Metalex Manufacturing Inc.

Metalex

Certified ISO 9001 Quality Management
Veteran Owned Business 30 Plus Years

#1-- INSIDE Pkg - Cust Copy

Packing List# 40543 **Rel#** 1 **PAGE** 1
Metalex Job# 2006-5733

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

Date: 5/24/07
Ship Via: SHIP IN PLACE
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		LCLS UNDULATOR MAIN ASSY ANL PART/REVISION NUMBER: L143-112000 REV.5 SLAC PART NUMBER: SA-381-001-35 ASSEMBLY SERIAL NUMBER: 5A10359-29 STRONGBACK SERIAL NUMBER: 5A0699-29 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: _____ DATE: 24 May 07 PRINT: MARION M. WHITE STAMP:

5/24/07

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: 05/23/2007

Customer: Argonne National Laboratory
9700 S. Cass
Argonne, IL 60439

Attention: Michael Oprondek

Metalex Job# 2006-5733
Purchase Order # 5A10359
MX Packing List # 40543

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	5A10359-29

*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: 5A10359-29

MTX QC 20

Metalex Representative Signature | Thomas Clark Print Name | 5/23/07 Date

MX1011 (05/05)

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

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5.) Review and understand Magnet Structure Installation ANL video

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

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

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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

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5.) Review and understand Magnet Structure Installation ANL video

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

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 L143-00076 Assembly Procedure

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-29

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

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:** 3.23.07

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

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 Becker	3.26.07
2	Check Strongback is marked with serial number & part no.'s (ANL & SLAC) per SOW Section 4.1.3	Undulator Ass'y Contractor	Thomas Becker	3.26.07
3	Check all accompanying Certifications have correct part Serial number.	Undulator Ass'y Contractor	Thomas Clark MTX QC 20	5/23/07
4	Check Material Certification for compliance with ASTM B381-03, Grade F2	Undulator Ass'y Contractor & ANL	Thomas Clark MTX QC 20	5/23/07
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	Thomas Clark MTX QC 20	5/23/07
6	Check Rough Machining Anneal Certification for annealing conformance to AMS 2801B section3.2.9	Undulator Ass'y Contractor & ANL	Thomas Clark MTX QC 20	5/23/07
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 Becker	3.26.07
	L143-112000-05			
	SA-381-001-35			
	5A10359-29			

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# 40201 Rel# 1 PAGE 1
Metalex Job# 2006-6729

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

Date: 3/27/07
Ship Via: SHIP IN PLACE
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
005	5	1	4	L143-110700 REV. 07 STRONGBACK S/N: 5A06990-29 -CERTIFICATE OF CONFORMANCE, INSPECTION DATA, AND CERTIFICATIONS ENCLOSED. REF: SDR'S #3801-004 & #3801-006 TESTING SURVEILLANCE BY ANL HAS BEEN WAIVED PER MEETING BETWEEN TOM BARAZ (ANL QUALITY) & ROB SCHUERMANN (MX PROJECT ENGINEER)

Ship in place —
4/4/07
Thomas Clark

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

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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: 03/27/2007

Customer: Argonne National Laboratory
Bldg. 201, OCF-PRO
9700 S Cass Ave.
Argonne, Illinois 60439

Attention: Michael Oprondek

Metalex Job# 2006-6729
Purchase Order # 5A06990
MX Packing List # 40201

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 # *
005	1	L143-110700	07	Strongback	5A06990-29

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

COMMENTS: "First Article" submitted on Metalex Shipper #36794 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.

Manufactured from Argonne supplied raw material - Metalex picked up material from Dial Machine, Inc. (Rockford, IL)

Reference SDR# 3801-004 (Modification) & SDR# 3801-006 (Modification).

Testing Surveillance by ANL has been wavied per meeting between Tom Barsz (ANL Quality) & Rob Schuermann (MX Project Engineer).

Metalex Representative Signature	Thomas Clark Print Name	3/27/07 Date

MX1011 (05/05)

Argonne National Laboratory Undulator Project

PO# 5A-06990 PO Modification M0011 Business Plan

Buyer: Michael Oprondek

Metalex Quote# 2005-98786		Qty	
L143-110700	STRONGBACK, MACH COMPLETE	5	$29980.00
L143-110700	CRATE CHARGE	5	$1880.00
L143-110700	SHIP CHARGE TO CHICAGO	1	$1800.00

PO Modification M0011

(5) finished L143-110700 Strongback details completed on PO# 5A-06990 are to be shipped to Argonne supplier HI-TECH MANUFACTURING, at 4637 N. 25TH AVENUE, SCHILLER PARK, IL 60176, phone: 847-678-1616, fax: 847-678-1617. Metalex is responsible for pre-paid trucking.

(5) pieces of Argonne owned raw material that can make finished L143-110700 Strongback details are to be picked up from Argonne supplier Dial Machine, Inc. at Eastrock Industrial Park, 2902 Eastrock Drive, P.O. Box 5246, Rockford, IL 61109, phone: 815/397-6660, fax: 815/397-0562. Metalex is responsible for pre-paid trucking.

The (5) pieces of Argonne owned raw material need to be finish machined into (5) L143-110700 Rev.#7 Strongback details. These (5) L143-110700 Rev.#7 Strongback will support the Undulator assemble project on PO# 5A-10359. Note: the Undulator Assembly Project on PO# 5A-10359 planned on using the serial numbers of the (5) finished L143-110700 Strongback that are shipping to HI-TECH MANUFACTURING. Metalex will need to change the serials numbers that will now be used on the applicable Undulator assemble jobs.

Five (5) new job numbers to be issued for the completion of (5) finished L143-110700 Rev.#7 Strongback details.

Delivery of these (5) new L143-110700 Rev.#7 Strongback details needs to support the build of Undulator assemble jobs ~~2006-6396,~~ 2006-6397, 2006-6398, 2006-6399 and 2006-6400.

06-5725 gw 11/8/06

(5) finished L143-110700 Strongback from PO# 5A-06990 to be shipped to HI-TECH MANUFACTURING are:

Job# 2005-3816 Serial No. 5A06990-32 Stored at MX3
Job# 2005-3817 Serial No. 5A06990-34 Stored at MX3
Job# 2005-3818 Serial No. 5A06990-36 Stored at MX3
Job# 2005-3819 Serial No. 5A06990-38 Stored at MX3
Job# 2005-3820 Serial No. 5A06990-40 Stored at MX3

Rob Schuermann 11/08/06

Schuermann, Rob

From: Glen Lawrence [gsl@aps.anl.gov]
Sent: Monday, November 20, 2006 5:26 PM
To: Schuermann, Rob
Subject: RE: serial numbers for (5) more Strongback details

Rob,

I assume that the two with 519211-087-1 on them are S/N 29 and 31; and the remaining three are S/N 33, 35 and 39. I have sent an e-mail to Steve Lewis at Dial for confirmation on my assumptions.

The material certs I have for S/N 37 indicate that it is for a lot of four, S/N 33, 35, 37 and 39 so that fits my assumptions. The material certs I have for S/N 25 indicate that it is for a lot of six, S/N 21, 23, 25, 27, 29,and 31 and that fits also.
So lets assume I am correct as I don't see how it could be otherwise.

The lot identified as 519211-087-1 is S/N 29 and 31 and has the same material certs as S/N 25
The lot identified as 519211-089-1 is S/N 33, 35, and 39 and has the same material certs as S/N 37

Glen

From: Schuermann, Rob [mailto:schuermann@metalexmfg.com]
Sent: Monday, November 20, 2006 3:01 PM
To: Schuermann, Rob; Glen Lawrence; Marion M. White; Emil Trakhtenberg; Tom Barsz
Cc: Dufresne, Scott; Kordenbrock, Nancy
Subject: RE: serial numbers for (5) more Strongback details

Glen,

Is there any direction on this yet?

Thanks,

Rob

From: Schuermann, Rob
Sent: Friday, November 17, 2006 10:04 AM
To: 'Glen Lawrence'
Cc: Dufresne, Scott; Kordenbrock, Nancy
Subject: RE: serial numbers for (5) more Strongback details

Glen,

The bars of material from Dial Machine are not marked with project serials numbers per the SOW.

The only markings on the bars are as follows:

519211-087-1 on (2) pieces and 519211-089-1 on (3) pieces. Does Argonne are traceability of raw material and anneal certifications back to these identifications?

Which serial numbers are to be assigned to 519211-087-1 and which to 519211-089-1?

See attached for the documentation that was sent to us with the (5) bars of material.

Thanks,

Rob Schuermann

From: Glen Lawrence [mailto:gsl@aps.anl.gov]
Sent: Thursday, November 09, 2006 10:03 AM
To: Schuermann, Rob
Subject: RE: serial numbers for (5) more Strongback details

Rob,
The serial numbers assigned by Dial were 29, 31, 33, 35, and 39 and are probably marked on the bars with a felt marker at this time While we could change the S/N of the bars, I see no particular reason to do so at this time.
Glen

From: Schuermann, Rob [mailto:schuermann@metalexmfg.com]
Sent: Wednesday, November 08, 2006 3:18 PM
To: Glen Lawrence
Subject: serial numbers for (5) more Strongback details

Glen,

What will be the serial numbers for the (5) Strongback details that Metalex will be machining from the stock coming from Dial?

Also, documentation package for (6) units will be at your place tomorrow.

Thanks,

Rob

THIS MEMORANDUM is an acknowledgement that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of receipt by the carrier of the property described of this Original Bill of Lading.

DESIGNATE WITH AN (X)
BY TRUCK ☐ FREIGHT ☐

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said carrier (the word carrier being understood throughout the contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that any service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

From DIAL MACHINE, INC.
At 2902 Eastrock Drive • Rockford, IL 61109 (6728)

DATE: 11/16/06
SHIPPER'S NO: 21279
CARRIER: ↓
CARRIER'S NO.
BY: Their Truck

CONSIGNEE AND DESTINATION:
Metafex Mfg. Inc.
5750 Cornell Road
Cincinnati, OH 45242

ROUTE
DELIVERING CARRIER
CAR OR VEHICLE INITIALS & NO.

NO PACKAGES	* HM	DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	ERG #	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓
5		Loose Pcs Of Rough Castings			85	
		Refpart# SA-381-000-86				
		Titanium Strongback				

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
Per _____
(Signature of Consignor)

If charges are to be prepaid, write or stamp here, "To Be Prepaid."

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier
Per _____
(The signature here acknowledges only the amount prepaid).

Charges Advanced:
$ _____

RECEIVED Hensley
NOV 16 2006
METALEX MFG.
BY _____

PLACARDS SUPPLIED ☐ YES ☐ NO
DRIVER'S SIGNATURE
EMERGENCY RESPONSE PHONE NO

SHIPPERS CERTIFICATION: This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
SIGNATURE _____ TITLE _____

* If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight".
† Shipper's imprints in lieu of stamp; not a part of Bill of Lading approved by the Interstate Commerce Commission.
Note – Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____

C.O.D. SHIPMENT
C.O.D. Amt _____
Collection Fee _____
Total Charges _____

THIS SHIPMENT IS CORRECTLY DESCRIBED
CORRECT WEIGHT IS _____ LBS

†The fibre boxes used for this shipment conform to the specifications set forth in the box makers certificate thereon, and all other requirements of the Consolidated Freight Classification
Per _____ Shipper

DIAL MACHINE, INC.
2902 Eastrock Drive • Rockford, IL 61109

Shipper, Per _____ **Agent, Per** _____

Permanent post-office address of shipper

FORM 1200, RAPIDFORMS, INC THOROFARE, NJ 08086-9499

PACKING LIST

DIAL MACHINE, INC.

2902 Eastrock Drive • Eastrock Industrial Park • P.O. Box 5246
Rockford, Illinois 61125
815/397-6660

Your Order No.	Our Order No.	Date
	21279	11/16/06 19

Sold to	
Address	
City	
Ship Via	Their Truck
Collect	X
Prepaid	
Deliver	Metafex Mfg. Inc.
Address	5750 Cornell Road
City	Cincinnati, OH 45242

Quantity	Description
5	Loose Pcs of Rough Castings
	RefPart# SA-381-000-85
	Titanium Strongback

Henshey

RECEIVED
NOV 16 2006
METALEX MFG.
BY CD

Received above in good condition.

No. 20191

Rec'd by _____ Date _____ 19

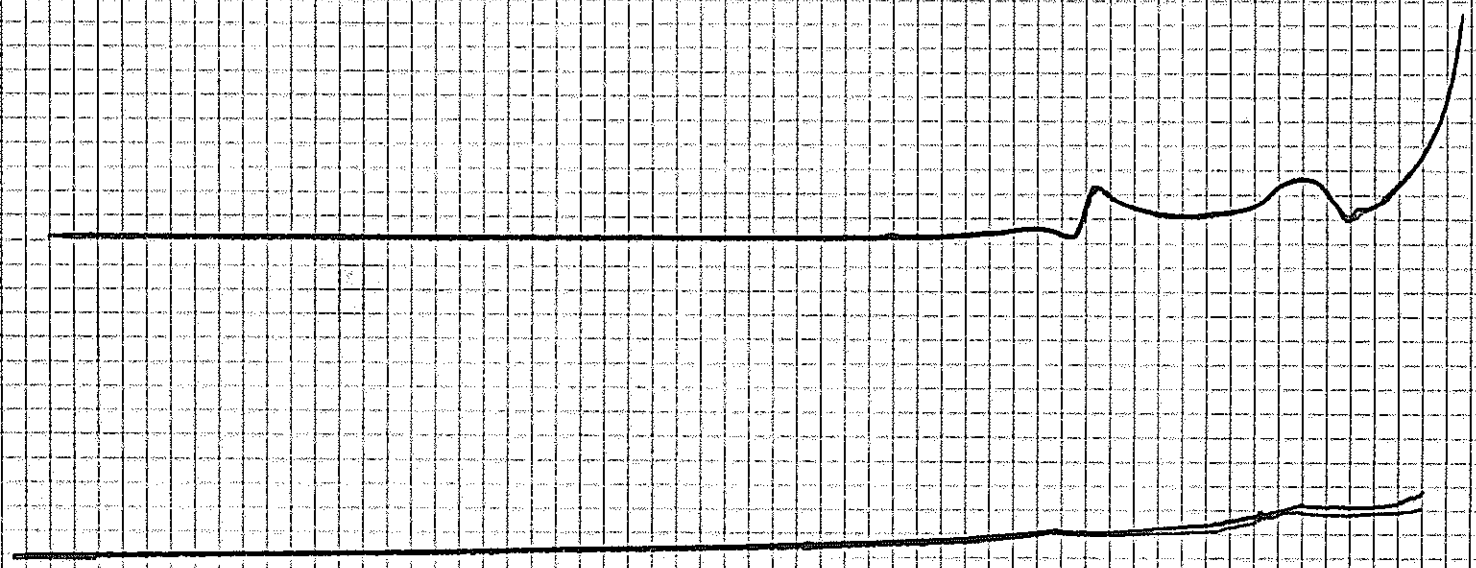
Part# L143-110700

OPP# 20

S/N 5A06990-29

Steve Wallace

1-24-07



TOPS FORM 33031

Job# 6729
Part# L143-110700
Opp# 50
S/N 5A06990-29
Steve WALLACE
2-8-07

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. 2006-6729	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: 5A06990-29 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 TEMPERATURES TO BE RECORDED IN CELSIUS ****					
ALL DIMENSIONS APPLY AT A TEMPERATURE OF 20 DEGREES CELSIUS. PART MUST BE IN THERMAL EQUILIBRIUM DURING MEASUREMENTS AND AT THE SAME TEMPERATURE AT THE BEGINNING AND CONCLUSION OF THE MEASUREMENTS WITHIN +/-0.3 DEG. CELSIUS. **** THE PART TEMPERATURE BEFORE, DURING, AND AFTER DIMENSIONAL MEASUREMENT SHALL BE RECORDED BELOW****					
PART TEMPERATURE ***BEFORE*** INSPECTION (Record in Celsius)	SOW 4.5.1	CONTACT THERMOMETER MX1794	20.28° C	MTX QC 16	
PART TEMPERATURE ***DURING*** INSPECTION (Record in Celsius)	SOW 4.5.1	CONTACT THERMOMETER MX1794	20.00° C	MTX QC 16	
PART TEMPERATURE ***AFTER*** INSPECTION (Record in Celsius)	SOW 4.5.1	CONTACT THERMOMETER MX1794	20.17° C	MTX QC 16	
DRAWING L143-110700					
MATERIAL DESCRIPTION: ASTM B381 F2 TITANIUM GRADE 2	A2	CERT# N/A	ANL supplied raw material		
ALL DIMENSIONS ARE IN MILLIMETERS, SURFACE FINISH IN MICRONS.	NOTE #1	N/A	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	w/in .03	MTX QC 16	
⊥ .05 A B	D2	CMM MX1269	w/in .02	MTX QC 16	
1.6	D2	PROFILOMETER MX1304	1.6 OR BETTER	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE	QTY ACC	QTY REJ
MTX QC 16	[signature]	3/26/07	1 OF 2		

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. 2006-6729	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: 5A06990-29 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
167.00 +.05 / -.00	C2	CMM MX1269	167.04 - 167.05	MTX QC 16	
83.50 ±.08	C2	CMM MX1269	83.515 - 83.530	MTX QC 16	
1.6	C2	PROFILOMETER MX1304	1.6 OR BETTER	MTX QC 16	
⏥ .05	C2	CMM MX1269	w/in .02	MTX QC 16	
⏥ .05	C2	CMM MX1269	w/in .04	MTX QC 16	
⏥ .05	D1	CMM MX1269	w/in .05	MTX QC 16	
⊥ .1 A	D1	CMM MX1269	w/in .036	MTX QC 16	
// .05 A	E8	CMM MX1269	w/in .015	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]	3/26/07			

JOB#3805

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 part, (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 arrives

14. Recommended Disposition and Comments:

Rob Schuermann - Director, Tech. Business Unit - 08/17/05

Rob Schuermann 8/17/05

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

08-23-05

TECHNICAL REPRESENTATIVE - DATE

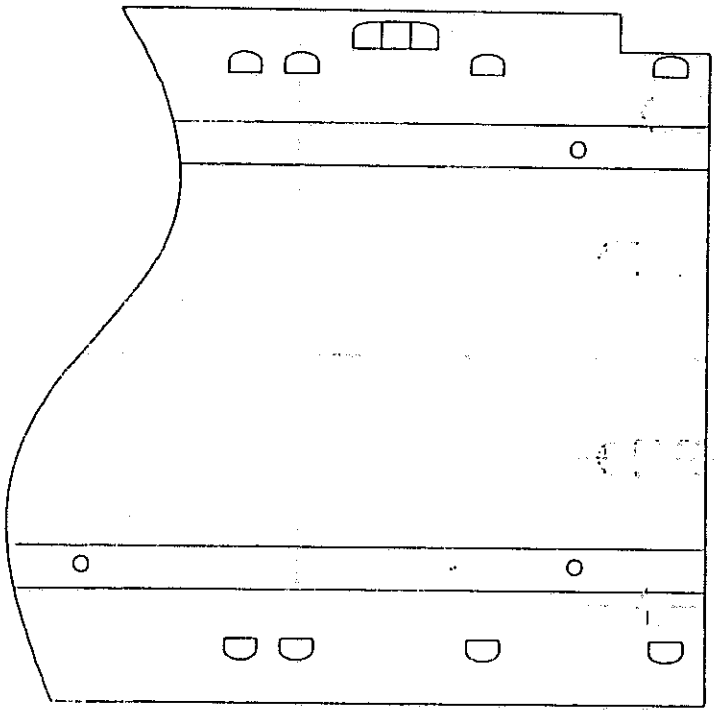
8/25/05

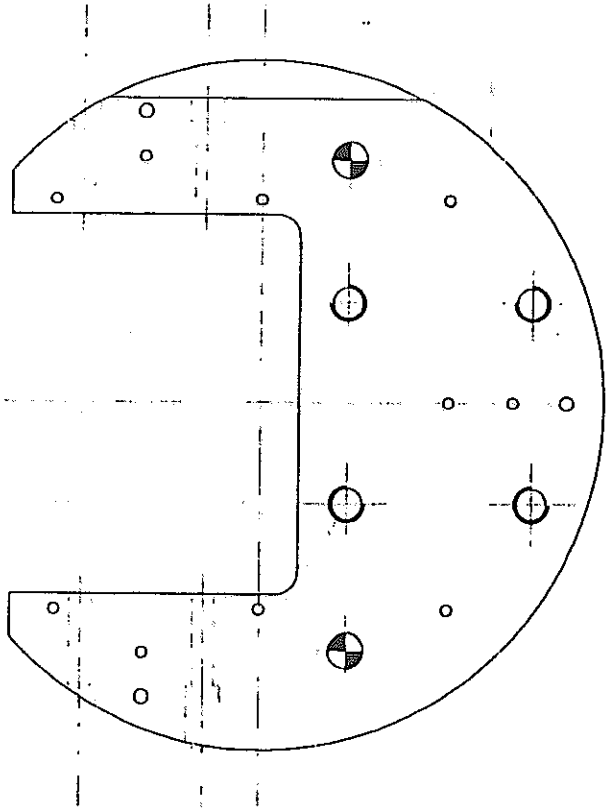
QUALITY ASSURANCE REPRESENTATIVE - DATE

8/26/05

PROCUREMENT REPRESENTATIVE - DATE

REV.	DATE	BY	DESCRIPTION



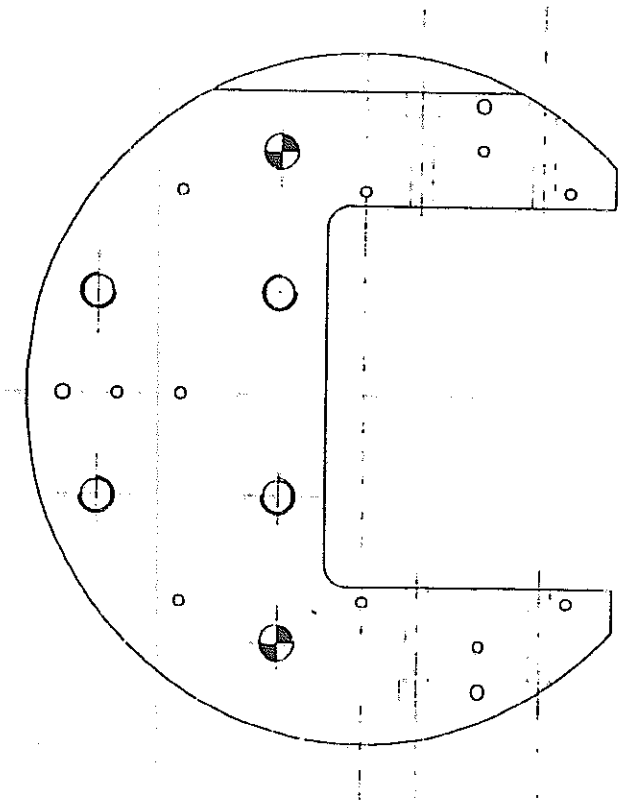


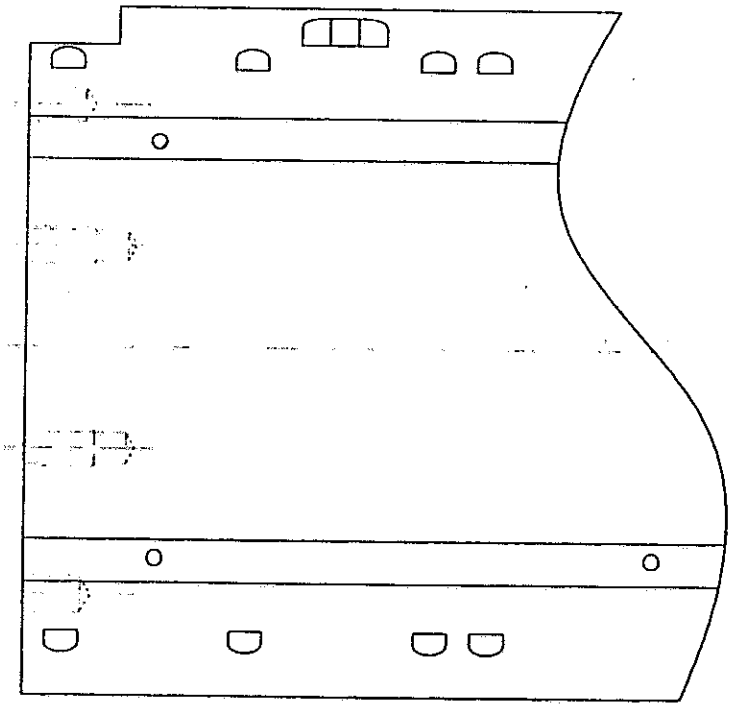
Metalex
CERTIFIED ISO 9001
QUALITY MANAGEMENT
8750 Cornell Road • Blue Ash Industrial Park
Cincinnati, Ohio 45242 • Ph. (513)489-0307

UNLESS OTHERWISE SPECIFIED: 1) BREAK ALL SHARP CORNERS 2) TOLERANCES AS FOLLOWS: 2 PLACE DEC. ±.03, 3 PLACE DEC. ±.005, 4 PLACE DEC. ±.0005, ON NON-DEC ±1/2, ANGLES ±0°30' 3) MACHINE 125 finish

PART NAME: STRONGBACK DEVIATION		PROJECT: ARGONNE	
DRAWN BY: T.J.RAUCH	DATE: 17AUG05	MATERIAL:	HEAT TREAT:
CHECKED BY: T.J.RAUCH	DATE: 17AUG05	SCALE: FULL	INCH X METRIC
SHEET 2 OF 2 JOB 3801	DRAWING No. SDR 3801-004		REV. D
AutoCAD Release 14			

REV.	DATE	BY	DESCRIPTION





Metalex
CERTIFIED ISO 9001
QUALITY MANAGEMENT
8750 Corner Road • Blue Ash Industrial Park
Cincinnati, Ohio 45243 • Ph. (513)489-0507

UNLESS OTHERWISE SPECIFIED, 1)BREAK ALL SHARP CORNERS 2)TOLERANCES AS FOLLOWS: 2 PLACE DEC ±.03, 3 PLACE DEC ±.005, 4 PLACE DEC ±.0005, ON NON-DEC ±1/2, ANGLES ±0.50° 3)✓INDICATES (As Finished)

PART NAME: STRONGBACK DEVIATION
PROJECT: ARGONNE
MATERIAL:
HEAT TREAT:
DRAWN BY: T.J.RAUCH
DATE: 17AUG05
CHECKED BY: T.J.RAUCH
DATE: 17AUG05
SCALE: FULL
INCH : X METRIC
SHEET 1 OF 2
JOB 3801
AutoCAD Release 14
DRAWING No. SDR 3801-004
REV D

SUPPLIER DISPOSITION REQUEST (SDR)

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

(CHECK ONE)

☑ 1A. **Deviation Request**

☐ 1B. **Nonconformance Action Request**

2. SDR No. 3801-006

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 11/05/05

15 SUPPLIER REPRESENTATIVE – TITLE – DATE

16. ANL REPRESENTATIVE – DATE

17. ANL Disposition and Remarks: Acceptable.

18. Approved

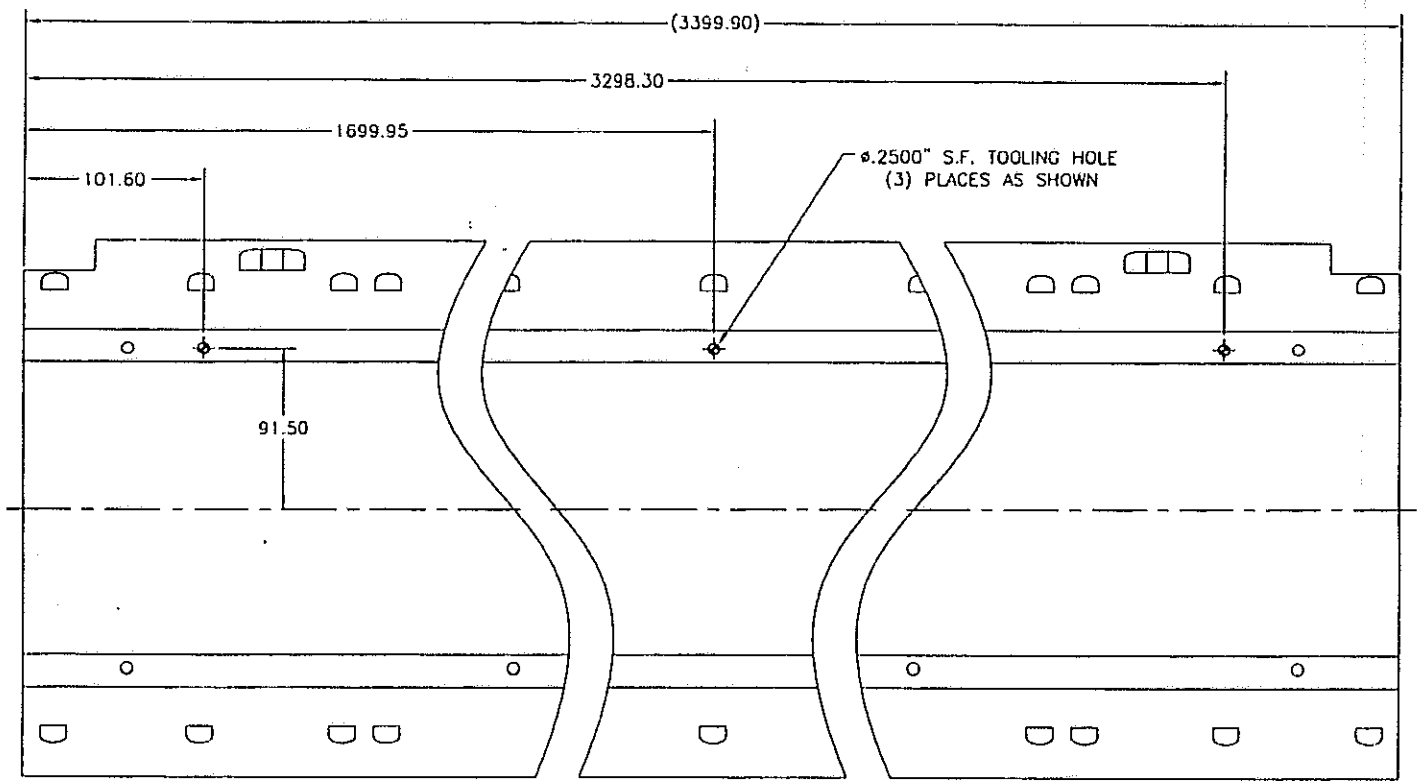
11/03/05 — TECHNICAL REPRESENTATIVE – DATE

11/03/05 — QUALITY ASSURANCE REPRESENTATIVE – DATE

11/3/05 — PROCUREMENT REPRESENTATIVE – DATE

ANL-311 (6-94)

REV.	DATE	BY	DESCRIPTION



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
CERTIFIED ISO 9001 QUALITY MANAGEMENT
9750 Carnell Road • Blue Ash Industrial Park
Cincinnati, Ohio 45242 • Ph. (513)489-0507

UNLESS OTHERWISE SPECIFIED: 1)BREAK ALL SHARP CORNERS 2)TOLERANCES AS FOLLOWS: 1 PLACE DEC. ±.02, 2 PLACE DEC. ±.005, 3 PLACE DEC. ±.005, 4 PLACE DEC. ±.0005, ON NON-DEC. ±1/2, ANGLES (±30' 3)/ROUTES (3) FINISH

PART NAME: STRONGBACK PROCESS		PROJECT: ARGONNE			
DRAWN BY: R.SCHUERMANN	DATE: 03NOV05	MATERIAL:		HEAT TREAT:	
CHECKED BY: R.SCHUERMANN	DATE: 03NOV05	SCALE: FULL	INCH	X	METRIC
SHEET 1 OF 2	JOB 3801	DRAWING No. MXPL143-110700-03		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>>

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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

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-29
LOT32 magnets Serial # 14881-15360 3/28/2007

Bottom Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	15072	Upstream	Right
2	15289	Downstream	Right
3	15076	Upstream	Left
4	15345	Downstream	Left
5	15105	Upstream	Right
6	15320	Downstream	Right
7	15251	Upstream	Right
8	15259	Downstream	Right
9	15064	Upstream	Right
10	15290	Downstream	Right
11	14989	Upstream	Left
12	15317	Downstream	Left
13	14999	Upstream	Right
14	14919	Downstream	Left
15	15213	Upstream	Right
16	15253	Downstream	Right
17	15017	Upstream	Right
18	15025	Downstream	Left
19	15143	Upstream	Right
20	15329	Downstream	Left
21	14936	Upstream	Left
22	15325	Downstream	Right
23	15084	Upstream	Right
24	15312	Downstream	Left
25	14991	Upstream	Right
26	15292	Downstream	Right
27	15216	Upstream	Right
28	15351	Downstream	Right
29	15095	Upstream	Left
30	15347	Downstream	Right
31	14974	Upstream	Right
32	15303	Downstream	Right
33	15002	Upstream	Left
34	15189	Downstream	Right
35	15191	Upstream	Left
36	15326	Downstream	Right
37	15135	Upstream	Left
38	15117	Downstream	Right
39	15021	Upstream	Right
40	15171	Downstream	Right
41	14983	Upstream	Right
42	15269	Downstream	Left
43	14992	Upstream	Right

Top Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	15257	Downstream	Left
2	14952	Upstream	Left
3	15323	Downstream	Left
4	14986	Upstream	Left
5	15316	Downstream	Left
6	14957	Upstream	Left
7	15270	Downstream	Right
8	14943	Upstream	Left
9	15308	Downstream	Left
10	15067	Upstream	Left
11	15349	Downstream	Left
12	15046	Upstream	Left
13	15236	Downstream	Left
14	14949	Upstream	Left
15	15338	Downstream	Right
16	15128	Upstream	Left
17	15254	Downstream	Left
18	15106	Upstream	Right
19	15288	Downstream	Left
20	15243	Upstream	Left
21	15274	Downstream	Right
22	15133	Upstream	Right
23	15348	Downstream	Left
24	15229	Upstream	Right
25	15305	Downstream	Right
26	15195	Upstream	Left
27	15300	Downstream	Left
28	15055	Upstream	Left
29	15322	Downstream	Left
30	15016	Upstream	Left
31	15279	Downstream	Left
32	15113	Upstream	Left
33	15296	Downstream	Left
34	14889	Upstream	Right
35	14950	Downstream	Left
36	15208	Upstream	Left
37	15260	Downstream	Left
38	15176	Upstream	Right
39	15086	Downstream	Left
40	15070	Upstream	Right
41	15358	Downstream	Right
42	15102	Upstream	Left
43	15309	Downstream	Left

44	15032	Downstream	Right
45	15138	Upstream	Right
46	14967	Downstream	Right
47	15240	Upstream	Right
48	15181	Downstream	Right
49	14985	Upstream	Right
50	14923	Downstream	Right
51	14886	Upstream	Right
52	15199	Downstream	Right
53	15022	Upstream	Right
54	15346	Downstream	Right
55	15222	Upstream	Right
56	15146	Downstream	Right
57	15120	Upstream	Left
58	14896	Downstream	Left
59	14922	Upstream	Left
60	15097	Downstream	Left
61	15249	Upstream	Right
62	15343	Downstream	Left
63	15169	Upstream	Right
64	14996	Downstream	Left
65	14987	Upstream	Left
66	15112	Downstream	Right
67	15006	Upstream	Left
68	14954	Downstream	Left
69	14890	Upstream	Right
70	15077	Downstream	Right
71	15053	Upstream	Left
72	15283	Downstream	Left
73	15080	Upstream	Right
74	15187	Downstream	Right
75	14982	Upstream	Right
76	14887	Downstream	Right
77	15152	Upstream	Left
78	14908	Downstream	Right
79	14948	Upstream	Right
80	15037	Downstream	Left
81	15192	Upstream	Right
82	15156	Downstream	Right
83	14928	Upstream	Right
84	14971	Downstream	Right
85	15125	Upstream	Left
86	15085	Downstream	Left
87	15177	Upstream	Right
88	15284	Downstream	Right
89	15149	Upstream	Right
90	15175	Downstream	Left
91	15109	Upstream	Right
92	15094	Downstream	Right
93	15250	Upstream	Left
94	15203	Downstream	Right
95	14942	Upstream	Left

44	15197	Upstream	Left
45	15159	Downstream	Left
46	15043	Upstream	Right
47	15172	Downstream	Left
48	15068	Upstream	Left
49	15134	Downstream	Left
50	15144	Upstream	Left
51	15353	Downstream	Left
52	15178	Upstream	Right
53	15324	Downstream	Right
54	14953	Upstream	Right
55	14995	Downstream	Right
56	15108	Upstream	Right
57	14977	Downstream	Right
58	15333	Upstream	Left
59	15013	Downstream	Right
60	15018	Upstream	Right
61	15215	Downstream	Left
62	15031	Upstream	Left
63	15340	Downstream	Left
64	14897	Upstream	Left
65	15306	Downstream	Left
66	15115	Upstream	Left
67	15103	Downstream	Left
68	14909	Upstream	Left
69	14975	Downstream	Left
70	15100	Upstream	Right
71	15020	Downstream	Right
72	14891	Upstream	Left
73	15182	Downstream	Left
74	14960	Upstream	Left
75	14927	Downstream	Left
76	15155	Upstream	Right
77	14937	Downstream	Left
78	15142	Upstream	Left
79	14945	Downstream	Left
80	14884	Upstream	Left
81	15034	Downstream	Left
82	15217	Upstream	Right
83	14980	Downstream	Right
84	14921	Upstream	Left
85	15082	Downstream	Right
86	15092	Upstream	Left
87	15029	Downstream	Left
88	14900	Upstream	Left
89	15186	Downstream	Right
90	15157	Upstream	Left
91	15139	Downstream	Right
92	15244	Upstream	Left
93	15122	Downstream	Left
94	15280	Upstream	Left
95	14946	Downstream	Left

96	14932	Downstream	Right
97	14907	Upstream	Right
98	15007	Downstream	Right
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100	15041	Downstream	Right
101	15058	Upstream	Left
102	14976	Downstream	Right
103	14958	Upstream	Right
104	15079	Downstream	Right
105	15294	Upstream	Right
106	15011	Downstream	Right
107	15081	Upstream	Left
108	15124	Downstream	Right
109	15153	Upstream	Left
110	15209	Downstream	Right
111	15005	Upstream	Right
112	14912	Downstream	Left
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117	15118	Upstream	Right
118	15127	Downstream	Left
119	14979	Upstream	Left
120	15024	Downstream	Left
121	15075	Upstream	Right
122	14899	Downstream	Right
123	15180	Upstream	Left
124	14966	Downstream	Left
125	15057	Upstream	Right
126	14978	Downstream	Left
127	15218	Upstream	Right
128	15248	Downstream	Right
129	15036	Upstream	Right
130	14935	Downstream	Right
131	14903	Upstream	Right
132	14913	Downstream	Right
133	15321	Upstream	Left
134	15052	Downstream	Right
135	15035	Upstream	Left
136	15136	Downstream	Right
137	15111	Upstream	Right
138	15012	Downstream	Left
139	14893	Upstream	Left
140	15014	Downstream	Right
141	15054	Upstream	Right
142	14972	Downstream	Right
143	15201	Upstream	Right
144	14969	Downstream	Left
145	15204	Upstream	Right
146	15010	Downstream	Right
147	14915	Upstream	Right

96	14918	Upstream	Left
97	15272	Downstream	Left
98	14885	Upstream	Left
99	15154	Downstream	Left
100	15202	Upstream	Left
101	15227	Downstream	Left
102	15060	Upstream	Right
103	15083	Downstream	Right
104	15184	Upstream	Left
105	15019	Downstream	Right
106	15061	Upstream	Right
107	15239	Downstream	Left
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109	15126	Downstream	Left
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122	15026	Upstream	Left
123	15063	Downstream	Left
124	15091	Upstream	Right
125	14959	Downstream	Right
126	15130	Upstream	Right
127	15044	Downstream	Left
128	14888	Upstream	Left
129	15276	Downstream	Left
130	14934	Upstream	Left
131	14906	Downstream	Left
132	14940	Upstream	Left
133	14929	Downstream	Left
134	15241	Upstream	Left
135	15051	Downstream	Left
136	15150	Upstream	Left
137	15183	Downstream	Left
138	15062	Upstream	Left
139	15023	Downstream	Left
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141	15089	Downstream	Left
142	15096	Upstream	Right
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150	14933	Downstream	Right
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169	15033	Upstream	Right
170	15148	Downstream	Right
171	15114	Upstream	Right
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173	15078	Upstream	Right
174	15328	Downstream	Right
175	15219	Upstream	Right
176	14924	Downstream	Right
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178	15207	Downstream	Right
179	15027	Upstream	Right
180	14984	Downstream	Left
181	15173	Upstream	Left
182	14997	Downstream	Right
183	15001	Upstream	Left
184	15327	Downstream	Left
185	15230	Upstream	Right
186	14926	Downstream	Right
187	15090	Upstream	Right
188	15069	Downstream	Left
189	15129	Upstream	Left
190	15339	Downstream	Right
191	15214	Upstream	Right
192	15355	Downstream	Right
193	14938	Upstream	Left
194	15310	Downstream	Left
195	15145	Upstream	Left
196	15335	Downstream	Right
197	15237	Upstream	Right
198	15277	Downstream	Left
199	14930	Upstream	Right

148	14902	Upstream	Right
149	14941	Downstream	Right
150	15042	Upstream	Left
151	15354	Downstream	Left
152	15223	Upstream	Left
153	15190	Downstream	Left
154	14892	Upstream	Left
155	15297	Downstream	Right
156	15099	Upstream	Left
157	15074	Downstream	Right
158	14910	Upstream	Left
159	15221	Downstream	Right
160	15247	Upstream	Left
161	15246	Downstream	Left
162	14898	Upstream	Left
163	15242	Downstream	Left
164	15196	Upstream	Right
165	14905	Downstream	Left
166	15038	Upstream	Left
167	15140	Downstream	Right
168	14904	Upstream	Left
169	15087	Downstream	Left
170	15048	Upstream	Left
171	15004	Downstream	Left
172	14990	Upstream	Left
173	15330	Downstream	Left
174	15234	Upstream	Left
175	15357	Downstream	Left
176	15003	Upstream	Left
177	15093	Downstream	Right
178	15065	Upstream	Left
179	15170	Downstream	Right
180	15162	Upstream	Left
181	15158	Downstream	Left
182	15206	Upstream	Left
183	15307	Downstream	Left
184	15141	Upstream	Left
185	15211	Downstream	Left
186	14962	Upstream	Left
187	15291	Downstream	Left
188	15174	Upstream	Right
189	14998	Downstream	Left
190	15098	Upstream	Left
191	15267	Downstream	Right
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193	15286	Downstream	Left
194	15160	Upstream	Right
195	15315	Downstream	Right
196	14965	Upstream	Left
197	15332	Downstream	Left
198	15056	Upstream	Right
199	15188	Downstream	Left

200	15299	Downstream	Right
201	15334	Upstream	Right
202	15319	Downstream	Right
203	14963	Upstream	Right
204	15265	Downstream	Right
205	15220	Upstream	Right
206	15263	Downstream	Right
207	14993	Upstream	Left
208	15287	Downstream	Right
209	15071	Upstream	Right
210	15302	Downstream	Left
211	15059	Upstream	Right
212	15341	Downstream	Left
213	15040	Upstream	Right
214	15281	Downstream	Right
215	14961	Upstream	Left
216	15275	Downstream	Right
217	15088	Upstream	Right
218	15255	Downstream	Right
219	15000	Upstream	Right
220	15295	Downstream	Right
221	15245	Upstream	Right
222	15278	Downstream	Right
223	14970	Upstream	Right
224	15293	Downstream	Right
225	15039	Upstream	Right

200	15194	Upstream	Left
201	15049	Downstream	Left
202	15226	Upstream	Left
203	15344	Downstream	Left
204	15232	Upstream	Left
205	15273	Downstream	Right
206	14939	Upstream	Left
207	15359	Downstream	Right
208	15151	Upstream	Right
209	15015	Downstream	Left
210	15121	Upstream	Left
211	15268	Downstream	Left
212	15198	Upstream	Right
213	15352	Downstream	Left
214	15110	Upstream	Right
215	15350	Downstream	Left
216	14981	Upstream	Left
217	15298	Downstream	Right
218	15185	Upstream	Left
219	15264	Downstream	Left
220	15107	Upstream	Right
221	15318	Downstream	Right
222	14973	Upstream	Right
223	15314	Downstream	Left
224	15030	Upstream	Right
225	15258	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
15205	33%
15252	80%
15316	go to T/J#5
15047	
15266	
15131	
15311	
14951	

Sample magnets

serial No.
14916
15045
15132
15256
15336

15212	
14968	
15207	go to B/J#178
15043	go to T/J#46
15140	go to T/J#167
15234	go to T/J#174
14955	
14882	
15337	
14931	
15012	go to B/J#138
14894	
15313	
14883	
15233	
14958	go to B/J#103
14911	

org.15301

org.15168

org.15165

org.15167

org.15163

org.15164

org.15166

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 Barlow	3.26.07
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 Barlow	3.26.07
	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 Barlow	3.26.07
4	Check that accompanying Certifications have correct part serial numbers.	Undulator Ass'y Contractor	Thomas Clark MTX QC 20	5/23/07
5.	Check the material certification for compliance with ASTM A801, Type 1.	Undulator Ass'y Contractor & ANL	Thomas Clark MTX QC 20	5/23/07
6	Check the anneal certification for compliance with AMS-A801, or a specified material supplier's annealing schedule.	Undulator Ass'y Contractor & ANL	Thomas Clark MTX QC 20	5/23/07
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 Barlow	3.26.07
	L143-112000-05			
	SA-381-001-35			
	5A10359-29			

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: 5A10359-29

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

Part: L143-110105 Poles

Completed By: Thomas P Becker **Date:** 3·26·07

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 #: 6385

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	5.98	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: MX111, MX1452, 587F, MX0256, 587J

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6399

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. Beecher QA Supervisor:

TEST EQUIPMENT USED: [illegible]

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6755

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	5.99	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: M[illegible], M[illegible], 5875 M[illegible], 5873

COMMENTS:

Pole width print dim = 44 +0 -.1

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6397

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	5.98	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: [illegible]

COMMENTS:

Pole width position = $-4^{+0}_{-.1}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6416

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, 587J

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 #: 6205

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	5.99	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, 53-

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 #: 6387

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	5.98	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 0356, 587

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 #: 7062

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

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7545

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, mx1452, 587F, mx0256, 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 #: 6298

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	5.98	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, MX1452, 587F, MX0256, 587B

COMMENTS:

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

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7852

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	5.98	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: mx111, mx1452, 587F, mx0256, 587E

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 #: 6447

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	5.98	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, 537B

COMMENTS:

Pole width printed 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 #: 6299

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	5.98	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: MX111, MX1452, 587F, MX0256, 587J

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 #: 7553

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	5.98	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: MX111, MX1452, 587F, MX0256, 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 #: 6347

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	5.98	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, 5873

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 #: 7540

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: MX111, MX1452, 587F, MX0256, 587[illegible]

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 #: 6987

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: Mx111, Mx1452, 587F, Mx0256, 5873

COMMENTS:

Pole width point 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 #: 9474

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	5.98	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 1432, 587F, MX 0256, 5873

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 #: 6398

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, 557 3

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 #: 10676

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	5.98	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 #: 6392

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, 587E

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 #: 7041

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 = $44^{+0}_{-.1}$

LCLS

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6318

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	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: MX111, MX1452, 587F, MX3356, 55-3

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 #: 7896

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	5.99	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 0356, 587B

COMMENTS:

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

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6955

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	5.98	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: mx111, mx1452, 587F, mx0256, 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 #: 6302

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 #: 6991

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	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: MX111, MX1452, 587F, MX0256, 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 #: 7071

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	5.98	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: mx111, mx1452, 587F, mx0256, 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 #: 6970

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 #: 7909

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	5.98	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 printed 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 #: 6959

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	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 printed 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 #: 9706

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	5.97	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: MX111, MX1452, 587F, MX0356, 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 #: 7076

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: mx111, mx1452, 587F, mx0256, 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 #: 6961

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	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: MX111, MX1452, 587F, MX0256, 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 #: 6435

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	5.99	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 point 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 #: 6282

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 #: 7517

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 = $44^{+0}_{-.1}$

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7058

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	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 #: 6380

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: mx111, mx1452, 587F, mx0256, 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 #: 7084

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	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 #: 6979

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	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, 587E

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 #: 6327

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	5.99	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 point 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 #: 7007

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 #: 7691

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 #: 7024

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 #: 7046

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 0356, 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 #: 6304

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	5.98	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 = $44^{+0}_{-.1}$

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 6980

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 = $44^{+0}_{-.1}$

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

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 7098

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	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 #: 7904

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: MX111, MX1452, 587F, MX0256, 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. F5-069069

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	3-26-07
2	Visual inspection of parts for surface chips and pits.	Undulator Ass'y Contractor	Thomas P Becker	3-26-07
3	Dimensional check of part for conformance to the drawing.	Undulator Ass'y Contractor	Thomas P Becker	3-26-07
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			
	5A10359-29			

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: 5A10359-29

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

Part: L143-110106 Magnet

Completed By: Thomas P Becker **Date:** 3-26-07

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 #: 14985

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.99	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14923

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0 / -.10	8.940	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14886

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.960	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15199

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.01	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-E-su

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15022

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15346

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15222

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15146

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15120

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14896

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14922

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15097

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0 / -.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15249

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15343

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.98	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15169

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14996

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14987

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15112

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15006

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.93	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14954

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14890

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15077

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15053

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15283

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15080

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15187

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.975	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14982

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14887

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.01	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15152

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.960	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14908

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0 / -.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14948

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.990	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.960	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15037

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15192

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15156

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14928

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.01	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14971

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.990	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.93	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15125

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0 / -.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15085

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15177

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.93	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15284

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	(Accept)/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	(Accept)/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	(Accept)/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	(Accept)/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15149

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15175

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.95	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15109

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.96	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15094

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15250

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 15203

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	57.00	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.94	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14942

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.975	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS:

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS MAGNET ASSEMBLIES

VENDOR: Shin-Etsu

PART NAME: LCLS Magnet

DRAWING #: L143-110106

SERIAL #: 14932

P.O. #:

DATE: 3-26-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Magnet height	2.2441 57.00	+/-.002 +/- .05	56.99	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.00	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.97	Accept/Reject

INSPECTOR: Thomas P Becker QA Supervisor:

TEST EQUIPMENT USED: MX1462, MX111, 587K, MX2, MX1452, MX851, MX702

COMMENTS: