.50 17.500 | E7 | CMM MX1269 | 444.530 | MTX QC 8 | |
| STAMP  | INSPECTED BY THOMAS G COOK | DATE 12/3/07 | PAGE OF 2 | QTY ACC | QTY REJ 0 |



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 | | |
| <input type="checkbox"/> Receiving | Vendor Name N/A | Part No. | REV | P.O. Number | | |
| <input type="checkbox"/> In-Process | | L1430401-100400 | 6 | 16185 | | |
| <input checked="" type="checkbox"/> Final | Date Rec'd N/A | P.O. No. N/A | Part Name Undulator Support Girder | | | |
| <input type="checkbox"/> Rework/Repair | | | Customer Name Hi-Tech Manufacturing | | | |
| <input type="checkbox"/> First Article | | | | | | |
| AI Oper. 170 | Serial Numbers: 20 | | | | | |

| 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 | 1968.489 | | |
| 3492.50 [137.500] | E2 | CMM MX1269 | 3492.440 | | |
| 2X 523.6 [20.61] | E1 | CMM MX1269 | 523.579 523.575 523.570 | | |
| 3185.26 [125.404] | D2 | CMM MX1269 | 3185.220 | | |
| 845.29 [33.179] | D6 | CMM MX1269 | 845.286 | | |
| 2X 95.10 [3.744] | D8 | CMM MX1269 | 95.100 95.107 | | |

SHEET 2 - SIDE VIEW

| | | | | | |
|---|----|------------|------|--|--|
| A) \boxed{C} / / $\boxed{.030 [0.012]}$ 2X Surface "J" | C8 | CMM MX1269 | .020 | | |
| B) \boxed{C} / / $\boxed{.05 [0.02]}$ | C8 | CMM MX1269 | .022 | | |

SHEET 2 - BOTTOM VIEW

| | | | | | |
|--|----|------------|--|--|--|
| A) 2X 749.78 + .15 | C7 | CMM MX1269 | 749.860 749.853 | | |
| B) 2X 2340.00 + .15 | C5 | CMM MX1269 | 2339.997 2339.984 | | |
| C) 4X $\boxed{.05 [0.02]} \boxed{B}$ | B2 | CMM MX1269 | .002 .013 .008 .007 | | |
| D) 4X $\boxed{.030 [0.012]} \boxed{A}$ | B7 | CMM MX1269 | ic 12/3/07 .004 .010 .002 .003 | | |

SHEET 3 - SECTION B-B

| | | | | | |
|-----------------------------------|----|------------|-------------------|--|--|
| E) $\boxed{.07 [0.03]} \boxed{C}$ | C2 | CMM MX1269 | .052 | | |
| F) 4X 109.47 + .08 | C2 | CMM MX1269 | 109.464 - 109.516 | | |

| | | | |
|---|-----------------------|----------|--|
| ALL OTHER FEATURES ARE ACCEPTED PER METALEX OPERATOR ACCEPTANCE PROGRAM (OAP) MXW117001 & OPERATOR SIGNOFF OF ROUTER OPERATIONS FOR COMPLIANCE TO ALL DRAWING FEATURES GENERATED WITHIN THAT DEFINED OPERATION. | ROUTER SIGNOFF MX5009 | CONFORMS | |
|---|-----------------------|----------|--|

| | | | | | |
|-----------|-------------------------------|-----------------|----------------|--------------|--------------|
| STAMP | INSPECTED BY THOMAS G COOK | DATE 12/3/07 | PAGE 2 OF 2 | QTY ACC 1 | QTY REJ 0 |
|-----------|-------------------------------|-----------------|----------------|--------------|--------------|

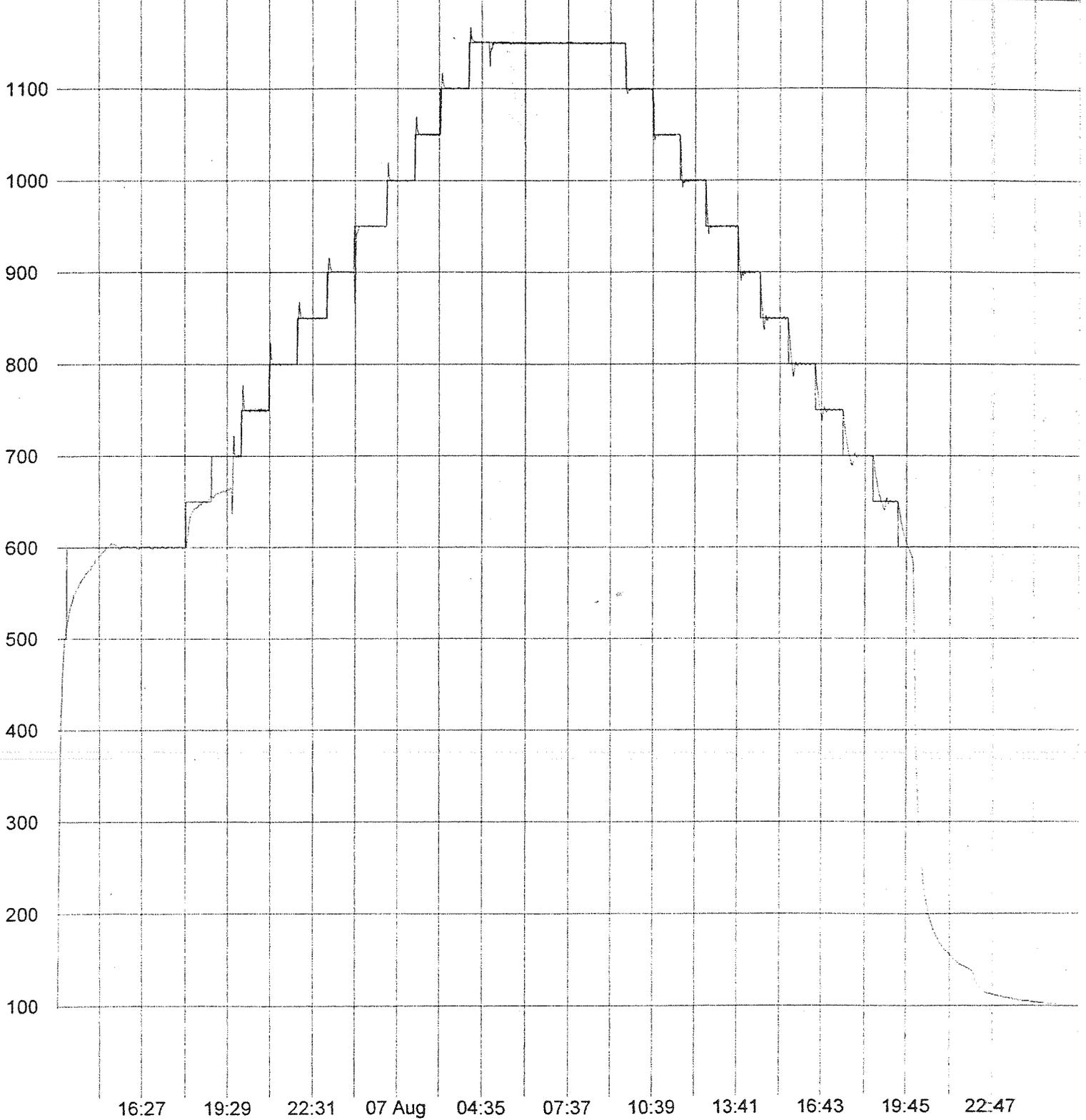
Datalog Report

Start: 8/6/2007 1:25:00 PM
End: 8/8/2007 1:30:00 AM
Sample every 1 minute(s)
Printed 8/8/2007 6:24:53 AM

Customer: METALEX STRESS RELIEVE
Part#: L1430401-100400 *REV 05Y*
S/N#: 7A-08198-17, 18, 19, 20
PO#: 72325
CST Order #: 97220

CB 512 - 0 - TEMP ACTUAL [00]

CB 512 - 1 - TEMP SET [01]



08-09-07 A07:50 OUT



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



CERTIFICATE OF CONFORMANCE

| | | | |
|------------|-------------------------------------|-------------------|------------------|
| Date: | <u>12/14/07</u> | Metalex Job# | <u>2007-7558</u> |
| Customer: | <u>Hi-Tech Manufacturing, Inc.</u> | Purchase Order # | <u>16185</u> |
| | <u>4637 N. 25th Ave.</u> | MX Packing List # | <u>41519</u> |
| | <u>Schiller Park, IL 60176</u> | | |
| Attention: | <u>Simon Sorsher</u> | | |

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.

| <u>ITEM</u> | <u>QTY</u> | <u>PART NUMBER</u> | <u>REV</u> | <u>PART NAME</u> | <u>ID # *</u> |
|-------------|------------|--------------------|------------|------------------|---------------|
| 001 | 4 | L1430401-100400 | 6 | Support Girder | See Below |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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

KTB 12/14/07

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-08198-20 thru 7A-08198-23.

Some internal documents in this quality package may contain documents certifying 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 Worksopce 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.

| | | |
|----------------------------------|----------------------|-----------------|
| <u><i>Katrina Black</i></u> | <u>Katrina Black</u> | <u>12/14/07</u> |
| Metalex Representative Signature | Print Name | Date |



Material Safety Data Sheet

Z-Maxx Lube – Heavy Duty Grease

SECTION 1

Technical Phone: 651-784-1250 MSDS# 4-4-3-12-1-180 Rev A
Date Prepared 6 July 2004

SECTION 2 - INGREDIENTS

Complex Mixture – Petroleum Hydrocarbons Plus Additives. This material is not known to contain greater than 0.1% of any carcinogen required to be listed under the OSHA Hazard Communication Standard (29CFR 1910.1200).

This product is considered non-hazardous when handled properly and used for intended purpose.

*This product does not contain any chemical subject to the reporting requirements of the Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, Section 313 and 40 CFR Part 372.

SECTION 3 – PHYSICAL DATA

Appearance and Odor: Amber grease, mild mineral odor
Boiling Point: N/A
Specific Gravity: .945
Vapor Pressure (mm Hg): N/A
Vapor Density (air = 1): N/A
Water Solubility: Nil

SECTION 4 – FIRE AND EXPLOSION DATA

| | | | |
|--------------------|--------------------|-------------|-------------|
| <u>Flash Point</u> | <u>Method used</u> | <u>LEL%</u> | <u>UEL%</u> |
| >200°C (392°F) | Cleveland open cup | Unknown | Unknown |

Extinguisher Media: CO² Dry chemical, Foam or Sand/Earth

Fire Fighting: NIOSH/MSHA approved, self-contained, pressure demand respirator recommended; water may spread fire.

Fire and Explosion Hazards: Containers not on fire may be cooled with water.

SECTION 5 – REACTIVITY DATA

Material is: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Strong acids and direct open flames.

Incompatibility: Excessive heat. Avoid conditions that could generate an oil mist.

Hazardous decomposition product: Oxides of Carbon, Sulphur, Nitrogen

SECTION 6 – HEALTH HAZARDS

| | |
|--|---|
| Acute: | Unknown. |
| Chronic: | May cause eye or skin irritation. |
| Signs and symptoms of exposure: | Eye, skin irritation. |
| Medical conditions generally aggravated by exposure: | Unknown |
| Carcinogenic status: | OSHA: N/A I.A.R.C. N/A N.T.P. N/A |

Emergency and first aid procedures:

Inhalation: Move to fresh air.
Flush with water for 15 minutes, if film or irritation persists, seek medical attention.
Eyes: Flush with water for 15 minutes, if film or irritation persists, seek medical attention.
Skin: Wipe off excess and wash with soap and water.
Ingestion: Do not induce vomiting. Consult physician.

SECTION 7 – SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Handling and storage: Store in a dry, cool environment.
Other precautions: Keep away from open flames.
Scoop up and place in metal container. Use inert absorbent to clean residue and place in metal container. U.S. Coast Guard 1-800-424-8802.

Spill or release: Dispose of in accordance with all applicable federal, state and local regulations.

Disposal methods: Chemtrac 1-800-424-9300

Emergency Phone: Chemtrac 1-800-424-9300

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection: Not required at normal use temperatures.

Ventilation Procedures: Local exhaust: recommended to maintain oil mist below TLV limit. Mechanical: to maintain below TLV limits. Special: N/A Other: N/A

Protective gloves: Oil resistant gloves. Safety glasses (goggles).

Eye protection: N/A

Other protective equipment: Practice good housekeeping.
Work/hygenic practices: N/A = Not Applicable

(May be used to comply with OSHA's Hazard Communications Standard, 29CFR 1910.1200. Standard must be consulted for specific requirements.)

**NORTHERN TECHNOLOGIES
INTERNATIONAL CORPORATION**

6680 North Highway 49 * Lino Lakes MN 55014
Toll Free: 800-328-2433 * Phone: 651-784-1250 * Fax: 651-784-2902
URL: www.ntic.com * American Stock Exchange Symbol: NTI

BLUE leaf

E.360

Keeler LongKeeler & Long/PPG
856 Echo Lake Road
Watertown, CT
1-800-238-8596

Product Data Sheet

Kolor-Poxy™ Enamel
KLJ Series**PPG** PPG High Performance Coatings**Product Information**

Product Code: KLJ1XXXX Part A
KLJ2XXXX Part A
Where XXXX is a color designation.
KLJ1B Curing Agent Part B

Product: Polyamide Epoxy

Suggested Use: A two component, polyamide epoxy enamel formulated to provide excellent chemical abrasion and direct impact resistance for interior exposures.
Use as a topcoat for interior steel, concrete and masonry surfaces, especially in alkaline environments.

Not Recommended: Exterior exposures; areas subject to splash and spillage of strong acids; immersion in strong acids.

Product Description

Color: A full range of colors is available

Gloss 60°: KLJ1XXXX 85 minimum
KLJ2XXXX 35 - 65

VOC: 3.47 lbs./gal. (416 g/L) mixed, unthinned

Method: Calculated

In Service Heat Limitations: 250° F (121° C) dry heat

Weight/Gallon: 10.2 ± 0.6 lbs./gal. *

Flash Point: Part A 82°F (27.7°C)
Part B 104°F (40°C)

Package: Part A is available in one gallon containers filled at 0.80 gallons (3.03 liters) and five gallon containers filled at 4.00 gallons (15.1 liters).
KLJ1B Part B is available in quart containers filled at 25.6 fluid ounces (767 mL) and full filled gallon containers.

Percent Solids by Volume: 53.9 ± 3.0% *

Percent Solids by Weight: 66.1 ± 3.0% *

Drying Schedule

Air Dry @ 77°F (25°C) ASTM D5895

Dry to Touch: 4 hours

Dry to Handle: 8 hours

Drying Schedule (continued)

Dry to Recoat: 24 hours

Drying times listed may vary depending on temperature, humidity and air movement.

Application Data**Substrate:** Metal or masonry**Substrate Preparation:** The service life of the coating is directly related to the surface preparation. The surface to be coated must be dimensionally stable, properly prepared and primed, dry, clean and free of all contamination including oil, dirt, grease and rust.**Basecoats:** Kolorane™ Aluminum Primer, Kolorane™ Zinc Rich Primer, Kolor-Poxy™ Primers and Enamels, Kolor-Poxy™ Surfacer**Application Method:** Apply by spray, brush or roller application.**Air Spray:** DeVilbiss MBC gun, 704 or 777 air cap with "E" or "F" tip and needle or equivalent equipment. Atomization Pressure: 30 - 60 psi.**Airless Spray:** Equipment capable of maintaining a minimum of 2500 psi at the tip without surge. 0.011" (0.279 mm) to 0.017" (0.432 mm) orifice.**Brush:** Use a high quality natural bristle brush.**Roller:** Use a 3/8" nap polyester nylon roller cover with a solvent resistant core.

Refer to Application Guide APG-3 for additional information.

Parts Base by Volume: ← parts "A"**Parts Catalyst by Volume:** 1 part KLJ1B Part B**Digestion Time:** 1 hour @ 77°F (25°C)**Pot Life @ 72°F:** 8 hours @ 77°F (25°C)**Thinner Code & Percent:** Thin up to 5% by volume with KL3700 as needed for application.**Coverage Sq. Ft./Gal. @ 2.5 mils:** 346 sq. ft./gal. ***Wet Film Per Coat:** 4.6 to 7.4 mils***Dry Film Per Coat:** 2.5 to 4.0 mils

1 to 1 ratio

The statement and methods presented in this bulletin are based upon the best available data and practices known to PPG Architectural Finishes, Inc. at the present time. They are not representations or warranties of performance, results or comprehensiveness of such data. Since PPG Architectural Finishes, Inc. is constantly improving its coatings and paint formulas, future technical data may vary somewhat from what was available when this bulletin was printed. Contact your PPG Sales Representative, Distributor of Pittsburgh Paints or the Pittsburgh Paints Information Center for the most up-to-date information. E.360 May, 2004

BLUE 1d2

E.360

Keeler Long**PPG** PPG High Performance CoatingsKeeler & Long/PPG
856 Echo Lake Road
Watertown, CT
1-800-238-8596

Product Data Sheet

Kolor-Poxy™ Enamel
KLJ Series

Application Data (continued)

Mixing Instructions: Thoroughly mix Part A before blending. Add KLJ1B Part B to Part A. Mix until uniform. Allow to digest 1 hour before use.**Clean Up Solvent:** KL3700

Additional Information

Apply only when air, product and surface temperatures are at least 50°F (10°C) and the surface temperature is at least 5°F (3°C) above the dew point. Curing is retarded below 60°F (15.6°C).

Store materials at temperatures between 50°F (10°C) and 95°F (35°C).

Permissible substrate temperature during application is 50°F (10°C) and 120°F (48.9°C).

*Values are calculated using KLJ16002 White, Part A mixed 4:1 by volume with KLJ1B, Curing Agent, Part B. Values will vary with color.

Read all label and Material Safety Data Sheet (MSDS) information prior to use. MSDS are available by calling 1-800-238-8596.

Not intended for residential use.

Spray equipment must be handled with due care and in accordance with manufacturer's recommendation.

High-pressure injection of coatings into the skin by airless equipment may cause serious injury, requiring immediate medical attention at a hospital.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be released during surface preparation.

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Primer 1 of 2

E.140

Product Data Sheet

Keeler Long

Keeler & Long/PPG
856 Echo Lake Road
Watertown, CT 06795
1-800-238-8596

Kolor-Poxy™ Primer

KL3200 Series

 PPG High Performance Coatings
Product Information

Product Code: KL3200 White Part A
KL32004279 Red Oxide Part A
KL3200B Curing Agent Part B

Product Type: Polyamide-Epoxy

Suggested Use: Use where a high build primer/topcoat is required that provides abrasion, impact and chemical resistance when applied to steel and concrete surfaces exposed to a wide range of conditions. May be used in Nuclear Coating Service areas Level II, balance of plant, and certain Level III areas.

Not Recommended: Immersion in strong solvents.

Compatible Topcoats: Acrythane™ Enamels, Hydro-Poxy™ Enamels, Kolorane™ Enamels, Kolor-Poxy™ HI-Build Enamels, Kolor-Poxy™ Primers and Enamels, Kolor-Sil™ Enamels, Poly-Silicone Enamels

Product Description

Color: White and light colors, Red Oxide

Gloss 60°: Flat

VOC: 2.50 lbs./gal. (302 g/L) *

Method: Calculated (mixed)

Weight/Gallon: 13.6 +/- 0.5 lbs./gal. (mixed) *

In Service Heat Limitations: 250°F (121°C) maximum, dry heat.
150°F (66°C) maximum, immersion.

Flash Point: KL3200 Part A 78°F (26°C)
KL3200B Part B 123°F (51°C)

Package: KL3200 Part A is available in short filled gallon and five gallon containers.
KL3200B Part B is available in short filled quart and full filled gallon containers.

Percent Solids by Volume: 66.2% +/- 3.0% (mixed) *

Percent Solids by Weight: 81.5% +/- 3.0% (mixed) *

Application Data

Substrate: Ferrous metal or masonry

Substrate Preparation: The service life of the coating is directly related to the surface preparation. The surface to be coated must be properly prepared, dry, clean and free of contamination.

Minimum surface preparation is SSPC-SP6 (NACE #3) Commercial Blast Cleaning for ferrous substrates.

Brush blasting or acid etching is required for masonry.

Stabilizers on the surface of hot dipped galvanized steel must be removed by either brush blasting, sanding or chemical treatment.

Near White Metal Blast Cleaning per SSPC-SP10 (NACE #2) is minimum surface preparation for immersion service.

Basecoat: Self priming when used on recommended substrates.

Application Method: Apply by spray, brush or roller application.

Air Spray: DeVilbiss MBC gun, 704 or 777 air cap with "E" tip and needle or equivalent equipment. Atomizing pressure 30-60 psi.

Airless Spray: Equipment capable of maintaining a minimum of 2500 psi at the tip without surge. 0.015" (0.38 mm) to 0.019" (0.48 mm) orifice.

Brush: Use a high quality natural bristle brush.

Roller: Use a 3/8" nap polyester-nylon roller cover with a solvent resistant core.

Refer to Application Guide AGP-3 for additional information.

Parts Base by Volume: 4 parts KL3200 Part A

Parts Catalyst by Volume: 1 part KL3200B Part B

Thinner Code & Percent: Thin up to 5% by volume with KLS700 as needed for application.

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E.140 March, 2005

Primer 2 of 2

E.140

Product Data Sheet

Keeler Long

Keeler & Long/PPG
856 Echo Lake Road
Watertown, CT 06795
1-800-238-8596

Kolor-Poxy™ Primer
KL3200 Series

PPG PPG High Performance Coatings

Application Data (continued)

Digestion Time: 45 minutes
Pot Life: 8 hours at 77°F (25°C).
Wet Film Per Coat: 3.8 to 9.1 mils *
Dry Film Per Coat: 2.5 to 6.0 mils
Coverage Sq. Ft./Gal. @ 1 mil: 1062 sq. ft./gal *
Mixing Instructions: Under mechanical agitation, mix Part A thoroughly. Add KL3200B Part B and mix until uniform. Allow to digest for 45 minutes before use.
Clean Up Solvent: KL3700

Drying Schedule

Drying Schedule: Per ASTM D5895, air dry @ 77°F (25°C) and 50% relative humidity
Dry to Touch: 2.5 hours
Dry Through: 6 hours
Dry to Recoat: 24 hours
Immersion Service: 10 days

Drying time may vary depending on temperature, humidity and air movement.

Additional Information

Apply only when air, product and surface temperatures are above 50°F (10°C) and surface temperature is at least 5°F (3°C) above the dew point. Curing is retarded below 60°F (15.5°C) without the addition of accelerator.

Permissible substrate temperature during application is 50°F (10°C) to 120°F (49°C).

Store materials at temperatures between 50°F (10°C) and 95°F (35°C).

Read all label and Material Safety Data Sheet (MSDS) information prior to use. MSDS are available by calling 1-800-238-8596.

*Values are calculated for KL3200 White mixed with KL3200B. Values will vary with color.

Spray equipment must be handled with due care and in accordance with manufacturer's recommendation.

High-pressure injection of coatings into the skin by airless equipment may cause serious injury, requiring immediate medical attention at a hospital.

Not intended for residential use.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC, EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. In Canada contact a regional Health Canada office. Follow these instructions to control exposure to other hazardous substances that may be release during surface preparation.

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E.140 March, 2005



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/O₂ - 92/8 FLOW RATE: 25 cfh
 BACKING OR BACK GOUGING METHOD: None

VISUAL INSPECTION RESULTS

APPEARANCE: Satisfactory UNDERCUT: None POROSITY: None

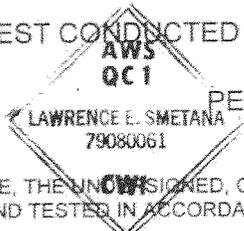
GUIDED BEND TEST RESULTS

| 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 N/A
 NOTED:

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



PER: *[Signature]* 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.

Where quality is an ongoing commitment

The Sherwin-Williams Co.
3143 EAST KEMPER RD
CINCINNATI, OHIO 45241

METALEX
Q. A. DEPT
ACCEPTED
DATE 6/24/07
BY TCC

MIX
QC 20

36 7558

**CERTIFICATE OF COMPLIANCE
STATEMENT OF QUALITY**

METALEX

PURCHASE ORDER 71261-JG
DATE OF MFG
SHELF LIFE
PART

QUANTITY
BATCH

IT IS HEREBY CERTIFIED THAT ALL MATERIAL USED IN THE
MANUFACTURE OF PARTS IN THE QUALITY CALLED FOR ON
THE SUBJECT PURCHASE ORDER, CONFORM TO THE MATERIALS
AND/OR MANUFACTURING SPECIFICATIONS INDICATED IN
DRAWINGS OF SPECIFICATIONS AS CALLED FOR ON SAID
PURCHASE ORDER.

THE SHERWIN-WILLIAMS CO
3143 EAST KEMPER RD
CINCINNATI OHIO 45241



AUTHORIZED SIGNATURE
CUSTOMER SERVICE ADM

Shelf life 36 months
OX26965
batch date OX27165
OX27855 B67US
OX0275C B67HS
OX 20052



SHERWIN-WILLIAMS

SHERWIN-WILLIAMS
3143 E KEMPER RD.
SHARONVILLE OH 45241

Visit www.sherwin-williams.com
Store 1246 KEVIN
(513) 771-8572
Fax - (513) 771-8590

PACKING
SLIP
No. 7233-5

ACCOUNT: 6538-0111-8 JOB 01 METALEX MFG

METALEX MFG
5750 CORNELL RD
CINCINNATI OH 45242 2010

PO: 71829-BL-7558
ORDER: OE002500701246
DATE: 07/16/07
TIME: 8:08 AM

METALEX MFG
C. A. DEPT
ACCEPTED
DATE 7/16/07
BY TC

E16/13651 11

| SALES NUMBER | SIZE | PRODUCT | DESCRIPTION | QUANTITY | |
|--------------------------|-----------|----------|----------------|----------|-----|
| 6405-18999 | GALLON | B62W2111 | TC HS EX WHT A | 5 | |
| Color: SW6026 SLATE GRAY | | | | | |
| BAC Blend-a-Color | | | | | |
| | | 02 | 32 | 64 | 128 |
| B1 | Black | 2 | 16 | 1 | 1 |
| G2 | New Green | - | 3 | - | - |
| Y3 | Deep Gold | - | 2 | - | - |
| Sher-Color Formula | | | | | |
| TOTAL LINES | | | | 1 | 5 |

OE1637L

RECEIVED
JUL 18 2007
METALEX MFG.
BY CD

MERCHANDISE RECEIVED IN GOOD ORDER BY:

BILLY BLANTON

DATE (CENTRALIZED INVOICE)



SHERWIN-WILLIAMS.

SHERWIN-WILLIAMS
3143 E KEMPER RD
SHARONVILLE OH 45241

Visit www.sherwin-williams.com
Store 1246 ANDREW
(513) 771-8572
Fax - (513) 771-8590

PACKING
SLIP
No. 5888-8

ACCOUNT: 6538-0111-8 JOB 01 METALEX MFG

PO: 7126/JG

METALEX MFG
5750 CORNELL RD
CINCINNATI OH 45242 2010

DATE: 06/20/07
TIME: 8:30 AM

E23/13651 11

(513) 989-0507

| SALES NUMBER | SIZE | PRODUCT | DESCRIPTION | QUANTITY |
|--------------|--------|---------|-------------------|----------|
| 630-4240 | GALLON | B67HS | RCT EPX PR BUFF A | 5 |
| 630-4265 | GALLON | B67VS | RCT EPX PR HARD B | 5 |
| TOTAL LINES | | | | 2 |
| | | | | 10 |

METALEX
O. A. DEPT
ACCEPTED
DATE 6/29/07
BY TC

MTX
QC 28

L 7558

MTX
RECEIVED
JUN 20 2007
METALEX MFG.
BY CS

MERCHANDISE RECEIVED IN GOOD ORDER BY:

BILLY

DATE (CENTRALIZED INVOICE)

Metallex PO# 70772-TG-7558

ATTN: JAMES GRIFFIN

Certificate of Conformance

Hi-Tech Job# 7558

METALLEX
 Q. A. DEPT
 ACCEPTED
 DATE 05/10/07
 BY KKB

MTX
 QC 19

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

KKB 6/5/07

MTX
 QC 19

Shelf life ID# 2835 thru 2839

| Item | Qty | Part Number | Rev. Part Name | Job # | SHelf LIFE |
|------|-----|-------------|-------------------------|-------|---------------------|
| 1. | 5 | B6241211 | TILECLAD H.S. EW. MC-56 | | 36 MONTH OR OPEN |
| 2. | 5 | B6012-70 | TILECLAD H.S. HARDNER | | 36 MONTH OR OPEN |
| 3. | 1 | R7K54 | SI REDUCER | | 3 YEARS |

L Shelf life ID# 2834

KKB 6/5/07

MTX
 QC 19

MX
 Shelf
 Life ID#
 2841 thru
 2844

KKB
 6/5/07

MTX
 QC 19

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

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

Signed/Dated:

Vendor Quality Exp.

cc: Hircopy P.O. Book

MS24012 (3/95)

Metalex PO# 171829-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 <u>7/16/07</u> |
| BY <u>TC</u> |

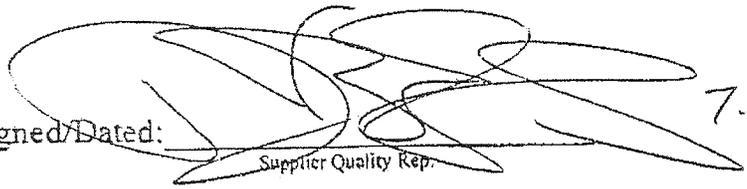
MTX
QC 20

| Item | Qty. | Part Number | Rev. | Part Name | Job # |
|----------|----------|----------------|------|---|-------------|
| <u>1</u> | <u>5</u> | <u>B62WZ11</u> | | <u>BATCH# OE 1637L</u> <u>TILE CIAD H.S. SW4026</u> <u>Shelf life 36 months</u> | <u>7558</u> |
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| | | | | | |

STERWIN WILLIAMS
Supplier Name

certifies that all materials, processes, etc. furnished to

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

Signed/Dated:  7.16-0
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-(20)

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) CONFIRMS Initial: B.H.  Date: 7/24/07

Fabrication Stage#2

Features: W3, W4 and W5

Acceptable (Y/N) CONFIRMS Initial: B.H.  Date: 7/25/07

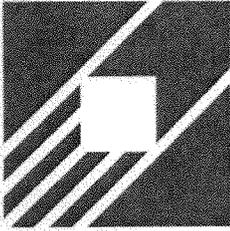
Fabrication Stage#3

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

Acceptable (Y/N) CONFIRMS Initial: B.H.  Date: 8/3/07

Verification of completion of weld visual inspection:

Completed By:   Date: 8/3/07



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 completion of weld visual inspection:

Completed by: Sanjay Sengupta

Date: 11-17-07

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