

**NCSX June 2007 ETC  
TABLE V - Basis of Estimate**

**WBS Number: 12**  
**WBS Title: Vacuum Vessel Systems**  
**Job Number: 1204**  
**Job Title: Vacuum Vessel System Procurements**  
**Job Manager: Larry Dudek**

M&S Backup

Heater Tape

Backup on Pourable Insulation



**Confidential Quotation Form**

8055 944ard Ave  
 Columbus, OH 43201  
 Phone: (614) 294-2072  
 Fax: (614) 294-2072  
<http://www.briskheat.com>

**Customer:** Princeton Plasma Physics Lab  
**Address:** Head, PFM Division  
 PO Box 451  
 Princeton, NJ 08543  
 PO Box 451

**Quotation No.:** SD1402  
**Date:** 5/9/2007  
**Prepared By:** Susan Blank

**Contact:** P.E. Lawrence E. Dudek  
**Phone:** 609-243-2195  
**Fax:** 609-243-3249  
**Email:** ldudek@pppl.gov

**Payment Terms:** Terms Net 30 Days  
**Delivery:** See Below  
**Quote Valid:** Sixty (60) Days  
**F. O. B.:** Columbus, Ohio  
**Freight Charge:** Collect  
 Please advise carrier and account number  
**Total Pages:** 2

Item	Qty	Product Description	Unit Price	Net Price
1	200	Custom BH1 Style Heating Tape: 1/2" W X 10 Ft L, Heavy insulated Heating Tape, 520 Total Watts, To be constructed with alloy 180. This alloy consists of 22% Ni with a balance of Cu and it is non-magnetic. 24" Leads Same End, With Split Plug, 120 Volt	\$60.25	\$13,650.00
2	48	Custom BH1 Style Heating Tape: 1/2" W X 6 Ft L, Heavy insulated Heating Tape, 310 Total Watts, To be constructed with alloy 180. This alloy consists of 22% Ni with a balance of Cu and it is non-magnetic. 24" Leads Same End, With Split Plug, 120 Volt	\$44.25	\$2,124.00
<b>TOTAL:</b>				<b>\$15,774.00</b>

Larry, I included a 25% quantity discount off of our manufactured list price in the above quoted price. Price quoted does not include shipping cost.

Lead-time since the tape will be custom-made is 3 to 5 weeks as the most.

The lead-time begins upon receipt of complete information to design and manufacture. The lead-time is subject to change based on order volume and availability of components. Please confirm lead time when placing the order.

Please use the assigned quote number when placing your order.

Please do not hesitate to call with any questions regarding this quotation.

Sincerely,

*Susan Blank*

Account Representative  
**BriskHeat® Products (BH Thermal)**  
 Phone: (614) 294-2072 ext. 156  
 Fax: (614) 294-3807  
 Email: sblank@briskheat.com

Assumed ~\$70 x 220 (based on current NCSX estimate) = ~\$15,400

From: Geoffrey J. Gettelfinger  
 Sent: Wednesday, May 09, 2007 4:56 PM  
 To: Paul Goranson; Lawrence E. Dudek; Wayne T. Reierzen; Ronald L. Strykowski; Mike Coley; Bradley E. Nelson  
 Cc: Jerry D. Levine; William V. Slavin  
 Subject: WBS 12 - Insulation

Follows:

Allow me to share the origin of the cost estimate for Paul Goranson's aerogel vacuum vessel insulation.

A very rough volume calculation yielded a volume of about 2.5 m\*\*3 to fill the annulus between the vessel and the modular coils. I assumed that we should order twice this volume as this is a custom product.

Recall that the stock aerogel from Cabot Corporation has a water dispersant coating that becomes mobile at vessel bake temperatures and was judged an ES&H concern earlier in the design process.

Mr. Jodi Bates, a technical person with Cabot, SNAged that the "calcining" (baking) of the 5 m\*\*3 of aerogel would cost about \$80k-\$90k. Allow me to re-emphasize the rough order of magnitude estimate basis.

When polled about whether NCSX should move ahead with this off-normal product request, the NCSX community felt the best logic was to hold off and to see if this becomes a stock product instead of a "special".

The \$80-\$90k is a soft price that needs a spec and Procurement oversight to make it more dependable.

Geoff

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**WBS Number: 12  
WBS Title: Vacuum Vessel Systems  
Job Number: 1204  
Job Title: Vacuum Vessel System Procurements  
Job Manager: Larry Dudek**

Thermocouples

**From:** Omega Engineering - SCHAALE <EASYLINK@N.VM>  
**Date:** January 12, 2007 4:01:58 PM EST  
**To:** ldudek@pppl.gov  
**Subject:** Sales order # 701979458 PPPL 6092432080  
**ldudek@pppl.gov**  
**Reply-To:** INFO@OMEGA.COM

Hello Mr Dudek,  
Following is a copy of the quote we have been working on, Your  
Re# NCSX-PRL-12-003-00. Please forward a copy of the tag format  
detail to me at your convenience. If you have any other questions  
please do not hesitate to call me.  
Best regards,  
Bob Schaaie  
800-359-1660 ex 7646  
bschaale@omega.com  
203-968-7364 fx

QUOTATION <<<<<<<<<

\_\_\_\_\_ OMEGA ENGINEERING,  
INC. \_\_\_\_\_  
One Omega Drive, Box 4047, Stamford, CT 06907-0047  
PHONE (203)359-1660 FAX (203)359-7990  
http://www.omega.com E-Mail: temp@omega.com  
\_\_\_\_\_ ISO 9001 CERTIFIED (Stamford, CT USA)

PPPL | Date 01/12/07 |  
X X X | Quote No. Q701979458 |  
| Your No. RDS01005 |  
FAX To ARLENE WHITE  
FAX No. (609)243-2080

In response to your inquiry we are pleased to submit the following:  
(Terms) NET 30 Pending credit approval (F.O.B.) STAMFORD

Item No.	Qty	Part Number	Description	Price	Discount	Net Unit Price	Total Amount
1)	105	EI1106107/XCIB-E-4-2-3-SHX-M		69.25		69.25EA	7,271.25

		XCIB T/C ASSY/UNGROUND	4 - 5 Wks				
2)	105	EI1106107/XCIB-E-4-2-10-SHX-M	83.25	83.25EA		8,741.25	
		XCIB T/C ASSY/UNGROUND	4 - 5 Wks				
3)	210	OSK/TAGGING PROC/ITEM#1 & 2	5.00	5.00EA		1,050.00	
		PROD ID/SEE CASE FOR FORMAT	4 - 5 Wks				
4)	1	SET UP CHARGE	50.00	50.00EA		50.00	
		FOR MFG OF CUSTOM ITEM	4 - 5 Wks				

THIS QUOTATION IS VALID FOR 30 DAYS TOTAL AMT  
17,112.50

Please refer to the QUOTE# Q701979458 AWHITE@PPPL.GOV  
when placing this on order. FAX From CS#622408

TERMS & CONDITIONS  
Omega Engineering, Inc. (the Company) offers this quotation subject  
to its terms and conditions, as stated in the Company published Handbook and  
related literature. The Company does not agree to any additional or different  
terms imposed by individual customers, which are deemed to be material  
alterations, unless signed by the Company prior to shipment of this order.  
All quoted delivery dates are subject to product availability, for exact  
delivery dates, please consult our sales department at time of order.

**Assumed ~\$80 unit rate based on the above x 337  
(count off drawing) = \$26, 960**

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**WBS Title: Vacuum Vessel Systems**  
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**Job Title: Vacuum Vessel System Procurements**  
**Job Manager: Larry Dudek**

**Boots - Requisition 405021**

Requisition Print Form

05/10/2007 09:07 AM



Requisition 405021 created on 03-12-2007 for  
NCSX Winding Form Boot Assembly

<b>Requisitioner:</b> Thomas Meighan	<b>Buyer:</b>	<b>Assigned:</b>	<b>Suggested Sources:</b>
<b>Deliver to:</b> Thomas Meighan		Temp Shield, Laura Sweeney, Bar Harbor	(207) 667-9686
MS41 C-Site B313		Others	

**Phone:** (609) 243-3053

CC/W/Obj/Exp Cts	FY1 - Amount	FY2 - Amount	Signature Authority
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**Line Item 1:** Assembly Dwg. No. se122-340-r0.pdf, Detail Dwg. No. se122-343-r0.pdf Port 2 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 2:** Assembly Dwg. No. se122-344-r0.pdf, Detail Dwg. No. se122-347-r0.pdf Port 5 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 3:** Assembly Dwg. No. se122-348-r0.pdf, Detail Dwg. No. se122-351-r0.pdf Port 6 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 4:** Assembly Dwg. No. se122-352-r0.pdf, Detail Dwg. No. se122-355-r0.pdf Port 7 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 5:** Assembly Dwg. No. se122-360-r0.pdf, Detail Dwg. No. se122-363-r0.pdf Port 9 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 6:** Assembly Dwg. No. se122-364-r0.pdf, Detail Dwg. No. se122-367-r0.pdf Port 10 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
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<https://bones.pppl.gov/printreq/?req=405021>

Page 1 of 4

Requisition Print Form

05/10/2007 09:07 AM

9450 1*** 1204	2007 - \$1800.00	2008 - \$0.00	R. Strykowski
9450 1*** 1204	2007 - \$1800.00	2008 - \$0.00	R. Strykowski

**Line Item 7:** Assembly Dwg. No. se122-368-r0.pdf, Detail Dwg. No. se122-371-r0.pdf Port 11 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 8:** Assembly Dwg. No. se122-372-r0.pdf, Detail Dwg. No. se122-375-r0.pdf Port 15 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 9:** Assembly Dwg. No. se122-376-r0.pdf, Detail Dwg. No. se122-379-r0.pdf Port 17 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 10:** Assembly Dwg. No. se122-380-r0.pdf, Detail Dwg. No. se122-383-r0.pdf Port 18 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 11:** Assembly Dwg. No. se122-384-r0.pdf, Detail Dwg. No. se122-387-r0.pdf Port 8 Winding Form Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 12:** Assembly Dwg. No. se122-388-r0.pdf, Detail Dwg. No. se122-391-r0.pdf Spacer Port Winding Form Boot Assy Material: NOMEX

Qty: 3 ea @ \$200.00	Total Price: \$600.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$600.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 13:** Assembly Dwg. No. se122-392-r0.pdf, Detail Dwg. No. se122-396-r0.pdf Neutral Beam Port Seal Boot 3 Material: NOMEX

Qty: 1 ea @ \$300.00	Total Price: \$300.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$300.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

**Line Item 14:** Assembly Dwg. No. se122-401-r0.pdf, Detail Dwg. No. se122-405-r0.pdf Port 12 Seal Boot Assy Material: NOMEX

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)
9450 1*** 1204	2007 - \$1800.00
9450 1*** 1204	2008 - \$0.00
	R. Strykowski

<https://bones.pppl.gov/printreq/?req=405021>

Page 2 of 4

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**WBS Number: 12**  
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**Job Manager: Larry Dudek**



Requisition Print Format

05/10/2007 09:07 AM

Requisition Print Format

05/10/2007 09:07 AM

Line item 15: Assembly Dwg. No. SE122-004, Detail dwg. no. se122-409-r0.pdf Port 4 Winding Form Boot Assy. Material: NOMEX

se122-409-r0.pdf (Line item 15)

Qty: 6 ea @ \$300.00	Total Price: \$1800.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$1800.00	2008 - \$0.00	R. Strykowski
9450 1*** 1204	2007 - \$1800.00	2008 - \$0.00	R. Strykowski

Requisition Total: \$24,300.00

Excess Inventory: Not Listed  
 Stockroom Inventory: Not Stocked  
 Receipt Inspection Required: Yes  
 Sole Source: No  
 BOA: Not Applicable

Attachments:  
 NCSX-PRL-12-001-00-Signed.pdf  
 se122-340-r0.pdf (Line item 1)  
 se122-343-r0.pdf (Line item 1)  
 se122-344-r0.pdf (Line item 2)  
 se122-347-r0.pdf (Line item 2)  
 se122-348-r0.pdf (Line item 3)  
 se122-351-r0.pdf (Line item 3)  
 se122-352-r0.pdf (Line item 4)  
 se122-355-r0.pdf (Line item 4)  
 se122-390-r0.pdf (Line item 5)  
 se122-393-r0.pdf (Line item 5)  
 se122-394-r0.pdf (Line item 6)  
 se122-397-r0.pdf (Line item 6)  
 se122-398-r0.pdf (Line item 7)  
 se122-371-r0.pdf (Line item 7)  
 se122-372-r0.pdf (Line item 8)  
 se122-375-r0.pdf (Line item 8)  
 se122-376-r0.pdf (Line item 9)  
 se122-379-r0.pdf (Line item 9)  
 se122-380-r0.pdf (Line item 10)  
 se122-383-r0.pdf (Line item 10)  
 se122-384-r0.pdf (Line item 11)  
 se122-387-r0.pdf (Line item 11)  
 se122-388-r0.pdf (Line item 12)  
 se122-391-r0.pdf (Line item 12)  
 se122-392-r0.pdf (Line item 13)  
 se122-396-r0.pdf (Line item 13)  
 se122-401-r0.pdf (Line item 14)  
 se122-405-r0.pdf (Line item 14)  
 se122-004-r0.pdf (Line item 15)

Reviews:  
 Chemical - No  
 Desktop IT - No  
 AC Power - No  
 Telecomm - No  
 PAAA - No  
 Quality Assurance - Yes  
 Machining Resource - No  
 Safety - No  
 Non-Desktop IT - No  
 Labor Resources - No  
 Radiological - No  
 Printing - No  
 Lift Manager - No

<https://bones.ppl.gov/printreq/?req=405021>

Page 4 of 4

<https://bones.ppl.gov/printreq/?req=405021>

Page 3 of 4

**NCSX June 2007 ETC  
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**WBS Number: 12**  
**WBS Title: Vacuum Vessel Systems**  
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**Job Title: Vacuum Vessel System Procurements**  
**Job Manager: Larry Dudek**

**Boots - Requisition 405024**

Requisition Print Form

05/10/2007 09:08 AM



Requisition 405024 created on 03-12-2007 for  
NCSX Winding Form Seal Plates

**Requisitioner:** Thomas Meighan  
**Buyer:** Thomas Meighan  
**Deliver to:** MS41 C-Ste B313  
**Phone:** (609) 243-3053

CO/Wkg/DOB/Exp Cts	FY1 - Amount	FY2 - Amount	Signature Authority
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<b>Line Item 1:</b> Assembly Dwg. No. se122-340-r0.pdf, Detail Dwg. No. se122-341-r0.pdf Port 2 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 2:</b> Assembly Dwg. No. se122-340-r0.pdf, Detail Dwg. No. se122-342-r0.pdf Port 2 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 3:</b> Assembly Dwg. No. se122-344-r0.pdf, Detail Dwg. No. se122-345-r0.pdf Port 5 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 4:</b> Assembly Dwg. No. se122-344-r0.pdf, Detail Dwg. No. se122-346-r0.pdf Port 5 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 5:</b> Assembly Dwg. No. se122-348-r0.pdf, Detail Dwg. No. se122-349-r0.pdf Port 6 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 6:</b> Assembly Dwg. No. se122-348-r0.pdf, Detail Dwg. No. se122-350-r0.pdf Port 6 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 7:</b> Assembly Dwg. No. se122-352-r0.pdf, Detail Dwg. No. se122-353-r0.pdf Port 7 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	

https://bones.pppl.gov/printreq/?req=405024

Page 1 of 4

Requisition Print Form

05/10/2007 09:08 AM

9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 8:</b> Assembly Dwg. No. se122-352-r0.pdf, Detail Dwg. No. se122-354-r0.pdf Port 7 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 9:</b> Assembly Dwg. No. SE122-004, Detail Dwg. No. se122-356-r0.pdf Neutral Beam Port Seal Fill Plate Assy. Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 10:</b> Assembly Dwg. No. se122-360-r0.pdf, Detail Dwg. No. se122-361-r0.pdf Port 9 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 11:</b> Assembly Dwg. No. se122-360-r0.pdf, Detail Dwg. No. se122-362-r0.pdf Port 9 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 12:</b> Assembly Dwg. No. se122-364-r0.pdf, Detail Dwg. No. se122-365-r0.pdf Port 10 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 13:</b> Assembly Dwg. se122-364-r0.pdf, Detail Dwg. No. se122-366-r0.pdf Port 10 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 14:</b> Assembly Dwg. No. se122-368-r0.pdf, Detail Dwg. No. se122-369-r0.pdf Port 11 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 15:</b> Assembly Dwg. No. se122-368-r0.pdf, Detail Dwg. No. se122-370-r0.pdf Port 11 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 16:</b> Assembly Dwg. No. se122-372-r0.pdf, Detail Dwg. No. se122-373-r0.pdf Port 15 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	
9450 1***1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line Item 17:</b> Assembly Dwg. No. se122-372-r0.pdf, Detail Dwg. No. se122-374-r0.pdf Port 15 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00		Total Price: \$0.00 (Pct tolerance 10%)	

https://bones.pppl.gov/printreq/?req=405024

Page 2 of 4

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**Job Manager: Larry Dudek**



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9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 18:</b> Assembly Dwg. No. se122-376-r0.pdf, Detail Dwg. No. se122-377-r0.pdf, Port 17 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 19:</b> Assembly Dwg. No. se122-376-r0.pdf Detail Dwg. No. se122-378-r0.pdf Port 17 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 20:</b> Assembly Dwg. No. se122-380-r0.pdf Assembly Dwg. No. se122-381-r0.pdf Port 18 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 21:</b> Assembly Dwg. No. se122-380-r0.pdf Detail Dwg. No. se122-382-r0.pdf Port 18 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 22:</b> Assembly Dwg. No. se122-384-r0.pdf Detail Dwg. No. se122-385-r0.pdf Port 8 Winding Form Seal Outer Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 23:</b> Assembly Dwg. No. se122-384-r0.pdf Detail Dwg. No. se122-386-r0.pdf Port 8 Winding Form Seal Inner Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 24:</b> Assembly Dwg. se122-388-r0.pdf Detail Dwg. No. se122-389-r0.pdf Spacer Port Winding Form Seal Outer Plate 3 Material: G-11CR			
Qty: 3 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 25:</b> Assembly Dwg. No. se122-388-r0.pdf Detail Dwg. No. se122-390-r0.pdf Spacer Port Winding Form Seal Inner Plate Material: G-11CR			
Qty: 3 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski
<b>Line item 26:</b> Assembly Dwg. No. se122-356-r0.pdf Detail Dwg. No. se122-393-r0.pdf Neutral Beam Port Winding Form Seal Fill Plate Material: G-11CR			
Qty: 6 ea @ \$0.00	Total Price: \$0.00 (Pct tolerance 10%)		
9450 1*** 1204	2007 - \$0.00	2008 - \$0.00	R. Strykowski

Requisition Total: \$0.00

Requisition Print Format

Excess Inventory: Not Listed  
 Stockroom Inventory: Not Stocked  
 Receipt Inspection Required: Yes  
 Sole Source: No  
 BQA:  
 Attachments:  
 None

Reviews: Chemical - No  
 Desktop IT - No  
 AC Power - No  
 Telecomm - No  
 PAAA - No  
 Quality Assurance - Yes  
 Machining Resource - No

Safety - No  
 Non-Desktop IT - No  
 Labor Resources - No  
 Radiological - No  
 Printing - No  
 Lift Manager - No

05/10/2007 09:08 AM

NCSX June 2007 ETC  
TABLE V - Basis of Estimate

WBS Number: 12  
WBS Title: Vacuum Vessel Systems  
Job Number: 1204  
Job Title: Vacuum Vessel System Procurements  
Job Manager: Larry Dudek

From:FERGUSON METALS

04/20/2007 16:44 #165 P.001/001

3475 Symmes Road  
Hamilton, OH 45015  
Phone: 1-800-347-2376  
Fax: 513-874-6857



**FACSIMILE**

TO: Fred FROM: Frank Mefford  
fmefford@fergusonmetals.com

COMPANY: Princeton University DATE: 4/20/2007

FAX NUMBER: 609-243-3030 TOTAL NO. OF PAGES INCLUDING COVER: 1

RE: RPQ QUOTE VALID FOR: 15 Days

**SALES QUOTE**

Description	AMS	Width	Length	Quantity	Weight	Price
625 .500 36x120	5599	36	120	20	13,560#	16.00#RUZ
625 .750 36x120	5599	36	120	6	6,090#	16.00#RUZ

Quoted + surcharge at the time of shipment

16.0  
11.5  
w/ surc. #/lb → # 27.50

A286?

FOB:45015  
Estimated Lead Time:14 weeks  
\*\* Subject to prior sale.

Thanks for the opportunity.

  
Frank Mefford

**Inconel 625 Quote**

In-Stock and On-Time  
Specialty Stainless Steels & Alloys



3475 Symmes Road  
Hamilton, OH 45015

**Surcharge Totals for February 2007 – June 2007**

Grades	February 2/1/07 - 2/28/07	March 3/1/07 - 3/31/07	April 4/1/07 - 4/30/07	May 5/1/07 - 5/31/07	June 6/1/07 - 6/30/07
15-5	0.6606	0.7188	0.8284	0.9719	1.0645
15-7	1.6736	1.7734	1.9641	2.2500	2.4095
17-4	0.5820	0.6346	0.7327	0.8630	0.9468
17-7	1.2753	1.3793	1.5773	1.8250	2.0024
18SR	0.1254	0.1318	0.1555	0.2028	0.2246
201	0.8050	0.8784	1.0079	1.1733	1.2887
301 7.0%	1.2545	1.3462	1.5370	1.7785	1.9520
302/304/304L	1.4215	1.5257	1.7421	2.0128	2.2098
304-8.5%	1.4924	1.6127	1.8419	2.1263	2.3341
305	2.0182	2.1772	2.4821	2.8553	3.1332
309	2.0786	2.2427	2.5561	2.9401	3.2309
310	3.2314	3.4810	3.9604	4.5393	4.9847
316/316L	2.2533	2.3962	2.6703	3.0543	3.2930
317L	2.6845	2.8430	3.1467	3.5894	3.8544
321	1.5916	1.7166	1.9552	2.2522	2.4679
347	1.5710	1.6970	1.9374	2.2351	2.4519
409/409 Mod	0.0940	0.1079	0.1319	0.1758	0.1861
410/410S	0.0793	0.0942	0.1201	0.1651	0.1777
430	0.0941	0.1105	0.1382	0.1865	0.2074
434	0.2898	0.3082	0.3398	0.4103	0.4320
439	0.1248	0.1404	0.1660	0.2140	0.2353
440A	0.0941	0.1105	0.1382	0.1865	0.2074
Alloy 286	1.4924	1.6127	1.8419	2.1263	2.3341
Alloy 625	10.9488	10.7978	11.5031	12.1638	13.6292
Alloy 718	9.2413	9.1268	9.7192	10.2307	11.4262
Alloy HX	9.2413	9.1268	9.7192	10.2307	11.4262

Order Hotline

**1.800.347.2376**

fax: 513.874.6857

www.fergusonmetals.com

salesquote@fergusonmetals.com

5/7/2007 1:08:00 PM