Metalex Manufacturing Inc.

Metalex

Certified ISO 9001 Quality Management
Veteran Owned Business 30 Plus Years

#1-- INSIDE Pkg - Cust Copy

Packing List# 39515 **Rel#** 1 **PAGE** 1
Metalex Job# 2006-5727

Ship To: STANFORD UNIVERSITY-SLAC
BUILDING 081, ROOM 118
2575 SAND HILL ROAD
MENLO PARK CA 94025

Date: 12/19/06
Ship Via:
PTA# _____
(prepaid shipments only)
BOL/Air Bill#
Prepaid: XXXXXXX **Collect:**
Weight: **Ctns:** **Zone:**
Dimensions:

Attn: BEN POLING 408-250-6877
Customer PO: 5A10359

P.O. Item No.	Qty Ordered	Qty Shipped	Qty Back Ordered	Description
004	15	1	6	LCLS UNDULATOR MAIN ASSY ANL PART/REVISION NUMBER: L143-112000-05 SLAC PART NUMBER: SA-381-001-35 ASSEMBLY SERIAL NUMBER: 5A10359-20 STRONGBACK SERIAL NUMBER: 5A0699-20 THE FOLLOWING BOM ITEMS ARE LOOSE PARTS PACKAGED WITHIN THIS CRATE, BUT NOT ASSEMBLED TO THE MAIN STRUCTURE: ITEM# 12 L143-110109 BRACKET 1 QTY-10 ITEM# 13 L143-110110 BRACKET 2 QTY-10 ITEM# 14 L143-110111 SCREW QTY-40 ITEM# 17 91292A122 SHCS M4X0.7X25MM LG QTY-20 ITEM# 18 91292A135 SHCS M6X1.0X16MM LG QTY-20 ITEM# 24 L143-110703 PEAK FIELD SHIM QTY-20 PLEASE ENSURE THESE ITEMS ARE ACCOUNTED FOR WHEN MAIN STRUCTURE IS REMOVED FROM CRATE. -CERTIFICATE OF CONFORMANCE, INSPECTION DATA, AND CERTIFICATIONS ENCLOSED. ANL SOURCE: SIGNATURE: Glen Lawrence DATE: 12/20/06 PRINT: Glen Lawrence STAMP:

John Schmidt 12/20/06
Manufacturing 2006 Dec 20
Vaughn
12/20/06

Received By:

Printed Name _____ Signature _____ Date _____

MX3006 (10/02)

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: 12/19/2006
Customer: Argonne National Laboratory
9700 S. Cass
Argonne, IL 60439

Attention: Michael Oprondek

Metalex Job# 2006-5727
Purchase Order # 5A10359
MX Packing List # 39515

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 # *
004	1	L143-112000	05	LCLS Undulator Main Assembly	5A10359-20

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

COMMENTS: "First Article" submitted on Metalex Shipper #37728 dated 3/31/06 (Job#05-4718).

SLAC Part Number: SA-381-001-35.

Assembly Serial Number: 5A10359-20.

QE
Metalex Representative Signature

TODD CAVILL MTX QC 12
Print Name

12/19/2006
Date

MX1011 (05/05)

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

LCLS Undulator L143-00076 Assembly Procedure

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-20

Dimensional Inspection Requirements:

20. *Dimensionally inspect overall height of the magnet assemblies to verify they are within specification before installation into the strongback.*

Dimension: 78mm (3.071")

L143-110800 Upper Left Magnet Structure Assembly	Actual: 77.98-78.00
L143-111000 Upper Middle Magnet Structure Assembly	Actual: 77.98-78.01
L143-111200 Upper Right Magnet Structure Assembly	Actual: 77.97-77.99
L143-110900 Lower Left Magnet Structure Assembly	Actual: 77.99-78.01
L143-111100 Lower Middle Magnet Structure Assembly	Actual: 77.98-78.01
L143-111300 Lower Right Magnet Structure Assembly	Actual: 77.98-77.99

Temperature at start of inspection: 22 Deg.C

Temperature at end of inspection: 22 Deg. C

Verification of completion of assembly procedure:

Completed By: Thomas P. Becker **Date:** 12-4-06

5750 Cornell Road • Blue Ash Industrial Park • Cincinnati, OH 45242
Phone (513) 489-0507 • Fax (513) 489-1020

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

LCLS Undulator Training Record

L143-00066 Statement of Work for LCLS Undulator Main Assembly

Section 4.1.3.2 Training of Assembly Personal

Requirements:

1.) Review and understand L143-00066 Statement of Work

2.) Review and understand L143-112000 Drawing Package

3.) Review and understand L143-00076 Assembly Procedure

4.) Review and understand Magnet Installation Procedure ANL video

5.) Review and understand Magnet Structure Installation ANL video

Completed By: Thomas P. Becker **Date:** 2.27.06
Thomas P. Becker

5750 Cornell Road • Blue Ash Industrial Park • Cincinnati, OH 45242
Phone (513) 489-0507 • Fax (513) 489-1020

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

LCLS Undulator Training Record

L143-00066 Statement of Work for LCLS Undulator Main Assembly

Section 4.1.3.2 Training of Assembly Personal

Requirements:

1.) Review and understand L143-00066 Statement of Work

2.) Review and understand L143-112000 Drawing Package

3.) Review and understand L143-00076 Assembly Procedure

4.) Review and understand Magnet Installation Procedure ANL video

5.) Review and understand Magnet Structure Installation ANL video

Completed By: Rob Schuermann **Date:** 02/27/06
ROB SCHUERMANN

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-20

LCLS Undulator photographs per L143-00066 Sect. 4.1.3.3

L143-110800-02 Upper Left Magnet Structure Assembly

L143-110900-02 Lower Left Magnet Structure Assembly

L143-111000-102 Upper Middle Magnet Structure Assembly

L143-111000-202 Upper Middle Magnet Structure Assembly

L143-111000-302 Upper Middle Magnet Structure Assembly

L143-111100-102 Lower Middle Magnet Structure Assembly

L143-111100-202 Lower Middle Magnet Structure Assembly

L143-111100-302 Lower Middle Magnet Structure Assembly

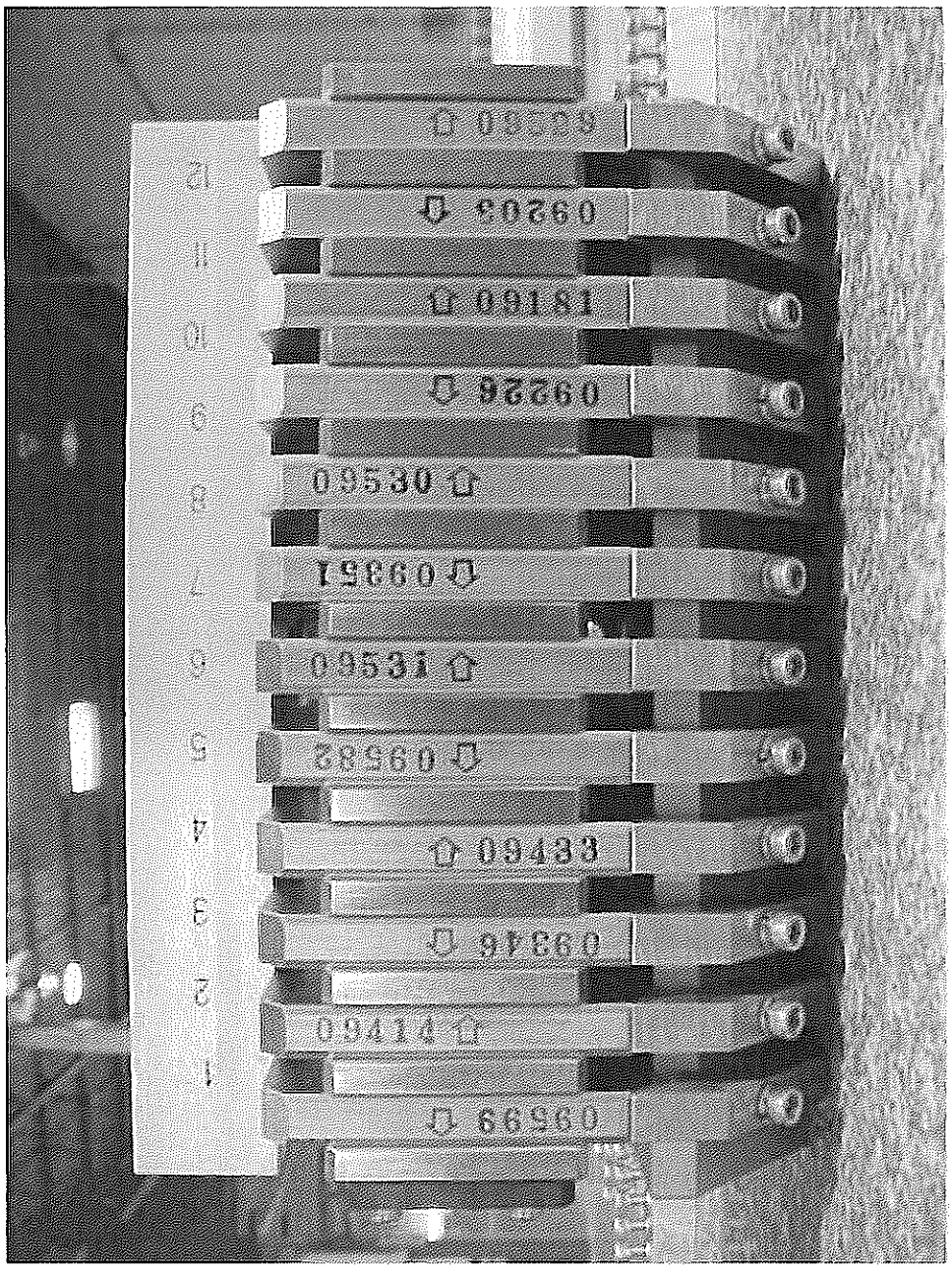
L143-111200-02 Upper Right Magnet Structure Assembly

L143-111300-02 Lower Right Magnet Structure Assembly

Rob Schuermann Date: 12/18/06

Rob Schuermann

5750 Cornell Road • Blue Ash Industrial Park • Cincinnati, OH 45242
Phone (513) 489-0507 • Fax (513) 489-1020



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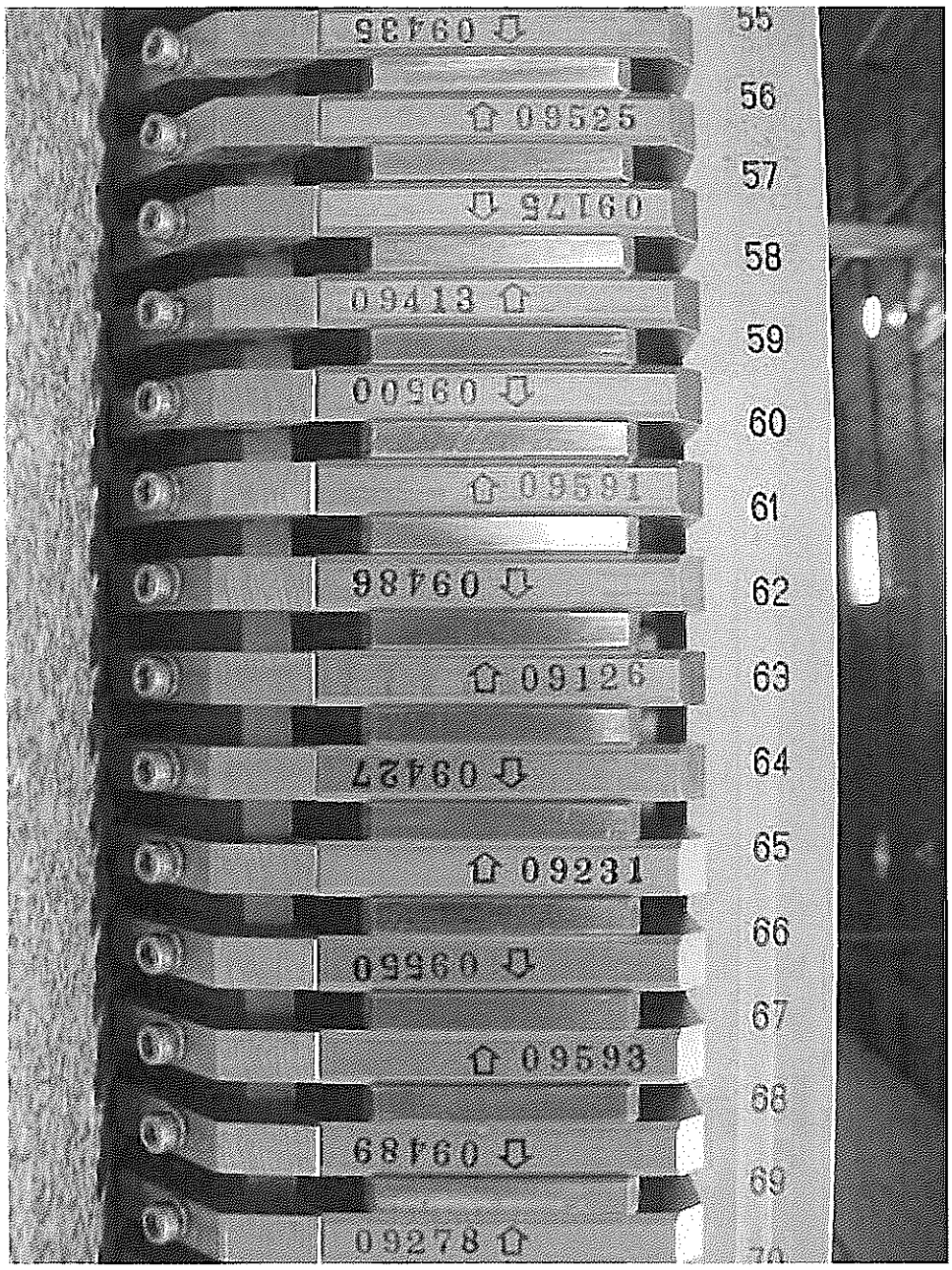
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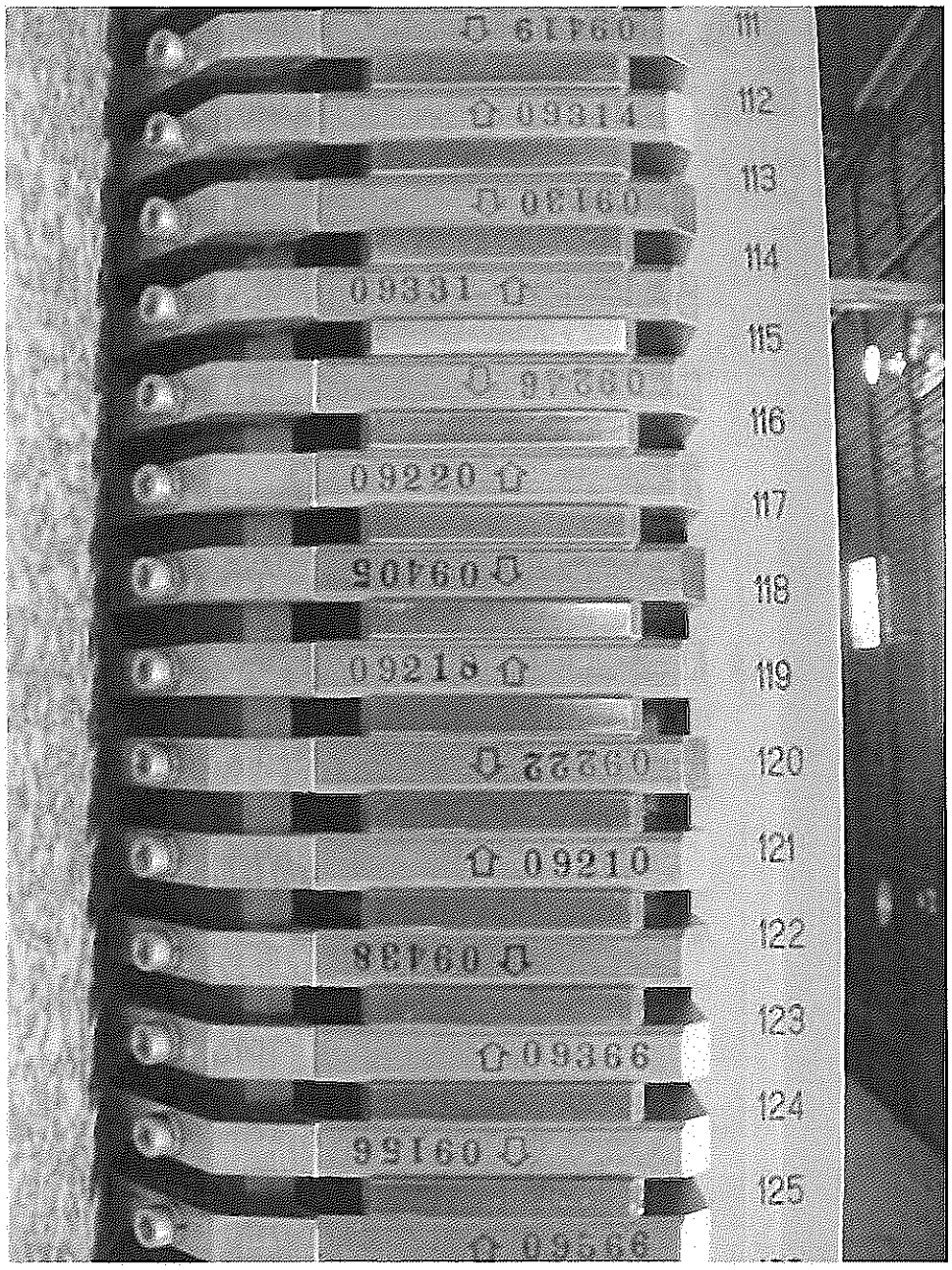
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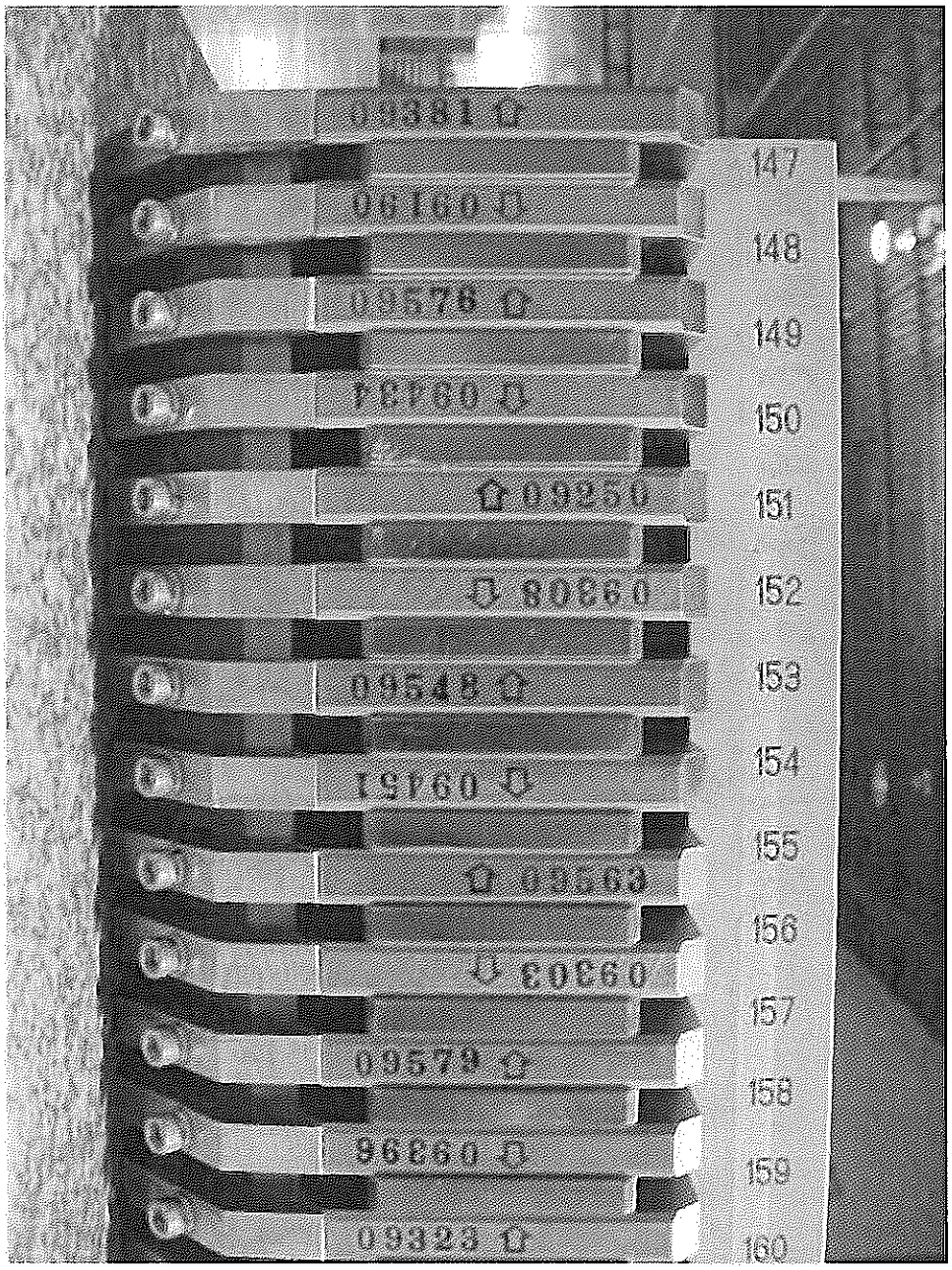
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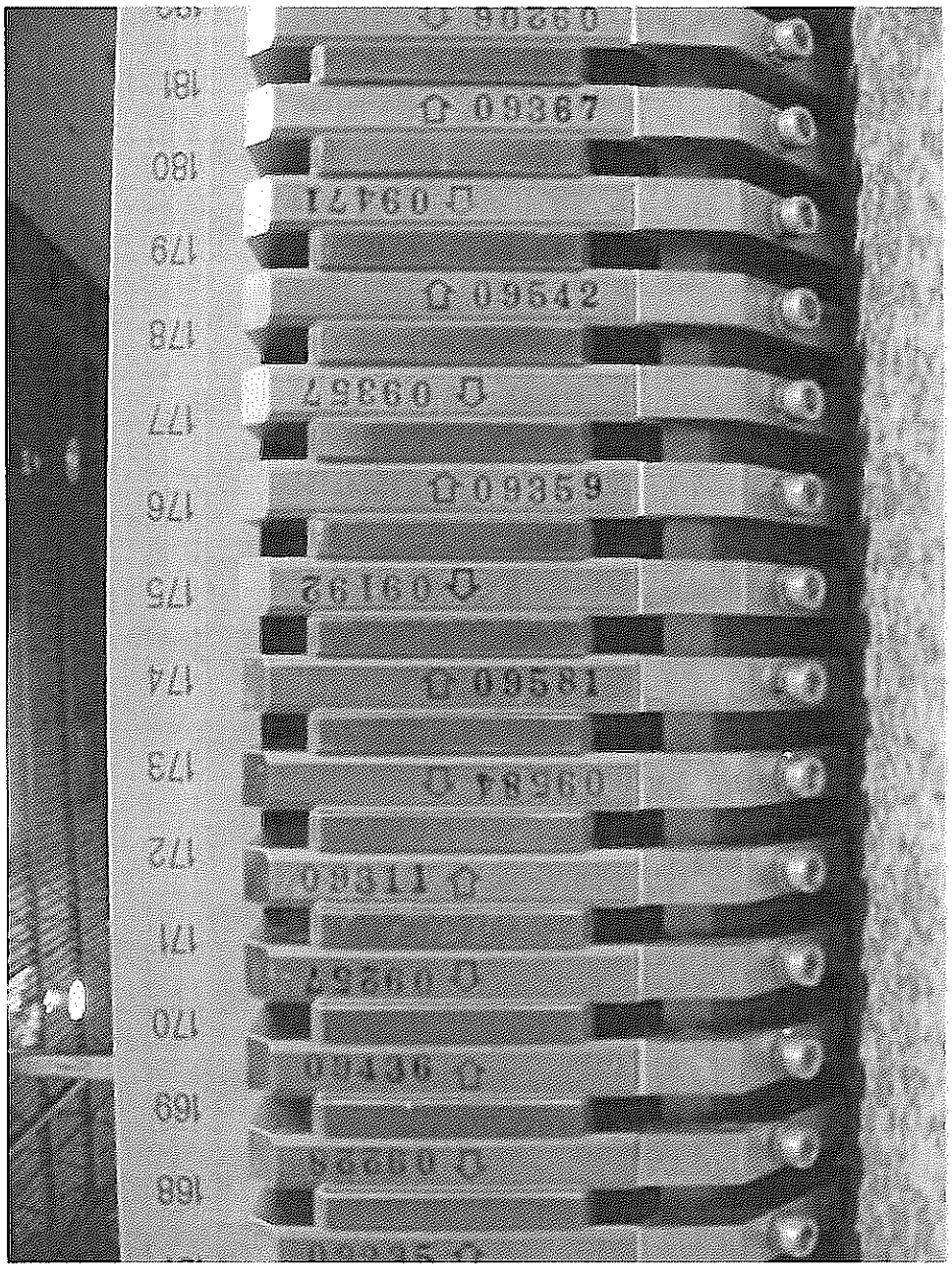

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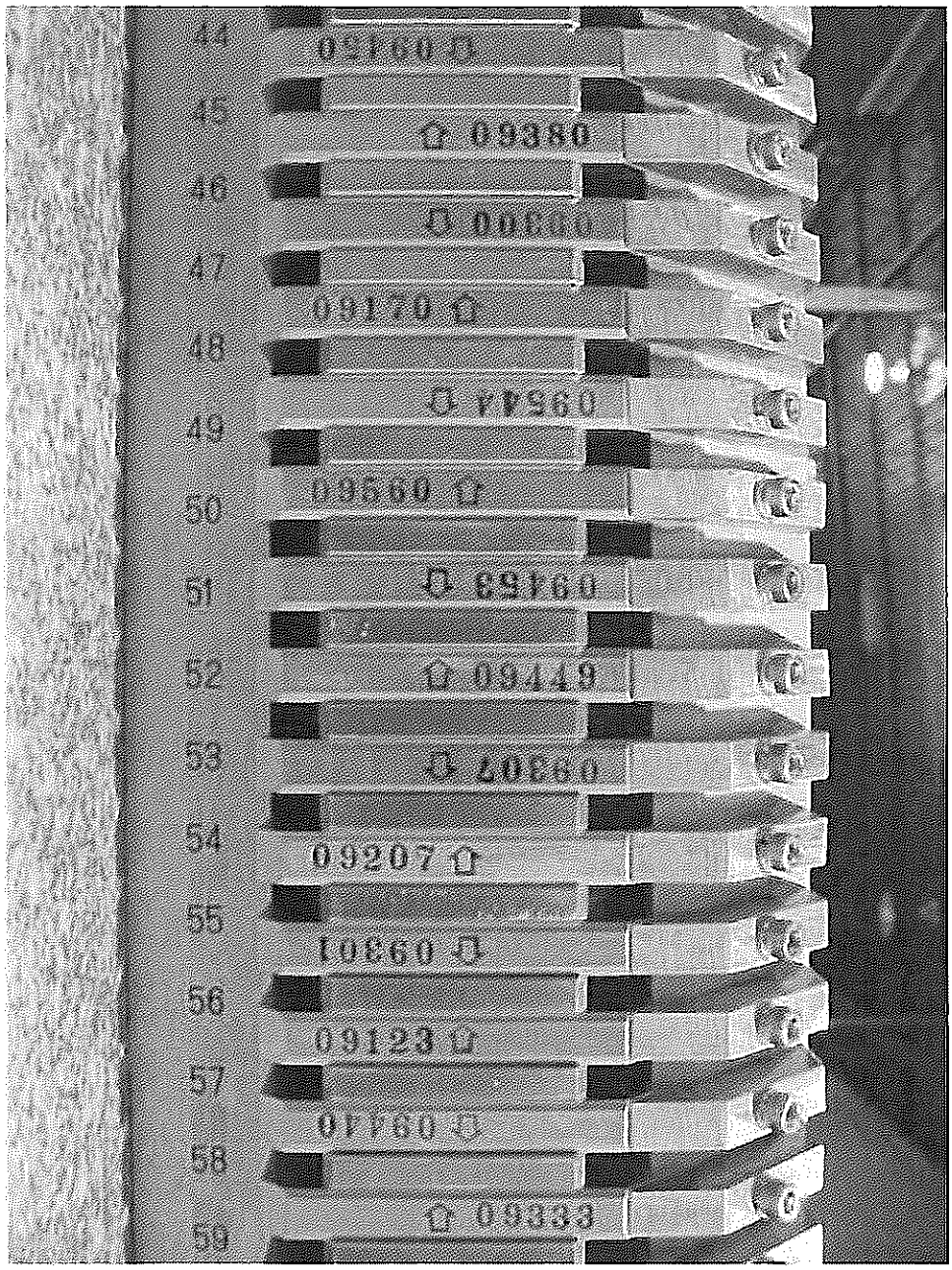
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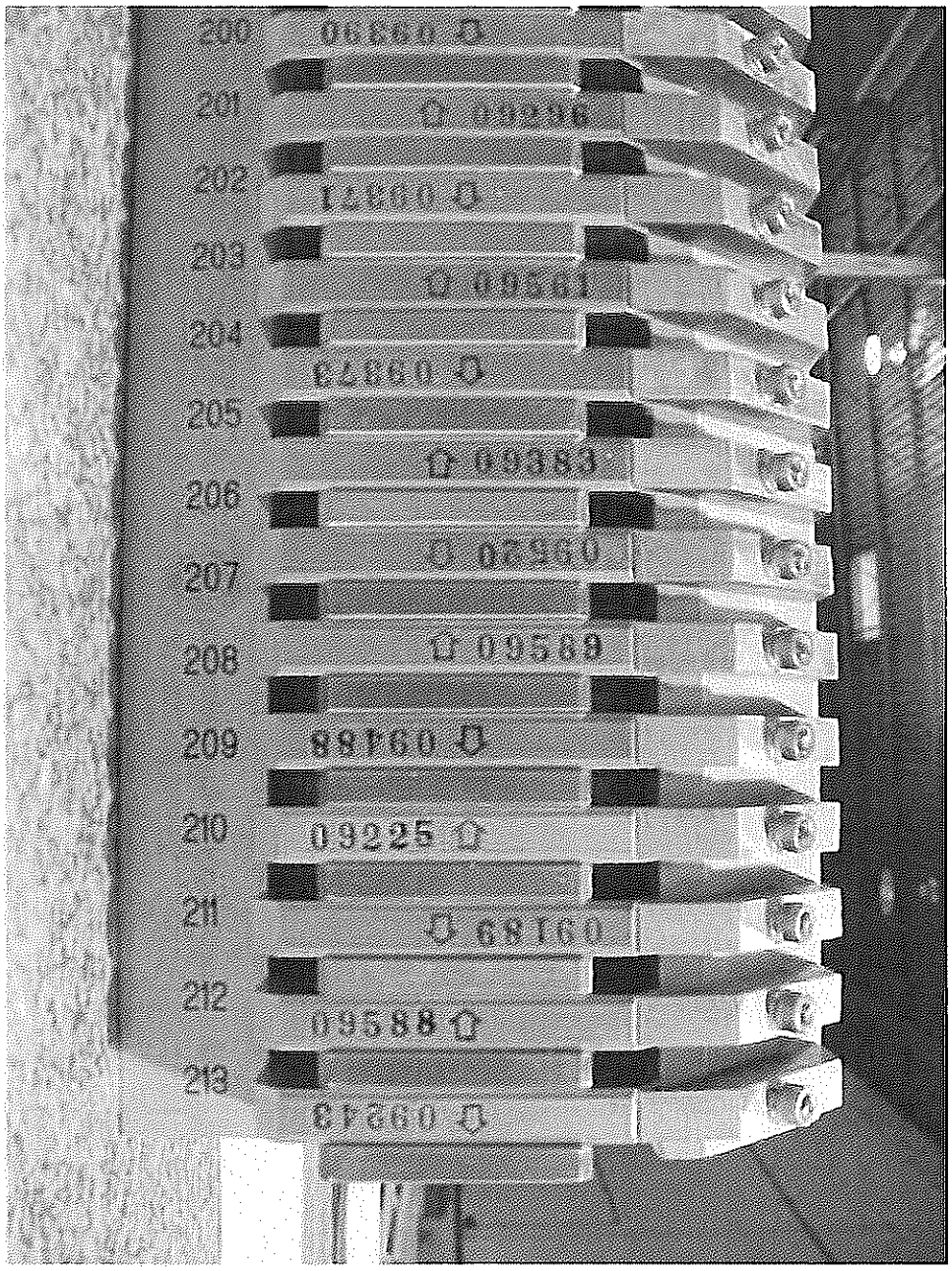
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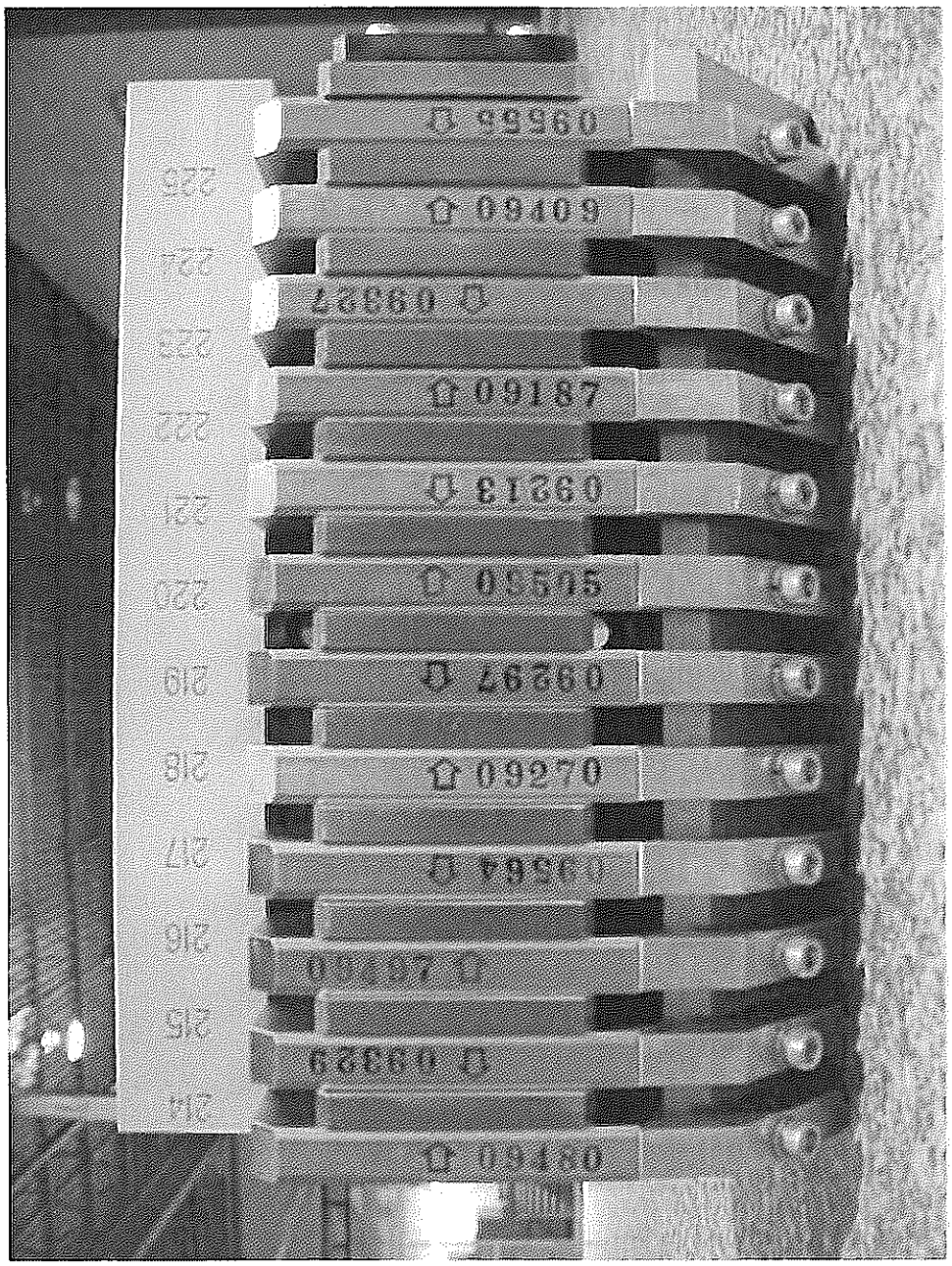

1. DISTRIBUTION: LCLS Undulator Ass'y Contractors, Tom Barsz, and Glen Lawrence.

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

2. PAGE ONE OF 1 3. ACL NO. E5-020020

4. ORIGINATOR'S NAME & DIVISION Glen Lawrence/XFD 5. PHONE 2-9298 6. DATE 1/20/2005

7. PART NO. & NAME L143-110700 LCLS Undulator Strongback 8. QUANTITY 40

9. FOR INSPECTION, DELIVER TO BLDG. NO. N/A DIVISION ATTN:

10. AFTER INSPECTION, DELIVER TO BLDG. NO. N/A DIVISION ATTN:

11. REFERENCES AND/OR REMARKS: Strongbacks are to be delivered to undulator assembly contractor by machining contractor Undulator assembly contractor shall inspect strongback prior to acceptance, Argonne National Laboratory shall review all certification and machining vendor 's reported and optionally shall do on-site inspections..

12 STEP NO.	13 INSPECTION/TEST REQUIREMENT	14 INSPECTION TEST LOCATION	18 ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19 DATE
1	Visual inspection of part for shipping damage. A) Were critical surfaces protected per SOW L143-00030 Section 4.1.4? B) Is there any visible damage?	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
2	Check Strongback is marked with serial number & part no.'s (ANL & SLAC) per SOW Section 4.1.3	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
3	Check all accompanying Certifications have correct part Serial number.	Undulator Ass'y Contractor	Todd Caudill MTX QC 12	12-19-06
4	Check Material Certification for compliance with ASTM B381-03, Grade F2	Undulator Ass'y Contractor & ANL	Todd Caudill MTX QC 12	12-19-06
5	Check Forging Annealing Certification for annealing conformance to AMS-H-81200A, Table V, commercial Pure, Bars & Forgings, including. Note 8	Undulator Ass'y Contractor & ANL	Todd Caudill MTX QC 12	12-19-06
6	Check Rough Machining Anneal Certification for annealing conformance to AMS 2801B section3.2.9	Undulator Ass'y Contractor & ANL	Todd Caudill MTX QC 12	12-19-06
7	Check the strongback contractor's reported dimensional measurements against the part drawing.	ANL		
8	Verify the strongback critical dimensions as listed in the SOW section 4.5.2 are in compliance with the print.	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
	L143-112000-05			
	SA-381-001-35			
	5A10359-20			

15. ORIGINATOR OF PLAN Glen Lawrence DATE 01/20/2005

16. PLAN REVIEWED/APPROVED BY DATE

17. QAR CONCURRENCE WITH PLAN DATE

Metalex
Manufacturing
Inc.

Metalex
Certified ISO 9001 Quality Management
Veteran Owned Business 30 Plus Years

#1-- INSIDE Pkg - Cust Copy

Packing List# 37495 Rel# 1 PAGE 1
Metalex Job# 2005-3810

Ship To: ARGONNE NATIONAL
LABORATORY
BLDG 201, OCP-PRC
9700 S CASS AVE.
ARGONNE IL 60439

Date: 2/27/06
Ship Via: REMAIN @ METALEX
PTA#
(prepaid shipments only)
BOL/Air Bill#
Prepaid: Collect:
Weight: Ctns: Zone:
Dimensions:

Attn: MICHAEL OPRONDEK
Customer PO: 5A06990

P.O. Item No.	Qty Ordered	Qty Shipped	Qty Back Ordered	Description
002	19	1	10	L143-110700 REV. 07 STRONGBACK S/N: 5A06990-20 -CERTIFICATE OF CONFORMANCE, INSPECTION DATA, AND CERTIFICATIONS ENCLOSED. -REF: SDR'S #3801-001, #3801-004, & 3801-006 TESTING SURVEILLANCE BY ANL HAS BEEN WAIVED PER MEETING BETWEEN TOM BARSZ (ANL QUALITY) & ROB SCHUERMANN (MX PROJECT ENGINEER)

Received By:

Printed Name _____ Signature _____ Date _____

MX3006 (10/02)

www.metalexmfg.com
sales@metalexmfg.com

5750 Cornell Road Cincinnati, Oh 45242-2083
Phone (513) 489-0507 Fax (513) 489-1020

Metalex Manufacturing Inc.
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EMAIL: metalex@metalexmfg.com

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

CERTIFICATE OF CONFORMANCE

Date: 02/27/2006
Customer: Argonne National Laboratory
Bldg. 201, OCF-PRO
9700 S Cass Ave
Argonne, Illinois 60439
Attention: Michael Oprondek

Metalex Job# 2005-3810
Purchase Order # 5A06990
MX Packing List # 37495

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 # *
0002	1	L143-110700	07	Strongback	5A06990-20

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

COMMENTS: "First Article" submitted on Metalex Shipper #56794 dated 10/17/05 (Job#05-3801).
Metalex is in compliance with Statement of Workscope Document No. L143-110700, Revision 5, dated 09/05/05 and Strongback was successfully Vibration Stress Relieved per the Procedure in Appendix A.
Material from Heat Lot #G60C.
Reference SDR# 3801-001 (Material Substitution), SDR# 3801-004 (Modification), & SDR# 3801-006 (Modification).
Testing Surveillance by ANL has been waived per meeting between Tom Barsz (ANL Quality) & Rob Schuermann (MX Project Engineer).

QE — Metalex Representative Signature
TODD CAUDILL (MTK QC 12) — Print Name
2/27/2006 — Date

MX1011 (05/05)

To: METALEX MANUFACTURING INC
Address: 5750 CORNELL ROAD
CINCINNATI, OH 45242
Attention Of: PURCHASING AGENT

DEC 28 REC'D

ATI Wah Chang
Allegheny Technologies
P.O. Box 460
Albany, Oregon 97321-0136
(541) 926-4211 FAX (541) 967-6948

PRODUCT CERTIFICATION

IN REGARD TO YOUR

Vendor Identification:	Wah Chang
Purchase Order No.:	58095-BL
Sales Order No.:	127418
Item No.:	1
Description:	Titanium Grade 2 Billet
Dimensions:	12.020-12.060" Dia. x 134.50-134.75" L
Specifications:	ASTM B381-05, AMS H 61200A and P.O.
Date:	December 19, 2005
Heat No.:	G60C
Alloy:	Ti-2
SFC No.:	1309906
Quantity Shipped (pcs.):	3
Weight Shipped (lbs.):	7509.5
Part No.:	5A06990-20, 5A06990-22, 5A05950-24

JMW

METAL
QA DEPT.
ACCEPTED
DATE 1/4/06
BY TC

THE TEST REPORT FOLLOWS:

Material Condition: Forged, conditioned, annealed and machined.

INGOT CHEMISTRY IN PERCENT

Element	Alpha Spec.	Spec. Max.	TOP	MIDDLE	BOTTOM
C		0.08	0.008	0.007	0.007
Fe		0.30	0.07	0.07	0.06
H		0.015	0.001	0.002	0.002
N		0.03	0.005	0.005	0.007
O		0.25	0.14	0.15	0.16
OTHERS_EACH		0.1	<0.1	<0.1	<0.1
OTHERS_TOTAL		0.4	<0.4	<0.4	<0.4
Ti	BALANCE				

CERTIFICATE OF CONFORMITY

This is to hereby certify that the listed material has been processed, annealed and tested in accordance with the specifications noted in the Purchase Order.

Certified By: R Louie, QA Supervisor les 12/19/05

JOB# 3810, 3811, & 3812
PART# 143-110700
S/N(S) -20, -22, & -24

Wah Chang Is A Registered / Certified ISO 9001:2000 Company.

Purchase Order No.: 56095-BL
Sales Order No.: 127418
Item No.: 1
Heat No.: G60C .
SFC No.: 1309906

ATI Wah Chang
Allegheny Technologies
P.O. Box 460
Albany, Oregon 97321-0136
(541) 926-4211 FAX (541) 967-6948

ROOM TEMPERATURE TENSILES (FOR INFO ONLY)

Test	Method	Offset	Gage	Units	Spec. Min.	Trans.
Tensile Strength:	ASTM E8			Ksi	50	54.9
Yield Strength:	ASTM E8	0.2%		Ksi	40	53.9
Elongation:	ASTM E8		1"	Pct	20	28
Reduction in Area:	ASTM E8			Pct	30	58

METALLIX
QA DEPT.
ACCEPTED
DATE 11/4/04
BY R

ATI Wah Chang

ATTACHMENT No. 2
Wah Chang / Kach Machine Works P.O. 180122
CERTIFICATE OF CONFORMANCE

Kach Machine Works hereby certifies that all conversion processing for the above Purchase Order conforms to material and/or manufacturing requirements indicated in the drawing or specifications, as applicable. Inspection and/or test reports substantiating conformity are attached.

Any exceptions, deviations, or non-conformances are listed below.
(Attach additional sheets if necessary.)

NONE

SEC 1309906

MT GBCC

PART # 3A06990 - 20, 22, 24

MAN VAN NGUYEN
Name

Foreman
Title

METALED
QA DEPT.
ACCEPTED
DATE 11/4/06
BY TC

KACH MACHINE WORKS, Inc.

3538 N BALLAST ST SWAN ISLAND PORTLAND, OREGON 97217

QUALITY CONTROL DIMENSION INSPECTION REPORT

CUSTOMER: WAH CHANG

DATE: 12-12-05

PART NAME: 12" DIA x 135" lg BAR

PART NO.: 5A 06990-24

P.O. NO.: 180122 ATI

NO. PCS.: 3

I.D. NO.: SFC 1309906 G

MATERIAL: TITANIUM

HEAT NO.: G60C

DRAWING NO.:

REVISION:

DIM. NO.	Given	Actual			
1	OD 12.060"/12.020"	12.051"			
2	LENGTH 134.75"/134.50"	134.72"			
3	Finish 125R	65 Ra			
4	BAR IS	STRAIGHT	WITH NO	TAPER	
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METALS QA DEPT. DEC 12 ACCEPTED DATE 11-4-06 BY

HEAT TREAT PROCESS CERTIFICATION FORM

S. O. #: N/A

Heat #: 0-60-C

MCT #: 437148

Date: 10-31-05

Start Time: 22:30

Finish Time: 06:56

Material ID's:

A				
D				
E				
G				

Was the Lot Split? (yes) (no) (Circle one)

Furnace #: 2 Size: 13" (Rnd.) (RCS) (Plate) (Rect.)

Heat Treated to Specification: AMS-H-81200, Latest Revision

HEAT TREATING PROCEDURE:

Anneal	Temp. 1250 °F	Time at Temp. 8 Hrs.	15 min mins.	To	8 Hrs.	mins.
Best Soln. Treat	Temp. ___ °F	Time at Temp. ___ Hrs.	___ mins.	To	___ Hrs.	___ mins.
Solution Treat	Temp. ___ °F	Time at Temp. ___ Hrs.	___ mins.	To	___ Hrs.	___ mins.
Duplex Anneal	Temp. ___ °F	Time at Temp. ___ Hrs.	___ mins.	To	___ Hrs.	___ mins.

Quench Media: (Circle One) (Furnace Cool) (Air Cool) (Fan Cool) (Water Quench)

Heat Treatment Performed By: [signature] Jole Jeppsen

Date Operator Trained: N/A

Supervisor Review: [signature]

Quality Assurance Review:

METALEX QA DEPT. ACCEPTED DATE 11/4/05 BY TL

HEAT TREAT CHARTS IN JOB # 3859 FOLDER

HEAT TREAT PROCESS CERTIFICATION FORM

S. O. #: N/A

Heat #: [illegible]

MCT #: 43714 P

Date: 11-1-05

Start Time: 09:30

Finish Time: 17:35

Material ID's:

A
D
E
G

Was the Lot Split? (yes) (no) (Circle one)

Furnace #: 1

Size: 13" (Rnd.) (RCS) (Plate) (Rect.)

Heat Treated to Specification: AMS-H-81200, Latest Revision

HEAT TREATING PROCEDURE:

Stress Relieve ~~Anneal~~ Temp. 1100 °F Time at Temp. 8 Hrs. ___ mins. To 8 Hrs. ___ mins.

Beta Soln. Treat Temp. ___ °F Time at Temp. ___ Hrs. ___ mins. To ___ Hrs. ___ mins.

Solution Treat Temp. ___ °F Time at Temp. ___ Hrs. ___ mins. To ___ Hrs. ___ mins.

Duplex Anneal Temp. ___ °F Time at Temp. ___ Hrs. ___ mins. To ___ Hrs. ___ mins.

Quench Media: (Furnace Cool) (Air Cool) (Fan Cool) (Water Quench)
(Circle One)

Heat Treatment Performed By: JJ Jake Jeppson

Date Operator Trained: N/A

Supervisor Review: [illegible]

Quality Assurance Review: ___

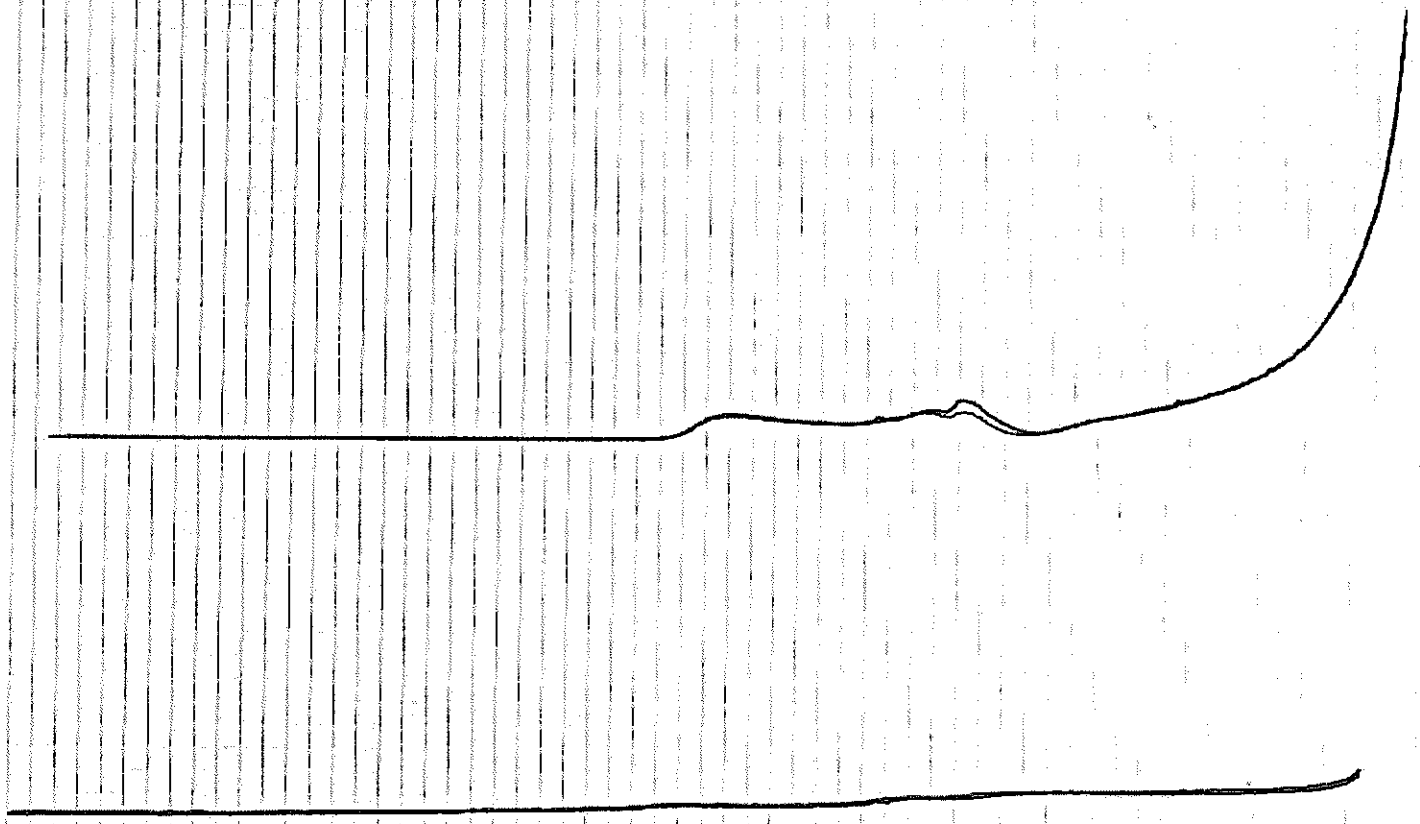
METALEX
QA DEPT.
ACCEPTED
DATE 11/1/05
BY [illegible]

HEAT TREAT CHARTS IN JOB# 3809 FOLDER

QF 165-004 Rev. 2 (4/28/03) Label on Nts1/OMC FILE/FORMS/QF 165-004 Rev. 2

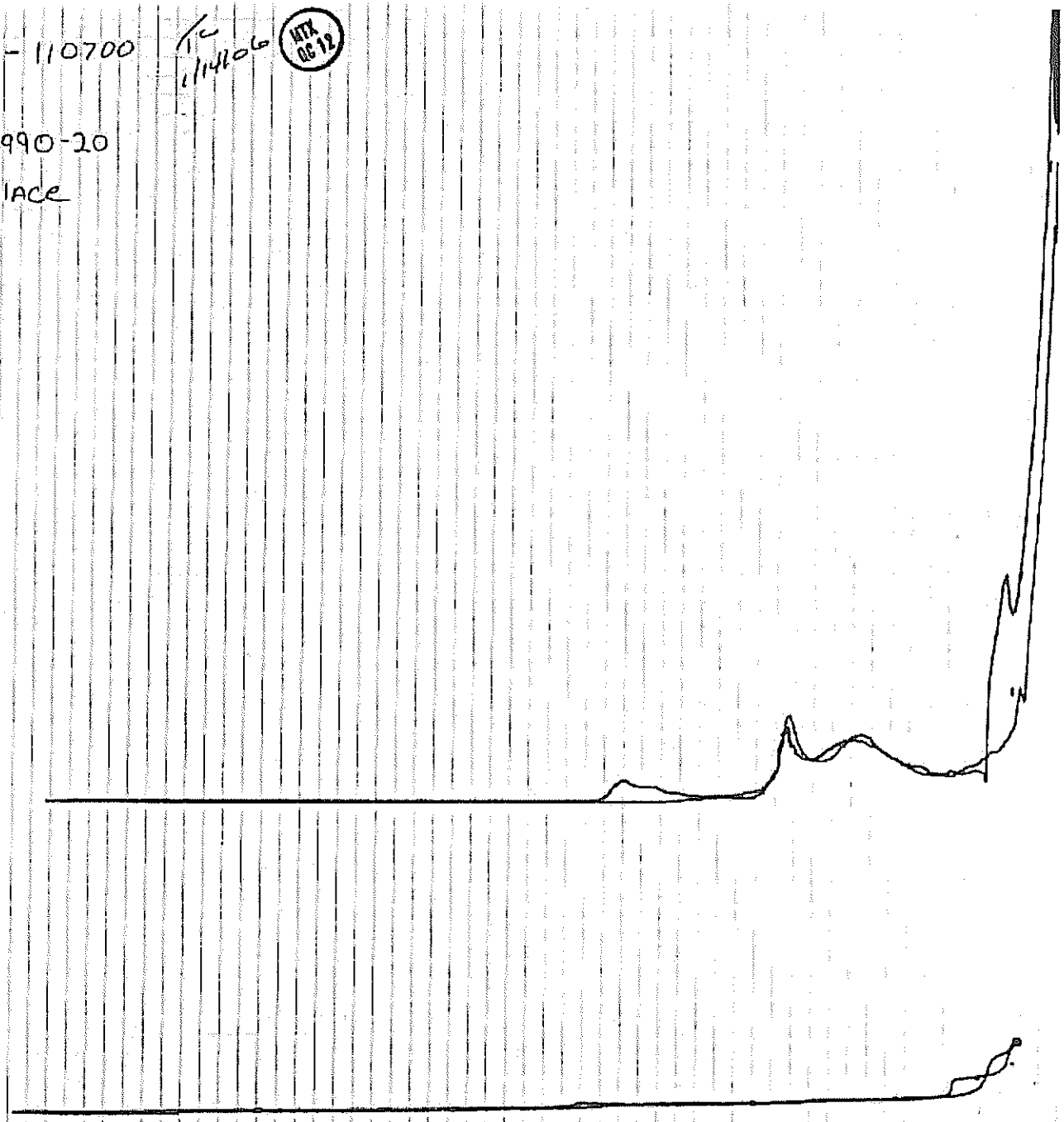
Job# 3810
PART# L143-40700
OP# 20
S/N# 5A06990-20
Steve WALLACE

TC



Job# 3810
Part# L143-110700
Op# 501
S/N# 5A06990-20
Steve Wallace

1/14/06



JOB #3810

SUPPLIER DISPOSITION REQUEST (SDR)

(Form ANL-311 includes instructions and continuation sheet)

Page 1 of 1

(CHECK ONE)

[x] 1A. Deviation Request

[ ] 1B. Nonconformance Action Request

2. SDR No. 3801-001

3. SDR Date 06/23/2005

4. Supplier Name, Address, Telephone, Fax

Metalex Manufacturing Inc.
5750 Cornell Road
Cincinnati, Ohio 45242
513-489-0507
513-489-1020

5. Purchase Order No. 5A06990

6. Related Documents

6.1 Document No. L143-00030 Date

7. Qty.	8. Describe Nonconforming Condition	9. Identify Requirement	10. Cause & Corrective Action
	1.) Document No. L143-00030 Section 4.1.1 has the forging being made per ASTM B 381-03. The current revision level of this specification is ASTM B 381-05. Metalex supplier, ATI Wah Chang would like to work to the latest revision.	Metalex request direction from ANL on what revision applies to this contract. Metalex supplier, ATI Wah Chang needs this clear direction as soon as possible to continue with acceptance of the order.	

SUPPLIER'S COMMENTS (IF YES, EXPLAIN)

11. Affects Form, Fit or Function
[ ] Yes [x] No

12. Affects Price
[ ] Yes [x] No

Ron Schuermann - Director, Tech. Business Unit - 06/23/05

15. SUPPLIER REPRESENTATIVE – TITLE – DATE

13. Affects Delivery
[x] Yes [ ] No This will hold up material supplier.

14. Recommended Disposition and Comments:

16. ANL REPRESENTATIVE – DATE

17. ANL Disposition and Remarks: Accept ASTM B381-05 as equivalent to ASTM B381-03 for purposes of this procurement

18. Approved

7/1/05 TECHNICAL REPRESENTATIVE – DATE

7/1/05 QUALITY ASSURANCE REPRESENTATIVE – DATE

PROCUREMENT REPRESENTATIVE – DATE

JOB # 3810

SUPPLIER DISPOSITION REQUEST (SDR)

(Form ANL-31* includes instructions and continuation sheet)

Page 1 of 1

(CHECK ONE)

✓ 1A. Deviation Request

__ 1B. Nonconformance Action Request

2. SDR No. 3801-004

3. SDR Date 08/17/2005

4. Supplier Name, Address, Telephone, Fax

Metalex Manufacturing Inc
5750 Cornell Road
Cincinnati, Ohio 45242
(513) 489-0507 phone
(513) 489-1020 fax

5. Purchase Order No. 5A06990

6. Related Documents

6.1 ANL drawing L143-110700 Rev.4 Date

7. Qty.	8. Describe Nonconforming Condition	9. Identify Requirement	10. Cause & Corrective Action
	1) Along with this form, Metalex has attached a sketch named SDR 3801-004, pages 1 and 2. This sketch outlines some additional "for manufacturing process only" holes that Metalex is requesting permission to add to the Strongback details. On each end of each pan, (4) 5/8-11 tapped holes and (2) .6250" diameter dowel pin holes are requested to be added for internal use at Metalex.	Metalex requests direction from ANL on this item.	

SUPPLIER'S COMMENTS
(IF YES EXPLAIN)

11. Affects Form, Fit or Function
__ Yes ✓ No

12. Affects Price
__ Yes ✓ No

13. Affects Delivery
__ Yes ✓ No Only if this is unresolved when raw material is arrived

14. Recommended Disposition and Comments:

Rob Schuermann - Director, Tech. Business Unit - 08.17.05

15. SUPPLIER REPRESENTATIVE - TITLE - DATE

16. ANL REPRESENTATIVE - DATE

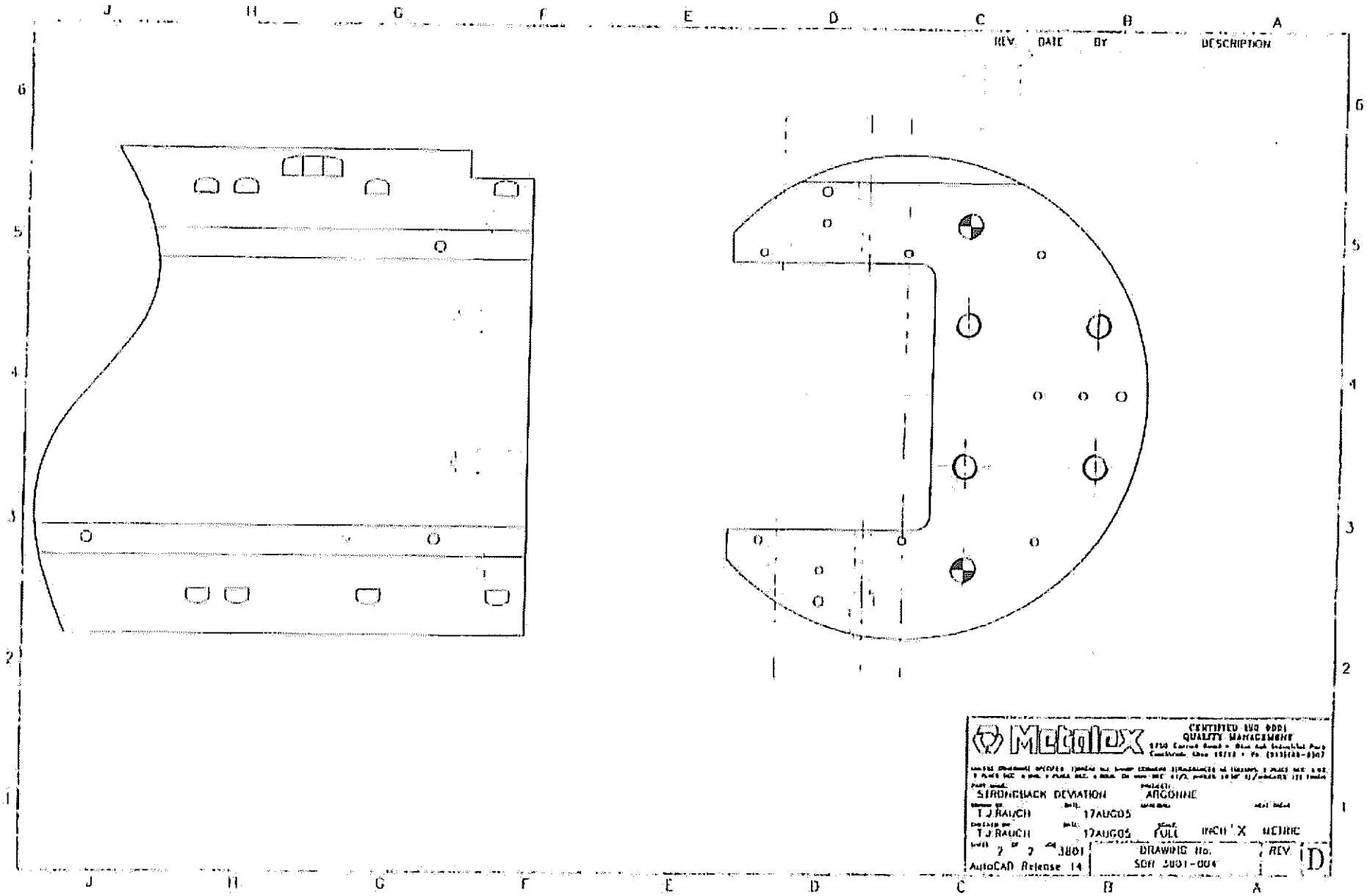
17. ANL Disposition and Remarks: The requested modifications for internal Metalex use are allowed.

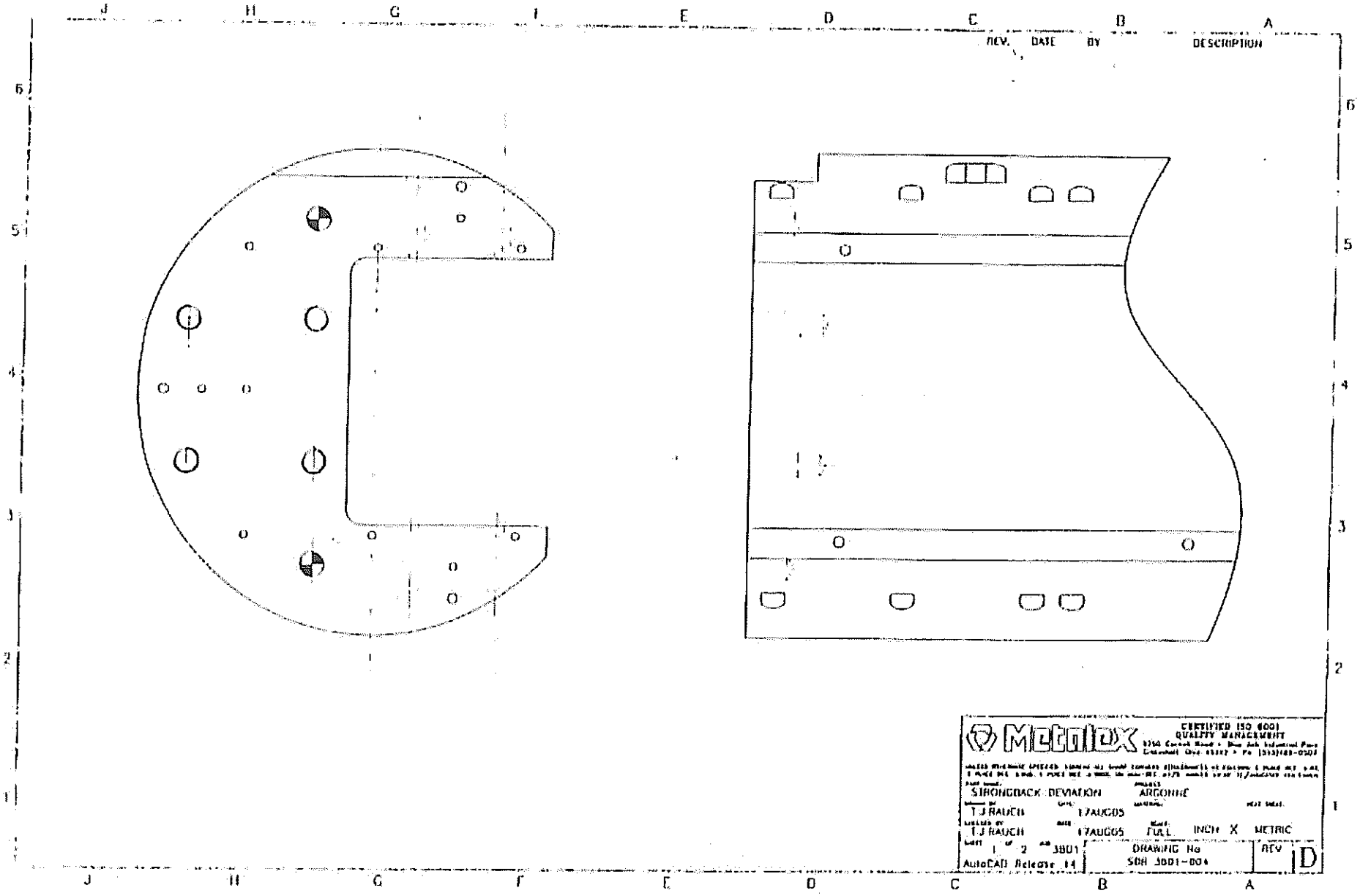
18. Approved

TECHNICAL REPRESENTATIVE - DATE 08-23-05

QUALITY ASSURANCE REPRESENTATIVE - DATE 8/25/05

PROCUREMENT REPRESENTATIVE - DATE 8/26/05


REV DATE BY DESCRIPTION
Metalex
CERTIFIED ISO 9001
QUALITY MANAGEMENT
STRONGBACK DEVIATION
ARGONNE
T.J.RAUCH
17AUG05
T.J.RAUCH
17AUG05
FULL
INCH X
METRIC
2 OF 2
3801
AutoCAD Release 14
DRAWING No.
SDR 3801-004
REV
D


REV. DATE BY DESCRIPTION
Metalex
CERTIFIED ISO 9001
QUALITY MANAGEMENT
STRONGBACK DEVIATION
ARGONNE
T.J RAUCH
17AUG05
T.J RAUCH
17AUG05
FULL
INCH X METRIC
1 2 3801
AutoCAD Release 14
DRAWING No
SDR 3801-004
REV
D

SUPPLIER DISPOSITION REQUEST (SDR)

(Form ANL-311 includes instructions and continuation sheet.)

Page 1 of 1

(CHECK ONE)

☑ 1A. Deviation Request

☐ 1B. Nonconformance Action Request

2. SDR No. 3801-005

3. SDR Date 11/03/2005

4. Supplier Name, Address, Telephone, Fax

Metalex Manufacturing Inc.
5750 Cornell Road
(513) 489-0507 phone
(513) 489-1020 fax

5. Purchase Order No. 5A06990

6. Related Documents

6.1 ANL drawing L143-110700 Rev.7 Date

7. Qty.	8. Describe Nonconforming Condition	9. Identify Requirement	10. Cause & Corrective Action
	1) Along with this form, Metalex has attached a sketch named MXPL143-110700-03. This sketch outlines some additional "for manufacturing process only" holes that Metalex is requesting permission to add to the production Stongback details. These three (3) .2500" diameter tooling holes located as shown will allow ease of manufacturing and inspection of the critical overall length of this detail.	Metalex requests direction and approval from ANL on this item.	

SUPPLIER'S COMMENTS
(IF YES, EXPLAIN)

11. Affects Form, Fit or Function
☐ Yes ☑ No

12. Affects Price
☐ Yes ☑ No

13. Affects Delivery
☐ Yes ☑ No

14. Recommended Disposition and Comments:

Recommend acceptance.

Rob Schuermann - Director, Tech. Business Unit - 11/03/05

Rob Schuermann 11/03/05

15. SUPPLIER REPRESENTATIVE – TITLE – DATE

16. ANL REPRESENTATIVE – DATE

17. ANL Disposition and Remarks: Acceptable

18. Approved

11/03/05

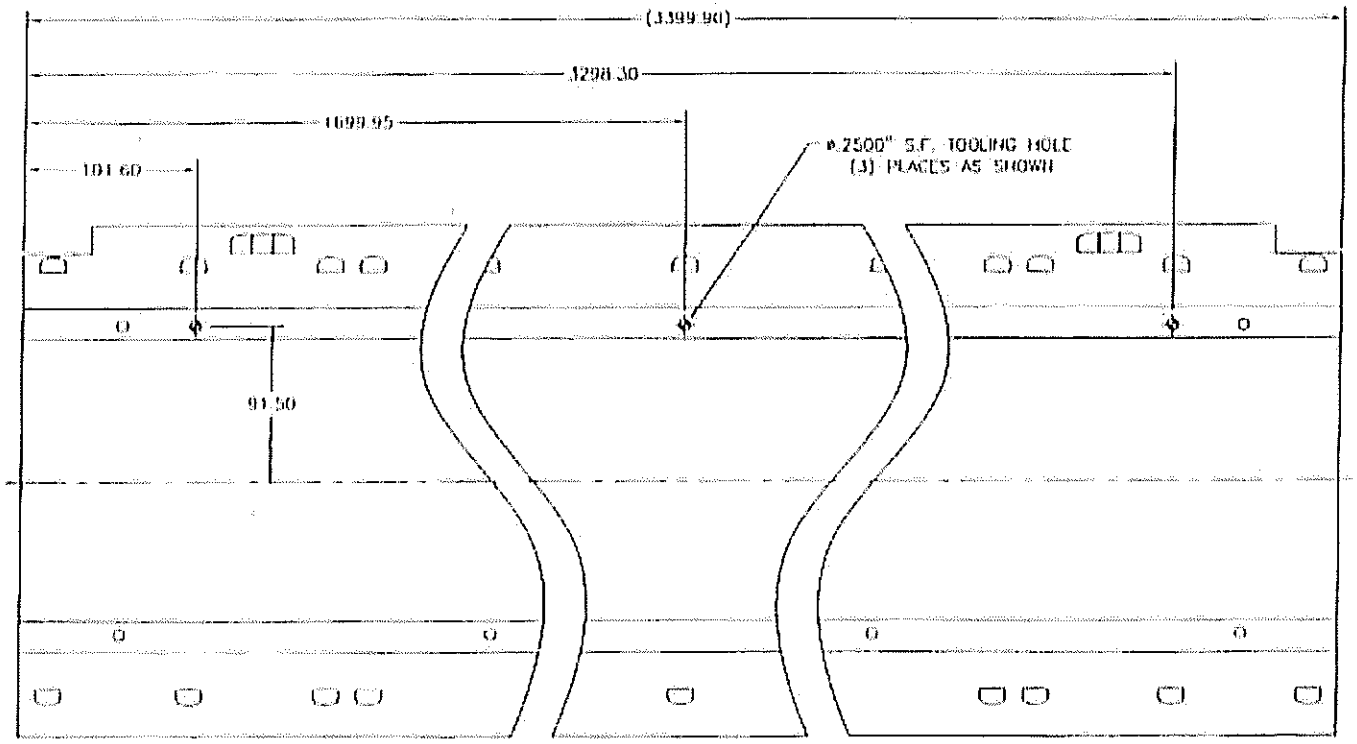
TECHNICAL REPRESENTATIVE – DATE

11/03/05

QUALITY ASSURANCE REPRESENTATIVE – DATE

11/3/5

PROCUREMENT REPRESENTATIVE – DATE



These three (3) 2500" diameter tooling holes located as shown will allow ease of manufacturing and inspection of the critical overall length of this detail

REV.	DATE	BY	DESCRIPTION

Metalex
CERTIFIED ISO 9001 QUALITY MANAGEMENT

PART NAME: STRONGBACK PROCESS	PROJECT: ARGONNE
DRAWN BY: R.SCHUERMANN DATE: 03NOV05	MATERIAL:
CHECKED BY: R.SCHUERMANN DATE: 03NOV05	SCALE: FULL / INCH X / METRIC
SHEET 1 OF 2 JOB 3801	DRAWING No. MXP143-110700-01 / REV D
AutoCAD Release 14	

Schuermann, Rob

From: Oprondek, Michael T. [moprondek@anl.gov]
Sent: Thursday, November 03, 2005 5:36 PM
To: Schuermann, Rob
Cc: Lawrence, Glen; Barsz, Thomas R.
Subject: metalex SDR 006
Attachments: metalex.pdf

<<metalex.pdf>>

Michael Oprondek, Procurement Department,
Argonne National Laboratory; operated for the
U. S. Department of Energy by the University of Chicago
phone 630 252 7069 fax 630 252 4517

Metalex Customized Machinery and Parts	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd ! Cincinnati, OH 45242 ! (513) 489-0507	Job No. 2005-3810	Qty 1

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110700	REV 07	P.O. Number 5A06990
	Date Rec'd N/A	P.O. No. N/A	Part Name STRONGBACK		
At Oper. 150	Serial Numbers: S/N: 5A06990-20 PRODUCTION		Customer Name ARGONNE NATIONAL LABORATORY		

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 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 +/-0.3 DEG. CELSIUS. ** THE PART TEMPERATURE BEFORE, DURING, AND AFTER DIMENSIONAL MEASUREMENT SHALL BE RECORDED BELOW**					
PART TEMPERATURE *BEFORE* INSPECTION	SOW 4.5.1	CONTACT THERMOMETER MX1794	68.90° F (20.5)	MTX QC 16	
PART TEMPERATURE *DURING* INSPECTION	SOW 4.5.1	CONTACT THERMOMETER MX1794	68.87° F (20.48)	MTX QC 16	
PART TEMPERATURE *AFTER* INSPECTION	SOW 4.5.1	CONTACT THERMOMETER MX1794	68.91°F (20.51)	MTX QC 16	
DRAWING L143-110700					
MATERIAL DESCRIPTION: ASTM B381 F2 TITANIUM GRADE 2	A2	CERT# 1309906	Conforms	MTX QC 16	
ALL DIMENSIONS ARE IN MILLIMETERS, SURFACE FINISH IN MICRONS.	NOTE #1		INFORMATION ONLY	MTX QC 16	
REMOVE ALL BURRS AND BREAK SHARP EDGES 0.3mm MAX.	NOTE #2	VISUAL & RADIUS GAGE MX837 & MX838	Conforms	MTX QC 16	
UNLESS OTHERWISE SPECIFIED, SURFACE FINISH TO BE 6.4 MICRONS.	NOTE #3	PROFILOMETER MX1304	Conforms 6.4/ OR BETTER	MTX QC 16	
⊥ .05 A B	D7	CMM MX1269	Min .005	MTX QC 16	
⊥ .05 A B	D2	CMM MX1269	Min .023	MTX QC 16	
1.6	D2	PROFILOMETER MX1304	1.6/ OR BETTER	MTX QC 16	
167.00 +.05 / -.00	C2	CMM MX1269	167.005 - 167.041	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 2	QTY ACC	QTY REJ
MTX QC 16	[signature]	2/23/06		1	

MX1010 (7/98)

Metalex Customized Machinery and Parts	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd ! Cincinnati, OH 45242 ! (513) 489-0507	Job No. 2005-3810	Qty 1

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110700	REV 07	P.O. Number 5A06990
	Date Rec'd N/A	P.O. No. N/A	Part Name STRONGBACK		
At Oper. 150	Serial Numbers: S/N: 5A06990-20 PRODUCTION		Customer Name ARGONNE NATIONAL LABORATORY		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
83.50 ±.08	C2	CMM MX1269	83.477 - 83.515	MTX QC 16	
1.6√	C2	PROFILOMETER MX1304	1.6√ OR BETTER	MTX QC 16	
⏥ |.05	C2	CMM MX1269	min .0229	MTX QC 16	
⏥ |.05	C2	CMM MX1269	min .0178	MTX QC 16	
⏥ |.05	D1	CMM MX1269	min .050	MTX QC 16	
⊥ |.1|A	D1	CMM MX1269	min .025	MTX QC 16	
// |.05|A	E8	CMM MX1269	min .01	MTX QC 16	
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 16	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 2	QTY ACC	QTY REJ
MTX QC 16	[signature]	2/23/06		1	

MX1010 (7/98)

Thomas P Becker
12-4-06

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-20
LOT20 magnets Serial # 9121-9600

Bottom Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	9401	Upstream	Right
2	9598	Downstream	Left
3	9421	Upstream	Right
4	9299	Downstream	Right
5	9400	Upstream	Right
6	9332	Downstream	Left
7	9310	Upstream	Left
8	9162	Downstream	Right
9	9271	Upstream	Left
10	9365	Downstream	Left
11	9127	Upstream	Left
12	9595	Downstream	Left
13	9510	Upstream	Right
14	9335	Downstream	Left
15	9507	Upstream	Right
16	9330	Downstream	Left
17	9578	Upstream	Left
18	9462	Downstream	Left
19	9259	Upstream	Left
20	9600	Downstream	Right
21	9517	Upstream	Left
22	9575	Downstream	Right
23	9470	Upstream	Left
24	9343	Downstream	Right
25	9125	Upstream	Left
26	9424	Downstream	Right
27	9143	Upstream	Right
28	9202	Downstream	Left
29	9411	Upstream	Left
30	9353	Downstream	Right
31	9385	Upstream	Left
32	9557	Downstream	Left
33	9282	Upstream	Right
34	9467	Downstream	Right
35	9395	Upstream	Right
36	9161	Downstream	Left
37	9340	Upstream	Right
38	9200	Downstream	Right
39	9241	Upstream	Right
40	9137	Downstream	Left
41	9256	Upstream	Right
42	9479	Downstream	Right
43	9313	Upstream	Left
44	9208	Downstream	Left
45	9450	Upstream	Right
46	9380	Downstream	Right

Top Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	9599	Downstream	Left
2	9414	Upstream	Left
3	9346	Downstream	Left
4	9433	Upstream	Right
5	9582	Downstream	Right
6	9531	Upstream	Left
7	9351	Downstream	Right
8	9530	Upstream	Left
9	9226	Downstream	Left
10	9181	Upstream	Right
11	9203	Downstream	Left
12	9529	Upstream	Right
13	9287	Downstream	Right
14	9391	Upstream	Right
15	9592	Downstream	Left
16	9369	Upstream	Right
17	9286	Downstream	Right
18	9504	Upstream	Right
19	9586	Downstream	Right
20	9521	Upstream	Right
21	9147	Downstream	Left
22	9469	Upstream	Right
23	9171	Downstream	Left
24	9444	Upstream	Right
25	9185	Downstream	Right
26	9402	Upstream	Right
27	9364	Downstream	Right
28	9199	Upstream	Left
29	9178	Downstream	Right
30	9252	Upstream	Right
31	9562	Downstream	Left
32	9294	Upstream	Right
33	9345	Downstream	Right
34	9518	Upstream	Right
35	9573	Downstream	Right
36	9534	Upstream	Right
37	9219	Downstream	Right
38	9214	Upstream	Right
39	9336	Downstream	Right
40	9341	Upstream	Left
41	9338	Downstream	Right
42	9258	Upstream	Left
43	9406	Downstream	Right
44	9490	Upstream	Left
45	9205	Downstream	Left
46	9446	Upstream	Right

47	9300	Upstream	Left
48	9170	Downstream	Left
49	9544	Upstream	Left
50	9560	Downstream	Left
51	9453	Upstream	Left
52	9449	Downstream	Right
53	9307	Upstream	Left
54	9207	Downstream	Left
55	9301	Upstream	Right
56	9123	Downstream	Left
57	9440	Upstream	Right
58	9333	Downstream	Right
59	9249	Upstream	Right
60	9316	Downstream	Right
61	9418	Upstream	Right
62	9574	Downstream	Left
63	9337	Upstream	Left
64	9272	Downstream	Right
65	9516	Upstream	Left
66	9209	Downstream	Left
67	9387	Upstream	Right
68	9422	Downstream	Left
69	9538	Upstream	Right
70	9128	Downstream	Left
71	9456	Upstream	Right
72	9349	Downstream	Left
73	9281	Upstream	Right
74	9342	Downstream	Left
75	9474	Upstream	Left
76	9492	Downstream	Left
77	9397	Upstream	Right
78	9158	Downstream	Right
79	9432	Upstream	Left
80	9524	Downstream	Left
81	9236	Upstream	Right
82	9428	Downstream	Right
83	9388	Upstream	Right
84	9326	Downstream	Right
85	9140	Upstream	Right
86	9188	Downstream	Left
87	9425	Upstream	Right
88	9132	Downstream	Left
89	9567	Upstream	Right
90	9356	Downstream	Left
91	9552	Upstream	Left
92	9502	Downstream	Right
93	9129	Upstream	Left
94	9139	Downstream	Right
95	9149	Upstream	Right
96	9154	Downstream	Left
97	9569	Upstream	Left
98	9305	Downstream	Left
99	9553	Upstream	Right
100	9463	Downstream	Left
101	9473	Upstream	Left

47	9150	Downstream	Left
48	9540	Upstream	Right
49	9455	Downstream	Left
50	9265	Upstream	Left
51	9135	Downstream	Left
52	9169	Upstream	Left
53	9325	Downstream	Right
54	9547	Upstream	Right
55	9174	Downstream	Right
56	9435	Upstream	Right
57	9525	Downstream	Right
58	9175	Upstream	Left
59	9413	Downstream	Left
60	9500	Upstream	Right
61	9591	Downstream	Right
62	9486	Upstream	Right
63	9126	Downstream	Right
64	9427	Upstream	Right
65	9231	Downstream	Right
66	9550	Upstream	Right
67	9593	Downstream	Right
68	9489	Upstream	Right
69	9278	Downstream	Left
70	9138	Upstream	Left
71	9347	Downstream	Right
72	9283	Upstream	Left
73	9260	Downstream	Right
74	9312	Upstream	Left
75	9466	Downstream	Right
76	9442	Upstream	Right
77	9483	Downstream	Left
78	9193	Upstream	Right
79	9172	Downstream	Right
80	9285	Upstream	Left
81	9254	Downstream	Left
82	9145	Upstream	Left
83	9407	Downstream	Left
84	9461	Upstream	Right
85	9354	Downstream	Left
86	9508	Upstream	Left
87	9238	Downstream	Left
88	9255	Upstream	Right
89	9517	Downstream	Right
90	9565	Upstream	Left
91	9204	Downstream	Right
92	9487	Upstream	Left
93	9176	Downstream	Right
94	9298	Upstream	Left
95	9363	Downstream	Right
96	9121	Upstream	Right
97	9477	Downstream	Right
98	9559	Upstream	Right
99	9386	Downstream	Right
100	9372	Upstream	Left
101	9309	Downstream	Left

102	9180	Downstream	Left
103	9577	Upstream	Left
104	9141	Downstream	Right
105	9375	Upstream	Left
106	9186	Downstream	Left
107	9198	Upstream	Right
108	9194	Downstream	Right
109	9248	Upstream	Right
110	9268	Downstream	Right
111	9420	Upstream	Right
112	9267	Downstream	Right
113	9234	Upstream	Right
114	9261	Downstream	Left
115	9416	Upstream	Right
116	9279	Downstream	Left
117	9173	Upstream	Left
118	9224	Downstream	Left
119	9216	Upstream	Left
120	9496	Downstream	Right
121	9324	Upstream	Left
122	9136	Downstream	Left
123	9441	Upstream	Right
124	9384	Downstream	Left
125	9304	Upstream	Left
126	9378	Downstream	Right
127	9201	Upstream	Left
128	9494	Downstream	Right
129	9568	Upstream	Left
130	9475	Downstream	Right
131	9289	Upstream	Left
132	9362	Downstream	Left
133	9399	Upstream	Left
134	9240	Downstream	Right
135	9491	Upstream	Right
136	9583	Downstream	Left
137	9168	Upstream	Left
138	9460	Downstream	Left
139	9233	Upstream	Left
140	9263	Downstream	Right
141	9506	Upstream	Right
142	9197	Downstream	Left
143	9484	Upstream	Right
144	9515	Downstream	Right
145	9162	Upstream	Left
146	9217	Downstream	Right
147	9191	Upstream	Left
148	9165	Downstream	Right
149	9355	Upstream	Left
150	9318	Downstream	Left
151	9134	Upstream	Left
152	9545	Downstream	Left
153	9293	Upstream	Right
154	9554	Downstream	Right
155	9266	Upstream	Right
156	9465	Downstream	Right

102	9306	Upstream	Left
103	9526	Downstream	Right
104	9533	Upstream	Right
105	9468	Downstream	Right
106	9379	Upstream	Left
107	9251	Downstream	Left
108	9275	Upstream	Right
109	9514	Downstream	Right
110	9597	Upstream	Left
111	9227	Downstream	Left
112	9419	Upstream	Left
113	9314	Downstream	Right
114	9130	Upstream	Left
115	9331	Downstream	Left
116	9246	Upstream	Left
117	9220	Downstream	Left
118	9405	Upstream	Right
119	9218	Downstream	Left
120	9222	Upstream	Left
121	9210	Downstream	Right
122	9438	Upstream	Right
123	9366	Downstream	Right
124	9156	Upstream	Right
125	9566	Downstream	Right
126	9476	Upstream	Right
127	9549	Downstream	Left
128	9321	Upstream	Right
129	9464	Downstream	Left
130	9423	Upstream	Right
131	9368	Downstream	Left
132	9291	Upstream	Left
133	9443	Downstream	Right
134	9393	Upstream	Left
135	9430	Downstream	Right
136	9152	Upstream	Right
137	9245	Downstream	Left
138	9212	Upstream	Right
139	9339	Downstream	Right
140	9223	Upstream	Right
141	9146	Downstream	Left
142	9537	Upstream	Left
143	9211	Downstream	Left
144	9571	Upstream	Left
145	9262	Downstream	Left
146	9213	Upstream	Right
147	9381	Downstream	Left
148	9190	Upstream	Right
149	9576	Downstream	Left
150	9434	Upstream	Right
151	9250	Downstream	Right
152	9308	Upstream	Left
153	9548	Downstream	Left
154	9451	Upstream	Right
155	9563	Downstream	Right
156	9303	Upstream	Left

157	9546	Upstream	Left
158	9277	Downstream	Left
159	9481	Upstream	Right
160	9179	Downstream	Right
161	9302	Upstream	Left
162	9273	Downstream	Right
163	9288	Upstream	Right
164	9585	Downstream	Left
165	9415	Upstream	Right
166	9320	Downstream	Left
167	9499	Upstream	Right
168	9264	Downstream	Right
169	9410	Upstream	Right
170	9122	Downstream	Left
171	9437	Upstream	Right
172	9159	Downstream	Right
173	9163	Upstream	Left
174	9495	Downstream	Left
175	9452	Upstream	Right
176	9148	Downstream	Left
177	9543	Upstream	Right
178	9280	Downstream	Left
179	9536	Upstream	Right
180	9177	Downstream	Right
181	9448	Upstream	Right
182	9237	Downstream	Left
183	9498	Upstream	Left
184	9215	Downstream	Left
185	9403	Upstream	Left
186	9142	Downstream	Left
187	9389	Upstream	Right
188	9239	Downstream	Right
189	9166	Upstream	Right
190	9153	Downstream	Right
191	9501	Upstream	Right
192	9482	Downstream	Left
193	9527	Upstream	Left
194	9454	Downstream	Right
195	9370	Upstream	Right
196	9572	Downstream	Left
197	9408	Upstream	Right
198	9195	Downstream	Left
199	9523	Upstream	Left
200	9269	Downstream	Right
201	9380	Upstream	Right
202	9296	Downstream	Right
203	9371	Upstream	Right
204	9561	Downstream	Right
205	9373	Upstream	Right
206	9383	Downstream	Right
207	9520	Upstream	Left
208	9589	Downstream	Right
209	9488	Upstream	Right
210	9225	Downstream	Left
211	9189	Upstream	Left

157	9579	Downstream	Left
158	9396	Upstream	Right
159	9323	Downstream	Left
160	9394	Upstream	Left
161	9558	Downstream	Left
162	9429	Upstream	Left
163	9124	Downstream	Right
164	9458	Upstream	Right
165	9319	Downstream	Right
166	9160	Upstream	Left
167	9412	Downstream	Left
168	9235	Upstream	Left
169	9228	Downstream	Right
170	9436	Upstream	Left
171	9257	Downstream	Right
172	9311	Upstream	Left
173	9584	Downstream	Left
174	9581	Upstream	Right
175	9192	Downstream	Right
176	9359	Upstream	Right
177	9357	Downstream	Right
178	9542	Upstream	Right
179	9471	Downstream	Right
180	9367	Upstream	Right
181	9206	Downstream	Left
182	9183	Upstream	Right
183	9404	Downstream	Left
184	9447	Upstream	Right
185	9344	Downstream	Left
186	9274	Upstream	Left
187	9230	Downstream	Right
188	9485	Upstream	Right
189	9232	Downstream	Right
190	9532	Upstream	Left
191	9580	Downstream	Left
192	9528	Upstream	Right
193	9144	Downstream	Right
194	9292	Upstream	Right
195	9229	Downstream	Left
196	9184	Upstream	Left
197	9322	Downstream	Left
198	9392	Upstream	Right
199	9157	Downstream	Right
200	9242	Upstream	Left
201	9376	Downstream	Right
202	9503	Upstream	Left
203	9374	Downstream	Left
204	9361	Upstream	Left
205	9556	Downstream	Left
206	9290	Upstream	Left
207	9348	Downstream	Right
208	9295	Upstream	Left
209	9360	Downstream	Right
210	9151	Upstream	Left
211	9596	Downstream	Right

212	9588	Downstream	Left
213	9243	Upstream	Right
214	9155	Downstream	Left
215	9493	Upstream	Right
216	9431	Downstream	Left
217	9317	Upstream	Left
218	9221	Downstream	Right
219	9535	Upstream	Right
220	9196	Downstream	Left
221	9519	Upstream	Left
222	9328	Downstream	Right
223	9439	Upstream	Left
224	9358	Downstream	Right
225	9551	Upstream	Right

212	9522	Upstream	Left
213	9284	Downstream	Right
214	9480	Upstream	Right
215	9329	Downstream	Right
216	9497	Upstream	Left
217	9564	Downstream	Left
218	9270	Upstream	Right
219	9297	Downstream	Left
220	9505	Upstream	Right
221	9213	Downstream	Left
222	9187	Upstream	Right
223	9327	Downstream	Right
224	9409	Upstream	Right
225	9555	Downstream	Left

For "X-Axis Orientation" column
"Right" stands for right-numbered surface should face to the undulator axis.
"Left" stands for left-numbered surface should face to the undulator axis.
This "Right", "Left" procedure applies for both Top and Bottom Jaw

For "Main-Field Orientation" column **(see Assembly Procedure Document)**
"Downstream" side corresponts to the direction of lower-numbered slot.
Arrow should point toward the lower numbered slots.
"Upstream" side corresponds to the direction of higher-numbered slot.
Arrow should point toward the higher numbered slots.

Spare magnets

serial No.	Reduced Magnetization
9350	33%
9445	80%
9472	
9511	
9587	
9157	
9570	
9541	
9244	
9509	
[illegible]	
9382	
9590	
9512	
9398	
9539	
9377	
9276	
9459	
9426	
9478	
9164	
9315	

Sample magnets

serial No.	
9131	
9253	
9334	
9457	
9594	

9247
9352

1. DISTRIBUTION: LCLS Undulator Ass'y Contractors, Tom Barsz, and Glen Lawrence

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

2. PAGE ONE OF 1 3. ACL NO. E5-026046

4. ORIGINATOR'S NAME & DIVISION Glen Lawrence XFD 5. PHONE 2-9298 6. DATE 1-24-05

7. PART NO. & NAME L143-110107 Magnet Structure last Pole / L143-110105 Magnet Structure Pole 8. QUANTITY 170 / 19030

9. FOR INSPECTION, DELIVER TO BLDG. NO. N/A DIVISION _____ ATTN: _____

10. AFTER INSPECTION, DELIVER TO BLDG. NO. N/A DIVISION _____ ATTN: _____

11. REFERENCES AND/OR REMARKS: The Magnet Poles are to be delivered to the Undulator Asembly Contractors by the Machining Contractor . Undulator Assembly Contractor shall inspect the Magnet Poles prior to acceptance. ANL shall review all Certifications and Machining Contractor's reported measurements & optionally perform on-site inspections.

12 STEP NO.	13 INSPECTION/TEST REQUIREMENT	14 INSPECTION TEST LOCATION	18 ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19 DATE
1	Visual inspection of parts for shipping damage.	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
2	Check that parts were "bagged and Tagged" with serial no.'s and part no.'s (ANL & SLAC) per SOW L143-00031,	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
	Section 4.1.3.			
3	Check that parts were marked with serial numbers per SOW section 4.1.3.	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
4	Check that accompanying Certifications have correct part serial numbers.	Undulator Ass'y Contractor	TODD CARDIN MTX QC 12	12-19-06
5.	Check the material certification for compliance with ASTM A801, Type 1.	Undulator Ass'y Contractor & ANL	TODD CARDIN MTX QC 12	12-19-06
6	Check the anneal certification for compliance with AMS-A801, or a specified material supplier's annealing schedule.	Undulator Ass'y Contractor & ANL	TODD CARDIN MTX QC 12	12-19-06
7	Check that the machining Contractor's certified dimensional measurements are in compliance with the drawing.	ANL		
8	Verify the critical dimensions as listed in the SOW, Section 4.5.2 are in compliance with the drawing	Undulator Ass'y Contractor	Thomas P Becker	12-4-06
	L143-112000-05			
	SA-381-001-35			
	5A10359-20			

15. ORIGINATOR OF PLAN Glen Lawrence DATE 1-24-05

16. PLAN REVIEWED/APPROVED BY _____ DATE _____

17. QAR CONCURRENCE WITH PLAN _____ DATE _____

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

LCLS Undulator poles inspection per L143-00076 Assembly Procedure:

Inspection - Poles / Magnets / Magnet Structure Bases

1. *Obtain the QA inspection reports for the* ***poles (drawing L143-110105)*** *and magnets (drawing L143-110106 - See appendix A for blank inspection reports). Randomly select 10% of the delivered poles and magnets and inspect them to a minimum precision of .0025mm to verify that they meet the critical drawing specifications.*

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-20

Inspection/Acceptance report or components for as-built drawings:

Part: L143-110105 Poles

Completed By: Thomas L Becker **Date:** 12-4-06

5750 Cornell Road • Blue Ash Industrial Park • Cincinnati, OH 45242
Phone (513) 489-0507 • Fax (513) 489-1020

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6016

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6043

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.91	Accept/Reject
Pole Thickness	6.00	+0 / -.05	10.19.06 TB 5.975 ~~43.98~~	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	< .01	Accept/Reject
Flatness of base	<= .01	N/A	< .01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6974

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.988	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6391

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7456

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	44.00	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8716

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6036

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6331

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.91	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7373

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.988	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 5934

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8762

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7006

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.99	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.988	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8785

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	</= .01	N/A	<.01	Accept/Reject
Flatness of base	</= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7539

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7339

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.91	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.988	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7367

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7378

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	10.19.06 TS ~~43.94~~ 5.988	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6406

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.94	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6418

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8717

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.90	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8680

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7273

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.94	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6485

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.93	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6956

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	6.00	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7333

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.94	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7534

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6119

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.94	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6037

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 9378

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	44.00	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6346

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.99	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6220

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.99	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8670

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.99	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8707

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.93	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6257

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8735

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6120

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 5971

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 9391

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7571

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.99	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8681

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.90	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8478

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8776

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8672

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6283

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.91	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.99	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6440

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.96	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8783

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.93	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	</= .01	N/A	<.01	Accept/Reject
Flatness of base	</= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7393

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.94	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6254

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.98	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7479

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.92	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.975	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 8796

P.O. #: 5A-05150

DATE: 10.19.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

TEST EQUIPMENT USED: MX 111, MX 1452, 587F, MX 0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.1}$

1. DISTRIBUTION: LCLS Undulator Ass'y Contractors, Tom Barsz, and Glen Lawrence

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

2. PAGE ONE OF 1 3. ACL NO. E5-069069

4. ORIGINATOR'S NAME & DIVISION Glen Lawrence XFD 5. PHONE 2-9298 6. DATE 1-31-05

7. PART NO. & NAME L143-110106 Magnet Structure Magnet 8. QUANTITY 19200

9. FOR INSPECTION, DELIVER TO BLDG. NO. 401 DIVISION XFD ATTN: Glen Lawrence

10. AFTER INSPECTION, DELIVER TO BLDG. NO. 401 DIVISION XFD ATTN: Glen Lawrence

11. REFERENCES AND/OR REMARKS: Most of the magnets wil be drop shipped directly to the Undulator Assembly Contractor, who will only perform limited physical inspection of the parts as they are highly magnetized. A sampling from Each lot will be sent to ANL for verification of the magnetic field properties.

12 STEP NO.	13 INSPECTION/TEST REQUIREMENT	14 INSPECTION TEST LOCATION	18 ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19 DATE
1	Visual inspection of parts for shipping damage..	Undulator Ass'y Contractor	Thomas P. Becker	12-4-06
2	Visual inspection of parts for surface chips and pits.	Undulator Ass'y Contractor	Thomas P. Becker	12-4-06
3	Dimensional check of part for conformance to the drawing.	Undulator Ass'y Contractor	Thomas P. Becker	12-4-06
4	Review vendor certified test data agrees with SOW requirements	APS Bldg 401		
5	Review Vendor sort list for agreement with sort procedure.	APS Bldg 401		
6	On random sampling, inspect magnetic field with magnetic visualization film for magnetic defects.	APS Magnet Group		
7	On random sampling, confirm Magnetic Moment magnitude And vector components agree with vendor reports	APS Magnet Group		
8	On random sampling, verify the magnet's demagnetization and thermal stability	APS Magnet Group		
	L143-112000-05			
	SA-381-001-35			
	5A10359-20			

15. ORIGINATOR OF PLAN Glen Lawrence DATE 02-07-05

16. PLAN REVIEWED/APPROVED BY _____ DATE _____

17. QAR CONCURRENCE WITH PLAN _____ DATE _____

Metalex Manufacturing
L143-112000 BOM/ASSY Undulator
Purchase Order No. 5A10359

LCLS Undulator magnets inspection per L143-00076 Assembly Procedure:

Inspection - Poles / Magnets / Magnet Structure Bases

1. *Obtain the QA inspection reports for the poles (drawing L143-110105)* ***and magnets (drawing L143-110106 - See appendix A for blank inspection reports).*** *Randomly select 10% of the delivered poles and magnets and inspect them to a minimum precision of .0025mm to verify that they meet the critical drawing specifications.*

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-20

Inspection/Acceptance report or components for as-built drawings:

Part: L143-110106 Magnet

Completed By: Thomas P. Berlan **Date:** 12-4-06

5750 Cornell Road • Blue Ash Industrial Park • Cincinnati, OH 45242
Phone (513) 489-0507 • Fax (513) 489-1020

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9569

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.975	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135 MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9305

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.92	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9553

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9463

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135 MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9473

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135 MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9180

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.99	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9577

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 537K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9141

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.935	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9375

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 537K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9186

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.960	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9198

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9194

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9248

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.975	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9268

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9420

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9267

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9234

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9261

P.O. #: 5A-06868

DATE: 10-18-06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.025	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.92	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9416

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9279

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9173

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

LCLS

Procedure Number: L143-00076
Revision: 0
Issue Date: April 14, 2005

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9224

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9216

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9496

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9477

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9559

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9386

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.975	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9372

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9309

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9306

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

LCLS

Procedure Number: L143-00076
Revision: 0
Issue Date: April 14, 2005

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9526

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.01	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9533

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9468

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136 MX2

COMMENTS:

LCLS

Procedure Number: L143-00076
Revision: 0
Issue Date: April 14, 2005

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9379

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.975	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9251

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9275

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9514

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 537K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9597

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.975	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9227

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.93	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX139
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9419

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	56.988	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.950	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9314

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX138
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9130

P.O. #: 5A-06868

DATE: 10·18·06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9331

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9246

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9220

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9405

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9218

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.00	Accept/Reject
Magnet Width	66.00	+/- .25	66.00	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX135
MX2

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 9222

P.O. #: 5A-06868

DATE: 10.18.06

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	57.00	+/- .05	57.012	Accept/Reject
Magnet Width	66.00	+/- .25	65.988	Accept/Reject
Magnet thickness	9.00	+0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P. Becker
Thomas P. Becker

QA Supervisor:

TEST EQUIPMENT USED: 587K, MX1462, MX111, MX1452, MX851, MX136
MX2

COMMENTS:

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/16/06 SHP	3	05-1229282-	2 OF 6	
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	02-GRR	05-DAY	2P3469

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

1310 SCRIBNER NW, GRAND RAPIDS MI 49504-3287

Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI
BUYER TELEPHONE: (513)489-0539	INSIDE SALES TELEPHONE: (937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	0.72 LB	1.00
BILLING	1.00 PC	1.00
WAREHOUSE		1.00 PC

SHIP VIA	SHIPPING STATUS		
INTERNAL: POOL-TO 05-DAY	COMPLETE: X	PARTIAL	CANCEL
TO CUSTOMER: OUR TRUCK/OUR DEL-D1			FOB: ORIG
BILL OF LADING			FREIGHT STATUS: PPD

PACKED WITH OTHER GOODS

FINISHED GOODS LOCATION: WARN LABEL:1012

PART DESCRIPTION 209591-7

RD SM DIA HH BRASS ROD C36000, 1/4 (+-.0015)
NO PROCESSING - 48" ML, actual certs must be signed

Item 3

METALEX QA. DEPT ACCEPTED DATE 7/13/06 BY KKB

SPECIAL INSTRUCTIONS

FILL	SCRAP	FILLED BY	PACKED BY	QA AUDIT
		KS		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
				1						

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:
ASTM-B16

P.P.D

ACTUAL CHEMICAL TAG NO	QUANTITY	UOM	VENDOR	NOM PHYSICAL VEND PO	HEAT/LOT	ROHS EXEMPT PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
M75585 01	1.00	LB	CHICAGO	0CJ4847	54097								

Job#5725
Part# L143-110113
P.O# 64970-BL

DEL 6/20

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.

STEVEN J. PARACI - General Manager: GRAND RAPIDS PRINTED 06/15/06 03:58 PM CONTROL NO 00090

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

Chicago Extruded Metals Company
1601 South 54th Ave.
Cicero, Illinois 60804-1898

METALEX
QA. DEPT.
ACCEPTED
DATE 7/13/06
BY KKB

Certificate of Compliance

Customer: COPPER & BRASS SALES
1310 SCRIBNER NW
GRAND RAPIDS MI 49504

Date: 3/27/06

Customer Order No: CJ4847

CXM Order No: 3044122 Rel# 000

Alloy: 3600

Date Shipped: 03-27-06

Temper: H02

Weight Shipped: 4408

Size: 0.2500 ROUND

Specification: ASTM B-16-00

CXM Item No: 54097

Customer Item No: 209591-7

Chemical Composition:

Copper %	61.62
Lead	2.920
Iron	.150
Tin	.170
Zinc	Remainder

Mechanical Properties:

Tensile Str. ksi	62.3
Yield Str. ksi	36.7
Elong 4D%	12.2
Rockwell - B	

SOLD TO
DATE
CUSTOMER P.O.
CUSTOMER P/N
SHIPPER NO.
QUANTITY
BY
COPPER and BRASS SALES INC.

EU Directive 2002/95/EC/RoHS Compliant

Samples taken from the subject material have been tested with results above and found to conform to the specification requirements.

CHICAGO EXTRUDED METALS CO

Quality Control

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE	PACKING LIST
55230	06/19/06 SHP	36	05-1229282-	1 OF 6 TEST RESULTS
BILL TO: METALEX MFG INC	WORK ORDER **		ORDER DATE: 06/15/06 ORD	

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	05-DAY	05-DAY	5R4099

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

6700 POE AVENUE, DAYTON OH 45414-2590

Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI

BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	35.28 LB	36.00
BILLING	1.00 PC	1.00
WAREHOUSE		1.00 PC

SHIP VIA | SHIPPING STATUS

INTERNAL	COMPLETE	PARTIAL	CANCEL
	X		

TO CUSTOMER	FOB	PACKED WITH OTHER GOODS
OUR TRUCK/OUR DEL-D1	ORIG	

BILL OF LADING	FREIGHT STATUS	FINISHED GOODS LOCATION
	PPD	WARN LABEL:1001

PART DESCRIPTION 020354-7

RECT 6061-T6511 EXTR ALUMINUM BAR, 1-1/4 (+/-.012) X 2 (+/.024) X 12 FT ML
NO PROCESSING - 144" ML, actual certs must be signed

METALEX
QA. DEPT
ACCEPTED
DATE 6/22/06
BY KKB
MTX QC 18

Item 2

SPECIAL INSTRUCTIONS

P/N L143-110109
L143-110110

FILL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		KT		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
1									

INSPECTION RECORD

TEST RESULTS -----

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:
ASTM-B221 AMS-QQ-A-200/8

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	!	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
[illegible]	1.00	PC	KAISER	0CL2973	686 204	1	!							

Del

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.W.

6/20

[illegible] - General Manager: DAYTON PRINTED 06/15/06 07:01 PM CONTROL NO 00108

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

KAISER ALUMINUM
MATERIAL CERTIFICATION

KAISER ALUMINUM
4111 S 74 E Ave

Tulsa, OK 74145

COPPER & BRASS SALES (PICK UP)
CUSTOMER PICK-UP - TULSA
6700 POE AVE
DAYTON, OH 45414

COPPER & BRASS SALES
SOUTHFIELD MI 48086 CL2973 06/08/06
SOLD TO PURCHASE ORDER DATE PRINTED

SOLD TO PURCHASE ORDER DATE PRINTED

020354-7/ 1.250 X 2.000 SC RECT BAR
CUSTOMER PART NUMBER DESCRIPTION

804454-001	686 204	6061-T6511
RELEASE-ITEM	LOT	ALLOY/TEMPER

==========

MECHANICAL PROPERTY RESULTS

REFERENCE	SAMPLE#	UTS(KSI)	YTS(KSI)	%Elong in 2"	HARDNESS	CONDUCT.	BEND
686 204	0001 0001	55.4	51.7	12.7		N/A	N/A

CHEMICAL COMPOSITION (WT%), ALUMINUM REMAINDER

6061 LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Others Ea	Others Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00

Item#2

METALEX
QA. DEPT.
ACCEPTED
DATE 6/22/06
BY KKB

==========

APPLICABLE REQUIREMENTS:

ASTM-B221-02-STENCILED
ASME-SB221 1998 SECT II
AMS-QQ-A-200/8
UNS#96061

Kaiser Aluminum & Chemical Corp. ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file, subject to examination.

Job# 5725
Part# L143-110109
& L143-110110
PO# 64970-BL

PRECISION BRAND.

ISO 9001:2000 Certified Company

PRECISION BRAND PRODUCTS, INC.
2250 CURTISS STREET
DOWNERS GROVE, IL 60515 USA
PHONE: (630) 969-7200 FAX: (630) 969-0310

PO# 65853-BL
J+L Industrial
Michelle Lafferty

Wednesday, 07/26/2006

This is to certify that to the best of our knowledge and belief, all values shown below are correct and true and the material complies with the specifications shown.

J&L Part Number
PBP-44505M
BL 7-26-06
Job#5681/5725

METALEX
QA. DEPT
ACCEPTED
DATE 8/9/06
BY KKB

COLOR CODED SHIM

.0005 - .005 POLYESTER
.0075 - .060 POLYVINYL CHLORIDE (PVC)

	.0005 - .005	.0075 - .030	.040 - .060
TENSILE STRENGTH	30,000 PSI	6,600 PSI	14,000 PSI
ULTIMATE ELONGATION	90%	180%	180%
FOLDING ENDURANCE (MIT)	>100,000	37,000	37,000
TEAR STRENGTH (ELMENDORF)	20 g/mil	--	--
MOISTURE ABSORPTION	0.8%	0.15%	0.15%
THICKNESS TOLERANCE	+/- 5%	+/- 5%	+/- 5%
COMPRESSION @ 5,000 PSI	1.0%	0.7%	0.7%
SERVICE TEMPERATURE	-90ΘF - 300ΘF	-10ΘF - 155ΘF	-10ΘF - 155ΘF
MEETS SPECIFICATION:	L-P-377	L-P-535	L-P-535

P/N L143-110704

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/16/06 SHP	190	05-1229282-	4 OF 6	
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	31-ELK	05-DAY	VM4419

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

58144 CHARLOTTE AVE, ELKHART IN 46517

Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI

BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	170.05 LB	170.00
BILLING	16.00 PC	16.00
WAREHOUSE		16.00 PC

SHIP VIA	SHIPPING STATUS		
INTERNAL POOL-TO 05-DAY	COMPLETE X	PARTIAL	CANCEL

TO CUSTOMER	FOB
OUR TRUCK/OUR DEL-D1	ORIG
BILL OF LADING	FREIGHT STATUS: PPD

PACKED WITH OTHER GOODS

FINISHED GOODS LOCATION

PART DESCRIPTION 088407-2

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 7.937" (+.064,-0), actual certs must be signed

Item 5

METALEX MTX
QA. DEPT. QC 18
ACCEPTED
DATE 6/22/06
BY KKB

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		DW		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
G99025 22	5.00	PC	ALCOA M	0CE0551	9217		G71753 08	4.00	PC	ALCOA M	0CC8549	9182	
G71753 09	4.00	PC	ALCOA M	0CC8549	9182		N43922 11	3.00	PC	ALCOA M	0CK5444	9283	

Del

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.L.

Job# 5725
PART# L143-110801
&
L143-110901
P.O# 64970-BL

6/20

STEVEN J. FARACI · General Manager: ELKHART PRINTED 06/15/06 03:45 PM CONTROL NO 00115

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/20/06 SHP	2600	05-1229282-	6 OF 6	

BILL TO:	WORK ORDER	ORDER DATE			
METALEX MFG INC		06/15/06 ORD			
		DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
		06/21/06 DEL	31-ELK	05-DAY	VM4421

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

58144 CHARLOTTE AVE, ELKHART IN 46517
ThyssenKrupp Materials NA
Copper and Brass Sales Division
ThyssenKrupp
Copper and Brass Sales is a division of ThyssenKrupp Materials NA, Inc.

CUSTOMER NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.E.	BRIAN M. KARWOWSKI

BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

SHIP VIA	SHIPPING STATUS		
INTERNAL POOL-TO 05-DAY	COMPLETE X	PARTIAL	CANCEL

TO CUSTOMER
OUR TRUCK/OUR DEL-STBY

FOB ORIG

BILL OF LADING

FREIGHT STATUS PPD

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	2550.73 LB	2552.00
BILLING	48.00 PC	48.00
WAREHOUSE		48.00 PC

PACKED WITH OTHER GOODS

FINISHED GOODS LOCATION

088407-2

PART DESCRIPTION

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 39.812", (+.064,-0)
actual certs must be signed

Attn: Brian Lawson

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		DWQ		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BCXWA	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
021824 00	36.00	PC	ALCOA M	0CL0111	9322		021826 00	12.00	PC	ALCOA M	0CL0111	9322	

Anne Riggs - Vice President of Quality Copper and Brass Sales

Anne C. Riggs

PRINTED 06/15/06 01:42 PM CONTROL NO 00117

JOS#5725
PART# L143-111001
-111101
P.O.# 64970-BL

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/16/06 SHP	165	05-1229282-	5 OF 6	
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	31-ELK	05-DAY	VM4420

SHIP TO:
METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

58144 CHARLOTTE AVE, ELKHART IN 46517
Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI
BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	154.42 LB	~~154.00~~
BILLING	15.00 PC	15.00
WAREHOUSE		

SHIP VIA	SHIPPING STATUS		
INTERNAL POOL-TO 05-DAY	COMPLETE X	PARTIAL	CANCEL
TO CUSTOMER OUR TRUCK/OUR DEL-D1			FOR ORIG
BILL OF LADING			FREIGHT STATUS PPD

PACKED WITH OTHER GOODS

FINISHED GOODS LOCATION

PART DESCRIPTION 088407-2

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 7.687" (+.064,-0), actual certs must be signed

METALEX
QA. DEPT. MTX QC 18
ACCEPTED
DATE 6/26/06
BY KKB

Item 6

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		GLD		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
N55627 03	6.00	PC	ALCOA M	0CK7268	9283		N55627 04	6.00	PC	ALCOA M	0CK7268	9283	
N43922 10	3.00	PC	ALCOA M	0CK5444	9283								

Del

Job# 5725
Part# L143-111201
& L143-111301
P.O# 64970-BL

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.W

6/20

STEVEN J. FARACI - General Manager: ELKHART PRINTED 06/15/06 03:45 PM CONTROL NO 00116

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

PRECISION BRAND

ISO 9001:2000 Certified Company

PRECISION BRAND PRODUCTS, INC.
2250 CURTISS STREET
DOWNERS GROVE, IL 60515 USA
PHONE: (630) 969-7200 FAX: (630) 969-0310

PO# 65853-BL
J+L Industrial
Michelle Lafferty

Wednesday, 07/26/2006

This is to certify that to the best of our knowledge and belief, all values shown below are correct and true and the material complies with the specifications shown.

J&L Part Number
PBP-44505M
BL 7-26-06
Job#5681/5725

METALEX
QA. DEPT
ACCEPTED
DATE 8/9/06
BY KKB

COLOR CODED SHIM

.0005 - .005 POLYESTER
.0075 - .060 POLYVINYL CHLORIDE (PVC)

	.0005 - .005	.0075 - .030	.040 - .060
TENSILE STRENGTH	30,000 PSI	6,600 PSI	14,000 PSI
ULTIMATE ELONGATION	90%	180%	180%
FOLDING ENDURANCE (MIT)	>100,000	37,000	37,000
TEAR STRENGTH (ELMENDORF)	20 g/mil	--	--
MOISTURE ABSORPTION	0.8%	0.15%	0.15%
THICKNESS TOLERANCE	+/- 5%	+/- 5%	+/- 5%
COMPRESSION @ 5,000 PSI	1.0%	0.7%	0.7%
SERVICE TEMPERATURE	-90ΘF - 300ΘF	-10ΘF - 155ΘF	-10ΘF - 155ΘF
MEETS SPECIFICATION:	L-P-377	L-P-535	L-P-535

P/N L143-110704

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/16/06 SHP	190	05-1229282-	4 OF 6	
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	31-ELK	05-DAY	VM4419

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

58144 CHARLOTTE AVE, ELKHART IN 46517
Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI
BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	170.05 LB	170.00
BILLING	16.00 PC	16.00
WAREHOUSE		16.00 PC

SHIP VIA / SHIPPING STATUS

INTERNAL	COMPLETE	PARTIAL	CANCEL
POOL-TO 05-DAY	X		

TO CUSTOMER: OUR TRUCK/OUR DEL-D1
FOB: ORIG
FREIGHT STATUS: PPD
BILL OF LADING
PACKED WITH OTHER GOODS
FINISHED GOODS LOCATION

PART DESCRIPTION 088407-2

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 7.937" (+.064,-0), actual certs must be signed

Item 5

METALEX MTX
QA. DEPT. QC 18
ACCEPTED
DATE 6/22/06
BY KKB

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		DW		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
G99025 22	5.00	PC	ALCOA M	0CE0551	9217		G71753 08	4.00	PC	ALCOA M	0CC8549	9182	
G71753 09	4.00	PC	ALCOA M	0CC8549	9182		N43922 11	3.00	PC	ALCOA M	0CK5444	9283	

Del

Job# 5725
PART# L143-110801
&
L143-110901
P.O# 64970-BL

6/20

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.L.

STEVEN J. FARACI - General Manager: ELKHART PRINTED 06/15/06 03:[illegible] PM CONTROL NO 00115

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/20/06 SHP	2600	05-1229282-	6 OF 6	

BILL TO: METALEX MFG INC

WORK ORDER

ORDER DATE: 06/15/06 ORD

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/21/06 DEL	31-ELK	05-DAY	VM4421

SHIP TO

METALEX MFG INC
5750 CORNELL
CINCINNATI OH 45242

01

58144 CHARLOTTE AVE, ELKHART IN 46517
ThyssenKrupp Materials NA
Copper and Brass Sales Division
ThyssenKrupp
Copper and Brass Sales is a division of ThyssenKrupp Materials NA, Inc.

CUSTOMER NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER: BRIAN LAWSON, P.

INSIDE SALES: BRIAN M. KARWOWSKI

BUYER TELEPHONE: (513)489-0539

INSIDE SALES TELEPHONE: (937)415-2620 52625

SHIP VIA

SHIPPING STATUS

INTERNAL	COMPLETE	PARTIAL	CANCEL
POOL-TO 05-DAY	X		

TO CUSTOMER: OUR TRUCK/OUR DEL-STRY

FOB: ORIG

BILL OF LADING

FREIGHT STATUS: PPD

CUSTOMER SIGNATURE:

DATE:

QUANTITY	ORDERED		SHIPPED
INVENTORY	2550.73	LB	2552.00
BILLING	48.00	PC	48.00
			48.00 PC

WAREHOUSE

PACKED WITH OTHER GOODS

FINISHED GOODS LOCATION

PART DESCRIPTION: 088407-2

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 39.812", (+.064,-0)
actual certs must be signed

Attn: Brian Lawson

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		DWQ		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

SCRWA	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products.
The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
021824 00	36.00	PC	ALCOA M	0CL0111	9322	
1 021826 00	12.00	PC	ALCOA M	0CL0111	9322	

Anne Riggs - Vice President of Quality Copper and Brass Sales

PRINTED 06/15/06 01:42 PM CONTROL NO 00117

J.O.# 5725

PART# L143-111001
-111101

P.O.# 64970-BL

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/16/06 SHP	165	05-1229282-	5 OF 6	
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
06/19/06 DEL	31-ELK	05-DAY	VM4420

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

58144 CHARLOTTE AVE, ELKHART IN 46517

Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON, P.A.	BRIAN M. KARWOWSKI
BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	154.42 LB	~~154.00~~
BILLING	15.00 PC	15.00
WAREHOUSE		

SHIP VIA			SHIPPING STATUS	
INTERNAL POOL-TO 05-DAY	COMPLETE X	PARTIAL	CANCEL	
TO CUSTOMER OUR TRUCK/OUR DEL-D1			FOB ORIG	PACKED WITH OTHER GOODS
BILL OF LADING			FREIGHT STATUS PPD	FINISHED GOODS LOCATION

PART DESCRIPTION 088407-2

CAST ALUMINUM TOOLING PLATE, 2.500 (+-.005)
SAW 5.25" (+.064,-0) X 7.687" (+.064,-0), actual certs must be signed

Item 6

METALEX MTX QC 18
QA. DEPT.
ACCEPTED
DATE 6/26/06
BY KKB

SPECIAL INSTRUCTIONS

FULL	SCRAP	FILLED BY	PACKED BY	Q/A AUDIT
		GLD		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
					1					

INSPECTION RECORD

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
N55627 03	6.00	PC	ALCOA M	0CK726B	9283		N55627 04	6.00	PC	ALCOA M	0CK726B	9283	
N43922 10	3.00	PC	ALCOA M	0CK5444	9283								

Del

Job# 5725
Part# L143-111201
& L143-111301
P.O# 64970-BL

RECEIVED
JUN 19 2006
METALEX MFG.
BY S.W

KW 6/20

STEVEN J. FARACI - General Manager: ELKHART PRINTED 06/15/06 03:45 PM CONTROL NO 00116

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

CERTIFICATE OF TEST

Certification Date
16-JUN-2006

CUSTOMER ORDER NUMBER
64976-BL-5725

CUSTOMER PART NUMBER
ITEM 3

EARLE M. JORGENSEN COMPANY
601 REDNA TERRACE
P.O. BOX 15100
CINCINNATI OH 45215

Invoice Number
S960437

SOLD TO: METALEX MANUFACTURING
5750 CORNELL RD
CINCINNATI OH 45242

SHIP TO: METALEX MFG
5750 CORNELL ROAD
CINCINNATI OH 45242

Description: 1018 CF BAR ASTM A108
1/2 RD X 12' R/L
HEAT: 746151 ITEM: 501059

Line Total: 8 LB

Specifications:
ASTM A108 99 ASTM A331 95 00 ASTM A311 B95 00

CHEMICAL ANALYSIS

C	MN	SI	S	P
0.18	0.82	0.23	0.04	0.01

RCPT: R288069
MILL : NUCOR COLD FINISH COUNTRY OF ORIGIN : USA

Job #5725
Part # L143-110119
PO # 64976-BL

METALEX MTX QC 15
QA. DEPT.
ACCEPTED
DATE 6/22/06
BY KRB

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

TERRY RYNARD

Paul Barnhart
MANAGER, QUALITY ASSURANCE

EML017

MILL TEST REPORT

NUCOR COLD FINISH
A DIVISION OF NUCOR CORPORATION
2800 N. GOVERNOR WILLIAMS HIGHWAY
DARLINGTON, SOUTH CAROLINA 29540
FAX 843-395-8759
TELEPHONE 843-395-8689

PAGE - 1

CUSTOMER P.O.
BILL OF LADING P761917002-126
010200

DATE 1/07/05

SOLD TO
EARLE M. JORGENSEN STEEL
601 REDNA TERRACE
BOX 15100
CINCINNATI, OH
45215

SHIP TO
EARLE M. JORGENSEN STEEL
601 REDNA TERRACE
BOX 15100
CINCINNATI, OH
45215

CUST. PART#:ITEM 3
P.O.:64976-BL-5725
TERRY LYNNARD
SID#:9660437 CUSTOMER:METALEX MEG
DATE:06-06-16 SIGNATURE:TERRY
QTY: 8.018

GRADE	SIZE	PROD	HEAT NO.	C	Mn	Si	S	P	V	Cu	Ni	Cr	Mo	Pb	CUST. PART #
1018	1/2	RD	745270	.17	.80	.25	.030	.010							501059
1018	1/2	RD	746151	.18	.82	.23	.040	.010							501059
															R288069

PHYSICAL PROPERTIES

GRADE	SIZE	PROD	HEAT NO.	YIELD (ksi)	TENSILE (ksi)	El% (in 2")	ROA %	HARDNESS (SCALE)	COMMENTS

Job#5725
MET ALEX MTX
Q.A. DEPT. 06-18
ACCEPTED
DATE 6/23/06
BY KKB

P/N
L43-110119
P.O.#
64976
Item#3

SPECIAL INSTRUCTIONS:
ROUNDS UP TO & INCLUDING 2.5" ARE 100% EDDY CURRENT TESTED
COUNTRY OF ORIGIN FOR 12L14 MATERIAL:

TERRY CIESLINSKI

QUALITY ASSURANCE METALLURGIST

ALL COLD DRAWN CARBON STEEL LISTED ABOVE MEETS ASTM A108-99 SPECIFICATIONS.
ALL COLD DRAWN ALLOY STEEL LISTED ABOVE MEETS ASTM A331-95 (REAPP2000) SPECIFICATIONS.
ALL COLD DRAWN STRESS RELIEVED STEEL LISTED ABOVE MEETS ASTM A311-B95 (REAPP2000) SPECIFICATIONS.

Earle M. Jorgensen Co. Original test report for the order shown below

CERTIFICATE OF TEST

Certification Date
16-JUN-2006

CUSTOMER ORDER NUMBER
64976-BL-5725

CUSTOMER PART NUMBER
ITEM 2

EARLE M. JORGENSEN COMPANY
601 REDNA TERRACE
P.O. BOX 15100
CINCINNATI OH 45215

Invoice Number
S960438

SOLD TO: METALEX MANUFACTURING
5750 CORNELL RD
CINCINNATI OH 45242

SHIP TO: METALEX MFG
5750 CORNELL ROAD
CINCINNATI OH 45242

Description: 1018 CF BAR ASTM A108
3/16 X 8 FLATS X 12' R/L
HEAT: 571622 ITEM: 502771

Line Total: 61.2 LB

Specifications:
ASTM A108 93

CHEMICAL ANALYSIS

C	MN	P	S	SI	AL	TI	CR
0.19	0.65	0.006	0.008	0.03	0.041	0.001	0.1

MO	CU	NI	N	B
0.028	0.21	0.07	0.007	0.0001

RCPT: R568656
MILL : CLINGAN STEEL INC COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR	ULT TEN	%ELONG	%RED IN AREA	HARDNESS RB
					83

METALEX MTY
QA. DEPT.
ACCEPTED
DATE 6/22/06
BY KKB

Job# 5725
PART# L143-110114
P.O# 64976-BL

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

TERRY RYNARD

Paul Barnhart
MANAGER, QUALITY ASSURANCE

PDL017

Ellis M. Jorgensen Co. Original test report for the order shown below.

EMJ SID#:S960438 CUSTOMER:METALEX MFG P.O:64976-BL-5725 CUST. PART#:ITEM 2 QTY: 61.260 DATE:06-06-16 SIGNATURE:TERRY RYNARD

CLINGAN STEEL, INC.
CERTIFIED TEST REPORT

R 568656

11/10/05

TO:
EMJ CORPORATION CHICAGO
1900 MITCHELL BLVD.
SCHAUMBURG, IL 60193

SHIP TO:
EMJ CORPORATION CHICAGO
1900 MITCHELL BLVD.
SCHAUMBURG, IL 60193

Cust. P/O#: P832728-423 Part No.: 502771

STEEL,.1875 X 8.00 X 144.00

GRADE: C1018 PER ASTM A108-93 SQUARE EDGE

B/L Date 11/10/05

Bill/Ladng# 093368
Sales Ordr: 078583 01

Tag# 924451 01 Heat# 571622 MasterTag# 922078 01

C : .190	Mn: .650	P : .006	S : .008
Si: .030	Al: .041	Ti: .001	
Cr: .100	Mo: .028	Cu: .210	
Ni: .070	N : .007		B : .0001

Rockwell: B83

MELTED & MFG IN U.S.A.

Sales Ordr: 078583 01

Tag# 924452 01 Heat# 571622 MasterTag# 922078 01

C : .190	Mn: .650	P : .006	S : .008
Si: .030	Al: .041	Ti: .001	
Cr: .100	Mo: .028	Cu: .210	
Ni: .070	N : .007		B : .0001

Rockwell: B83

MELTED & MFG IN U.S.A.

Job#5725

METALEX MTX
QA. DEPT. QC 18
ACCEPTED
DATE 6/22/06
BY KKB

P/N L143-110114
P.O.# 64976
Item# 2

Continued...

Earle M. Jorgensen Co. Original test report for the order shown below

EMJ SID# S960438 CUSTOMER:METALEX.MFG P.O 64976-BL-5725 CUST PART#:ITEM 2 QTY. 61.260 DATE:06-06-16 SIGNATURE:TERRY RYNARD

CLINGAN STEEL, INC.
CERTIFIED TEST REPORT

11/10/05

TO:
EMJ CORPORATION CHICAGO
1900 MITCHELL BLVD.
SCHAUMBURG, IL 60193

SHIP TO:
EMJ CORPORATION CHICAGO
1900 MITCHELL BLVD.
SCHAUMBURG, IL 60193

Cust. P/O#: P832728-423 Part No.: 502771

STEEL,.1875 X 8.00 X 144.00

GRADE: C1018 PER ASTM A108-93 SQUARE EDGE

B/L Date 11/10/05 Bill/Ladng# 093368

Job#5725

METALEX MTX
QA. DEPT. QC 18
ACCEPTED
DATE 6/22/06
BY KKB

P/N L143-110114
P.O.# 64976

WE HEREBY CERTIFY THE ABOVE FIGURES ARE ACCURATELY STATED, MEET YOUR MATERIAL REQUIREMENTS AND ARE TRACEABLE IN OUR RECORDS.

CLINGAN STEEL, INC.
QUALITY ASSURANCE MANAGER

QMF 17

CERTIFICATE OF TEST

Certification Date
16-JUN-2006

CUSTOMER ORDER NUMBER
64976-BL-5725

CUSTOMER PART NUMBER
ITEM 1

EARLE M. JORGENSEN COMPANY
601 REDNA TERRACE
P.O. BOX 15100
CINCINNATI OH 45215

Invoice Number
S960436

SOLD TO: METALEX MANUFACTURING
5750 CORNELL RD
CINCINNATI OH 45242

SHIP TO: METALEX MFG
5750 CORNELL ROAD
CINCINNATI OH 45242

Description: 1018 CF BAR ASTM A108
1/4 X 3/4 FLATS X 12' R/L
HEAT: CI134628 ITEM: 502781

Line Total: 7.6 LB

Specifications:
ASTM A108 93

CHEMICAL ANALYSIS

C	MN	P	S	AL	B	CR	CU
0.18	0.67	0.011	0.027	0.007	0.0002	0.09	0.17

MO	N	NI	SI	SN	V
0.02	0.009	0.07	0.15	0.011	0.002

RCPT: R636656
MILL : CHARTER WIRE

COUNTRY OF ORIGIN : USA

STRAND CAST REDUCTION RATIO 145.0 TO 1

METALEX
QA. DEPT. MTX OC 16
ACCEPTED
DATE 6/22/06
BY KKB

COMMENTS
MELT SOURCE ALTON STEEL USA
SILICON KILLED COARSE GRAIN

Job# 5725
PART# L143-110112
P.O# 64976-BL

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

TERRY RYNARD

Paul Barnhart
MANAGER, QUALITY ASSURANCE

PAL017

EMJ SID# 5960436 CUSTOMER METALEX MFG P O 64976-BL-5725 CUST PART#:ITEM 1 QTY 7,657 DATE 06-06-16 SIGNATURE TERRY RYNARD

CHARTER WIRE
A Division of Charter Manufacturing Co., Inc.
114 N. Jackson Street
Milwaukee, Wisconsin 53202-6297
(414) 390-3000
(414) 390-3031 Fax

R 636656

DATE: 01/18/2006

CERTIFICATE OF MATERIAL AND SPECIFICATION

CUSTOMER: EMJ
CUSTOMER'S P.O. NO: P849582002
Customer Item: 502781
SIZE: .250 X .750
GRADE: AISI 1018
HEAT NO: cl134628

SALES ORDER NO: S42327
WORKORDER: 11011631
ITEM NO: 11070
SPEC 1: ASTM A108-93
SPEC 2:
SPEC 3:

CHEMICAL ANALYSIS: C: .1800 Mn .6700 P: .0110 S: .0270
AL .0070 B: .0002 Cr .0900 Cu .1700
Mo .0200 N: .0090 Ni .0700 Si .1500
Sn .0110 V: .0020

MILL SPECIFICATIONS: Hot Roll Source: CHARTER STEEL (USA)
Melt Source: ALTON STEEL (USA)
Casting Practice: STRAND
Killing Practice/Grainsize: SILICON KILLED COARSE GRAIN
Reduction Ratio: 145 TO 1

Job#5725
METALEX MFG QA. DEPT. ACCEPTED DATE 6/22/06 BY KKB
P/N L143-110112
P.O.# 64976
Item#1

HEAT ANALYSIS IS FROM THE PACKING LIST RECEIVED BY CHARTER FROM OUR RAW MATERIAL SUPPLIER.

QUALITY ASSURANCE/CONTINUOUS IMPROVEMENT MANAGER

ORIGINAL

55230	SHIP DATE 06/19/06 SHP	GROSS WEIGHT 22	QUOTE 05-1229282-	3 OF 6 **PACKING LIST** TEST RESULTS
		WORK ORDER **	ORDER DATE 06/15/06 ORD	
METALEX MFG INC			DELIVERY DATE 06/19/06 DEL	SHIP BRANCH 05-DAY / SELL BRANCH 05-DAY / WORK ORDER **5R4100**

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

6700 POE AVENUE, DAYTON OH 45414 2590
Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER NUMBER 64970-BL-5725	TERRITORY 03	ENTRY ID 05BMK	
BUYER BRIAN LAWSON, P.A.	INSIDE SALES BRIAN M. KARWOWSKI		
BUYER TELEPHONE (513)489-0539	INSIDE SALES TELEPHONE (937)415-2620 52625		

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	21.17 LB	22.00
BILLING	2.00 PC	2.00
WAREHOUSE		2.00 PC

SHIP VIA

SHIPPING STATUS: COMPLETE X / PARTIAL / CANCEL

SHIPPING NOTES: 1ST PICK/JOB DEL-01

FOB ORIG

FREIGHT STATUS PPD

PACKED WITH OTHER GOODS:

FINISHED GOODS LOCATION: WARN LABEL:1001

PART DESCRIPTION 019980-2

RECT 6061-T6511 EXTR ALUMINUM BAR, 1/2(+/-.009)X 1-1/2 (+/-.014) X 12 FT ML
NO PROCESSING - 144" ML, actual certs must be signed

Item# 4

METALEX QA. DEPT. ACCEPTED DATE 6/22/06 BY KKB

P/N: L143-10115

SPECIAL INSTRUCTIONS

PULL	SCRAP	FILLED BY	PACKED BY	QA AUDIT
		KT		

SHIPPING WAREHOUSE HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	MAPS	CASES	CUSHP	PEGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
						1				

INSPECTION RECORD

TEST RESULTS - - - - -

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The material we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 216-241-5682. We hereby certify that the material above complies with the following specifications:
PROD MAP 2 AMS-QQ-A-200/6

ROHS COMPLIANT

PROD ID	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
019980-2	2.00	PC	KAISER	0CK2598	348 071	2							

RECEIVED JUN 19 2006 METALEX MFG. BY S.U.

6/20

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

KAISER ALUMINUM
FABRICATED PRODUCTS

CERTIFIED TEST REPORT

http://www.KaiserAluminum.com

KAISER ALUMINUM
FABRICATED PRODUCTS
9700 SOUTH HARLEM AVE
BRIDGEVIEW, IL 60455

CUSTOMER PO NUMBER:	CUSTOMER PART NUMBER:	PRODUCT DESCRIPTION:			
CK2598	019980-2/STK	0.500 X 1.500 SQ COR RECT BAR			
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	KAISER LOT NUMBER:	ALLOY:	TEMPER:
984773	001	05/17/2006	348 071	6061	T6511
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	DIAM/DAF/THKNS:	WIDTH:	LENGTH:
773.000 LB	73.000 PCS	932658			12.000 FT

SHIP TO:
COPPER & BRASS SALES
6700 POE AVENUE
DAYTON, OH 45414 USA

SOLD TO:
COPPER & BRASS SALES
PO BOX 5116
SOUTHFIELD, MI 48086-5116 USA

METALEX
QA. DEPT.
ACCEPTED
DATE 6/22/06
BY KKB

Item#4

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS(KSI)	YTS(KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
TP044556	0001	0001	51.0	48.3	16.6		N/A	N/A
TP044556	0001	0002	50.5	47.9	19.7		N/A	N/A
TP044556	0001	0003	51.0	47.7	16.6		N/A	N/A
TP044556	0001	0004	50.6	47.4	13.4		N/A	N/A
TP044556	0001	0005	52.1	48.8	17.4		N/A	N/A
TP044556	0001	0006	49.4	46.8	15.3		N/A	N/A
TP044556	0001	0007	50.0	46.7	14.0		N/A	N/A
TP044556	0001	0008	50.5	47.8	16.3		N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40		0.15		0.8	0.04			NA	NA	NA		

APPLICABLE REQUIREMENTS:

ASTM-B221-02-STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 UNS#96061

JOB# 5725
PA(#L143-110115
P.O# 64970-BL

CERTIFICATION

Kaiser Aluminum & Chemical Corp. ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that set out in Kaiser's general terms & conditions of sale. Test reports are on file, subject to examination.

Frank E. Watson, Quality Assurance Manager

Plant Serial: 00141159

Kaiser Order Number: 984773

Line Item: 001

KAISER ALUMINUM
FABRICATED PRODUCTS

CERTIFIED TEST REPORT

http://www.KaiserAluminum.com

KAISER ALUMINUM
FABRICATED PRODUCTS
9700 SOUTH HARLEM AVE
BRIDGEVIEW, IL 60455

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

Job #5725

METALEX
QA. DEPT.
ACCEPTED
DATE 6/22/06
BY RCB
MTX QC 18

P/N L143-110115
P.O.# 64970
Item# 4

CERTIFICATION

Kaiser Aluminum & Chemical Corp. ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that set forth on Kaiser's general terms & conditions of sale. Test reports are on file, subject to examination.

Frank E. Watson, Quality Assurance Manager

Plant Serial: 00141159

Kaiser Order Number: 984773

Line Item: 001

CERTIFICATE OF TEST

Certification Date
26-MAY-2006

CUSTOMER ORDER NUMBER
64752-BL-5681

CUSTOMER PART NUMBER
ITEM 1

EARLE M. JORGENSEN COMPANY
601 REDNA TERRACE
P.O. BOX 15100
CINCINNATI OH 45215

Invoice Number
S956531

SOLD TO: METALEX MANUFACTURING
5750 CORNELL RD
CINCINNATI OH 45242

SHIP TO: METALEX MFG
5750 CORNELL ROAD
CINCINNATI OH 45242

Description: 1018 CF BAR ASTM A108
3/16 X 1/2 FLATS X 12' R/L
HEAT: CL132712 ITEM: 502748

Line Total: 3.8 LB

Specifications:
ASTM A108 93

CHEMICAL ANALYSIS

C	MN	P	S	B	CR	CU	MO
0.16	0.71	0.008	0.029	0.0001	0.09	0.2	0.01

N	NI	SI	SN	TI	V
0.007	0.06	0.25	0.009	0.001	0.001

RCPT: R251728
MILL : CHARTER WIRE COUNTRY OF ORIGIN : US

STRAND CAST REDUCTION RATIO 284.0 TO 1

COMMENTS
MELT SOURCE: STEEL DYNAMICS
HOT ROLL SOURCE: CHARTER STEEL
SILICON KILLED COARSE GRAIN

METALEX
QA. DEPT.
ACCEPTED
DATE 6/6/06
BY KKB

Job# ~~5681~~ 5725
PART# L143-110108
P.O# 64752 S.W
6-20-06

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

Paul Barnhart
MANAGER, QUALITY ASSURANCE

PMI-017

EMJ SID# S956531 CUSTOMER METALEX MFG P.O.64752-BL-5681 CUST. PART# ITEM 1 QTY 3,800 DATE 06-05-26 SIGNATURE

CHARTER WIRE
A Division of Charter Manufacturing Co., Inc.
114 N. Jackson Street
Milwaukee, Wisconsin 53202-6297
(414) 390-3000
(414) 390-3031 Fax

R 251728

DATE: 11/12/2004

CERTIFICATE OF MATERIAL AND SPECIFICATION

CUSTOMER: EMJ
CUSTOMER'S P.O. NO: P743436001
Customer Item: 502748
SIZE: .1875 X .500
GRADE: AISI 1018
HEAT NO: cl132712

SALES ORDER NO: s37410
WORKORDER: 06100003
ITEM NO: 09043
SPEC 1: ASTM A108-93
SPEC 2:
SPEC 3:

CHEMICAL ANALYSIS: C: .1600 Mn .7100 P: .0080 S: .0290
B: .0001 Cr .0900 Cu .2000 Mo .0100
N: .0070 Ni .0600 Si .2500 Sn .0090
Ti .0010 V: .0010

MILL SPECIFICATIONS: Hot Roll Source: CHARTER STEEL (USA)
Melt Source: STEEL DYNAMICS (USA)
Casting Practice: STRAND
Killing Practice/Grainsize: SILICON KILLED COARSE GRAIN
Reduction Ratio: 284 TO 1

Job#5681
METALEX
QA DEPT.
ACCEPTED
DATE 6/6/06
BY KKB
MTX DC 18

P/N L143-110108
P.O.# 64752
Item# 1

HEAT ANALYSIS IS FROM THE PACKING LIST RECEIVED BY CHARTER FROM OUR RAW MATERIAL SUPPLIER.

QUALITY REPRESENTATIVE

ORIGINAL

CUSTOMER	SHIP DATE	GROSS WEIGHT	QUOTE		PACKING LIST
55230	06/30/06 SHP		05-1229286-	1 OF 1	TEST RESULTS
BILL TO: METALEX MFG INC		WORK ORDER **	ORDER DATE 06/15/06 ORD		

DELIVERY DATE	SHIP BRANCH	SELL BRANCH	WORK ORDER
07/05/06 DEL	02-GRR	05-DAY	2P3472

SHIP TO

METALEX MFG INC 01
5750 CORNELL
CINCINNATI OH 45242

1310 SCRIBNER NW, GRAND RAPIDS MI 49504-3287

Copper and Brass Sales
A ThyssenKrupp Materials NA company
ThyssenKrupp

CUSTOMER P.O. NUMBER	TERRITORY	ENTRY ID
64970-BL-5725	03	05BMK

BUYER	INSIDE SALES
BRIAN LAWSON,P.A.	BRIAN M. KARWOWSKI
BUYER TELEPHONE	INSIDE SALES TELEPHONE
(513)489-0539	(937)415-2620 52625

CUSTOMER SIGNATURE: DATE:

QUANTITY	ORDERED	SHIPPED
INVENTORY	654.23 LB	~~640.00~~
BILLING	654.23 LB	640.00
WAREHOUSE		

SHIP VIA	SHIPPING STATUS		
INTERNAL POOL-TO 05-DAY	COMPLETE X	PARTIAL	CANCEL
TO CUSTOMER OUR TRUCK/OUR DEL-D1			FOB ORIG
BILL OF LADING			FREIGHT STATUS PPD

PACKED WITH OTHER GOODS 2P1680

FINISHED GOODS LOCATION WARN LABEL:1013

PART DESCRIPTION 310373-6

ALUMINUM BRONZE PLATE AMPCO 8 C614/C613, .3125 (+-.019)
SAW 48" X 36" (+.064,-0), LINE ITEM#: 1.
Test Results Attn to: QA Department. , actual certs must be signed Item#1

4pcs

METALEX
QA. DEPT
ACCEPTED
DATE 7/10/06
BY KKB

SPECIAL INSTRUCTIONS

P/N L143-110104

FULL	SCRAP	FILLED BY	PACKED BY	QA AUDIT
		JM		

CUSTOMER RECEIVING HOURS	MAX SKID WEIGHT	LOADING INSTRUCTIONS	MAXIMUM BUNDLE WEIGHT
6:00 am - 12:00 pm	15000	CRANE, FORK	30000

BOXES	BARS	CASES	CUSHP	PKGS	SKIDS	BDLS	TUBES	CTNS	FLAT	COILS
INSPECTION RECORD										

TEST RESULTS - - - - -

CERTIFICATE OF COMPLIANCE
We hereby certify that mercury or any of its compounds are not used in the processing and distribution of our products. The products we distribute are not hazardous in their received state. For MSDS sheets go to www.copperandbrass.com/msds or call 248-233-5682. We hereby certify that the material above complies with the following specifications:
ASTM-B169

ROHS COMPLIANT

TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS	TAG NO	QUANTITY	UOM	VENDOR	VEND PO	HEAT/LOT	PCS
042931 00	640.00	LB	REVEREC	0CK5986	532/4386								

Del
RECEIVED
JUL 05 2006
METALEX MFG.
BY S.

STEVEN J. FARACI - General Manager: GRAND RAPIDS PRINTED 06/30/06 01:40 PM CONTROL NO 00044

COPPER AND BRASS SALES IS A DIVISION OF THYSSENKRUPP MATERIALS, INC.

Revere Copper Products, Inc.

24 North Front Street New Bedford, MA 02740
Phone: (508) 999-5601 Fax: (508) 991-2115

CERTIFICATE OF TEST

PAGE 1

DATE CODE: 179

ORDER FROM:
COPPER AND BRASS SALES
ATTN: ACCOUNTS PAYABLE
P O BOX 5116
SOUTHFIELD MI 48086-5116

SHIPPED TO:
TMX/COPPER AND BRASS SALES
1310 SCRIBNER AVENUE NORTH WEST
GRAND RAPIDS MI 49504-3287

DATE: 6/28/06
REVERE NO: 33549 ITEM#: 01
CUSTOMER ORDER NUMBER:
CK5986

MATERIAL INFORMATION:

ALUMINUM BRONZE SHEET
C61300/C61400 / AMPCO 8
SOFT TEMPER
48" X 144" X .3125"

ASTM B 169-2001
P/N 310373-6
ROHS COMLIANT

CHEMICAL COMPOSITION

PIECES	LOT	HEAT	COPPER Cu	TIN Sn	LEAD Pb	IRON Fe	NICKEL Ni	MANGANESE Mn	PHOSPHORUS P	CARBON C	SULFUR S	ZINC Zn	SILICON Si	ALUMINUM Al	ARSENIC As
4	4386	532	90.00	.260	.00	2.58	.00	.16	.004			.03	.01	6.92	

NICKEL INCLUDES COBALT

PHYSICAL AND MECHANICAL PROPERTIES

LOT	HEAT	YIELD STRENGTH 0.5% Ext. Psi	TENSILE STRENGTH Psi	ELONGATION % in 2 inches	BEND in degrees	RESISTIVITY ohms/g/m2	ASTM F68 CLASS	ROCKWELL/ BRINELL
4386	532	38,000	83,500	50	120			
4386	532	37,900	82,600	48	120			

Job# 5725
PART# L143-110104
P.O# 64970-BL

METALEX 81-30 XLW
QA. DEPT.
ACCEPTED
DATE 7/10/06
BY KKB

Metalex
6 30 06
PO 64970-BL-5725
2P3472
640 ft
CHB/[illegible]

WE HEREBY CERTIFY THAT EACH LOT HAS BEEN SAMPLED, TESTED, AND INSPECTED IN ACCORDANCE WITH THE ABOVE SPECIFICATIONS AND HAS MET THE REQUIREMENTS. THE MATERIAL HAS NOT BEEN WELD REPAIRED.

J. S.
JORG SCHAFFSTEIN
Q.C. ADMINISTRATOR

ML2-1 02/01

Quantity Shipped	Unit	Description	Revision	Job Number
6	EA	L143-111301 BASE, HOLDER MAGNET STRUCT 7.75 X 5 X 2 MIC-6 CAST ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL	00	20759-03

Inspr 3

CRITICAL PART**HANDLE VERY CAREFULLY
CLEAR ANODIZE PER AMS-2471, REV F
SODIUM DICHROMATE SEAL REQUIRED
CERTIFICATION REQUIRED
OPERATION# 70
JO# 5725
3 BOXES
LOC# 5-183

METALEX QA DEPT. ACCEPTED DATE 10/11/06 BY KKB
MTX OC 18 XLW

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISH BY TECHMETALS INCORPERATED WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE. OBJECTIVE QUALITY EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILIBLE FOR CUSTOMER/GOVERMENT REVIEW.

CERTIFING THE PROCESS ONLY

Thomas A. Stahl
Inspector's Initials
Techmetals Incorporated

S/N(S): -18, -20, -22, -24, -26, -28, -30 & -32
TC 12/14/06
MTX QC 12

FROM :814 5 PRODUCTION TECHMETALS FAX NO. :9372531982 Oct. 11 2006 02:55PM P7

SYNCSI: -112, -212, -312
-114, -214, -314
-116 -216, -316
ITEM #1, #2
For ~~Both~~
PART #'S TC
10/10/06

MTX
OC 12

Techmetals Incorporated

TECHMETALS, INC.

2200 EAST FIRST STREET
Dayton, OH 45403
Phone: 937-253-5311
Fax: 937-253-1982

METALEX
QA DEPT
ACCEPTED
DATE 10/12/06
BY KKB
MTX
OC 12

Revised Metal Finishing Certification

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242

United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 24533
Shipping Date: 09/20/06

Today's Date: 10/11/06
PO Number: 66464-JS

	Quantity Shipped	Unit	Description	Revision	Job Number
ITEM # 1	9	EA	L143-111101 HOLDER MAGNET STRUCT 39.50 X 5 X 2.50 MIC-6 ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **WRAP TO PROTECT & KEEP CLEAN** CLEAR ANODIZE PER AMS-2471 F, SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 JO# 5681 3 BOXES LOC# 5-183	01	20759-01
ITEM #2	9	EA	L143-111001 HOLDER MAGNET STRUCT 39.50 X 5 X 2.50 MIC-6 ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **WRAP TO PROTECT & KEEP CLEAN** CLEAR ANODIZE PER AMS-2471 F, SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 JO# 5681 3 BOXES LOC# 5-183	01	20759-02

FROM :Bld 5 PRODUCTION TECHMETALS FAX NO. :9372531982 Oct. 11 2006 02:55PM P6

TECHMETALS, INC.

METALEX
QA. DEPT.
ACCEPTED
DATE 10/2/06
BY KKB
MTX QC 18

Metal Finishing Certification

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242
United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 24891 **Today's Date:** 09/26/06
Shipping Date: 09/26/06 **PO Number:** 66827-BL-5725

Quantity Shipped	Unit	Description	Revision	Job Number
8	EA	L143-111201 BASE, HOLDER MAGNET STRUCT (UPPER RIGHT) 7.75 X 5 X 2 MIC-6 CAST ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** CLEAR ANODIZE PER AMS-2471, REV F SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 1 BOX LOC# 5-379		21175-01
8	EA	L143-110901 BASE, HOLDER MAGNET STRUCT (LOWER LEFT) 7.75 X 5 X 2 MIC-6 CAST ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** CLEAR ANODIZE PER AMS-2471, REV F SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 1 BOX LOC# 5-379		21175-02

S/N(S): -18, -20, -22, -24, -26, -28, -30 & -32.
TC 12/14/06
MTX QC 12
FOR BOTH LINE ITEMS

Quantity Shipped	Unit	Description	Revision	Job Number

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISHED BY TECHMETALS, INC., WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE.

OBJECTIVE EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILABLE FOR CUSTOMER/GOVERNMENT REVIEW.

METALEX
QA DEPT. HTX QC 18
ACCEPTED
DATE 9/30/06
BY KKB

TM
QA
4

Inspector's Initials
Techmetals Incorporated

TECHMETALS, INC.

2200 EAST FIRST STREET
Dayton, OH 45403
Phone: 937-253-5311
Fax: 937-253-1982

METALEX
QA. DEPT.
ACCEPTED
DATE 11/22/06
BY KKB

NOV 15 2006

Metal Finishing Certification

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242

United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 26422
Shipping Date: 10/24/06

Today's Date: 10/30/06
PO Number: 67330-JS-5725

Quantity Shipped	Unit	Description	Revision	Job Number
24	EA	L143-111001 HOLDER MAGNET STRUCT 39.50 X 5 X 2.50 MIC-6 ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **WRAP TO PROTECT & KEEP CLEAN** ***MATCH TO PROVIDED COLOR SAMPLE*** CLEAR ANODIZE PER AMS-2471 F, SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 3 CASES LOC# 5-857	02	22488-01

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISH BY TECHMETALS INCORPERATED WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE. OBJECTIVE QUALITY EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILIBLE FOR CUSTOMER/GOVERMENT REVIEW.

CERTIFING THE PROCESS ONLY

Inspector's Initials
Techmetals Incorporated

SNCJ: -118, -218, -318
-120, -220, -320
-122, -222, -322
-124, -224, -324
-126, -226, -326
-128, -228, -328
-130, -230, -330
-132, -232, -332

TC 12/4/06

MTX QC 12

TECHMETALS, INC.

Metal Finishing Certification

METALEX
QA. DEPT. MTX
~~RECEPTED~~
DATE 10/27/06
BY KKB

Requested Revised Cert

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242
United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 26422
Shipping Date: 10/24/06
Today's Date: 10/24/06
PO Number: 67330-JS-5725

Quantity Shipped	Unit	Description	Revision	Job Number
24	EA	L143-111001 HOLDER MAGNET STRUCT 39.50 X 5 X 2.50 MIC-6 ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **WRAP TO PROTECT & KEEP CLEAN** ***MATCH TO PROVIDED COLOR SAMPLE*** CLEAR ANODIZE PER AMS-2471 F, SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 3 CASES LOC# 5-857	~~01~~ 02 TC 10/26/06	22488-01

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISHED BY TECHMETALS, INC., WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE.

OBJECTIVE EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILABLE FOR CUSTOMER/GOVERNMENT REVIEW.

RECEIVED
OCT 24 2006
METALEX MFG.
BY _____

Thomas A. Stall
JW #10-24-06
Inspector's Initials
Techmetals Incorporated

CINCINNATI BLACK OXIDE CERTIFICATION

THIS IS TO CERTIFY THAT THE FOLLOWING PARTS HAVE BEEN PROCESSED AND INSPECTED TO MEET AMS 2485 J CERTIFICATION

COMPANY NAME: METALEX MANUFACTURING
PURCHASE ORDER NUMBER: 66844-BL
PARTS PROCESSED:

Job#5725

QUANTITY	PART NUMBER	DESCRIPTION
36 pcs	L143-110108 REV. **	

METALEX
QA. DEPT.
ACCEPTED
DATE 10/12/06
BY KKB

SIGNATURE Marcia Vitolo

DATE CERTIFIED: 10.11.06

CERTIFICATION NO. 101106-002

CINCINNATI BLACK OXIDE
4510 MUHLHAUSER ROAD
CINCINNATI, OHIO 45011
PHONE 513-874-1333
FAX 513-874-4846

CINCINNATI ABRASIVE SUPPLY COMPANY

5700 Hillside Avenue
Cincinnati, Ohio 45233
Phone: 513-941-8866 Fax: 513-941-8963

06715725

METALEX
QA. DEPT.
ACCEPTED
DATE 10/27/06
BY FKB

MTX DC 18

CERTIFICATION

Company Metalex Date: 10/16/06

P. O. # 66877 S. O. # 5725

Cincinnati Abrasive Shipper# 24913 No. of pcs. 421

Certification Spec # AMS 2485 (J)

Part Numbers L143-110111-**

Wrap to protect Black oxide per AMS 2485 Rev J

This is to certify that all work supplied by Cincinnati Abrasive Supply Company is treated with Black Oxide in accordance with the above specification.

Cincinnati Abrasive Supply Company

CINCINNATI BLACK OXIDE CERTIFICATION

THIS IS TO CERTIFY THAT THE FOLLOWING PARTS HAVE BEEN PROCESSED AND INSPECTED TO MEET AMS 2485 J CERTIFICATION

COMPANY NAME: Metalex Manufacturing Inc
PURCHASE ORDER NUMBER: 68706-JS
PARTS PROCESSED:

QUANTITY	PART NUMBER	DESCRIPTION
32 pcs	#L143-110114-01	Screen

METALEX MFG. INC
QA. DEPT.
ACCEPTED
DATE 12/14/06
BY KKB

SIGNATURE

DATE CERTIFIED: 12/7/06

CERTIFICATION NO. 120706-001

CINCINNATI BLACK OXIDE
4510 MUHLHAUSER ROAD
CINCINNATI, OHIO 45011
PHONE 513-874-1333
FAX 513-874-4846

RECEIVED
DEC 07 2006
METALEX MFG.
BY

CINCINNATI BLACK OXIDE CERTIFICATION

THIS IS TO CERTIFY THAT THE FOLLOWING PARTS HAVE BEEN PROCESSED AND INSPECTED TO MEET AMS 2485 J CERTIFICATION

COMPANY NAME: METALEX MFG.
PURCHASE ORDER NUMBER: 67627-JG
PARTS PROCESSED:

QUANTITY	PART NUMBER	DESCRIPTION
112	LL143-110119-REV.**	SPACER

Job#5725

METALEX
QA. DEPT
ACCEPTED
DATE 11/6/06
BY KKB

SIGNATURE Marcia Vitolo

DATE CERTIFIED: 10.27.06

CERTIFICATION NO. 102706-001

CINCINNATI BLACK OXIDE
4510 MUHLHAUSER ROAD
CINCINNATI, OHIO 45011
PHONE 513-874-1333
FAX 513-874-4846

TECHMETALS, INC.
345 Springfield St. Dayton, OH 45403-1240

Metal Finishing Certification

METALEX
QA. DEPT.
ACCEPTED
DATE 11/29/06
BY KKB

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242
United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 27814
Shipping Date: 11/16/06
Today's Date: 11/16/06
PO Number: 68010-JS-5725

Quantity Shipped	Unit	Description	Revision	Job Number
130	EA	L143-110115-01 STOPPER 2 X 1.375 X 0.50 6061-T651 ALUMINUM CERT CLEAR ANODIZE/SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** CLEAR ANODIZE PER AMS-2471, REV F SODIUM DICHROMATE SEAL REQUIRED WRAP TO PROTECT & KEEP CLEAN CERTIFICATION REQUIRED OPERATION# 40 1 BOX LOC# 5-302		23736-01

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISHED BY TECHMETALS, INC., WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE

OBJECTIVE EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILABLE FOR CUSTOMER/GOVERNMENT REVIEW.

Mark D. Phillips
Inspector's Initials
Techmetals Incorporated

TM
QA
11

Ph 937-253-5311 Fax: 937-253-5096

TECHMETALS, INC.

345 Springfield St. Dayton, OH 45403-1240

Metal Finishing Certification

METALEX
QA. DEPT
ACCEPTED
DATE 10/10/06
BY KKB
MTX QC 18

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242
United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 25333
Shipping Date: 10/04/06
Today's Date: 10/04/06
PO Number: 66861-JS-5725

Quantity Shipped	Unit	Description	Revision	Job Number
8	LOT	L143-110801 BASE, HOLDER MAGNET STRUCT 7.75 X 5 X 2 MIC-6 CAST ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **MATCH TO SAMPLE** CLEAR ANODIZE PER AMS-2471, REV F SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 1 BOX LOC# 5-530		21605-01

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISHED BY TECHMETALS, INC., WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE.

OBJECTIVE EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILABLE FOR CUSTOMER/GOVERNMENT REVIEW.

S/N(S): -18, -20, -22, -24, -26, -28, -30, & -32

TC 12/14/06 MTX QC 12

Thomas A Stahl
10-4-06
Inspector's Initials
Techmetals Incorporated

Ph 937-253-5311 Fax 937-253-5090

TECHMETALS, INC.

345 Springfield St. Dayton, OH 45403-1240

Metal Finishing Certification

METALEX
QA. DEPT. MTX QC 18
ACCEPTED
DATE 11/29/06
BY KKB

To: METALEX MANUFACTURING INC
5750 CORNELL ROAD
CINCINNATI, OH 45242
United States

From: Techmetals Incorporated
2200 EAST FIRST STREET
Dayton, OH 45403

Packing List No: 27661
Shipping Date: 11/14/06
Today's Date: 11/14/06
PO Number: 68002-JS-5725

Quantity Shipped	Unit	Description	Revision	Job Number
24	EA	L143-111101 HOLDER MAGNET STRUCT 39.50 X 5 X 2.50 MIC-6 ALUMINUM CERT CLEAR ANODIZE / SODIUM DICHROMATE SEAL ***CRITICAL PART**HANDLE VERY CAREFULLY*** **WRAP TO PROTECT & KEEP CLEAN** CLEAR ANODIZE PER AMS-2471 F, SODIUM DICHROMATE SEAL REQUIRED CERTIFICATION REQUIRED OPERATION# 70 2 BOXES LOC# 5-234	02	23493-01

THIS CERTIFIES THAT THE ABOVE PARTS, METAL FINISHED BY TECHMETALS, INC., WERE PLATED/PROCESSED IN ACCORDANCE WITH THE PURCHASE ORDER SHOWN ABOVE.

OBJECTIVE EVIDENCE FOR THIS ORDER IS ON FILE AT OUR FACILITY AND AVAILABLE FOR CUSTOMER/GOVERNMENT REVIEW.

S/N(S): -118, -218, -318
-120, -220, -320
-122, -222, -322
-124, -224, -324
-126, -226, -326
-128, -228, -328
-130, -230, -330
-132, -232, -332

TC
12/14/06
MTX QC 12

TM
QA

Tracy L. Fryer
Inspector's Initials
Techmetals Incorporated

Date.08/15/06

Job#5681/5725

METALEX
QA. DEPT.
ACCEPTED
DATE 8/22/06
BY RKB

Certificate of Compliance

METALEX
5750 CORNELL RD.
CINCINNATI, OH 45242
To METALEX Quality Assurance,

This is to certify that ***321*** pieces of Part No. ***L143-110703*** covered by your P.O. No. ***65852-BL*** have been manufactured and inspected to the highest standards in accordance with all specifications stated on supplied print and P.O.

Hi-Tech Manufacturing
4637 North 25th Avenue
Schiller Park, Illinois 60176
JOSEPH J. BOURKE

HI-TECH Manufacturing Inc.

INSPECTION REPORT

PART# L143-110703 REV# — DESCRIPTION: PEAK FILED SHIM

JOB # 52669 CUSTOMER : ARGONNE DATE 08-08-06

QUANTITY: 300 PCS INSPECTED BY: ILYA SAMPLE SIZE 10 Pcs

Inspection Report First Article

Inspected Criteria		Inspection Results	Disposition	
#	Inspected Dimension	Range	Accepted	Rejected
1	9. 0 +0 /-0.1	8.915 – 8.9948	✓	
2	6.2 +0.1 / -0	6.108 -6.0706	✓	
3	2X156.5 +0.5 /-0 DEGREE	2X158.0 – 158.5	✓	
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

Remarks : Decimal:. Accepted by Emil Vrachtenberg

Form IR Rev. 08/98

CRAFTS TECHNOLOGY
Precision Fabrication of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E2-E38

Ph: 847-758-3100
Fax: 847-758-0162

METALEX
QA. DEPT.
ACCEPTED
DATE 8/7/06
BY RKB

Pack List

Number: 8358 Date: 20-Jul-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS RED

Quantity	Description
297 each	Part: L143-110702 Rev: 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:

Thank you for your order

This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown

Crafts Technology/Quality Control Department

Clans Technology, Inc.

FINAL INSPECTION REPORT

DATE 7-20-06

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER L143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP CLK#	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.397 /	.3982		
					5.118 ±.007	5.124 /	5.125		
					RAD. .079 ±.008 2PL	.075 /	.082		
					.500 ±.008	.5032 /	.5045		
					.008	.009 /	.010		
					.004	.0045	.0061		
					.075 ±.0008	.0752 /	.0756		
					.087 ±.0008	.0872 /	.0876		
					⏥ .003	.0006 /	.0025		

OK TO SETUP DS 7-20-06

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

9355 BERNICE • SCHILLER PARK, ILLINOIS 60176 • PHONE: (708) 678-4304 • FAX: (708) 678-7331

Crafts technology

METALEX QA. DEPT. ACCEPTED DATE 8/7/06 BY KKB

Gentlemen:

This is to certify that parts listed below have been black oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

Alex

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 264262

Your P.O. NO. 7473

Date 07-31-06

Part NO. L143-110702

Quantity 300 pcs

PO 64975-BC-5681

Stripco Inc.

• STEEL SLITTING AND EDGE CONDITIONING
• PRECISION COLD ROLLING

58595 Magnolia Drive • Mishawaka, IN 46545
Phone: (574) 258-7800 • Fax: (574) 258-7813

PACKING LIST

PACKING SLIP NUMBER
187483

GLED
D**

DUE DATE 3/24/05 TT

TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 927
Jackson, MI 49203

SHIP TO:
Alro Steel Potterville
5059 Alro Park Drive
Potterville, MI 48876

E OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
3/08/05	3/30/05	PO PV 5077044	HILLTOP FARMS	90	1/2-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING=>	TRK DRIVER=> HILLTOP	PREPAID/S	
2,000	6355301	1/8 X .437" X 144.00" CR 1018		
	OSS WGT	2,199		
	TAG#	337369	2,199	
	LOCATION	CKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STRID#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147220	.150	.61	.006	.007	.030	.029	.08	.027	H3689
Yld=	66,899	Ten=	77,437	ElgX=22.45	Bls=	0			

RECEIVED
MAR 30 2005
By

ALRO STEEL/METAL
RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
Claims for errors, deficiencies, or imperfections must be made within 10 days after receipt of goods. The Seller's responsibility for material in transit ceases when it passes into the hands of the transportation company. "We hereby certify that we have complied with all requirements of the Fair Labor Standards Act of 1938, as amended."

CHECK BOX IF COLLECT ☐
Load Approved: Cpt
Load must be secured and weather protected
Driver: [signature]

RECEIVED BY: X

DATE RECEIVED: 3-30-05

CUSTOMER COPY

Job#5681/5725

METALEX
QA. DEPT.
ACCEPTED
DATE 8/7/06
BY KKB

CRAFTS TECHNOLOGY
Precision Fabrication of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E3-E38

Ph: 847-758-3100
Fax: 847-758-0162

Pack List

Number: 8377 Date: 24-Jul-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS

Quantity	Description
314 each	Part: L143-110702 Rev: 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:
	Thank you for your order This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown Crafts Technology/Quality Control Department

Crafts Technology, Inc.

FINAL INSPECTION REPORT

DATE 7-20-06

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER 6143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP CLK	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.3971	.3982		
					5.118 ±007	5.1241	5.125		
					RAD .079 ±008 2PL	.0751	.082		
					.500 ±008	.5032	.5045		
					.008	.009	.010		
					.004	.0045	.0061		
					.075 ±0008	.0752	.0758		
					.087 ±0008	.0872	.0876		
					⊥ .003	.0006	.0025		

OK TO SHIP DS 7-20-06

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

5355 FRANCE • SCHILLER PARK, ILLINOIS 60176 • PHONE: (708) 678-4304 • FAX: (708) 678-7331

Crafts Technology

METALEX QA. DEPT. ACCEPTED DATE 8/7/06 BY KKB

Gentlemen:

This is to certify that parts listed below have been black-oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

Alex

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 264279

Your P.O. NO. 7480

Date 07-31-06

Part NO. L143-110702

Quantity 314 pcs

PO 64975 - BC - 5681

Stripco Inc.

• STEEL SLITTING AND EDGE CONDITIONING
• PRECISION COLD ROLLING

5695 Magnolia Drive • Milwaukee, IN 46545
Phone: (674) 256-7800 • Fax: (674) 256-7813

PACKING LIST

PACKING SLIP NUMBER
SLED
D** 187483

DUE DATE 3/24/05 TT

SOLD TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 927
Jackson, MI 49203

SHIP TO:
Alro Steel Potterville
5859 Alro Park Drive
Potterville, MI 48876

SALE OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
3/08/05	3/30/05	PV PV 5077044	HILLTOP FARMS	90	1/2-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING=:	(RR DRIVER=) HILLTOP	PREPAID/S	
2,000	6355301	1/8 X .437" X 144.00" CR 1018		
	OBS WGT	2,199		
	TAG#	337369	2,199	
	LOCATION	CKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STRIB#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147220	.150	.61	.006	.007	.030	.029	.08	.027	H3689
Yld=	66,899	Ten=	77,427	ElgX=22.45	Gls=	0			

RECEIVED
MAR 30 2005
By

ALRO STEEL/METAL
RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
Claims for errors, deficiencies, or imperfections must be made within 10 days after receipt of goods. The Seller's responsibility for material in transit ceases when it passes into the hands of the transportation company. "We hereby certify that we have complied with all requirements of the Fair Labor Standards Act of 1938, as amended."

CHECK BOX IF COLLECT ☐
Load Approved: Cpt
Load must be secured and weather protected
Driver: [signature]

RECEIVED BY: X

DATE RECEIVED: 3-30-05

CUSTOMER COPY

NSF 10-4.1.1 Rev1

15725

METALEX
QA. DEPT. 01 30 XIII
ACCEPTED
DATE 8/7/06
BY KKB

CRAFTS TECHNOLOGY
Precision Fabricator of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E3-E38

Ph: 847-758-3100
Fax: 847-758-0162

Pack List

Number: 8434 Date: 03-Aug-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS

Quantity	Description
300 each	Part: L143-110702 Rev 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:
	Thank you for your order This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown Crafts Technology/Quality Control Department Manufactured in the USA

Clark Technology, Inc.

FINAL INSPECTION REPORT

DATE 08-02-04

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER L143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP CLK#	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.395	.397	.396	.396
					5.118 ±.007	5.124	5.124	5.125	5.123
					RAD .079 ±.008 2PL	.075	.078	.080	.082
					.500 ±.008	.5025	.5042	.5035	.5035
					.008	.0102	.010	.0102	.010
					.004	.0045	.006	.006	.0045
					.075 ±.0008	.0754	.0754	.0750	.0752
					.087 ±.0008	.0869	.0872	.0876	.0872
					⏥ .003	.0005	.0015	.002	.0015
						5	6	7	8
					.394	.395	.396	.395	.395
					5.118 ±.007	5.125	5.125	5.124	5.125
					RAD .079 ±.008 2PL	.082	.083	.080	.082
					.500 ±.008	.5035	.5030	.5045	.5020
					.008	.0102	.010	.0103	.010
					.004	.0049	.005	.0042	.0062
					.075 ±.0008	.0749	.0754	.0755	.0746
					.087 ±.0008	.0870	.0871	.0872	.0872
					⏥ .003	.0005	.0023	.001	.0015
						9			
					.394	.396			
					5.118 ±.007	5.124			
					RAD .079 ±.008 2PL	.083			
					.500 ±.008	.5035			
					.008	.010			
					.004	.0045			
					.075 ±.0008	.0751			
					.087 ±.0008	.0869			
					⏥ .003	.0005			

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

8355 BERNICE • SCHILLER PARK, ILLINOIS 60176 • PHONE: (708) 678-4304 • FAX: (708) 678-7331

Crafts Technology

METALEX
QA. DEPT.
ACCEPTED
DATE 8/7/06
BY KKB

Gentlemen:

This is to certify that parts listed below have been black-oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

Alex

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 269872

Your P.O. NO. 7525

Date 07-31-06

Part NO. L143-110702

Quantity 300 pcs

PO 64975 - BC - 5681

Stripco Inc.

- STEEL SLITTING AND EDGE CONDITIONING
- PRECISION COLD ROLLING

50518 Magnetic Drive • Milwaukee, IN 46548
Phone: (574) 259-7800 • Fax: (574) 259-7813

PACKING LIST

PACKING SLIP NUMBER: 187483

SLED
D**

--517-447-3504--

SOLD TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 937
Jackson, MI 49203

SHIP TO:
Alro Steel Petterville
5059 Alro Park Drive
Petterville, MI 48876

DUE DATE 3/24/05 TT

DATE OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
3/08/05	3/30/05	PU PO 5077044	HILLTOP FARMS	90	1/2-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING#:	TRK DRIVER#: HILLTOP	PREPAID/S	
2,000	6255301	1/8 X .437" X 144.00" CR 1018		
	GRS WGT	2,199		
	TAG#	337369	2,199	
	LOCATION	CKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STRIP#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147220	.150	.61	.006	.007	.030	.029	.08	.027	H3689
Yld=	66,899 Ten=		77,427 Elg%=22.46 Dia= 0						

RECEIVED MAR 30 2005 BY

ALRO STEEL/METAL
RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
Claims for errors, deficiencies, or imperfections must be made within 10 days after receipt of goods. The Seller's responsibility for material in transit ceases when it passes into the hands of the transportation company. "We hereby certify that we have complied with all requirements of the Fair Labor Standards Act of 1938, as amended."

CHECK BOX IF COLLECT ☐
Load Approved: Cat
Load must be secured and weather protected
Driver:

RECEIVED BY: X

DATE RECEIVED: 3-30-05

CUSTOMER COPY

KKB 8/22/06

METALEX QA. DEPT. ACCEPTED DATE 8/22/06 BY KKB

Job# 5681

5725

CRAFTS TECHNOLOGY
Precision Fabricator of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E3-E38

Ph: 847-758-3100
Fax: 847-758-0162

Pack List

Number: 8455 Date: 09-Aug-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS

Quantity	Description
300 each	Part: L143-110702 Rev: 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:
	Thank you for your order This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown Crafts Technology/Quality Control Department Daryl Barlow Manufactured in the USA

Crafts Technology, Inc.

FINAL INSPECTION REPORT

DATE 08-8-06

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER L143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP CLK#	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.3935	.3976	.3965	.3975
					5.118 ±007	5.123	5.125	5.125	5.125
					RAD .079 ±008 2PL	.0720	.079	.082	.081
					.500 ±008	.501	.503	.502	.501
					.008	.010	.011	.010	.010
					.004	.006	.005	.006	.005
					.075 ±0008	.0754	.0757	.0755	.0758
					.087 ±0008	.0875	.0872	.0871	.0872
					⏥ .003	.0006	.001	.0015	.0015
						5	6	7	8
					.394	.3962	.3961	.3959	.3968
					5.118 ±007	5.126	5.125	5.123	5.126
					RAD .079 ±008 2PL	.082	.079	.081	.082
					.500 ±008	.502	.503	.503	.504
					.008	.010	.011	.009	.011
					.004	.006	.005	.006	.005
					.075 ±0008	.0755	.0757	.0751	.0756
					.087 ±0008	.0872	.0872	.0870	.0872
					⏥ .003	.0017	.002	.0015	.0020
						9			
					.394	.3925			
					5.118 ±007	5.125			
					RAD .079 ±008 2PL	.084			
					.500 ±008	.503			
					.008	.010			
					.004	.006			
					.075 ±0008	.0752			
					.087 ±0008	.0871			
					⏥ .003	.0015			

QTY 300 P/S# 9455

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

9355 BERNICE • SCHILLER PARK, ILLINOIS 60176 • PHONE: (708) 678-4304 • FAX: (708) 678-7331

Crafts Technology

P.O# 64975

METALEX
QA. DEPT.
ACCEPTED
DATE 8/22/06
BY KKB

P/L# 8455

Gentlemen:

This is to certify that parts listed below have been black-oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

Jonathan

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 269615

Your P.O. NO. 7530

Date 8-4-06

Part NO. L143-110702

Quantity 300

Stripco Inc.

- STEEL SLITTING AND EDGE CONDITIONING
- PRECISION COLD ROLLING

58598 Magnolia Drive • Mishawaka, IN 46545
Phone: (574) 258-7800 • Fax: (574) 258-7612

PACKING LIST

PACKING SLIP NUMBER
GLED D** 187483

DUE DATE 3/24/05 TT

D TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 927
Jackson, MI 49203

SHIP TO:
Alro Steel Pottenville
5059 Alro Park Drive
Pottenville, MI 48876

S OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
3/08/05	3/30/05	PV PV 5077044	HILLTOP FARMS	90	1/2-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING(=)	TRK DRIVER=) HILLTOP	PREPAID/S	
2,000	6355301	1/8 X .437" X 144.00" CR 1018		
	OKS WGT	2,199	2,199	
	TAG#	337369		
	LOCATION	CKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STRID#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147220	.150	.61	.006	.007	.030	.029	.08	.027	H3689
Yld=	66,899	Ten=	77,427	Elg%=22.45	Bls=	0			

RECEIVED MAR 30 2005 BY

ALRO STEEL/METAL RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
Claims for errors, deficiencies, or imperfections must be made within 10 days after receipt of goods. The Seller's responsibility for material in transit ceases when it passes into the hands of the transportation company. "We hereby certify that we have complied with all requirements of the Fair Labor Standards Act of 1938, as amended."

CHECK BOX IF COLLECT ☐
Load Approved: Cpt
Load must be secured and weather protected
Driver: [signature]

RECEIVED BY: X

DATE RECEIVED: 3-30-05

MSF 10.4.1.1 Rev.1

CUSTOMER COPY

CRAFTS TECHNOLOGY
Precision Fabricator of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E3-E38

Ph: 847-758-3100
Fax: 847-758-0162

Pack List

Number: 8536 Date: 28-Aug-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS

Quantity	Description
300 each	Part: L143-110702 Rev: 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:
	Thank you for your order This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown Crafts Technology/Quality Control Department Manufactured in the USA

Job#5725
5681

METALEX
QA. DEPT. MTX
ACCEPTED OC 18
DATE 9/11/06
BY KKB

8-28-06

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

1955 BERNICE · SCHILLER PARK, ILLINOIS 60176 · PHONE: (708) 678-4304 · FAX: (708) 678-7351

METALFORMTX
QA. DEPT. QC 18
ACCEPTED
DATE 4/11/06
BY RKB

P.O.# 64975
P/L# 8534

Gentlemen:

This is to certify that parts listed below have been black-oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 269453

Your P.O. NO. 7638

Date 08/25/06

Part No. L143-110702

Quantity 300

Crafts Technology, Inc.

FINAL INSPECTION REPORT

DATE 08-25-04

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER 6143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP CLK#	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.396	.396	.3955	.3932
					5.118 ±.007	5.125	5.126	5.124	5.125
					RAD .079 ±.008 2PL	.070	.074	.080	.082
					.500 ±.008	.501	.4999	.4996	.5015
					.008	.0102	.0108	.0107	.0106
					.004	.0053	.005	.0057	.0056
					.075 ±.0008	.0755	.0755	.0752	.0755
					.087 ±.0008	.0872	.0873	.0872	.0875
					⏥ .003	.0025	.003	.004	.0025
						5	6		
					.394	.3955	.3955		
					5.118 ±.007	5.125	5.126		
					RAD .079 ±.008 2PL	.079	.073		
					.500 ±.008	.5011	.5022		
					.008	.0092	.011		
					.004	.0039	.004		
					.075 ±.0008	.0756	.0755		
					.087 ±.0008	.0876	.087		
					⏥ .003	.003	.003		

Stripco Inc.

- STEEL SLITTING AND EDGE CONDITIONING
- PRECISION COLD ROLLING

55995 Magnetic Drive • Mishawaka, IN 46545
Phone: (574) 258-7800 • Fax: (574) 258-7812

PACKING LIST

PACKING SLIP NUMBER
GLED 187483

--810-845-9994--

DUE DATE 3/24/05 TI

LD TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 927
Jackson, MI 49203

SHIP TO:
Alro Steel Pattersville
5059 Alro Park Drive
Pattersville, MI 48876

E OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
3/08/05	3/30/05	PU PO 5027044	HILLTOP FARMS	90	1/3-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING	TRK DRIVER	HILLTOP	PREPAID/S
2,000	6355301	1/8 X .437" X 144.00" CR 1018		
	OBS WGT	2,199		
	TAG#	337369	2,197	
	LOCATION	BKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STRIP#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147370	.150	.61	.006	.007	.030	.029	.08	.027	H3689
Yld=	66,899 Ten=		77,427 Elg%=22.45 Dia=			0			

RECEIVED MAR 30 2005 BY

ALRO STEEL/METAL RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
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CHECK BOX IF COLLECT ☐
Load Approved: COT
Load must be secured and weather protected
Driver: [signature]

RECEIVED BY: X

DATE RECEIVED: 3-30-05

CUSTOMER COPY

CRAFTS TECHNOLOGY
Precision Fabrication of Ultra-Hard Materials

Crafts Technology
91 Joey Drive
Elk Grove Village, IL 60007
UPS ACCT# 4E3-E36

Ph: 847-758-3100
Fax: 847-758-0162

Pack List

Number: 8579 Date: 01-Sep-06

To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Ship To

Metalex Manufacturing, Inc.
5750 Cornell Road
Cincinnati, OH 45242
USA

Ph: 513-489-0507 Fax: 513-489-1020

Terms	Ship Via
Net 21 days	UPS

Quantity	Description
420 each	Part: L143-110702 Rev: 01 TAPER SHIM Job: 2717 PO: 64975-BL Line:
	Thank you for your order This is to certify that the materials, parts and/or processes furnished against the above referenced purchase order were manufactured in accordance with the customer drawing and revision level shown Crafts Technology/Quality Control Department Manufactured in the USA

[signature] 8-31-06

Job# 5681/5725

METALEX
QA. DEPT.
MTX OC 18
ACCEPTED
DATE 10/12/06
BY KKB

ANCHOR METAL FINISHING, INC.

BLACK OXIDE ON STEEL

"Specialists in the Field"

9315 BERNICE · SCHILLER PARK, ILLINOIS 60176 · PHONE: (708) 678-4304 · FAX: (708) 67[illegible]

Gentlemen;

This is to certify that parts listed below have been black-oxided in accordance with AMS 2485J (Aerospace) specifications.

Very truly yours,

Alex

ANCHOR METAL FINISHING, INC.

Shipping Ticket No. 269295

Your P.O. NO. 7654

Date 8/31/06

Part NO. L193-110704

Quantity 421

Stripco Inc.

• STEEL SLITTING AND EDGE CONDITIONING
• PRECISION COLD ROLLING

50516 Magnetic Drive • Mishawaka, IN 46545
Phone: (574) 258-7800 • Fax: (574) 258-7812

PACKING LIST

PACKING SLIP NUMBER
GLED
D** 187489

~~812-845-3994~~

DUE DATE 3/24/05 TT

TO:
Alro Steel Jackson
3100 East High Street
P.O. Box 927
Jackson, MI 49203

SHIP TO:
Alro Steel Pottersville
5059 Alro Park Drive
Pottersville, MI 48876

# OF ORDER	DATE SHIPPED	CUSTOMER ORDER NO.	SHIPPED VIA	DEPT.	TERMS
1/28/05	3/30/05	PO PO 5077044	HILLTOP FARMS	90	1/2-10 NET 30

QTY. ORD.	JOB NUMBER	DESCRIPTION	QTY. SHIPPED	QTY. B.O.
	BILL-OF-LADING**	TRK DRIVER** HILLTOP	PREPAID	
2,000	6255301	1/8 X .437" X 144.00" CR 1018		
	DES WGT	2,199		
	TAG#	337369	2,199	
	LOCATION	DKA		
	PCS/COIL	990		CNT TOTAL 990

CERTIFIED RECORD OF METALLURGICAL PROPERTIES

STR10#	Carb	Mang	Phos	Sulf	Sil	Alum	Chrm	Moly	Heat#
147270	.150	.61	.006	.007	.030	.029	.08	.027	H0689
Yld=	66,099	Ten=	77,427	Elg%=22.45	Dia=	0			

RECEIVED MAR 30 2005 BY

ALRO STEEL/METAL
RT04483400

REJECTIONS WILL BE HONORED ONLY IF RETURNED IN ORIGINAL FORM SOLD.

A Service Charge of 1½% per month (18% per year) will be added to all invoices that are 30 days past the Date of Invoice. Title to merchandise does not pass until goods are fully paid for.
Claims for errors, deficiencies, or imperfections must be made within 10 days after receipt of goods. The Seller's responsibility for material in transit ceases when it passed into the hands of the transportation company. "We hereby certify that we have complied with all requirements of the Fair Labor Standards Act of 1938, as amended."

CHECK BOX IF COLLECT ☐
Load Approved: Cat
Load must be secured and weather protected
Driver:

RECEIVED BY: X

DATE RECEIVED: 3-30-05

CUSTOMER COPY

Crafts Technology, Inc.

FINAL INSPECTION REPORT

DATE 08-25-06

INSPECTOR [illegible]

JOB NUMBER 2717

PART NUMBER L143-110702

DESCRIPTION TAPER SHIM

CUSTOMER METALEX

DATE	SEQ	OPN		INSP OK	DRAWING DIM./TOLERANCE	ACTUAL MEASUREMENT NO 1	NO 2	NO 3	NO 4
					.394	.396	.396	.3955	.3952
					5.118 ±.007	5.125	5.126	5.124	5.125
					RAD. .079 ±.008 2PL	.076	.074	.080	.082
					.500 ±.008	.501	.4999	.4996	.5015
					.008	.0102	.0108	.0109	.0106
					.004	.0053	.005	.0057	.0056
					.075 ±.0008	.0755	.0755	.0752	.0755
					.087 ±.0008	.0872	.0873	.0872	.0875
					⏥ .003	.0025	.003	.001	.0025
						5	6		
					.394	.3955	.3955		
					5.118 ±.007	5.125	5.126		
					RAD .079 ±.008 2PL	.075	.073		
					.500 ±.008	.5011	.5022		
					.008	.0092	.011		
					.004	.0039	.004		
					.075 ±.0008	.0756	.0755		
					.087 ±.0008	.0876	.087		
					⏥ .003	.003	.003		

Reid Supply Company
A Division of Reid Entities
2265 Black Creek Road • Muskegon, MI 49444-2684
www.reidsupply.com mail@reidsupply.com
Phone: 800-253-0421
231-777-3951
Fax: 800-438-1145
231-773-4485

Job# 5725

METALEX
QA. DEPT.
ACCEPTED
DATE 7/26/06
BY KKB

* 3 5 9 7 2 8 7 *

P.O. # : 64697-RB

Shipper No 03597287-0

Bill To: METALEX MFG INC
5750 CORNELL RD
CINCINNATI, OH 45242-2083

Ship To: METALEX MFG INC
5750 CORNELL RD
CINCINNATI, OH 45242-2083

Phone

Attn:

Customer No	Your P.O. No	Sched Date	Ship Via	Ship Date	Shipper No
29204	64697-RB	06/19/06	U.P.S.	07/10/06	03597287-0

Line	Order Qty	Item	Description	Qty Shipped	Back Order
1	1,056	KLI-66353	INSERT M8X1.25 X M12X1.25 THINWALL - SS	1,056	0
		4718		HS Tariff Code:	820510
				Country of Origin:	United States
		JOB#5725			

Total Number of items: 1

Estimated Weight 11 lb 3.60 oz 5.096 kg

Opr: JAI Branch: 11 SLSM: 801

Picker:

All sales of products by Reid Supply Company are made on the terms contained in Reid Supply Company's standard Terms of Sale, which are incorporated by reference. If buyer has not otherwise agreed to those terms, then buyer's Acceptance of Delivery of, or Payment For, the goods will constitute buyer's agreement to the standard Terms of Sale. Reid Supply Company's standard Terms of Sale are available at www.reidsupply.com or by calling 800-253-0421 and requesting a copy.

UPS Gnd

RECEIVED
JUL 12 2006
METALEX MFG.
BY CD

CERTIFICATION OF COMPLIANCE
Reid Supply Company and it's divisions being ISO-9002 compliant does certify that according to our records the above material purchased was supplied in accordance with the description as illustrated in our catalog.

ALL ITEMS MANUFACTURED IN THE U.S.A UNLESS OTHERWISE NOTED.
THANK YOU VERY MUCH FOR YOUR ORDER

Cathy Reid, Document Control Supervisor

Packing List

Packing List

1 METALEX MANUFACTURING INC
5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) RAY

YOUR PURCHASE ORDER NUMBER
65186-RB
Today's Date: 7/07/06

MCMASTER-CARR
200 AURORA INDUSTRIAL PKWY
AURORA OH 44202

IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
1497054-01

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
1-112-05 21-40	94613 A194	1 PK	NYLON HEX HEAD MACHINE SCREW 8-32 THREAD,1/2" LENGTH PKG= 100 EA/PK JOB # 5368	1	1 PK	1
1-295	91290 A330	1 PK	METRIC CLASS 12.9 ALLOY SOCKET HEAD CAP SCREW M6 THREAD,25 MM LENGTH,1 MM PITCH PKG= 100 EA/PK JOB # 5725 2 CERTIFICATE OF COMPLIANCE -This is to certify the above item(s) on your purchase order was supplied in accordance with the description and as illustrated in the catalog. Compliance Manager- Alberto Valedon	2	1 PK	1

METALEX MFG. QC 18
QA. DEPT.
ACCEPTED
DATE 7/13/06
BY KKB

P/N L143-110+11
upgrad

RECEIVED
JUL 10 2006
METALEX MFG.
BY AD

441

7 | METALEX MANUFACTURING INC
5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

YOUR PURCHASE ORDER NUMBER
64698-RB-5725
Today's Date: 6/19/06

MCMASTER-CARR
200 AURORA INDUSTRIAL PKWY
AURORA OH 44202

IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-02

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
1-289-04 06-45	91292 A147	3 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M8 THREAD,20MM LENGTH,1.25MM PITCH PKG= 50 EA/PK 4	5	3 PK	3
1-290-07 25-86	91292 A156	50 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M8 THREAD,55MM LENGTH,1.25MM PITCH PKG= 10 EA/PK 29	6	106 PK	50
			Balance of 56 PK shipped today from another McMaster-Carr warehouse			
1-290-05 23-19	91292 A136	5 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M6 THREAD,18MM LENGTH,1MM PITCH PKG= 50 EA/PK 4	3	5 PK	5
1-290-04 04-23	91292 A139	2 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M6 THREAD,30MM LENGTH,1MM PITCH PKG= 50 EA/PK 2	4	2 PK	2
1-290-01 05-14	91292 A135	2 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M6 THREAD,16MM LENGTH,1MM PITCH PKG= 100 EA/PK 2	2	2 PK	2
1-290-01 06-02	91292 A122	2 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M4 THREAD,25MM LENGTH,.7MM PITCH PKG= 100 EA/PK 1	1	2 PK	2

533

7 | 5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

ORDER NUMBER
64698-RB-5725
Today's Date: 6/19/06

200 AURORA INDUSTRIAL PKWY
AURORA OH 44202
IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-02

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
1-295-01 05-82	91290 A330	3 PK	METRIC CLASS 12.9 ALLOY SOCKET HEAD CAP SCREW M6 THREAD,25 MM LENGTH,1 MM PITCH PKG= 100 EA/PK 5 P/N 4143-110111	7	3 PK	3
		*****	Information about the rest of your order		*****	
	92185 A151		316 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 20 PK today from this McMaster-Carr warehouse Balance of 269 PK expected to ship by 7/5/2006	8	289 PK	
	92146 A545		18-8 STAINLESS STEEL SPRING LOCK WASHER Shipped 36 PK today from this McMaster-Carr warehouse	9	36 PK	
	92196 A197		18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 36 PK today from this McMaster-Carr warehouse	10	36 PK	
	98437 A104		18-8 SS SPRING WASHER FOR SCKT-HEAD CAP SCREW Shipped 73 PK today from another McMaster-Carr warehouse	11	73 PK	
	98017 A690		18-8 STAINLESS STEEL AN 960 FLAT WASHER Shipped 11 PK today from this McMaster-Carr warehouse	12	11 PK	
	92196 A146		18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 1 PK today from this McMaster-Carr warehouse	13	1 PK	

(PS GND)

RECEIVED
JUN 20 2006
METALEX MFG.
BY CD

6/21

WEIGHT 47

7 8854707-02 6
METALEX MANUFACTURING INC

MCMASTER-CARR
WAREHOUSE INSTRUCTIONS
LNS

PURCHASE ORDER
64698-RB-5725

CYCLE
044

PRT523

6/19/06 13:08 533 00006

14 METALEX MANUFACTURING INC
5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

YOUR PURCHASE ORDER NUMBER
64698-RB-5725

Today's Date: 6/19/06

MCMASTER-CARR
200 AURORA INDUSTRIAL PKWY
AURORA OH 44202

IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-01

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
1-570-07 24-82	98437 A104	73 PK	18-8 SS SPRING WASHER FOR SCKT-HEAD CAP SCREW #6 SCREW SIZE,.148" ID,.216" OD,.03" MIN THICK PKG= 100 EA/PK 1 PAK	11	73 PK	73
1-701	91292 A156	56 PK	METRIC 18-8 SS SOCKET HEAD CAP SCREW M8 THREAD,55MM LENGTH,1.25MM PITCH PKG= 10 EA/PK 33 PAK Balance of 50 PK shipped today from another McMaster-Carr warehouse	6	106 PK	56
		*****	Information about the rest of your order		*****	
	91292 A122		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from another McMaster-Carr warehouse	1	2 PK	
	91292 A135		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from another McMaster-Carr warehouse	2	2 PK	
	91292 A136		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 5 PK today from another McMaster-Carr warehouse	3	5 PK	

BRB

14 METALEX MANUFACTURING INC
5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

YOUR PURCHASE ORDER NUMBER
64698-RB-5725
Today's Date: 6/19/06

MCMASTER-CARR
200 AURORA INDUSTRIAL PKWY
AURORA OH 44202
IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-01

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
	91292 A139		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from another McMaster-Carr warehouse	4	2 PK	
	91292 A147		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 3 PK today from another McMaster-Carr warehouse	5	3 PK	
	91290 A330		METRIC CLASS 12.9 ALLOY SOCKET HEAD CAP SCREW Shipped 3 PK today from another McMaster-Carr warehouse	7	3 PK	
	92185 A151		316 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 20 PK today from this McMaster-Carr warehouse Balance of 269 PK expected to ship by 7/5/2006	8	289 PK	
	92146 A545		18-8 STAINLESS STEEL SPRING LOCK WASHER Shipped 36 PK today from another McMaster-Carr warehouse	9	36 PK	
	92196 A197		18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 36 PK today from another McMaster-Carr warehouse	10	36 PK	
	98017 A690		18-8 STAINLESS STEEL AN 960 FLAT WASHER Shipped 11 PK today from another McMaster-Carr warehouse	12	11 PK	
	92196 A146		18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW Shipped 1 PK today from another McMaster-Carr warehouse	13	1 PK	

UPS GND

RECEIVED
JUN 20 2006
METALEX MFG.
BY CD

6/21

WEIGHT 34

2 8854707-01 8
METALEX MANUFACTURING INC
02
02

CYCLE 040
SPUR 4
SHELF 404

PRTAL
6/19/06 13:06 888 00014

MCMASTER-CARR
WAREHOUSE INSTRUCTIONS
LNS

PURCHASE ORDER
64698-RB-5725

5 | METALEX MANUFACTURING INC
5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

YOUR PURCHASE ORDER NUMBER
64698-RB-5725
Today's Date: 6/19/06

MCMASTER-CARR
200 AURORA INDUSTRIAL PKWY
AURORA OH 44202
IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-03

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
1- 98-06 24-08	92185 A151	20 PK	316 STAINLESS STEEL SOCKET HEAD CAP SCREW 6-32 THREAD,3/4" LENGTH PKG= 25 EA/PK 2 Balance of 269 PK expected to ship by 7/5/2006	8	289 PK	20 PKS
1- 99-01 06-41	92196 A146	1 PK	18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW 6-32 THREAD,3/8" LENGTH PKG= 100 EA/PK	13	1 PK	1
1- 99-01 09-73	92196 A197	36 PK	18-8 STAINLESS STEEL SOCKET HEAD CAP SCREW 8-32 THREAD,3/4" LENGTH PKG= 100 EA/PK 20	10	36 PK	36
1-104-01 06-81	98017 A690	11 PK	18-8 STAINLESS STEEL AN 960 FLAT WASHER 5/16"SZ,NO. C516,.328"ID,.562"OD, .059"-.067"THK PKG= 3	12	11 PK	11
1-108-06 26-63	92146 A545	36 PK	18-8 STAINLESS STEEL SPRING LOCK WASHER #8 SCREW SIZE,.174" ID,.293" OD,.040" MIN THK PKG= 100 EA/PK 2	9	36 PK	36
		*****	Information about the rest of your order		*****	
	91292 A122		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from this McMaster-Carr warehouse	1	2 PK	

179

5 | 5750 CORNELL RD
CINCINNATI OH 45242

(CALLER) GREG

ORDER NUMBER
64698-RB-5725
Today's Date: 6/19/06

200 AURORA INDUSTRIAL PKWY
AURORA OH 44202
IF THERE ARE ANY QUESTIONS ABOUT THIS SHIPMENT CONTACT OUR SALES DEPARTMENT
(330)995-5500

MCM NUMBER
8854707-03

Warehouse Location	McMaster Carr Part Number	Fill Quantity	Item Description	Your Line	Your Order	This Shipment
	91292 A135		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from this McMaster-Carr warehouse	2	2 PK	
	91292 A136		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 5 PK today from this McMaster-Carr warehouse	3	5 PK	
	91292 A139		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 2 PK today from this McMaster-Carr warehouse	4	2 PK	
	91292 A147		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 3 PK today from this McMaster-Carr warehouse	5	3 PK	
	91292 A156		METRIC 18-8 SS SOCKET HEAD CAP SCREW Shipped 50 PK today from this McMaster-Carr warehouse Shipped 56 PK today from another McMaster-Carr warehouse	6	106 PK	
	91290 A330		METRIC CLASS 12.9 ALLOY SOCKET HEAD CAP SCREW Shipped 3 PK today from this McMaster-Carr warehouse	7	3 PK	
	98437 A104		18-8 SS SPRING WASHER FOR SCKT-HEAD CAP SCREW Shipped 73 PK today from another McMaster-Carr warehouse	11	73 PK	

RECEIVED
JUN 20 2006
METALEX MFG.
BY CD

WEIGHT
27

5 8854707-03 4
METALEX MANUFACTURING INC

MCMASTER-CARR
WAREHOUSE INSTRUCTIONS
LNS

PURCHASE ORDER
64698-RB-5725

CYCLE
044

PRT114

6/19/06 13:08 179 00011

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111301	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111300 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		Conforms	MTX QC 16	
NOTE: CLEAR ANODIZE	A1				
128 0 / -0.1	A5		127.927 - 127.965	MTX QC 16	
60	B2		59.95 - 60.03	MTX QC 16	
⌀4.1 THRU ⌀6.35 ↧ 17 24 PLACES	B4		4.058 - 4.133 6.33 - 6.36 x 16.97 - 16.99	MTX QC 16	
0.04 A	A4		within .04	MTX QC 16	
189 0 / -0.1	A3		188.926 - 188.95	MTX QC 16	
154.6 ±0.1	A3		154.57 - 154.62	MTX QC 16	
77.3 ±0.1	A4		77.275 - 77.322	MTX QC 16	
12.7 ±0.1	A4		12.68 - 12.73	MTX QC 16	
10.8 DRILL ↧ 20.5 M12x1.25 ISO – H TAP ↧ 13.5 6 PLACES	A4		10.8 x 20.5 Conforms	MTX QC 16	
26 ±0.1	A4		25.97 - 26.025	MTX QC 16	
56 ±0.1	A4		55.85 - 56.2	MTX QC 16	
32 ±0.1	B4		31.98 - 32.04	MTX QC 16	
47 ±0.1	B4		46.97 - 47.4	MTX QC 16	
50.35 ±0.1	B3		50.32 - 50.38	MTX QC 16	
20 ±0.1	B3		19.98 - 20.037	MTX QC 16	
5	B4		5	MTX QC 16	
5	B4		5	MTX QC 16	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	B4		Conforms	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	9/12/06		8	Ø

MX1010 (7/98)

Metalex Outsourced 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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111301	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111300 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
5 DRILL ⇓ 15 M6x1 ISO – H TAP ⇓ 12.7 8 PLACES	C4		CONFORMS	MTX QC 16	
2X 60 ±0.1	C3		59.97-60.03	MTX QC 16	
3X 15 ± 0.1	C3		14.972-15.015	MTX QC 16	
27 ± 0.1	C3		26.963-27.07	MTX QC 16	
10	B4		9.96-10.03	MTX QC 16	
15	B3		14.955-15.03	MTX QC 16	
4.5 ± 0.1	D4		4.475-4.57	MTX QC 16	
15 ± 0.1	D4		14.952-15.032	MTX QC 16	
12X 9.5	D3		9.46-9.55	MTX QC 16	
10X 15 ± 0.1= 150 ± 0.1	D3		14.99-15.036 = 149.96-150.038	MTX QC 16	
22X 45° X .2 FOUR SIDES	D3		45° X .2 FOUR SIDES	MTX QC 16	
29 DRILL ⇓ THRU 8-32 UNC-2B TAP ⇓ 10 12 PLACES	D4		CONFORMS	MTX QC 16	
2X 45° X .2 THREE SIDES	D2		45° X .2 THREE SIDES	MTX QC 16	
17	C4		17	MTX QC 16	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	C4		CONFORMS	MTX QC 16	
10 X 15 ± 0.05 = 150 ± 0.05	C3		14.99-15.04 = 149.96-150.04	MTX QC 16	
15 ± 0.05	C4		14.986-15.04	MTX QC 16	
12 ± 0.05	C4		11.984-12.019	MTX QC 16	
4.2 0 / -0.1	D5		4.185-4.135	MTX QC 16	
45°	D6		45°	MTX QC 16	
(63.5)	D6		REFERENCE	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	9/12/06		8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111301	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111300 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
45° X 10	D6		45° X 10	MTX QC 16	
0.5	D6		.47 - .50	MTX QC 16	
2X 7.94	D6		7.904 - 7.996	MTX QC 16	
48 ± 0.1	C6		47.968-48.065	MTX QC 16	
5/16 DRILL ⇓ 21 3/8 -16 UNC-2B TAP ⇓ 17 2 PLACES	C6		CONFORMS	MTX QC 16	
-A-	C6		DATUM	MTX QC 16	
/ / 0.04	C6		0/10.04	MTX QC 16	
29 ±0.1	C6		28.95 - 29.06	MTX QC 16	
10 ± 0.1	C5		9.94 - 10.03	MTX QC 16	
3X 29	C5		28.98 - 29.052	MTX QC 16	
30 0 / -0.03	C6		30 - 29.972	MTX QC 16	
49 0 / -0.1	C6		48.96 - 48.987	MTX QC 16	
10 ± 0.1	C5		9.96 - 10.05	MTX QC 16	
27 0 / -0.1	C5		26.967-26.985	MTX QC 16	
67 +0.1 / 0	D5		67.005 67.02	MTX QC 16	
32	D5		31.928 - 32.05	MTX QC 16	
8 0 / -0.1	D5		7.93 - 8	MTX QC 16	
SECTION A-A					
24X 9.5 +0.05 / 0	D1		9.5 - 9.545	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	9/12/06		8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111201	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111200 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		Conforms	8	
NOTE: CLEAR ANODIZE	A1				
128 0 / -0.1	A3		127.926 - 127.935	8	
60	B3		59.975 - 60.025	8	
⌀4.1 THRU ⌀6.35 ↧ 17 24 PLACES	A3		4.056 - 4.140 6.304 - 6.355 X 16.954 - 16.9978	8	
⌖ 0.04 A	A3		Min .04	8	
189 0 / -0.1	A4		188.923 - 188.954	8	
154.6 ±0.1	A4		154.58 - 154.64	8	
77.3 ±0.1	A4		77.27 - 77.35	8	
12.7 ±0.1	A3		12.667 - 12.723	8	
10.8 DRILL ↧ 20.500 M12x1.25 ISO – H TAP ↧ 13.5 6 PLACES	A5		Conforms	8	
26 ±0.1	A5		25.952 - 26.03	8	
56 ±0.1	A6		55.949 - 56.025	8	
32 ±0.1	B6		31.97 - 32.042	8	
47 ±0.1	B5		46.945 - 47.054	8	
50.35 ±0.1	B5		50.32 - 50.38	8	
20 ±0.1	B4		19.982 - 20.025	8	
5	B3		5	8	
5	B3		5	8	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	B3		Conforms	8	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 3	QTY ACC	QTY REJ
MTX 06	[signature]	9/20/06		8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111201	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111200 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
5 DRILL ↧ 15 M6x1 ISO – H TAP ↧ 12.7 8 PLACES	C3		CONFORMS	8	
2X 60 ±0.1	C4		59.97-60.04	8	
3X 15 ± 0.1	C5		14.96 - 15.012	8	
27 ± 0.1	C5		26.98-27.05	8	
10	B5		9.96 - 10.045	8	
15	B5		14.952-15.045	8	
4.5 ± 0.1	D3		4.462-4.530	8	
15 ± 0.1	D3		14.972-15.04	8	
12X 9.5	D5		9.43-9.572	8	
10X 15 ± 0.1= 150 ± 0.1	D4		14.94-15.07 = 149.952-150.07	8	
22X 45° X .2 FOUR SIDES	D4		45° X .2 FOUR SIDES	8	
29 DRILL ↧ THRU 8-32 UNC-2B TAP ↧ 10 12 PLACES	D3		CONFORMS	8	
2X 45° X .2 THREE SIDES	D5		45° X .2 THREE SIDES	8	
10	C3		10	8	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	C3		CONFORMS	8	
10 X 15 ± 0.05 = 150 ± 0.05	C4		14.97-15.03 = 149.975-150.035	8	
15 ± 0.05	C3		14.972-15.022	8	
12 ± 0.05	C3		11.98-12.03	8	
4.2 0 / -0.1	D2		4.12 - 4.185	8	
45°	D2		45°	8	
(63.5)	D1		REFERENCE	8	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 3	QTY ACC	QTY REJ
MTX QC 6	Bruce Hulland	9/20/06		8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111201	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER RIGHT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111200 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
45° X 10	D1		45° X 10	8	
0.5	D1		.469 - .55	8	
2X 7.94	D1		7.90 - 7.98	8	
48 ± 0.1	D1		47.97 - 48.04	8	
5/16 DRILL ↓ 21 3/8 -16 UNC-2B TAP ↓ 17 2 PLACES	C1		Conforms	8	
-A-	C1		DATUM	8	
/ / 0.04	C1		w/in .04	8	
29 ±0.1	C1		28.955 - 29.042	8	
10 ± 0.1	C2		9.95 - 10.04	8	
3X 29	C2		28.962 - 29.03	8	
30 0 / -0.03	C1		29.97 - 30.0	8	
49 0 / -0.1	C1		48.967 - 49.0	8	
10 ± 0.1	C2		9.972 - 10.035	8	
27 0 / -0.1	C2		26.965 - 27.0	8	
67 +0.1 / 0	D2		67.02 - 67.07	8	
32	D2		31.94 - 32.03	8	
8 0 / -0.1	D2		7.92 - 7.985	8	
SECTION A-A					
24X 9.5 +0.05 / 0	D6		9.5 - 9.53	8	

STAMP	INSPECTED BY	DATE	PAGE	QTY ACC	QTY REJ
MTX QC 16	[signature]	9/20/06	3 OF 3	8	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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name: N/A		Part No.: L143-111101	REV	P.O. Number: SA 10359
	Date Rec'd: N/A	P.O. No.: N/A	Part Name: LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 226-228-230-232-318 320-322-324-326-328-330-332		Customer Name: ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		CONFORMS	MTX QC 16	
NOTE: 1. CLEAR ANODIZE	A1		CONFORMS	MTX QC 16	
NOTE 2. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 13 TO 79. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 80 TO 146. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 147 TO 213.	A2		CONFORMS ↓	MTX QC 16	
128 0 / -0.1	B1		127.92 - 128.00	MTX QC 16	
60	C2		59.97 - 60.03	MTX QC 16	
⌀4.1 THRU ⌀6.35 ↧ 17 132 PLACES	B2		4.1 THRU 6.35 X17 132 PLACES	MTX QC 16	
⌖ 0.04 A	B6		W/IN .04	MTX QC 16	
1005 0 / -0.1	B4		1004.93 - 1004.99	MTX QC 16	
979.6 ±0.1	B4		979.55 - 979.65	MTX QC 16	
132.55 ±0.1	B3		132.50 - 132.60	MTX QC 16	
6X 120 ±0.1	B4		119.96 - 120.04	MTX QC 16	
12.7 ±0.1	B2		12.66 - 12.76	MTX QC 16	
10.8 DRILL ↧ 20.5 M12x1.25 ISO – H TAP ↧ 13.5 18 PLACES	B6		10.8 X 20.5 18 PLC. CONFORMS	MTX QC 16	
26 ±0.1	B7		25.93 - 26.07	MTX QC 16	
56 ±0.1	B7		55.95 - 56.02	MTX QC 16	
32 ±0.1	C7		32.00 - 32.06	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M GIFFEN / G.H.	11/9/06		12	Ø

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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name: N/A		Part No.: L143-111101	REV	P.O. Number: 5A10359
	Date Rec'd: N/A	P.O. No.: N/A	Part Name: LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 226-228-230-232-318 320-322-324-326-328-330-332		Customer Name: ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
47 ±0.1	C7		46.92 - 47.05	MTX QC 16	
2X 6.35	C2		6.36 - 6.40	MTX QC 16	
75.5 ±0.1	C3		75.47 - 75.56	MTX QC 16	
20 ±0.1	C3		19.97 - 20.06	MTX QC 16	
909.5 ± 0.1	C4		909.46 - 909.59	MTX QC 16	
20 ±0.1	C6		19.92 - 20.05	MTX QC 16	
5	C6		5	MTX QC 16	
5	C6		5	MTX QC 16	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	C6		CONFORMS	MTX QC 16	
5 DRILL ↓ 15 M6x1 ISO – H TAP ↓ 12.7 38 PLACES	D4		5 X 15 DP CONFORMS	MTX QC 16	
16X 60 ±0.1	D2		59.94 - 60.05	MTX QC 16	
17X 15 ± 0.1	D2		14.91 - 15.01	MTX QC 16	
18 ± 0.1	D2		17.97 - 18.06	MTX QC 16	
10	D6		10	MTX QC 16	
15	C7		15	MTX QC 16	
10.5 ± 0.1	E2		10.45 - 10.55	MTX QC 16	
15 ± 0.1	E2		14.95 - 15.03	MTX QC 16	
66X 9.5	E2		9.45 - 9.55	MTX QC 16	
65X 15 ± 0.1 = 975 ± 0.1	E4		14.93 - 15.08 = 974.92 - 975.06	MTX QC 16	
132X 45° X .2 FOUR SIDES	E2		45 X .2	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M. GAIFFEN /64.	11/9/06		12	Ø

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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 226-228-230-232-318-320 322-324-326-328-330-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
29 DRILL ⇓ THRU 8-32 UNC-2B TAP ⇓ 10 67 PLACES	E5		CONFORMS	MTX QC 16	
2X 45° X .2 THREE SIDES	E2		45 x .2	MTX QC 16	
15.5	E3		15.5	MTX QC 16	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	D6		CONFORMS	MTX QC 16	
65 X 15 ± 0.05 = 975 ± 0.05	D5		14.973 - 15.031 = 974.99 - 97.503	MTX QC 16	
15 ± 0.05	D2		14.97 - 15.03	MTX QC 16	
9.25	E6		9.25	MTX QC 16	
3 ± 0.05	D2		2.99 - 3.02	MTX QC 16	
4.2 0 / -0.1	E7		4.17 - 4.2	MTX QC 16	
45°	E8		45°	MTX QC 16	
(63.5)	E8		REFERENCE	MTX QC 16	
45° X 10	E8		45° x 10	MTX QC 16	
0.5	E8		.5	MTX QC 16	
2X 7.94	E8		7.94 2X	MTX QC 16	
48 ± 0.1	E8		47.984 - 48.059	MTX QC 16	
5/16 DRILL ⇓ 21 3/8 -16 UNC-2B TAP ⇓ 17 2 PLACES	D7		CONFORMS	MTX QC 16	
-A-	D8		DATUM	MTX QC 16	
/ / 0.04	D8		w/IN .04	MTX QC 16	
29 ±0.1	D8		28.96 - 29.03	MTX QC 16	
10 ± 0.1	D7		9.99 - 10.05	MTX QC 16	
3X 29	D7		29 3X	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M GIFFEN/GH.	11/9/06		12	Ø

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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV	P.O. Number 5910359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 226-228-230-232-318-320 322-324-326-328-330-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
30 0 / -0.03	D8		29.98 - 30.0 MTX QC 16		
49 0 / -0.1	D8		48.93 - 49.0 MTX QC 16		
10 ± 0.1	E8		9.95 - 10.07 MTX QC 16		
27 0 / -0.1	E7		26.95 - 26.99 MTX QC 16		
67 +0.1 / 0	E7		67.01 - 67.06 MTX QC 16		
32	E7		32 MTX QC 16		
8 0 / -0.1	E7		7.93 - 7.99 MTX QC 16		
SECTION A-A					
134X 9.5 +0.05 / 0	E1		9.50 - 9.54 MTX QC 16		

STAMP MTX QC 16	INSPECTED BY	DATE	PAGE4 OF4	QTY ACC	QTY REJ
	JAMES M. GIFFEN / G.H.	11/9/06		12	Ø

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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV 02-	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 118/120/122/124/126/128 130/132/218/220/222/224		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		CONFORMS	MTX QC 16	
NOTE: 1. CLEAR ANODIZE	A1		CONFORMS	MTX QC 16	
NOTE 2. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 13 TO 79. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 80 TO 146. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 147 TO 213.	A2		CONFORMS ↓	MTX QC 16	
128 0 / -0.1	B1		127.92 - 128.00	MTX QC 16	
60	C2		59.97 - 60.03	MTX QC 16	
⌀4.1 THRU ⌀6.35 ↓ 17 132 PLACES	B2		4.1 THRU 6.35 X17 132 PLACES	MTX QC 16	
⌖ 0.04 A	B6		W/IN .04	MTX QC 16	
1005 0 / -0.1	B4		1004.93 - 1004.99	MTX QC 16	
979.6 ±0.1	B4		979.55 - 979.65	MTX QC 16	
132.55 ±0.1	B3		132.50 - 132.60	MTX QC 16	
6X 120 ±0.1	B4		119.96 - 120.04	MTX QC 16	
12.7 ±0.1	B2		12.66 - 12.76	MTX QC 16	
10.8 DRILL ↓ 20.5 M12x1.25 ISO – H TAP ↓ 13.5 18 PLACES	B6		10.8 X 20.5 18 PLC. CONFORMS	MTX QC 16	
26 ±0.1	B7		25.93 - 26.07	MTX QC 16	
56 ±0.1	B7		55.95 - 56.02	MTX QC 16	
32 ±0.1	C7		32.00 - 32.016	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M. GIFFEN / 6.11	11/9/06		12	Ø

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. 20060-5925	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV	P.O. Number 5410359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 118-120-122-124-126-128 130-132-134-220-224		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
47 ±0.1	C7		46.92 - 47.05	MTX QC 16	
2X 6.35	C2		6.36 - 6.40	MTX QC 16	
75.5 ±0.1	C3		75.47 - 75.56	MTX QC 16	
20 ±0.1	C3		19.97 - 20.06	MTX QC 16	
909.5 ± 0.1	C4		909.46 - 909.59	MTX QC 16	
20 ±0.1	C6		19.92 - 20.05	MTX QC 16	
5	C6		5	MTX QC 16	
5	C6		5	MTX QC 16	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	C6		CONFORMS	MTX QC 16	
5 DRILL ↧ 15 M6x1 ISO – H TAP ↧ 12.7 38 PLACES	D4		5 X 15 DP CONFORMS	MTX QC 16	
16X 60 ±0.1	D2		59.94 - 60.05	MTX QC 16	
17X 15 ± 0.1	D2		14.91 - 15.01	MTX QC 16	
18 ± 0.1	D2		17.97 - 18.06	MTX QC 16	
10	D6		10	MTX QC 16	
15	C7		15	MTX QC 16	
10.5 ± 0.1	E2		10.45 - 10.55	MTX QC 16	
15 ± 0.1	E2		14.95 - 15.03	MTX QC 16	
66X 9.5	E2		9.45 - 9.55	MTX QC 16	
65X 15 ± 0.1 = 975 ± 0.1	E4		14.93 - 15.08 = 974.92 - 975.06	MTX QC 16	
132X 45° X .2 FOUR SIDES	E2		45 X .2	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M. GIFFEN /GH	11/9/06		12	Ø

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. 2006-5125	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 118-120-122-124-126-128 130-132-218-220-222-224		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
29 DRILL ⇓ THRU 8-32 UNC-2B TAP ⇓ 10 67 PLACES	E5		CONFORMS	MTX QC 16	
2X 45° X .2 THREE SIDES	E2		45 x .2	MTX QC 16	
15.5	E3		15.5	MTX QC 16	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	D6		CONFORMS	MTX QC 16	
65 X 15 ± 0.05 = 975 ± 0.05	D5		14.973 - 15.031 = 974.97 - 97.503	MTX QC 16	
15 ± 0.05	D2		14.97 - 15.03	MTX QC 16	
9.25	E6		9.25	MTX QC 16	
3 ± 0.05	D2		2.99 - 3.02	MTX QC 16	
4.2 0/-0.1	E7		4.17 - 4.2	MTX QC 16	
45°	E8		45°	MTX QC 16	
(63.5)	E8		REFERENCE	MTX QC 16	
45° X 10	E8		45° x 10	MTX QC 16	
0.5	E8		.5	MTX QC 16	
2X 7.94	E8		7.94 2X	MTX QC 16	
48 ± 0.1	E8		47.984 - 48.059	MTX QC 16	
5/16 DRILL ⇓ 21 3/8 -16 UNC-2B TAP ⇓ 17 2 PLACES	D7		CONFORMS	MTX QC 16	
-A-	D8		DATUM	MTX QC 16	
/ / 0.04	D8		w/IN .04	MTX QC 16	
29 ±0.1	D8		28.96 - 29.03	MTX QC 16	
10 ± 0.1	D7		9.99 - 10.05	MTX QC 16	
3X 29	D7		29 3X	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M GIFFEN/GA	11/9/06		12	Ø

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. 2006-5725	Qty 12

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111101	REV	P.O. Number
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER MIDDLE MAGNET STRUCTURE BASE		
At Oper.	Serial Numbers: 118-120-122-124-126-128 130-132-218-220-222-224		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
30 0 / -0.03	D8		29.98 - 30.0	MTX QC 16	
49 0 / -0.1	D8		48.93 - 49.0	MTX QC 16	
10 ± 0.1	E8		9.95 - 10.07	MTX QC 16	
27 0 / -0.1	E7		26.95 - 26.99	MTX QC 16	
67 +0.1 / 0	E7		67.01 - 67.06	MTX QC 16	
32	E7		32	MTX QC 16	
8 0 / -0.1	E7		7.93 - 7.99	MTX QC 16	
SECTION A-A					
134X 9.5 +0.05 / 0	E1		9.50 - 9.54	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 4 OF 4	QTY ACC	QTY REJ
MTX QC 16	JAMES M. GIFFEN	11/9/06		12	0

MX1010 (7/98)

Metalex Customized Machinery and Parts CERTIFIED INSPECTION QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd / Cincinnati, OH 45242 / (513) 489-0567	Job No. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -128 /-228/-328/-130/--230/-330/-132/-232/-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		ACCEPT	9	
NOTE: 1. CLEAR ANODIZE	A1			9	
NOTE 2. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 13 TO 79. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 80 TO 146. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 147 TO 213.	A2		ACCEPT ↓	9	
128 0 / -0.1	B2		127.94-128	9	
60	C3		59.95-60.03	9	
Ø4.1 THRU ⌴Ø6.35 ↧ 17 132 PLACES	B3		4.015-4.1 6.310-6.38 X 16.94-17 DP.	9	
⊥ 0.04 A	B3		W/in .04	9	
1005 0 / -0.1	A3		1004.9-1005	9	
979.6 ±0.1	B5		979.54-979.63	9	
132.55 ±0.1	B6		132.50-132.62	9	
6X 120 ±0.1	B6		119.938-120.03	9	
12.7 ±0.1	B7		12.64-12.752	9	
10.8 DRILL ↧ 20.5 M12x1.25 ISO – H TAP ↧ 13.5 18 PLACES	A4		Conforms	9	
26 ±0.1	B7		25.94-26.02	9	
56 ±0.1	B8		55.97-56.052	9	
32 ±0.1	C8		31.955-32.048	9	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/18/06		9	Ø

MX1010 (7/98)

Metalex Customized Machinery and Parts SERVICE ISO 9001 QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd. | Cincinnati, OH 45242 | (513) 489-0507	Job No. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -128 /-228/-328/-130/--230/-330/-132/-232/-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
47 ±0.1	C7		46.94 - 47.04	9	
2X 6.35	C7		6.33 - 6.39	9	
75.5 ±0.1	C6		75.45 - 75.54	9	
20 ±0.1	C6		19.93 - 20.04	9	
909.5 ± 0.1	C5		909.43 - 909.57	9	
20 ±0.1	C3		19.952 - 20.04	9	
5	C3		5	9	
5	C3		5	9	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	C3		CONFORMS	9	
5 DRILL ↧ 15 M6x1 ISO – H TAP ↧ 12.7 38 PLACES	D3		CONFORMS	9	
16X 60 ±0.1	D7		59.94 - 60.06	9	
17X 15 ± 0.1	D7		14.955 - 15.04	9	
18 ± 0.1	D7		17.96 - 18.025	9	
10	D7		9.94 - 10.06	9	
15	C7		14.948 - 15.04	9	
10.5 ± 0.1	E7		10.462 - 10.53	9	
15 ± 0.1	E7		14.98 - 15.045	9	
66X 9.5	E7		9.44 - 9.538	9	
65X 15 ± 0.1 = 975 ± 0.1	E5		14.96 - 15.048 = 974.97 - 975.05	9	
132X 45° X .2 FOUR SIDES	E7		45° X .2 FOUR SIDES	9	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 4	QTY ACC	QTY REJ
MTX OC 16	[signature]	10/18/06		9	Ø

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. 2008 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -128 /-228/-328/-130/--230/-330/-132/-232/-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
29 DRILL ↧ THRU 8-32 UNC-2B TAP ↧ 10 67 PLACES	E5		CONFORMS	9	
2X 45° X .2 THREE SIDES	E7		45° X .2 THREE SIDES	9	
12	E3		12	9	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	D3		CONFORMS	9	
65 X 15 ± 0.05 = 975 ± 0.05	D5		14.965 15.028 = 974.955-975.025	9	
15 ± 0.05	D7		14.972 - 15.04	9	
3 ± 0.05	D7		2.98 - 3.032	9	
4.2 0 / -0.1	E2		4.1 - 4.2	9	
45°	E1		45°	9	
(63.5)	E1		REFERENCE	9	
45° X 10	E1		45° X 10	9	
0.5	E1		.47 - .54	9	
2X 7.94	E1		7.92 - 7.975	9	
48 ± 0.1	E1		47.93 - 48.06	9	
5/16 DRILL ↧ 21 3/8 -16 UNC-2B TAP ↧ 17 2 PLACES	D1		CONFORMS	9	
-A-	D1		DATUM	9	
▱ 0.04	D1		W/in .04	9	
29 ±0.1	D1		28.94 - 29.06	9	
10 ± 0.1	D2		9.95 - 10.055	9	
3X 29	D2		28.952 - 29.055	9	
30 0 / -0.03	D1		29.977 - 30	9	

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MTX QC 16	[signature]	10/18/06	3 OF 4	9	Ø

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. 2008 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -128 /-228/-328/-130/--230/-330/-132/-232/-332		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
49 0 / -0.1	D1		48.93- 49	9	
10 ± 0.1	D2		9.94- 10.052	9	
27 0 / -0.1	E2		26.92 - 26.98	9	
67 +0.1 / 0	E2		67.02 - 67.08	9	
32	E2		31.945- 32.06	9	
8 0 / -0.1	E2		7.93-8.0	9	
SECTION A-A					
134X 9.5 +0.05 / 0	E8		9.5 -9.55	9	

STAMP	INSPECTED BY	DATE	PAGE 4 OF 4	QTY ACC	QTY REJ
MTX OC 16	[signature]	10/18/06		9	Ø

MX1010 (7/98)

METALEX Customized Machinery and Parts	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd. ! Cincinnati, OH 45242 ! (513) 489-0507	Job No. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111000	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -122 /-222/-322/-124/--224/-324/-126/-226/-326		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		Conforms	9	
NOTE: 1. CLEAR ANODIZE	A1				
NOTE 2. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 13 TO 79. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 80 TO 146. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 147 TO 213.	A2		Conforms ↓	9	
128 0 / -0.1	B2		127.945 - 128	9	
60	C3		59.96 - 60.01	9	
Ø4.1 THRU Ø6.35 ↧ 17 132 PLACES	B3		4.013 - 4.1 6.319 - 6.57 x 16.941 - 17 DP.	9	
⊥ 0.04 A	B3		within .04	9	
1005 0 / -0.1	A3		1004.9 - 1005	9	
979.6 ±0.1	B5		979.54 - 979.63	9	
132.55 ±0.1	B6		132.51 - 132.61	9	
6X 120 ±0.1	B6		119.93 - 120.06	9	
12.7 ±0.1	B7		12.63 - 12.77	9	
10.8 DRILL ↧ 20.5 M12x1.25 ISO – H TAP ↧ 13.5 13 PLACES	A4		Conforms	9	
26 ±0.1	B7		25.96 - 26.03	9	
56 ±0.1	B8		55.94 - 56.06	9	
32 ±0.1	C8		31.94 - 32.03	9	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/18/06		9	Ø

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. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -122 /-222/-322/-124/--224/-324/-126/-226/-326		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
47 ±0.1	C7		46.93-47.07	9	
2X 6.35	C7		6.337-6.37	9	
75.5 ±0.1	C6		75.47-75.58	9	
20 ±0.1	C6		19.94-20.06	9	
909.5 ± 0.1	C5		909.46-909.53	9	
20 ±0.1	C3		19.96-20.07	9	
5	C3		5	9	
5	C3		5	9	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	C3		CONFORMS	9	
5 DRILL ↧ 15 M6x1 ISO – H TAP ↧ 12.7 38 PLACES	D3		CONFORMS	9	
16X 60 ±0.1	D7		59.93-60.072	9	
17X 15 ± 0.1	D7		14.935-15.057	9	
18 ± 0.1	D7		17.97-18.03	9	
10	D7		9.93-10.04	9	
15	C7		14.96-15.03	9	
10.5 ± 0.1	E7		10.47-10.58	9	
15 ± 0.1	E7		14.96-15.04	9	
65X 9.5	E7		9.43-9.57	9	
65X 15 ± 0.1= 975 ± 0.1	E5		14.94-15.03 = 974.85-975.04	9	
132X 45° X .2 FOUR SIDES	E7		45° X .2 FOUR SIDES	9	

STAMP	INSPECTED BY	DATE	PAGE 2 CF4	QTY ACC	QTY REJ
MTX OC 16	[signature]	10/18/06		9	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. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -122 /-222/-322/-124/--224/-324/-126/-226/-326		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
29 DRILL ↧ THRU 8-32 UNC-2B TAP ↧ 10 67 PLACES	E5		CONFORMS	9	
2X 45° X .2 THREE SIDES	E7		45° X .2 THREE SIDES	9	
12	E3		12	9	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	D3		CONFORMS	9	
65 X 15 ± 0.05 = 975 ± 0.05	D5		14.972-15.03 = 974.96-975.05	9	
15 ± 0.05	D7		14.98-15.012	9	
3 ± 0.05	D7		2.982-3.035	9	
4.2 0/-0.1	E2		4.2-4.1	9	
45°	E1		45°	9	
(63.5)	E1		REFERENCE	9	
45° X 10	E1		45° X 10	9	
0.5	E1		.47-.54	9	
2X 7.94	E1		7.912-7.98	9	
48 ± 0.1	E1		47.93-48.07	9	
5/16 DRILL ↧ 21 3/8-16 UNC-2B TAP ↧ 17 2 PLACES	D1		CONFORMS	9	
-A-	D1		DATUM	9	
▱ 0.04	D1		W/IN .04 (RESTRAINED)	9	
29 ±0.1	D1		28.93-29.075	9	
10 ± 0.1	D2		9.94-10.08	9	
3X 29	D2		28.93-29.06	9	
30 0/-0.03	D1		29.97-30	9	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/18/06		9	Ø

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. 2006 – 5725	Qty 9

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -122 /-222/-322/-124/--224/-324/-126/-226/-326		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
49 0 / -0.1	D1		48.95-49.0	9	
10 ± 0.1	D2		9.93-10.06	9	
27 0 / -0.1	E2		26.935-26.99	9	
67 +0.1 / 0	E2		67 - 67.07	9	
32	E2		31.94-32.04	9	
8 0 / -0.1	E2		7.9-8.0	9	
SECTION A-A					
134X 9.5 +0.05 / 0	E8		9.5-9.55	9	

STAMP	INSPECTED BY	DATE	PAGE 4 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/18/06		9	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. 2006-5725	Qty 6

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -118 / -218 / -318 / -120 / -220 / -320		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		CONFORMS	6	
NOTE: 1. CLEAR ANODIZE	A1				
NOTE 2. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 13 TO 79. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 80 TO 146. ONE THIRD OF THE PARTS SHOULD HAVE NUMBERS FROM 147 TO 213.	A2		CONFORMS ↓	6	
128 0 / -0.1	B2		127.92-127.98	6	
66	C3		59.97-60.02	6	
Ø4.1 THRU ⌴ Ø6.35 ↧ 17 132 PLACES	B3		4.051 - 4.107 6.317 - 6.393 X 16.94 -17	6	
⊥ 0.04 A	B3		W/IN .04	6	
1005 0 / -0.1	A3		1004.93- 1004.99	6	
979.6 ±0.1	B5		979.57-979.63	6	
132.55 ±0.1	B6		132.49 - 132.572	6	
6X 120 ±0.1	B6		119.93- 120.047	6	
12.7 ±0.1	B7		12.638-12.73	6	
10.8 DRILL ↧ 20.5 M12x1.25 ISO - H TAP ↧ 13.5 18 PLACES	A4		CONFORMS	6	
26 ±0.1	B7		25.94-26.03	6	
56 ±0.1	B8		55.97 - 56.042	6	
32 ±0.1	C8		31.948- 32.032	6	

SEAL MTX QC 16	INSPECTED BY	DATE	PAGE 1 OF 4	QTY ACC	QTY REJ
	[signature]	10/19/06		6	Ø

MX1010 (7/98)

Metalex Customized Machinery and Parts — CERTIFIED ISO 9001 QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd 1 Cincinnati, OH 45242 1 (513) 489-0507	Job No. 2008-5725	Qty 6

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.C. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -118 / -218 / -318 / -120 / -220 / -320		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
47 ±0.1	C7		46.92 - 47.02	6	
2X 6.35	C7		6.337 - 6.368	6	
75.5 ±0.1	C6		75.47 - 75.53	6	
20 ±0.1	C6		19.956 - 20.032	6	
909.5 ± 0.1	C5		909.48 - 909.55	6	
20 ±0.1	C3		19.96 - 20.04	6	
5	C3		5	6	
5	C3		5	6	
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	C3		ACCEPT	6	
5 DRILL ↧ 15 M6x1 ISO – H TAP ↧ 12.7 38 PLACES	D3		ACCEPT	6	
16X 60 ±0.1	D7		59.96 - 60.03	6	
17X 15 ± 0.1	D7		14.94 - 15.04	6	
18 ± 0.1	D7		17.94 - 18.06	6	
10	D7		9.94 - 10.03	6	
15	C7		14.97 - 15.04	6	
10.5 ± 0.1	E7		10.48 - 10.53	6	
15 ± 0.1	E7		14.96 - 15.04	6	
66X 9.5	E7		9.47 - 9.58	6	
65X 15 ± 0.1 = 975 ± 0.1	E5		14.96 - 15.04 = 974.97 - 975.04	6	
132X 45° X .2 FOUR SIDES	E7		45° X .2 FOUR SIDES	6	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/19/06		6	Ø

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. 2006-5725	Qty 6

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111001	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -118 / -218 / -318 / -120 / -220 / -320		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
29 DRILL ↧ THRU 8-32 UNC-2B TAP ↧ 10 67 PLACES	E5		CONFORMS	6	
2X 45° X .2 THREE SIDES	E7		45° X .2 THREE SIDES	6	
12	E3		12	6	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	D3		CONFORMS	6	
65 X 15 ± 0.05 = 975 ± 0.05	D5		14.955-15.04 = 944.95-975.03	6	
15 ± 0.05	D7		14.96-15.03	6	
3 ± 0.05	D7		2.97-3.04	6	
4.2 0 / -0.1	E2		4.12-4.2	6	
45°	E1		45°	6	
(63.5)	E1		REFERENCE	6	
45° X 10	E1		45°X10	6	
0.5	E1		.47-.53	6	
2X 7.94	E1		7.92-7.98	6	
48 ± 0.1	E1		47.97-48.04	6	
5/16 DRILL ↧ 21 3/8 -16 UNC-2B TAP ↧ 17 2 PLACES	D1		CONFORMS	6	
-A-	D1		DATUM	6	
▱ 0.04	D1		W/in .04	6	
29 ±0.1	D1		28.93-29.04	6	
10 ± 0.1	D2		9.95-10.04	6	
3X 29	D2		28.97-29.02	6	
30 0 / -0.03	D1		29.97-30.0	6	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/19/06		6	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. 2006-5725	Qty 6

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-111000	REV 02	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER MIDDLE MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-111000 / -118 / -218 / -318 / -120 / -220 / -320		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
49 0 / -0.1	D1		48.95-49	6	
10 ± 0.1	D2		9.97 - 10.04	6	
27 0 / -0.1	E2		26.93-27	6	
67 +0.1 / 0	E2		67 - 67.04	6	
32	E2		31.94-32.05	6	
8 0 / -0.1	E2		7.92-8	6	
SECTION A-A					
134X 9.5 +0.05 / 0	E8		9.52 - 9.55	6	

STAMP	INSPECTED BY	DATE	PAGE 4 OF 4	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/19/06		6	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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110901	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110900 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		CONFORMS	8	
NOTE: CLEAR ANODIZE	A1				
128 0/-0.1	A5		127.915 - 127.945	8	
60	B2		59.96 - 60.03	8	
⌀4.1 THRU ⌀6.35 ↧ 17 26 PLACES	A4		4.043 - 4.135 6.317 - 6.37 X 16.942 - 16.993	8	
0.04 A	A4		w/in .04	8	
195 0/-0.1	A3		194.92 - 194.94	8	
165.6 ±0.1	A3		165.57 - 165.64	8	
82.8 ±0.1	A3		82.79 - 82.84	8	
12.7 ±0.1	A3		12.655 - 12.74	8	
10.8 DRILL ↧ 20.500 M12x1.25 ISO – H TAP ↧ 13.5 6 PLACES	A4		CONFORMS	8	
26 ±0.1	A4		25.94 - 26.035	8	
56 ±0.1	A5		55.97 - 56.04	8	
32 ±0.1	B5		31.96 - 32.04	8	
47 ±0.1	B4		46.97 - 47.06	8	
2X 6.35	B3		6.32 - 6.38	8	
126.9 ±0.1	B3		126.87 - 126.94	8	
20 ±0.1	B3		19.965 - 20.025	8	
5	B4		5	8	
5	B4		5	8	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 3	QTY ACC	QTY REJ
MIX QC 16	[signature]	9/22/06		8	∅

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110901	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110900 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	B4		CONFORMS	8	
5 DRILL ⇓ 15 M6x1 ISO – H TAP ⇓ 12.7 8 PLACES	C4		CONFORMS	8	
2X 60 ±0.1	C4		59.94-60.02	8	
3X 15 ± 0.1	C2		14.97-15.04	8	
33 ± 0.1	C2		32.935-33.052	8	
10	C4		9.955-10.042	8	
15	B4		14.948-15.050	8	
10.5 ± 0.1	D2		10.462-10.535	8	
15 ± 0.1	D2		14.938-15.035	8	
12X 9.5	D2		9.462-9.538	8	
10X 15 ± 0.1= 150 ± 0.1	D3		14.948-15.045 = 149.95-150.03	8	
22X 45° X .2 FOUR SIDES	D3		45° X .2 FOUR SIDES	8	
29 DRILL ⇓ THRU 8-32 UNC-2B TAP ⇓ 10 12 PLACES	D4		CONFORMS	8	
4X 45° X .2 THREE SIDES	D4		45° X .2 THREE SIDES	8	
15.5	C4		15.5	8	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	C4		CONFORMS	8	
11 X 15 ± 0.05 = 165 ± 0.05	C3		14.96-15.05 = 164.97-165.03	8	
15 ± 0.05	C3		14.965-15.052	8	
3 ± 0.05	C3		2.97-3.04	8	
4.2 0 / -0.1	D5		4.12-4.20	8	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	9/22/06		8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110901	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name LOWER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110900 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
45°	D6		45°	8	
(63.5)	D6		REFERENCE	8	
45° X 10	D6		45° X 10	8	
0.5	D6		.48 - .53	8	
2X 7.94	D6		7.90 - 7.972	8	
48 ± 0.1	D6		47.94 - 48.05	8	
5/16 DRILL ↓ 21 3/8 -16 UNC-2B TAP ↓ 17 2 PLACES	C6		CONFORMS	8	
-A-	C6		DATUM	8	
/ / 0.04	C6		w/in .04	8	
29 ±0.1	C6		28.97 - 29.06	8	
10 ± 0.1	C5		9.94 - 10.05	8	
3X 29	C5		28.94 - 29.03	8	
30 0 / -0.03	C6		29.97 - 30.0	8	
49 0 / -0.1	B6		48.92 - 49.0	8	
10 ± 0.1	C5		9.93 - 10.07	8	
27 0 / -0.1	C5		26.94 - 27.0	8	
67 +0.1 / 0	D5		67 - 67.07	8	
32	D5		31.96 - 32.04	8	
8 0 / -0.1	D5		7.94 - 8.0	8	
SECTION A-A					
24X 9.5 +0.05 / 0	D1		9.5 - 9.53	8	

STAMP	INSPECTED BY	DATE	PAGE	QTY ACC	QTY REJ
MVP OC 16	[signature]	9/22/06	3 OF 3	8	Ø

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110801	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110800 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
AL CAST TOOL & JIG PLATE 2.5" PLATE	A2		Conforms	8	
NOTE: CLEAR ANODIZE	A1			.	
128 0 / -0.1	A3		127.927-127.945	8	
60	B3		59.957-60.025	8	
⌀4.1 THRU ⌀6.35 ↧ 17 26 PLACES	A3		4.05 - 4.122 6.29 - 6.396 x 16.942-16.998 DP	8	
⌖ 0.04 A	A3		w/in .04	8	
195 0 / -0.1	A4		194.93-194.99	8	
165.6 ±0.1	A4		165.59-165.67	8	
82.8 ±0.1	A4		82.77-82.83	8	
12.7 ±0.1	A5		12.682-12.735	8	
10.8 DRILL ↧ 20.500 M12x1.25 ISO – H TAP ↧ 13.5 6 PLACES	A5		Conforms	8	
26 ±0.1	A5		25.955-26.042	8	
56 ±0.1	A6		55.972-56.025	8	
32 ±0.1	B6		31.948-32.052	8	
47 ±0.1	B5		46.985-47.032	8	
2X 6.35	B5		6.33-6.37	8	
126.9 ±0.1	B4		126.87-126.93	8	
20 ±0.08	B3		19.98-20.045	8	
5	B3		5	8	
5	B3		5	8	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/2/06		8	∅

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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) identification		Customer Identification		
☐ Receiving ☐ In-Process ■ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110801	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110800 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
5 HIGH CHARACTER ENGRAVE ASSEMBLY NO. AND SERIAL NO.	B3		CONFORMS	8	
5 DRILL ↓ 15 M6x1 ISO – H TAP ↓ 12.7 8 PLACES	C3		CONFORMS	8	
2X 60 ±0.1	C4		59.975-60.042	8	
3X 15 ± 0.1	C5		14.96-15.03	8	
33 ± 0.1	C5		32.955-33.04	8	
10	B5		9.954-10.032	8	
15	B5		14.97-15.028	8	
10.5 ± 0.1	D5		10.478-10.535	8	
15 ± 0.1	D5		14.98-15.03	8	
12X 9.5	D5		9.47-9.53	8	
10X 15 ± 0.1= 150 ± 0.1	D4		14.93-15.07 = 149.94-150.04	8	
22X 45° X .2 FOUR SIDES	D4		45° X .2 FOUR SIDES	8	
29 DRILL ↓ THRU 8-32 UNC-2B TAP ↓ 10 12 PLACES	D3		CONFORMS	8	
4X 45° X .2 THREE SIDES	D3		45° X .2 THREE SIDES	8	
12	C3		12	8	
5 HIGH CHARACTER ENGRAVE MAGNET NO.	C3		CONFORMS	8	
11 X 15 ± 0.05 = 165 ± 0.05	C4		14.97-15.03 = 164.965-165.032	8	
15 ± 0.05	C5		14.98-15.025	8	
3 ± 0.05	C5		2.98-3.03	8	
4.2 0 / -0.1	D2		4.13-4.2	8	

STAMP	INSPECTED BY	DATE	PAGE 2 OF 3	QTY ACC	QTY REJ
MTX OC 16	[signature]	10/2/06		8	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. 2006 – 5725	Qty 8

Inspection Origin	Vendor (Sub-Tier Source) Identification		Customer Identification		
☐ Receiving ☐ In-Process ☒ Final ☐ Rework/Repair ☐ First Article	Vendor Name N/A		Part No. L143-110801	REV **	P.O. Number 5A10359
	Date Rec'd N/A	P.O. No. N/A	Part Name UPPER LEFT MAGNET STRUCTURE BASE		
At Oper. N/A	Serial Numbers: L143-110800 / -18,-20,-22,-24,-26,-28,-30,-32		Customer Name ARGONNE		

SPECIFICATION	B/P ZONE	INSPECTION METHOD / GAGE NO.	ACTUAL DIMENSION / GAGE VERIFICATION (Range of Readings or Accept Status)	QTY ACC	QTY REJ
45°	D2		45°	8	
(63.5)	D1		REFERENCE	8	
45° X 10	D1		45° X 10	8	
0.5	D1		.477 - .528	8	
2X 7.94	D1		7.92 - 7.98	8	
48 ± 0.1	D1		47.94 - 48.06	8	
5/16 DRILL ⇓ 21 3/8 -16 UNC-2B TAP ⇓ 17 2 PLACES	C1		CONFORMS	8	
-A-	C1		DATUM	8	
/ / 0.04	C1		w/in .04	8	
29 ±0.1	C1		28.96 - 29.07	8	
10 ± 0.1	C2		9.94 - 10.06	8	
3X 29	C2		28.955 - 29.048	8	
30 0 / -0.03	C1		29.977 - 30.0	8	
49 0 / -0.1	C1		48.93 - 49.0	8	
10 ± 0.1	C2		9.94 - 10.07	8	
27 0 / -0.1	C2		26.94 - 27.0	8	
67 +0.1 / 0	D2		67.0 - 67.07	8	
32	D2		31.95 - 32.04	8	
8 0 / -0.1	D2		7.93 - 8.0	8	
SECTION A-A					
24X 9.5 +0.05 / 0	D6		9.5 - 9.55	8	

STAMP	INSPECTED BY	DATE	PAGE 3 OF 3	QTY ACC	QTY REJ
MTX QC 16	[signature]	10/2/06		8	Ø

MX1010 (7/98)

Job# 2006- 5725 Customer Argonne Nat'l Laboratory

Drawing/part# L143-110114 Dwg.rev.# 01
Serial# _____ Rtg.rev 0by: _____

Router No.	Job No	Drawing/Part No
3036588	2006 5725	L143-110114

	Qty to Run	Comp/Date	Operator Initials

********** ROUTING OPERATIONS **********

20 FINISH MACHINE (Continued)

2) Finish machine 8mm slot and 45° angles

3) Finish machine (7) 7mm diameter holes holding .006" position.

Date & Initial ==> 11/5/06 JK

Accepted 16 Rejected —

Comments: 676645

DEBURR AS FOLLOWS: 16 To Run

30 2400 DEBURR DEPT.

1) Deburr with a maximum break edge of .010".

2) Mach. peen part number in area furthest away from 8mm slot.

Date & Initial ==> 11-26-06 JB

Accepted 16 Rejected ____

Comments: _____

FINAL DIMENSIONAL INSPECTION 16 To Run

40 8006 QUALITY CONTROL

1) Visually verify all drawing features/requirements have been met and operators have complied with all requirements of MX1035b form. Inspector shall sign-off MX1035b form as evidence of verification.

Date & Initial ==> 12-4-06 SD

Accepted 16 Rejected —

Metalex PO# 676645

Certificate of Conformance

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

METALEX
QA. DEPT.
ACCEPTED
DATE 11/15/06
BY KKB

Item	Qty.	Part Number	Rev.	Part Name	Job #
1	24	L143-110114	01	SCREEN	6396 5725

Moonlight Machining 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.

Supplier Name

Signed/Dated: 11-15-06
Supplier Quality Rep.

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

Job# 2006- 5725 Customer Argonne Nat'l Laboratory

Drawing/part# L143-110110 Dwg. rev.# 02V

Serial# Rtg. rev.# 3by:ROB SCHUERMANN 6/16/06

Router No. 3036584 Job No 2006 5725 Drawing/Part No L143-110110

********** ROUTING OPERATIONS **********

		Qty To Run	Comp/Date	Operator Initials
50 8006	FINAL DIMENSIONAL INSPECTION QUALITY CONTROL	80 To Run		

1) Visually verify all drawing features/requirements have been met and operators have complied with all requirements of MX1035b form. Inspector shall sign-off MX1035b form as evidence of verification.

2) Bag parts and tag bag to identify.

Date & Initial ==> 12/4/06 S.D

Accepted 80 Rejected —

Comments:

60 9095	CLEAR ANODIZE PER AMS 2471 ANOTEX (ANODIZE) & (HARD ANODIZE)	80 To Run		

1) Material is 6061-T651 Aluminum

2) Clear Anodize Finish per AMS 2471, Rev.___

3) Wrap to protect and keep clean.

4) Add standard CAT.2 quality notes to purchase order.

5) Upon return, "SUBCONTRACTING" to send original cert's to QA for acceptance. (THIS NOTE DOES NOT APPLY TO SUPPLIER'S P.O.)

Date & Initial ==> _____ _____

Accepted _____ Rejected _____

Comments:

Drawing/part# L143-110109 Dwg. rev.# U2V
Serial# Rtg. Rev.# 4 by:DAVE SMITH 7/10/06

Router No.	Job No	Drawing/Part No
3069142	20066396	L143-110109

Qty To Run Comp/Date Operator Initials

********** Routing Operations **********

1) FINISH MACHINE .630" WDITH HOLDING FINISH POSITION OF HOLES.

2) FINISH ARBOR MILL .06" SLOT.
   ** MINIMIZE BURR BY USING THE FOLLOWING INSTRUCTIONS **
   3.000"DIA. X .062 WIDE CUTTER
   SPEED: 770 RPM
   FEED: 9 IN. PER MIN.
   ALL IN ONE CUT. CLIMB MILL SAW FOR MIN. BURR

Date & Initial ==> 12-6 06 DP

Accepted 40 Rejected 0

Comments: 8 extra

00040 DEBURR AS FOLLOWS: 40 To Run

2400 DEBURR AND HANDWORK

1) Deburr with a maximum break edge of .010".

2) Mach. peen part number on side of part. Stone flush.

3) Bag parts and tag bag to identify.

Date & Initial ==> 12-8-06 [illegible]

Accepted 40 Rejected 0

Comments:

00050 FINAL DIMENSIONAL INSPECTION 40 To Run

8006 QUALITY CONTROL

1) Visually verify all drawing features/requirements have been met and operators have complied with all requirements of MX1035b form. Inspector shall sign-off MX1035b form as evidence of verification.

2) Bag parts and tag bag to identify.

50 FINAL DIMENSIONAL INSPECTION (Continued)

Drawing/part# L143-110109 Dwg. rev.# 02V
Serial# Rtg. Rev.# 4 by:DAVE SMITH 7/10/06

Router No.	Job No	Drawing/Part No
3069142	20066396	L143-110109

	Qty To Run	Comp/Date	Operator Initials

********** Routing Operations **********

Date & Initial ==> 12-14-06

Accepted 40 Rejected —

+8

Comments:

00060 CLEAR ANODIZE PER AMS 2471 40 To Run

9095 ANOTEX (ANODIZE) & (HARD ANODIZE)

1) Material is 6061-T651 Aluminum

2) Clear Anodize Finish per AMS 2471, Rev.___

3) Wrap to protect and keep clean.

4) Add standard CAT.2 quality notes to purchase order.

5) Upon return, "SUBCONTRACTING" to send original cert's to QA for acceptance. (THIS NOTE DOES NOT APPLY TO SUPPLIER'S P.O.)

Date & Initial ==> _____ _____

Accepted _____ Rejected _____

Comments:

00070 STAGE FOR ASSEMBLY 40 To Run

8035 MOVING

Date & Initial ==> _____ _____

Accepted _____ Rejected _____

Comments:

MX5009 (09/01)

Job# 2006- 5725 Customer Argonne Nat'l Laboratory

Drawing/part# L143-110104 Dwg.rev.# **
Serial# _____ Rtg.rev Oby: _____

Router No.	Job No	Drawing/Part No
3036581	2006 5725	L143-110104

		Qty to Run	Comp/Date	Operator Initials
********** ROUTING OPERATIONS **********				
50	8006 FINAL DIMENSIONAL INSPECTION	3600 To Run		

QUALITY CONTROL

1) Visually verify all drawing features/requirements have been met and operators have complied with all requirements of MX1035b form. Inspector shall sign-off MX1035b form as evidence of verification.

2) Carefully bag and tag parts in manageable size lots/bags.

Date & Initial ==> 12-14-06 TB

Accepted 3600 Rejected _____

Comments: _____

60	8035 STAGE FOR ASSEMBLY	3600 To Run		

MOVING

Date & Initial ==> _____ _____

Accepted _____ Rejected _____

Comments: _____