Metalex Manufacturing Inc.

Metalex

Certified ISO 9001 Quality Management
Veteran Owned Business 30 Plus Years

#1-- INSIDE Pkg - Cust Copy

Packing List# 40545 **Rel#** 1 **PAGE** 1
Metalex Job# 2006-6398

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	19	1	2	LCLS UNDULATOR MAIN ASSY ANL PART/REVISION NUMBER: L143-112000 REV.5 SLAC PART NUMBER: SA-381-001-35 ASSEMBLY SERIAL NUMBER: 5A10359-33 STRONGBACK SERIAL NUMBER: 5A0699-33 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: Marion M. White 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# 2006-6398
Purchase Order # 5A10359
MX Packing List # 40545

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	5A10359-33

*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: 5A10359-33

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

Requirements:

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

2.) Review and understand L143-112000 Drawing Package

3.) Review and understand L143-00076 Assembly Procedure

4.) Review and understand Magnet Installation Procedure ANL video

5.) Review and understand Magnet Structure Installation ANL video

Completed By: Rob 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 L143-00076 Assembly Procedure

Assembly:

ANL Part/Revision Number: L143-112000-05
SLAC Part Number: SA-381-001-35
Assembly Serial Number: 5A10359-33

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: 77.97
L143-111200 Upper Right Magnet Structure Assembly	Actual: 77.96
L143-110900 Lower Left Magnet Structure Assembly	Actual: 77.99
L143-111100 Lower Middle Magnet Structure Assembly	Actual: 77.99
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:** 4.24.07

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 P Barber	4-24-07
2	Check Strongback is marked with serial number & part no.'s (ANL & SLAC) per SOW Section 4.1.3	Undulator Ass'y Contractor	Thomas P Barber	4-24-07
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 P Barber	4-24-07
	L143-112000-05			
	SA-381-001-35			
	5A10359-33			

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# 40393 **Rel#** 1 **PAGE** 1
Metalex Job# 2006-6731

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

Date: 4/27/07
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	2	L143-110700 REV. 07 STRONGBACK S/N: 5A06990-33 -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
TC 4/30/07

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

CERTIFICATE OF CONFORMANCE

Date: 4/30/2007

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

Attention: Michael Oprondek

Metalex Job# 2006-6731
Purchase Order # 5A06990
MX Packing List # 40393

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	5A06990-33

*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	4/30/07 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 this 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
BY Their Truck

CARRIER'S NO.

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				

RECEIVED
NOV 16 2006
METALEX MFG.
BY Hensley

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:
$

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

3

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.

Rec'd by _____ Date _____ 19

No. 20191

JOB# 6[illegible]

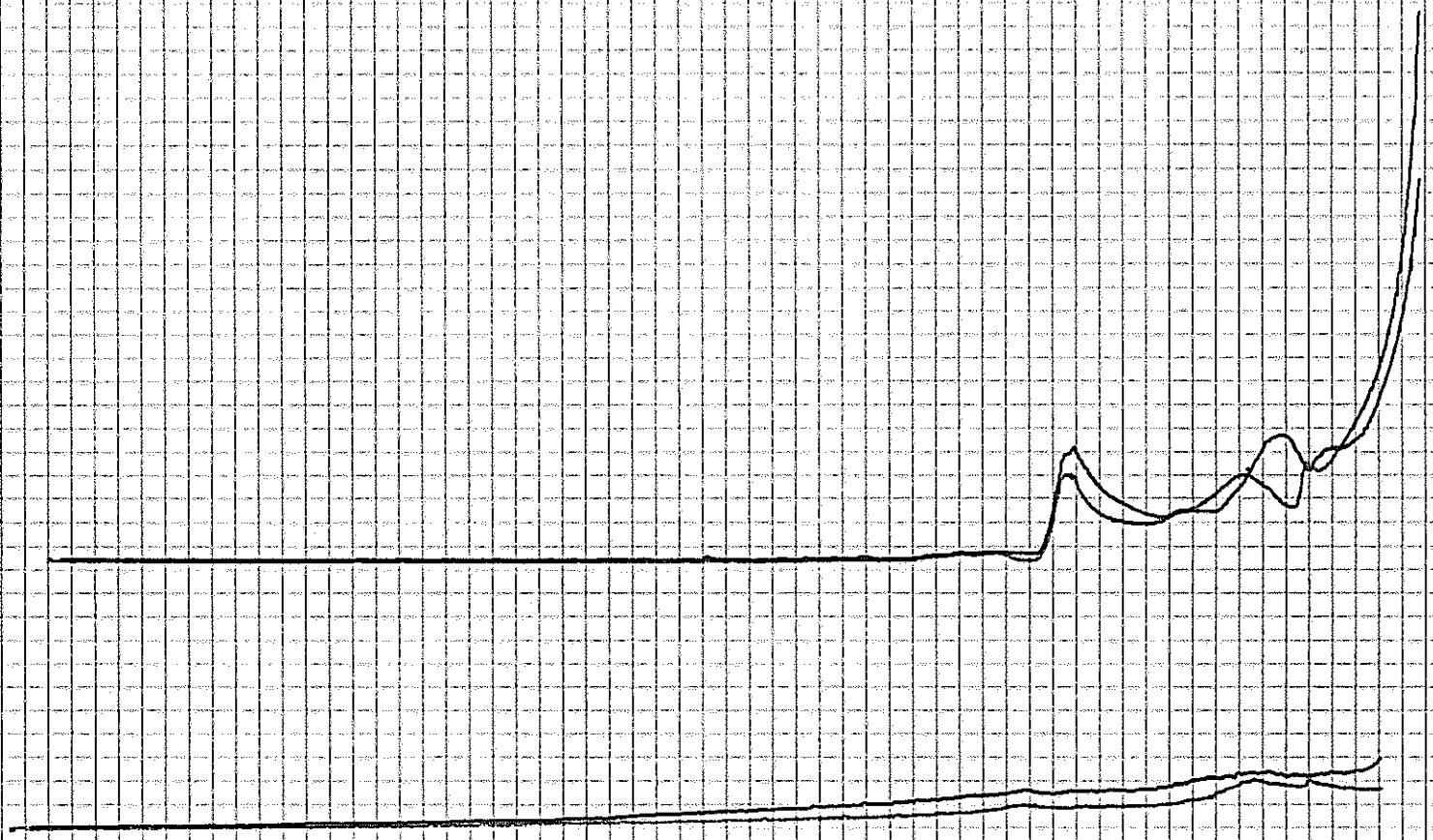
PART# L143-110700

OPP# 20

S/N: 5A06990-33

Steve Wallace

1-25-07



TOPS FORM 33081
LITHO IN U.S.A.

Job# 6731

PART# L143-10100

OPP# 50

S/N 5A06990-33

Steve Wallace

2-7-07

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. 2006-6731	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: 5A06990-33 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	20.83° C	MTX QC 16	
PART TEMPERATURE *DURING* INSPECTION (Record in Celsius)	SOW 4.5.1	CONTACT THERMOMETER MX1794	20.67° C	MTX QC 16	
PART TEMPERATURE *AFTER* INSPECTION (Record in Celsius)	SOW 4.5.1	CONTACT THERMOMETER MX1794	20.72° C	MTX QC 16	
DRAWING L143-110700					
MATERIAL DESCRIPTION: ASTM B381 F2 TITANIUM GRADE 2	A2	CERT#	CONFORMS	MTX QC 16	
ALL DIMENSIONS ARE IN MILLIMETERS, SURFACE FINISH IN MICRONS.	NOTE #1		INFORMATION ONLY	MTX QC 16	
REMOVE ALL BURRS AND BREAK SHARP EDGES 0.3mm MAX.	NOTE #2	VISUAL & RADIUS GAGE MX837 & MX838	CONFORMS .3 MAX	MTX QC 16	
UNLESS OTHERWISE SPECIFIED, SURFACE FINISH TO BE 6.4 MICRONS.	NOTE #3	PROFILOMETER MX1304	6.4√ OR BETTER	MTX QC 16	
⊥ .05 A B	D7	CMM MX1269	W/in .0254	MTX QC 16	
⊥ .05 A B	D2	CMM MX1269	W/in .0229	MTX QC 16	
1.6√	D2	PROFILOMETER MX1304	1.6√ OR BETTER	MTX QC 16	

STAMP	INSPECTED BY	DATE	PAGE 1 OF 2	QTY ACC	QTY REJ
MTX QC 16	[signature]	4/26/07		1	Ø

MX1010 (7/98)

Metalex Customized Machinery and Parts CERTIFIED ISO 9001 QUALITY MANAGEMENT	INSPECTION PLANNING & REPORT FORM Metalex Mfg. 5750 Cornell Rd ` Cincinnati, OH 45242 ` (513) 489-0507	Job No. 2006-6731	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: 5A06990-33 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	167.00 - 167.02	MTX QC 16	
83.50 ±.08	C2	CMM MX1269	83.48 - 83.52	MTX QC 16	
1.6 √	C2	PROFILOMETER MX1304	1.6 √ OR BETTER	MTX QC 16	
⏥ | .05	C2	CMM MX1269	w/in .025	MTX QC 16	
⏥ | .05	C2	CMM MX1269	w/in .020	MTX QC 16	
⏥ | .05	D1	CMM MX1269	w/in .048	MTX QC 16	
⊥ | .1 | A	D1	CMM MX1269	w/in .025	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]	4/26/07		1	0

MX1010 (7/98)

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:

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

Roo 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.

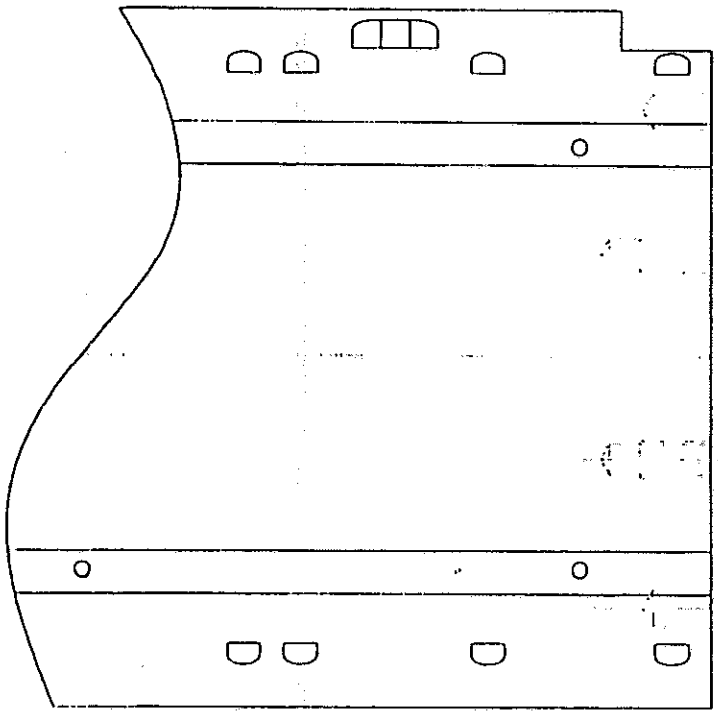
18. Approved

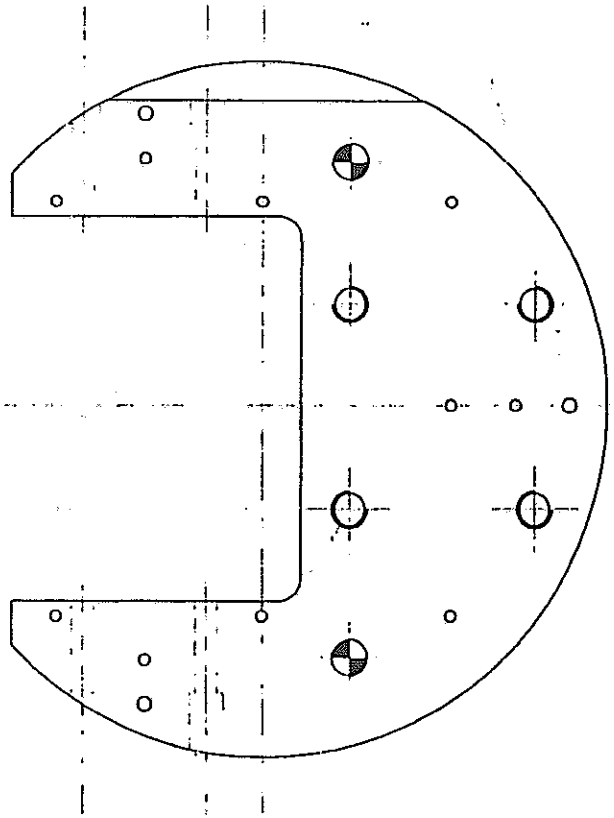
CE-23-05 — TECHNICAL REPRESENTATIVE - DATE

8/25/05 — QUALITY ASSURANCE REPRESENTATIVE - DATE

8/26/05 — PROCUREMENT REPRESENTATIVE - DATE

REV.	DATE	BY	DESCRIPTION



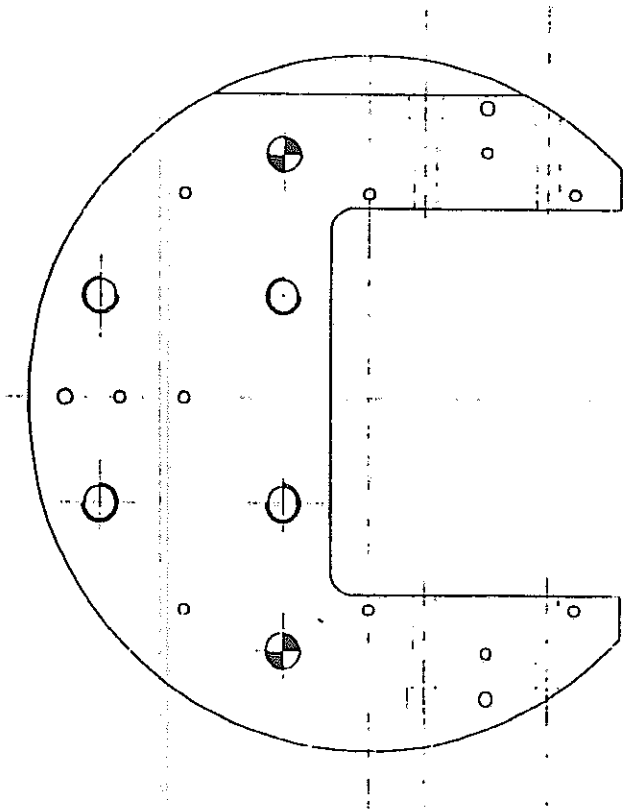


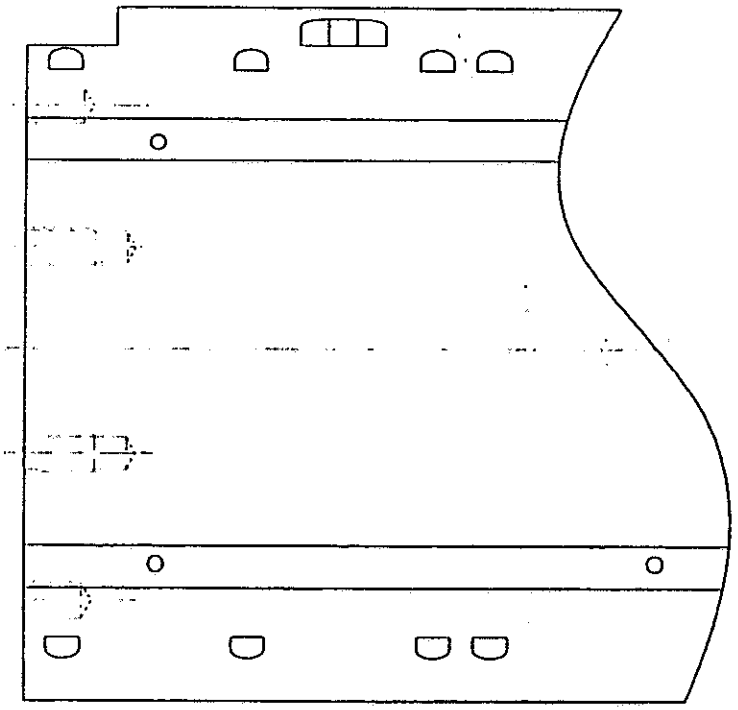
Metalex
CERTIFIED ISO 9001
QUALITY MANAGEMENT
8750 Clarvo Road • Blue Ash Industrial Park
Cincinnati, Ohio 45242 • Ph. (513)489-0307

UNLESS OTHERWISE SPECIFIED: TOLERANCE ALL SHARP CORNERS ±1/16 TOLERANCES AS FOLLOWS: 2 PLACE DEC. ±.02, 3 PLACE DEC. ±.005, 4 PLACE DEC. ±.0005, (IN NON-DEC 1/2) ANGLES ±0°30' 32/INDICATES 125 FINISH

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

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: 3 PLACE DEC. ±.03, 2 PLACE DEC. ±.005, 1 PLACE DEC. ±.0005, ON MACHINED DIMS. ±1/2, ANGLES ±0°30' 3) ✓ INDICATES 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 1 OF 2	JOB 3801	DRAWING No. SDR 3801-004	REV D
AutoCAD Release 14			

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. Identity 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

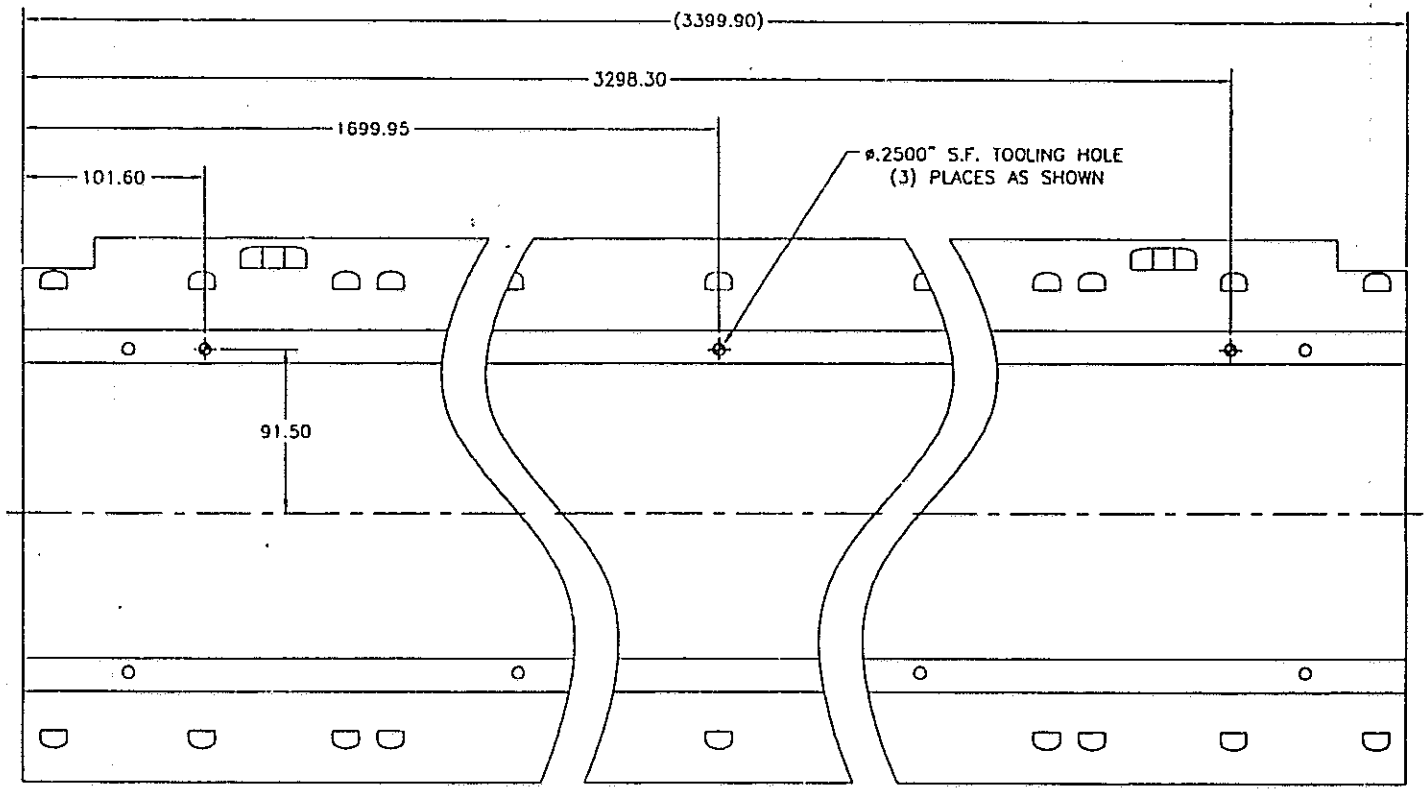
QUALITY ASSURANCE REPRESENTATIVE – DATE

11/3/5

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
5750 Carnegie Road • Blue Ash Industrial Park
Cincinnati, Ohio 45212 • Ph. (513)489-0507

UNLESS OTHERWISE SPECIFIED 1)BREAK ALL SHARP CORNERS 2)TOLERANCES AS FOLLOWS: 1 PLACE DEC. ±.03, 2 PLACE DEC. ±.005, 3 PLACE DEC. ±.0025, ON NON-DEC. ±1/2, ANGLES ±0°30' 3)/INDICATES 125 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>>

==========

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: 5A10359-33
LOT36 magnets Serial# 16801-17280

Bottom Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	17216	Upstream	Right
2	17144	Downstream	Right
3	17138	Upstream	Right
4	17152	Downstream	Left
5	16940	Upstream	Left
6	17028	Downstream	Right
7	17111	Upstream	Right
8	17171	Downstream	Left
9	17072	Upstream	Right
10	17271	Downstream	Right
11	17104	Upstream	Left
12	17003	Downstream	Left
13	17175	Upstream	Right
14	16978	Downstream	Right
15	17149	Upstream	Left
16	17087	Downstream	Left
17	16866	Upstream	Right
18	17026	Downstream	Left
19	17252	Upstream	Right
20	16884	Downstream	Left
21	16910	Upstream	Right
22	16998	Downstream	Right
23	16928	Upstream	Left
24	17205	Downstream	Right
25	16914	Upstream	Left
26	17254	Downstream	Right
27	17262	Upstream	Right
28	17046	Downstream	Right
29	17156	Upstream	Right
30	17164	Downstream	Right
31	17030	Upstream	Right
32	16956	Downstream	Right
33	16844	Upstream	Right
34	17231	Downstream	Right
35	17010	Upstream	Left
36	16854	Downstream	Right
37	17094	Upstream	Left
38	17223	Downstream	Right
39	17132	Upstream	Right
40	17169	Downstream	Left
41	16999	Upstream	Right
42	16870	Downstream	Left
43	16814	Upstream	Left

Top Jaw

Slot Number	Serial No.	Main filed Orientation	x-axis orientation
1	16948	Downstream	Left
2	17126	Upstream	Left
3	17040	Downstream	Right
4	17190	Upstream	Left
5	17212	Downstream	Right
6	17269	Upstream	Left
7	17080	Downstream	Left
8	17147	Upstream	Left
9	16915	Downstream	Left
10	16952	Upstream	Right
11	17034	Downstream	Right
12	16862	Upstream	Left
13	16847	Downstream	Left
14	17174	Upstream	Left
15	17244	Downstream	Left
16	17101	Upstream	Right
17	16895	Downstream	Right
18	17150	Upstream	Right
19	17151	Downstream	Left
20	17185	Upstream	Left
21	17213	Downstream	Left
22	17000	Upstream	Left
23	17279	Downstream	Left
24	16898	Upstream	Left
25	17235	Downstream	Right
26	17177	Upstream	Left
27	16849	Downstream	Right
28	16965	Upstream	Right
29	17224	Downstream	Left
30	17095	Upstream	Left
31	16803	Downstream	Right
32	17179	Upstream	Left
33	17064	Downstream	Left
34	17255	Upstream	Right
35	17189	Downstream	Right
36	17125	Upstream	Left
37	16972	Downstream	Left
38	16904	Upstream	Left
39	17217	Downstream	Left
40	16994	Upstream	Left
41	16805	Downstream	Left
42	16819	Upstream	Right
43	17131	Downstream	Left

44	16951	Downstream	Right
45	17168	Upstream	Right
46	17206	Downstream	Right
47	16832	Upstream	Right
48	17071	Downstream	Right
49	17141	Upstream	Right
50	17236	Downstream	Right
51	17062	Upstream	Left
52	17118	Downstream	Left
53	17036	Upstream	Right
54	17228	Downstream	Right
55	16909	Upstream	Right
56	17086	Downstream	Right
57	17013	Upstream	Right
58	17012	Downstream	Right
59	16823	Upstream	Left
60	17273	Downstream	Right
61	17167	Upstream	Right
62	17065	Downstream	Right
63	17198	Upstream	Right
64	17053	Downstream	Right
65	17226	Upstream	Right
66	16843	Downstream	Left
67	17117	Upstream	Right
68	16985	Downstream	Left
69	16845	Upstream	Left
70	17242	Downstream	Right
71	17184	Upstream	Left
72	17195	Downstream	Left
73	17067	Upstream	Left
74	16925	Downstream	Left
75	17035	Upstream	Right
76	17140	Downstream	Right
77	17136	Upstream	Right
78	16905	Downstream	Left
79	16830	Upstream	Right
80	17059	Downstream	Left
81	16825	Upstream	Right
82	17127	Downstream	Right
83	17200	Upstream	Right
84	17051	Downstream	Right
85	17246	Upstream	Left
86	17159	Downstream	Right
87	16971	Upstream	Right
88	17047	Downstream	Left
89	17116	Upstream	Left
90	16982	Downstream	Right
91	17155	Upstream	Left
92	17243	Downstream	Right
93	16880	Upstream	Right
94	17165	Downstream	Right
95	17124	Upstream	Right

44	16808	Upstream	Left
45	16957	Downstream	Left
46	17227	Upstream	Right
47	17203	Downstream	Left
48	16859	Upstream	Left
49	16878	Downstream	Left
50	17146	Upstream	Left
51	16853	Downstream	Right
52	17075	Upstream	Right
53	16990	Downstream	Left
54	16907	Upstream	Left
55	17081	Downstream	Right
56	16997	Upstream	Left
57	16804	Downstream	Left
58	16861	Upstream	Right
59	17133	Downstream	Right
60	16820	Upstream	Left
61	17079	Downstream	Right
62	17082	Upstream	Right
63	16937	Downstream	Left
64	16911	Upstream	Left
65	17001	Downstream	Right
66	16981	Upstream	Left
67	16966	Downstream	Left
68	16967	Upstream	Right
69	17173	Downstream	Left
70	16851	Upstream	Left
71	17085	Downstream	Right
72	16877	Upstream	Right
73	16899	Downstream	Left
74	17099	Upstream	Left
75	17014	Downstream	Left
76	17275	Upstream	Left
77	16903	Downstream	Left
78	16992	Upstream	Right
79	17024	Downstream	Right
80	16863	Upstream	Left
81	17060	Downstream	Right
82	17161	Upstream	Left
83	17032	Downstream	Left
84	16912	Upstream	Right
85	17122	Downstream	Left
86	17263	Upstream	Left
87	16842	Downstream	Left
88	16987	Upstream	Left
89	16839	Downstream	Left
90	17043	Upstream	Right
91	16979	Downstream	Left
92	17142	Upstream	Left
93	17265	Downstream	Left
94	17002	Upstream	Left
95	16821	Downstream	Right

96	16815	Downstream	Right
97	17066	Upstream	Right
98	17017	Downstream	Left
99	16902	Upstream	Left
100	17106	Downstream	Right
101	16929	Upstream	Right
102	16901	Downstream	Left
103	16897	Upstream	Left
104	16938	Downstream	Right
105	17214	Upstream	Right
106	17070	Downstream	Left
107	16837	Upstream	Left
108	17005	Downstream	Left
109	17115	Upstream	Left
110	16876	Downstream	Left
111	16961	Upstream	Right
112	17183	Downstream	Left
113	16889	Upstream	Left
114	17181	Downstream	Left
115	16968	Upstream	Left
116	16875	Downstream	Left
117	16963	Upstream	Right
118	16939	Downstream	Left
119	16838	Upstream	Left
120	17076	Downstream	Left
121	17178	Upstream	Left
122	17039	Downstream	Left
123	17166	Upstream	Right
124	17204	Downstream	Left
125	16868	Upstream	Right
126	16996	Downstream	Right
127	16949	Upstream	Left
128	16947	Downstream	Left
129	17201	Upstream	Right
130	16891	Downstream	Right
131	17038	Upstream	Right
132	16806	Downstream	Right
133	16872	Upstream	Left
134	17266	Downstream	Left
135	17187	Upstream	Right
136	16980	Downstream	Right
137	16969	Upstream	Right
138	17045	Downstream	Right
139	16973	Upstream	Right
140	16887	Downstream	Right
141	17215	Upstream	Right
142	17098	Downstream	Right
143	17089	Upstream	Left
144	17097	Downstream	Right
145	16816	Upstream	Right
146	17055	Downstream	Left
147	16801	Upstream	Left

96	17123	Upstream	Left
97	16811	Downstream	Right
98	17023	Upstream	Left
99	16945	Downstream	Right
100	17135	Upstream	Left
101	17278	Downstream	Left
102	16812	Upstream	Right
103	17202	Downstream	Left
104	17245	Upstream	Left
105	17037	Downstream	Right
106	16989	Upstream	Left
107	17068	Downstream	Left
108	16833	Upstream	Right
109	16874	Downstream	Left
110	16962	Upstream	Right
111	17259	Downstream	Right
112	16890	Upstream	Right
113	17239	Downstream	Left
114	16860	Upstream	Left
115	17148	Downstream	Left
116	17119	Upstream	Right
117	16879	Downstream	Left
118	17041	Upstream	Left
119	17054	Downstream	Right
120	16984	Upstream	Right
121	17077	Downstream	Right
122	17249	Upstream	Right
123	16931	Downstream	Left
124	16809	Upstream	Left
125	17280	Downstream	Right
126	17020	Upstream	Left
127	17019	Downstream	Left
128	16908	Upstream	Left
129	16893	Downstream	Right
130	16932	Upstream	Right
131	16828	Downstream	Right
132	17063	Upstream	Right
133	16920	Downstream	Right
134	17238	Upstream	Right
135	17264	Downstream	Left
136	16848	Upstream	Right
137	16835	Downstream	Left
138	16836	Upstream	Left
139	16964	Downstream	Right
140	17250	Upstream	Left
141	16871	Downstream	Right
142	16916	Upstream	Left
143	16934	Downstream	Left
144	17088	Upstream	Left
145	17031	Downstream	Left
146	16827	Upstream	Left
147	17209	Downstream	Left

148	16954	Downstream	Right
149	17109	Upstream	Left
150	17137	Downstream	Left
151	17027	Upstream	Right
152	17011	Downstream	Right
153	17100	Upstream	Right
154	16869	Downstream	Right
155	16873	Upstream	Left
156	16919	Downstream	Right
157	16883	Upstream	Left
158	16975	Downstream	Right
159	17042	Upstream	Left
160	17050	Downstream	Right
161	16977	Upstream	Left
162	17033	Downstream	Right
163	16917	Upstream	Left
164	17093	Downstream	Right
165	17083	Upstream	Left
166	17029	Downstream	Right
167	16817	Upstream	Left
168	16943	Downstream	Right
169	16807	Upstream	Right
170	16900	Downstream	Right
171	17274	Upstream	Right
172	17261	Downstream	Right
173	17210	Upstream	Left
174	16988	Downstream	Right
175	17008	Upstream	Right
176	16855	Downstream	Left
177	17258	Upstream	Right
178	17091	Downstream	Right
179	17113	Upstream	Left
180	17208	Downstream	Right
181	17180	Upstream	Left
182	16959	Downstream	Left
183	16892	Upstream	Right
184	16950	Downstream	Left
185	16944	Upstream	Right
186	17163	Downstream	Left
187	17108	Upstream	~~Left~~ Rt
188	17218	Downstream	Right
189	~~17096~~ 16921	Upstream	Right
190	16834	Downstream	Left
191	17073	Upstream	Right
192	~~17157~~ 17194	Downstream	Left
193	16858	Upstream	Left
194	17052	Downstream	Right
195	16822	Upstream	Right
196	16824	Downstream	Right
197	17260	Upstream	Left
198	17268	Downstream	Right
199	17114	Upstream	Right

148	17103	Upstream	Right
149	16955	Downstream	Left
150	16995	Upstream	Left
151	16930	Downstream	Left
152	17004	Upstream	Left
153	17110	Downstream	Left
154	17057	Upstream	Left
155	17084	Downstream	Left
156	16856	Upstream	Right
157	17230	Downstream	Right
158	16882	Upstream	Right
159	16983	Downstream	Left
160	17112	Upstream	Left
161	16852	Downstream	Left
162	17247	Upstream	Left
163	17007	Downstream	Left
164	17162	Upstream	Right
165	17129	Downstream	Left
166	16865	Upstream	Right
167	16941	Downstream	Left
168	16829	Upstream	Right
169	16864	Downstream	Left
170	16924	Upstream	Left
171	17199	Downstream	Right
172	16906	Upstream	Right
173	17211	Downstream	Left
174	17074	Upstream	Right
175	16888	Downstream	Right
176	16933	Upstream	Left
177	17240	Downstream	Left
178	16841	Upstream	Left
179	17006	Downstream	Left
180	17221	Upstream	Left
181	16953	Downstream	Right
182	16802	Upstream	Left
183	17016	Downstream	Left
184	16813	Upstream	Left
185	16894	Downstream	Right
186	16993	Upstream	Right
187	17270	Downstream	Right
188	16922	Upstream	Left
189	16986	Downstream	Right
190	17056	Upstream	Left
191	17143	Downstream	Right
192	17186	Upstream	Right
193	16935	Downstream	Left
194	16976	Upstream	Right
195	17277	Downstream	Left
196	17092	Upstream	Left
197	17197	Downstream	Left
198	16885	Upstream	Left
199	16846	Downstream	Right

200	17233	Downstream	Left
201	17229	Upstream	Right
202	17130	Downstream	Right
203	16810	Upstream	Left
204	17276	Downstream	Left
205	17139	Upstream	Right
206	17044	Downstream	Right
207	17188	Upstream	Left
208	17232	Downstream	Left
209	16886	Upstream	Right
210	17196	Downstream	Right
211	16946	Upstream	Right
212	~~17172~~ 17154	Downstream	Right
213	17219	Upstream	Left
214	17160	Downstream	Right
215	16826	Upstream	Right
216	17009	Downstream	Right
217	16958	Upstream	Right
218	16918	Downstream	Right
219	17153	Upstream	Right
220	17022	Downstream	Right
221	17078	Upstream	Left
222	17220	Downstream	Right
223	17120	Upstream	Left
224	17225	Downstream	Right
225	17251	Upstream	Right

200	17267	Upstream	Left
201	17256	Downstream	Right
202	17191	Upstream	Left
203	17021	Downstream	Right
204	17107	Upstream	Left
205	16913	Downstream	Right
206	17128	Upstream	Left
207	17253	Downstream	Right
208	17182	Upstream	Left
209	16923	Downstream	Right
210	17102	Upstream	Right
211	17193	Downstream	Left
212	16970	Upstream	Right
213	16831	Downstream	Left
214	17090	Upstream	Left
215	17061	Downstream	Right
216	17018	Upstream	Left
217	17170	Downstream	Left
218	17121	Upstream	Right
219	17158	Downstream	Right
220	17222	Upstream	Left
221	17248	Downstream	Left
222	17234	Upstream	Right
223	17058	Downstream	Right
224	17145	Upstream	Right
225	17272	Downstream	Right

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
17015	33%
17207	80%
17154	
17192	
16896	
17134	
16991	
16921	

Sample magnets

serial No.
16857
16942
17048
17176
17257

17194
17108
17237
17069
16927
16818
17241
16850
16960
16926
17049
16974
16867
17025
16936
16840
16881

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 Beder	4.24.07
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 Beder	4.24.07
	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 Beder	4.24.07
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 Beder	4.24.07
	L143-112000-05			
	SA-381-001-35			
	5A10359-33			

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: 5A10359-33

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

Part: L143-110105 Poles

Completed By: Thomas P. Beder **Date:** 4.24.07

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 #: 10943

P.O. #: 5A-05150

DATE: 4-1-07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 07610

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 02069

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 13550

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	48.00	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: 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 #: 14776

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 14102

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 08284

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 12330

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 08236

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 06064

P.O. #: 5A-05150

DATE: 4.1.07

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 #: 13552

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 11028

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 14586

P.O. #: 5A-05150

DATE: 4-1-07

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, 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 #: 15400

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 11181

P.O. #: 5A-05150 DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 12378

P.O. #: 5A-05150

DATE: 4.1.07

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 #: 13629

P.O. #: 5A-05150

DATE: 4.1.07

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	5.97	Accept/Reject
Perpendicularity to A (both sides).	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 15481

P.O. #: 5A-05150

DATE: 4-1-07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 11398

P.O. #: 5A-05150

DATE: 4-1-07

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 #: 11071

P.O. #: 5A-05150

DATE: 4-1-07

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 #: 11356

P.O. #: 5A-05150

DATE: 4-1-07

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	5.99	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 #: 12436

P.O. #: 5A-05150

DATE: 4-1-07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 12454

P.O. #: 5A-05150

DATE: 4.1.07

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 #: 11210

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 14078

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 14089

P.O. #: 5A-05150

DATE: 4.1.07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 13873

P.O. #: 5A-05150

DATE: 4.1.07

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	5.95	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 #: 12941

P.O. #: 5A-05150

DATE: 4.1.07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

Pole width 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 #: 14883

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 11015

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 13444

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 14829

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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 #: 05098

P.O. #: 5A-05150

DATE: 4.1.07

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	5.96	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 #: 13961

P.O. #: 5A-05150

DATE: 4-1-07

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	5.95	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 #: 12129

P.O. #: 5A-05150

DATE: 4-1-07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 15534

P.O. #: 5A-05150

DATE: 4.1.07

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	5.95	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 #: 12076

P.O. #: 5A-05150

DATE: 4.1.07

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	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 13469

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	49.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.96	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 #: 052 11

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 13506

P.O. #: 5A-05150

DATE: 4.1.07

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, 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 #: 06005

P.O. #: 5A-05150

DATE: 4.11.07

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	5.96	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 #: 13558

P.O. #: 5A-05150

DATE: 4.1.07

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	5.95	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 #: 13457

P.O. #: 5A-05150

DATE: 4-1-07

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	5.96	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, 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 #: 11007

P.O. #: 5A-05150

DATE: 4-1-07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: HI-Teck

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 13418

P.O. #: 5A-05150

DATE: 4.1.07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

FEATURE	TARGET	TOLERANCE	MEASURED VALUE	
Pole height	48.0	+0 / -.01	47.99	Accept/Reject
Pole Width	44.0	+0 / ~~-.01~~ -.1	43.95	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.96	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 #: 14772

P.O. #: 5A-05150

DATE: 4.1.07

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	5.95	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 #: 10960

P.O. #: 5A-05150

DATE: 4-1-07

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 #: 15116

P.O. #: 5A-05150

DATE: 4.1.07

ACCEPTANCE CRITERIA

1. Visually inspect for shipping damage.	Accept/Reject

CRITICAL DIMENSIONS (mm)

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

INSPECTOR: Thomas P. Becker QA Supervisor:

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

COMMENTS:

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

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: Hi-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 11042

P.O. #: 5A-05150

DATE: 4-1-07

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~~ -.10	43.98	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P Becker

QA Supervisor:

TEST EQUIPMENT USED: mx111, mx1452, 587F, mx0256, 587B

COMMENTS:
Pole width print dim = 44 $^{+0}_{-.10}$

INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR AS-BUILT DRAWINGS

VENDOR: Hi-Tech

PART NAME: LCLS Magnet Structure Pole

DRAWING #: L143-110105

SERIAL #: 14813

P.O. #: 5A-05150

DATE: 4-1-07

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~~ -.10	43.97	Accept/Reject
Pole Thickness	6.00	+0 / -.05	5.97	Accept/Reject
Perpendicularity to A (both sides)	<= .01	N/A	<.01	Accept/Reject
Flatness of base	<= .01	N/A	<.01	Accept/Reject

INSPECTOR: Thomas P Becker

QA Supervisor:

TEST EQUIPMENT USED: mx111, mx1452, 587F, mx0256, 587B

COMMENTS:

Pole width print dim = $44^{+0}_{-.10}$

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

ARGONNE NATIONAL LABORATORY

ACCEPTANCE CRITERIA LISTING

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

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

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

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

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

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

12 STEP NO.	13 INSPECTION/TEST REQUIREMENT	14 INSPECTION TEST LOCATION	18 ACCEPTED BY OR NONCONFORMANCE REPORT NO.	19 DATE
1	Visual inspection of parts for shipping damage..	Undulator Ass'y Contractor	Thomas P Beda	4-24-07
2	Visual inspection of parts for surface chips and pits.	Undulator Ass'y Contractor	Thomas P Beda	4-24-07
3	Dimensional check of part for conformance to the drawing.	Undulator Ass'y Contractor	Thomas P Beda	4-24-07
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			
	5A10359-33			

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: 5A10359-33

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

Part: L143-110106 Magnet

Completed By: Thomas R Becker **Date:** 4.24.07

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 #: 17216

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 #: 17144

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	8.95	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 #: 17138

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 #: 17152

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 #: 16940

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 #: 17028

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	8.93	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 #: 17111

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 #: 17171

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	8.925	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 #: 17072

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	66.07	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 #: 17271

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 #: 17104

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	8.95	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 #: 17003

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 #: 17178

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 #: 17039

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 #: 17166

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 #: 17204

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	8.93	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 #: 16868

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	8.95	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 #: 16996

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	+01/.004 +01/-.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 #: 16949

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 #: 16947

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 #: 17201

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 #: 16891

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 #: 17038

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 #: 16806

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 #: 16948

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	8.93	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 #: 17126

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	8.93	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 #: 17040

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	8.93	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 #: 17190

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 #: 17212

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	65.975	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 #: 17269

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	8.92	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 #: 17080

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 #: 17147

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	8.95	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 #: 16915

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	8.95	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 #: 16952

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 #: 17034

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	8.93	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 #: 16862

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	8.95	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 #: 17077

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	8.93	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 #: 17249

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 #: 16931

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 #: 16809

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	66.01	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 #: 17280

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	57.02	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 #: 17020

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 #: 17019

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	57.02	Accept/Reject
Magnet Width	2.5984 66.00	+/- .0098 +/- .25	66.01	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 #: 16908

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 #: 16893

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	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 #: 16932

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 #: 16828

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	65.99	Accept/Reject
Magnet thickness	.3543 9.00	+0/.004 +0/-.10	8.92	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 #: 17063

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: