Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

CONTENTS PAGE

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

- [x] 1 QUOTATION
- [x] 2 CUSTOMER ORDER
- [x] 3 MACHINE SPECIFICATION DOCUMENT
- [x] 4 LOG SHEET
- [x] 5 FAULT REPORTING DOCUMENT
- [x] 6 TEST ACCEPTANCE SPECIFICATION
- [x] 7 ASSEMBLY AND TEST RECORD
- [x] 8 SERIAL NUMBER FORM
- [x] 9 TEST DATA
- [x] 10 PACKING LIST
- [ ] 11 INSTALLATION REPORT
- [ ] 12 INSTALLATION ACCEPTANCE AND WARRANTY CERTIFICATE

ADDITIONAL:

Payment Terms:
50% / 40% / 10%
Other: please specify

Date	
Shipped	
Installed	
Installation by	
Warranty expires	

Penalty Clause **Yes / No**
Please specify:

Blue Book Completion:

Signed		Date	
Verified		Date	

sercon
innovators in isotopes

13963

Quotation

To: Utah State University (US$)
Accounts Payable
2400 Old Main Hill
Logan
UT 84322
USA

VAT No.

Quotation Date:	16/01/2020
Quotation Reference:	13963
Customer Ref:	John Stark
Account Ref.	UTA002
Quotation Validity:	16/04/2020

Quantity	Product Code	Product Description	Unit Price $	Net Price $
		ELECTRONICS UPGRADE System: 20-20 S/N:		
1	30202/1	System Controller Upgrade (Permanent Magnet) New electronics suite to be installed. Latest generation 20-22 electronics unit, utilizing USB Communications. System Controller provides source control. Valve drive outputs are two banks of 16 24v outputs (32 total). Four VFC channels can be monitored in parallel for head amplifier readings. Includes Callisto software upgrade, new PC and Printer.	19,600.00	19,600.00
1	10202/7	Preparation PCB Upgrade Latest generation preparation PCB. USB interfaced replacement for original networked preparation control card. Available for GSL, Orchid and TGII.	7,000.00	7,000.00
		PUMPING SYSTEM UPGRADE		
1	30302/5	nEXT85 Turbo Pumping System Upgrade Dual Updates system to latest generation Sercon analyser using Edwards pumping system. Dual pumped option.	11,480.00	11,480.00
1	INST	Installation at Customer's site for 3 days	8,500.00	8,500.00
1	CIP	Estimated CIP - Destination Airport	700.00	700.00

This quotation is issued in		**USD Dollar**
Total Net Amount	$	47,280.00
Total VAT Amount	$	0.00
Order Total	$	47,280.00

*** The price quoted does not include any local taxes or duties**
See separate document for terms and conditions

Payment Details:-
Payment is required within 30 DAYS of invoice date by bank transfer.
All bank transfer charges are the responsibility of the customer.
Bank transfer to be made to the relevant IBAN number.

Sercon Bank Details:-
National Westminster Bank, 36 High Street,
Nantwich, Cheshire CW5 5GA U.K.

Sterling:	IBAN: GB74NWBK54101736755133
Euro:	IBAN: GB14NWBK60721013806831
US Dollar:	IBAN: GB94NWBK60730113806556
BIC:	NWBKGB2LXXX

sercon

Sercon Limited
Unit 3B Crewe Trade Park
Gateway, Crewe
CW1 6JT U.K.
Company Registration No.: 4290072

Phone: +44 (0) 1270 580008
Fax: +44 (0) 1270 252310

www.sercongroup.com
VAT No.: 771 1100 74

Sercon Customer Support

From: Joanne Oconnor
Sent: 18 June 2020 08:59
To: Mark O Connor; Sercon Customer Support
Subject: Fwd: USU PO, PO#: P0461700
Attachments: Sercon quote.pdf

Could someone print a copy and put it with the blue book please?

Get Outlook for Android

From: Sercon Sales <sales@sercongroup.com>
Sent: Thursday, June 18, 2020 8:26:18 AM
To: Joanne Oconnor <joanne.oconnor@sercongroup.com>
Subject: FW: USU PO, PO#: P0461700

From: support@sciquest.com [mailto:support@sciquest.com]
Sent: 17 June 2020 17:19
To: Sercon Sales <sales@sercongroup.com>
Subject: USU PO, PO#: P0461700

Utah State University Purchase Order		
Purchase Order Date	PO/Reference No.	Revision No.
Jun 17, 2020	**P0461700-E**	**0**

Buyer Information

Contact	Megan French
Email	megan.french@usu.edu
Phone	+1 435-797-1000

Order acceptance instructions:

By accepting this order your organization agrees to the Terms and Conditions listed here. http://purchasing.usu.edu/files/terms.pdf

Payment Terms: Net 30 unless otherwise specified

Supplier Information	
Supplier Name	Sercon Limited
Address	Unit 3B Crewe Trade Park Gateway Crewe Cheshire, . CW1 6JT GB
Fax	+1 435-797-1089
F.O.B.	Destination

Delivery Information	
Delivery Address	
Shipping address	ATTN: Megan French Bldg/Room/Suite NR 314 Email megan.french@usu.edu 5205 Old Main Hill Logan, UT 843225205 United States
Delivery Information	

	Requested Delivery Date
	Ship Via Best Carrier-Best Way

Additional PO Information

Header	005	Itemized Invoice	Please send us your itemized invoice indicating the purchase order listed.
	017	Attached Form	Per attached form

Note to Supplier
Attachments for supplier

Line No.	Product Description	Catalog No.	Size / Packaging	Unit Price	Quantity	Ext. Price
1 of 1	Electronics Upgrade to existing isotope- ratio mass spectrometer		EA	35,800.00 USD	1 EA	35,800.00 USD
	ADDITIONAL INFO Unit Price			35,800.00		
	Commodity Code	10 IT Software & Maintenance				
	External Note					
				Total		**35,800.00 USD**

Billing Information

Contract

Billing Address

Billing Address

Bill-To
Utah State University - Accounts Payable
2400 Old Main Hill
Logan, UT 84322
United States

Supplier Name	Sercon Limited	Shipping address	ATTN: Megan French Bldg/Room/Suite NR 314 Email megan.french@usu.edu 5205 Old Main Hill Logan, UT 843225205 United States
Address	Unit 3B Crewe Trade Park Gateway Crewe Cheshire, . CW1 6JT GB		
Fax	+1 435-797-1089		
F.O.B.	Destination	**Delivery Information**	
		Requested Delivery Date	
		Ship Via	Best Carrier-Best Way

Additional PO Information

Header	005	Itemized Invoice	Please send us your itemized invoice indicating the purchase order listed.
	017	Attached Form	Per attached form

Note to Supplier

Line No.	Product Description	Catalog No.	Size / Packaging	Unit Price	Quantity	Ext. Price
1 of 1	Pumping System Upgrade as detailed in attached Quote to existing isotope- ratio mass spectrometer		EA	11,480.00 USD	1 EA	11,480.00 USD
	ADDITIONAL INFO Unit Price		11,480.00			
	Commodity Code: 13 Professional Services & Training					
	External Note					
				Total		**11,480.00 USD**

Billing Information	
Contract	

Billing Address	
Billing Address	
Bill-To	Utah State University - Accounts Payable 2400 Old Main Hill Logan, UT 84322 United States

Sercon Customer Support

From: Joanne Oconnor
Sent: 29 June 2020 08:40
To: Mark O Connor; Paul Hayes; Sercon Customer Support
Subject: Fwd: USU PO, PO#: P0462379
Attachments: Sercon quote.pdf

Hi All,

PO from Utah for the pump upgrade is now in.
Could someone send me the weight & dims please.

Cheers
Jo

Get Outlook for Android

From: Sercon Sales <sales@sercongroup.com>
Sent: Monday, June 29, 2020 8:15:55 AM
To: Joanne Oconnor <joanne.oconnor@sercongroup.com>
Subject: FW: USU PO, PO#: P0462379

From: support@sciquest.com [mailto:support@sciquest.com]
Sent: 26 June 2020 17:20
To: Sercon Sales <sales@sercongroup.com>
Subject: USU PO, PO#: P0462379

Utah State University Purchase Order		
Purchase Order Date	PO/Reference No.	Revision No.
Jun 26, 2020	**P0462379-E**	**0**

Buyer Information

Contact	Megan French
Email	megan.french@usu.edu
Phone	+1 435-797-1000

Order acceptance instructions:

By accepting this order your organization agrees to the Terms and Conditions listed here. http://purchasing.usu.edu/files/terms.pdf

Payment Terms: Net 30 unless otherwise specified

Supplier Information	Delivery Information
	Delivery Address

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

3 - MACHINE SPECIFICATION

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Ref No.	Product Description	Required
HS2022 (continuous flow)		
20402/1	HS2022 Ref Gas + P Mag	
20402/2	HS2022 Ref Gas + E-Mag	
20402/3	HS2022 Ref Gas + Hd Collector + E-Mag	
20402/4	HS2022 Ref Gas + Hd Collector+E-Mag+Trap Loop	
20501	Hd Collector Assy ***	
50101/2	Trapping Loop Assy	
70201-1	*70201-1 Analyser spares kit – Included*	
EA Units		
10202/11	iso-EArth	
10202/13	iso-EArth+	
10202/6	GSL Large Hole Autosampler Option	
11802/1	EArth	
11802/2	EArth+Clarity+PC	
70501-1	*Consumables for C and N for Combustion Only*	
70501-11	*Simultaneous CNS Consumables Kit (approx. 10000 analysis)*	
70501-3	*Sample Prep Kit (Inc.)*	
70501-4	*GSL Combustion and Gas C & N Start Up Kit*	
70501-5	*Simultaneous NCS Consumables Kit*	
70501-6	*C&N Combustion Only Consumables Kit (approx. 5000 samples)*	
70501-8	*Simultaneous CNS Consumables Kit (approx. 5000 samples)*	
70601-1	*Sulphur Start Up Kit (Inc. with Sercon EA Systems)*	
70601-2	*Sulphur Consumables Kit for 1000 Samples*	
70601-4	*Sulphur Consumables Kit (approx. 5000 Samples)*	
70801-2	*Pyrolysis Consumables Kit-Low temp for Solids*	
71701-1	*Sub Microgram Nitrogen Analysis Start Up Kit*	
SI1275	*Sercon standard SL Autosampler*	
SI1551	*Double Sample Dispenser*	
SI1744	*Sealed Autosampler*	
SI2040	*PN150 Pneumatic Autosampler with one no.50 pos, carousel*	
SI2345	*ME Micro Balance*	
SI2368	*Zero-Blank Autosampler 120 samples*	
SI2392	*Additional Carousel 180 samples (5mm)*	
Headspace Equilibration		
10202/10	XYZ Gas Sampling Control Box	
10302/1	Aqua System	
11103	µCarbs for CF	
11103-1	µCarbs for DI	
11601	200 Place Dual Heated Block 240 Volt	
11801	Sercon XYZ Gas Autosampler	
71107-1	*CF oxygen-18 equilibration kit*	
71107-2	*DI Oxygen-18 Equilibration kit*	
71201-1	*CF deuterium equilibration kit*	
71201-2	*DI Deuterium Equilibration kit*	
71801-1	*WES-DI start up kit (Inc. with WES-DI)*	
GC Units		
10402/2	Orchid Combustion/Pyrolysis module 1500C (Will run Hd 70901-1 C Spares Kit Inc)	
10901	Nitrogen Option (71301-1 N Spares kit Included)	
HP7890/1	Agilent 7890B GC System	
HP7890/2	Agilent 7890B GC with Auto Injector	
HP7890/3	Agilent 7890B GC + Auto Injector + 150 Vial Sample Tray	
SI2561	Nexis GC 2010 Plus	

*** When ordered alone IN no. / Blue book **NOT** required

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

3 - MACHINE SPECIFICATION

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Ref No.	Product Description	Required
GC Units *continued*		
SI2564	Nexis GC-2030	
70901-3	*GC-CP Pyrolysis H and O Start Up Kit*	
70901-4	*GC-CP Pyrolysis H Spares Kit*	
70901-5	*GC-CP Combustion C Spares Kit (approx. 5000 samples)*	
70901-6	*GC-CP Pyrolysis h Start Up Kit (approx. 5000 samples)*	
ABCA2 Units		
10502/1	ABCA2 Sercon XYZ Autosampler	
10602	ABCA2 Gas Box	
20602	Complete Sercon ABCA2 system	
70101-1	*ABCA2 spares kit (Inc.With ABCA2)*	
70101-2	*ABCA2 Spares Kit for AB Analitica Systems*	
70101-3	*ABCA2 Autosampler Upgrade Kit*	
SI1767	*CVL505 – Barcode Reader*	
Integra2 Units		
20802/4	Integra Wave	
70201-2	*Integra2 ama;yser spares kit - Included*	
70401-1	*Integra-2 consumables (Inc. With Integra2)*	
SI2224	TCD2 Detector With Controller	
Trace Gas Systems		
10802/4	CryoPrep	
10802/5	Automated LN refiller	
10802/6	CryoFlex	
10802/7	CryoGas	
10802/8	CryoFlex (LA)	
71001-1	Cryoprep Spares Kit	
SI2135	Thermalox Environmental TOC Analyser	
SI2136	Thermalox TOC Autosampler	
SI2140	TOC Start up spares kit	
SI2180	Carbon (CO2) detector	
SI2393	Carrier gas scrubber furnace and dryer	
SI2431	5100 NOx Box	
GEO 20-22 (dual inlet)		
10702	GEO 20-22 Water Equilibration System (D & 18O)	
21802/1	GEO 20-22	
21802/2	GEO 20-22 + E-Mag	
21802/3	GEO 20-22 + E-Mah +Hd	
21802/4	GEO 20-22 Inlet	
70301-1	*GEO start up kit - Included*	
70301-3E	*Comprehensive GEO 20-22 spares kit for 5 years operation*	
HT-EA		
11501/4	HT-EA Wave	
10202/10	HT-EA Gas Sample Control Box	
SI2622	CTC PAL3-LSI-L-S	
SI2624	CTC PAL3-Kit-Standalone	
70801-1	*Pyrolysis Consumables Kit-High Temp for Solids*	
71501-1	*HT-EA Pyrolysis Start Up kit O and H*	
71501-2	*HT-EA Pyrolysis Kit for Water injections*	
71501-3	*HT-EA Sensitivity Start Up Kit for O & H in small samples*	
71501-4	*HT-EA Sensitivity Consumables Kit for O & H in small samples*	
71501-5	*HT-EA Sensitivity Kit for O&H in Small Samples (5000 samples)*	
71501-7	*HT-EA Kit for Room Temp Equilibration*	
71501-8	*HT-EA Pyrolysis Kit for Water injections (approx.1 year kit)*	

*** When ordered alone IN no. / Blue book **NOT** required

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

3 - MACHINE SPECIFICATION

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Ref No.	Product Description	Required
Upgrades		
12101	Evacuation System ***	
12102	2 Ref Gas+ Dilutor Box ***	
20101	Standard Source Assy ***	
20102	HS Source Assy ***	
20301	Standard Collector Assy ***	
30202/1	System Control Upgrade (Pmag) installation not included	Y
30202/2	System Controller Upgrade (Emag) installation not included	
10202/7	Preparation PCB Upgrade	Y
30202/3	Hijack Box ***	
30302/1	Edwards Pumping System Upgrade Single - installation not included	
30302/2	Edwards Pumping System Upgrade Dual - installation not included	
30302/3	Edwards Pumping System Upgrade Triple- installation not included	
SI2542	ABCA2 Upgrade Kit	
CALLISTOW	Callisto software upgrade ***	
Specials		
11702	LC-I interface	
12202	Leco Interface Unit	
SI2320	Agilent 1260 Series Refractive Index Detection HPLC System	
71401-1	*ABCA-G Start Up/Spares Kit*	
71401-2	*ABCA-G Equilibration Spares Kit - Room temp O only*	
71401-3	*ABCA-G Equilbration Spares Kit - Room Temp O & H*	
71601-1	*LC Interface Spares Kit*	
71801-1	*WES-DI start up kit (Inc. with WES-DI)*	
ADDITIONS		
PC	Windows 7 based PC System with Callisto Software	
Printer	Printer	
INST1	Installation and start up training at customer's site by **Sercon** Engineer	
INST2	Installation and start up training at customer's site by **Agents** Engineer	
WARR	Extension of warranty to one year	
WARR2	Extension of warranty to two years	
SERV	Service contract for second year	
TRAIN	Training in UK for one person for 3 days	
SPECIFICATION REQUIREMENTS		
Voltage	110 Volts 50/60Hrzs	
Plug Type	SI2510 3 Metre USA/Japan plug to IEC C 13	Y
	SI2511 2.5 Metre Australian plug to IEC C 13	
	SI2512 3 Metre UK 13 amp Fused plug to IEC C 13	
	SI2523 3metre Schuko(Euro) Plug to IEC C13 Socket	
	SI2514 2.5 metre Chinese mains to IEC C13	
Pallet	Stamped for export heat treated for 30 min @ 56 °C	Y
	Complies with all Export Requirements	

*** When ordered alone IN no. / Blue book **NOT** required

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

3 - MACHINE SPECIFICATION

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

SPECIAL REQUIREMENTS (DETAILED SPECIFICATION)

Approved by Sales: *G Armstrong*	Date: 17/06/20
Approved by Tech.: *M O'Connor*	Date: 17/06/20

*** When ordered alone IN no. / Blue book **NOT** required

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

3 - MACHINE SPECIFICATION

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

No.	ACTIONS FROM MEETING	ACTIONEE	RESPONSE

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

4 - LOG SHEET

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Date	Action Taken	By Whom
17/6/20	UPGRADE FITTED TO TEST RIG 2	P.H.
"	UNIT TURNED ON, PUMP SPEED, VALVES WORKING OKAY	P.H.

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

4 - LOG SHEET

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Date	Action Taken	By Whom

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

4 - LOG SHEET

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Date	Action Taken	By Whom

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

4 - LOG SHEET

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Date	Action Taken	By Whom

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

5 - FAULT REPORTING

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Fault(s)	Action Taken	By Whom	Total Time Taken to Resolve
22/06/20	NO faults found	SM	

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

5 - FAULT REPORTING

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Fault(s)	Action Taken	By Whom	Total Time Taken to Resolve

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

5 - FAULT REPORTING

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Fault(s)	Action Taken	By Whom	Total Time Taken to Resolve

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

5 - FAULT REPORTING

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Fault(s)	Action Taken	By Whom	Total Time Taken to Resolve

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

6: SYSTEM CONTROLLER TEST REPORT

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Serial Number:	20200001	Instrument Configuration:	20-20 + GSL
Tested By:	S. Mesdo	Date:	21/6/20

Initial Tests

Initial communication with PC	Initials: 22/6/20	Date: SM
Turbo speed readbacks respond	Initials: SM	Date: 22/6/20
Pressure trip limits are set and respond	Initials: SM	Date: 22/6/20
Vacuum gauges readbacks respond to changes in pressure	Initials: SM	Date: 22/6/20
Filament switches on and regulates normally	Initials: SM	Date: 22/6/20
All source readbacks match and respond to changes in set values	Initials: SM	Date: 22/6/20
E Magnet limit is set and readbacks follow set values (if appropriate)	Initials: SM	Date: 22/6/20
Valve banks respond (ensure all appropriate banks are checked)	Initials: SM	Date: 22/6/20
Flow meters respond appropriately	Initials: SM	Date: 22/6/20
Gas pressure gauges respond appropriately	Initials: SM	Date: 22/6/20
N_2 and CO_2 peaks and stability are good	Initials: SM	Date: 22/6/20
HD system VFC fitted and tested (if appropriate)	Initials: SM	Date: 22/6/20
All cables, boxes and equipment have been packed	Initials: SM	Date: 22/6/20

System Controller Sign Off

Ensure all boxes are filled in, signed and Dated as appropriate. If a test is not applicable the mark the associated boxes with N/A (not applicable)

Tests Completed By:	S. Mesdo	Date: 22/6/20
Dispatched By:	P. Hays	Date: 28/6/20

IN1233
DAN

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

7: ASSEMBLY AND TEST RECORD

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

PRODUCT: PREP PCS UPGRADE

SERIAL NUMBER: 10202/7-2020/1233

ASSEMBLED: (Name) D. W Date: 4/3/20.

PRE-TEST INSPECTION: (Production name) P. H. Date: 17/6/20.

PRE-TEST INSPECTION: (Test name) S. Mosley Date: 17/6/20

SYSTEM TEST: (Name) S. Mosley Date: 22/6/20

PRE-DESPATCH INSPECTION: (Name) S. Mosley Date: 28/6/20

P.A.T. Test results

In compliance with Low Voltage directive 73/23/EEC
To Low Voltage standard EN61010 – 1:1993

Earth Continuity _____ Ω

Insulation _____ MΩ

Earth Leakage Current _____ mA. @ _____ kVA.

Tested by: _____

Date: _____

IN 1233

DAN

Date: 17/06/2020
Time: 14:24:37

Sercon Limited

Batch Picking List

Works Order Number	WO01089
BOM Reference	10202/7
BOM Description	Prep PCB Upgrade
Qty Required	1.000
Qty Outstanding	1.000
Manuf.Instructions	
Works Order Notes	

Sales Order No. **Quantity** **DueDate**

booked IN 22/6/20

Drawings

Reference/Description	Valid From	ValidTo	Revision Number	Date

Required By

Works Order No.	BOM Reference	Quantity

Seq	Product Code	Qty Required	Qty Allocated	Qty Issued	To Issue	Bin Location/UOM
10.00	SI0384 Crimp Terminal For Socket Housing	0.000	0.000	0.000	0.000	D-W3 Each
20.00	SI0529 10 Way Socket Housing, 2.54mm Pitch	2.000	0.000	2.000	2.000	D-W3 Each
30.00	SI0538 37 Way Top Entry Plastic D Hood	4.000	0.000	4.000	4.000	D-X4 Each
40.00	SI0568 37 Way Solder Contact ZD Plug , 5A 400 Vac	2.000	0.000	2.000	2.000	D-X4 Each
50.00	SI0648 M3x13mm Nylon Pillar Male-Female,	10.000	0.000	10.000	10.000	D-W3 Each
60.00	SI0811 2 Way Socket housing, 2.54mm pitch	1.000	0.000	1.000	1.000	D-W3 Each
70.00	SI0962 Prep system PCB	1.000	0.000	1.000	1.000	B-O3 Each
80.00	SI1482 34 Way IDC Bump Polarised Socket, 1A	2.000	0.000	2.000	2.000	D-X4 Each
90.00	SI1910 Furnace Watchdog	1.000	0.000	1.000	1.000	B-O3 Each
100.0(	SI1918 8 way socket housing, 2.54mm pitch	3.000	0.000	3.000	3.000	D-W3 Each
110.0(	SI2228 37 Way Solder Contact ZD Socket , 5A 400 Vac	2.000	0.000	2.000	2.000	D-X4 Each
120.0(	SI2288 Internal USB 4.5m	1.000	0.000	1.000	1.000	B-H2 Each

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

7: ASSEMBLY AND TEST RECORD

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

PRODUCT: ELECTRONICS UPGRADE

SERIAL NUMBER: 30202/1-2020/1233

ASSEMBLED: (Name)	P. Hayes	Date:	17/6/20
PRE-TEST INSPECTION: (Production name)	S. Mosley	Date:	17/6/20
PRE-TEST INSPECTION: (Test name)	S. Mosley	Date:	17/6/20
SYSTEM TEST: (Name)	S. Mosley	Date:	22/6/20
PRE-DESPATCH INSPECTION: (Name)	S. Mosley	Date:	28/6/20

P.A.T. Test results

In compliance with Low Voltage directive 73/23/EEC
To Low Voltage standard EN61010 – 1:1993

Earth Continuity _____ Ω

Insulation _____ MΩ

Earth Leakage Current _____ mA. @ _____ kVA.

Tested by: _____

Date: _____

IN1233
Paul.

Date: 17/06/2020
Time: 14:00:31

Sercon Limited

Batch Picking List

Works Order Number	WO01086
BOM Reference	30202/1
BOM Description	System Control Upgrade
Qty Required	1.000
Qty Outstanding	1.000
Manuf.Instructions	
Works Order Notes	

Sales Order No. **Quantity** **DueDate**

Booked in 22/6/20

Drawings

Reference/Description	Valid From	ValidTo	Revision Number	Date

Required By

Works Order No.	BOM Reference	Quantity

Seq	Product Code	Qty Required	Qty Allocated	Qty Issued	To Issue	Bin Location/UOM
10.00	70101/12 20-22 Source Cable	1.000	0.000	0.000	1.000	B-H1 Each
20.00	70101/13 Standard Head Amp Cable	1.000	0.000	0.000	1.000	B-H1 Each
30.00	SI0155 Windows 7 based data system	1.000	0.000	1.000	1.000	 Each
40.00	SI0361 2 Way Cable Mount Screw Terminal 5.08mm	1.000	0.000	1.000	1.000	D-X6 Each
50.00	SI0387 9 Way Machine Cont Straight D Plug, 750Vac	1.000	0.000	1.000	1.000	D-X4 Each
60.00	SI0388 9 Way Machine Cont Straight D Skt, 750Vac	1.000	0.000	1.000	1.000	D-X4 Each
70.00	SI0538 37 Way Top Entry Plastic D Hood	4.000	0.000	4.000	4.000	D-X4 Each
80.00	SI0568 37 Way Solder Contact ZD Plug , 5A 400 Vac	2.000	0.000	2.000	2.000	D-X4 Each
90.00	SI0630 80mm Finger Guard	2.000	0.000	2.000	2.000	B-H7 Each
100.0(	SI0631 9 Way D Hood	2.000	0.000	2.000	2.000	D-X4 Each
110.0(	SI0793 Fan,axial,DC,80mm sqx15mm,3000rpm,53.0cu.m/h 24V	2.000	0.000	2.000	2.000	B-H7 Each
120.0(	SI0794 Female NiPt D Screwlock assembly, 13mm	4.000	0.000	4.000	4.000	D-X Each
130.0(	SI0895 Blue Cat5e UTP patch lead, 2m	1.000	0.000	1.000	1.000	B-H1 Each
140.0(	SI0896 Yellow Cat5e UTP patch lead, 2m	1.000	0.000	1.000	1.000	B-H1 Each

Batch Picking List

150.0(	SI0902 Toggle Switch	1.000	0.000	1.000	1.000	D-X Each
160.0(	SI0961 IRMS Electronics, basic unit plus Clk/Handshake PCB	1.000	0.000	1.000	1.000	D-V3 Each
170.0(	SI1482 34 Way IDC Bump Polarised Socket, 1A	2.000	0.000	2.000	2.000	D-X4 Each
200.0(	SI1795 37 Way IDC D Plug - Metal	2.000	0.000	2.000	2.000	D-X4 Each
210.0(	SI2228 37 Way Solder Contact ZD Socket , 5A 400 Vac	2.000	0.000	2.000	2.000	D-X4 Each
220.0(	SI2288 Internal USB 4.5m	1.000	0.000	1.000	1.000	B-H2 Each
230.0(	SI2297 8 Way Phoenix Header	1.000	0.000	1.000	1.000	D-X Each
250.0(	SI2351 4 Port PCI Express (PCIe) SuperSpeed USB 3.0 Card Adapter	1.000	0.000	1.000	1.000	 Each
260.0(	SI2352 2 Port Native PCI Express RS232 Serial Card with 16950 UAR	1.000	0.000	1.000	1.000	 Each
270.0(	SI2391 PC Monitor	1.000	0.000	1.000	1.000	 Each
280.0(	SI2512 3 Metre UK 13 amp Fused plug to IEC C 13	1.000	0.000	1.000	1.000	B-I1 Each
290.0(	SI2529 Cannon Pixma iP2850 Printer with USB Connectivity	1.000	0.000	0.000	1.000	 Each
180.0(	SI2565 System Control Unit issue 002	1.000	0.000	1.000	1.000	C Each
300.0(	SI2593 System Controller Artwork	1.000	0.000	1.000	1.000	C Each

Batch Picking List

IN1233
Paul.

Date: 17/06/2020
Time: 14:02:03

Sercon Limited

Batch Picking List

Works Order Number	WO01087
BOM Reference	70101/12
BOM Description	20-22 Source Cable
Qty Required	1.000
Qty Outstanding	1.000
Manuf.Instructions	
Works Order Notes	

Sales Order No. **Quantity** **DueDate**

Booked IN 17/6/20

Drawings

Reference/Description	Valid From	ValidTo	Revision Number	Date

Required By

Works Order No.	BOM Reference	Quantity

Seq	Product Code	Qty Required	Qty Allocated	Qty Issued	To Issue	Bin Location/UOM
10.00	SI1127 Plug Housing, 9way	1.000	0.000	1.000	1.000	D-U2 Each
20.00	SI1128 Strain Relief, 9way	2.000	0.000	2.000	2.000	D-U2 Each
30.00	SI1157 Cable for Source	0.000	0.000	0.000	0.000	D Each
40.00	SI1334 Crimp pin, mate-n-lok Pk/100	0.000	0.000	0.000	0.000	D-W2 Each
50.00	SI1476 Feedthrough Boss	1.000	0.000	1.000	1.000	D-U2 Each
60.00	SI1477 FeedThrough Boss Cover	1.000	0.000	1.000	1.000	D-U2 Each
70.00	SI1599 Brass Clip	9.000	0.000	9.000	9.000	D-X Each

IN1233
Paul

Date: 17/06/2020
Time: 14:02:57

Sercon Limited

Batch Picking List

Works Order Number	WO01088
BOM Reference	70101/13
BOM Description	Standard Head Amp Cable
Qty Required	1.000
Qty Outstanding	1.000
Manuf.Instructions	To be used on HD cable for 20/22.1 METER LONG ABCA/2 2 METERS LONG. INTEGRA/2 1.2 METERS LONG.
Works Order Notes	To be used on HD cable for 20/22.1 METER LONG ABCA/2 2 METERS LONG. INTEGRA/2 1.2 METERS LONG.

Sales Order No. **Quantity** **DueDate**

Booked IN 17/6/20

Drawings

Reference/Description	Valid From	ValidTo	Revision Number	Date

Required By

Works Order No.	BOM Reference	Quantity

Seq	Product Code	Qty Required	Qty Allocated	Qty Issued	To Issue	Bin Location/UOM
10.00	SI0567 15 Way Solder Contact ZD Plug 5A 400 Vac	1.000	0.000	1.000	1.000	D-X4 Each
20.00	SI0570 15 way Solder Contact ZD skt 5A 400 Vac	1.000	0.000	1.000	1.000	D-X4 Each
30.00	SI0632 15 Way D Hood	2.000	0.000	2.000	2.000	D-X4 Each
40.00	SI2439 6 Pair Twisted Pair Industrial Cable	0.000	0.000	0.000	0.000	 Each

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

7: ASSEMBLY AND TEST RECORD

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

PRODUCT: TURBO PUMP UPGRADE

SERIAL NUMBER: 30302/5-2020/1233

ASSEMBLED: (Name) P. Hayes/D Walker Date: 22/6/20

PRE-TEST INSPECTION: (Production name) S. Mosley Date: 22/6/20

PRE-TEST INSPECTION: (Test name) S. Mosely Date: 22/6/20

SYSTEM TEST: (Name) S. Mosley Date: 22/6/20

PRE-DESPATCH INSPECTION: (Name) S. Mosley Date: 28/6/20.

P.A.T. Test results

In compliance with Low Voltage directive 73/23/EEC
To Low Voltage standard EN61010 – 1:1993

Earth Continuity _____ Ω

Insulation _____ MΩ

Earth Leakage Current _____ mA. @ _____ kVA.

Tested by: _____

Date: _____

IN1233
Paul.

ate: 22/06/2020
ime: 11:42:54

Sercon Limited

Batch Picking List

Works Order Number	WO01090
BOM Reference	30302/5
BOM Description	nEXT85 Turbo Pumping System Upgrade Dual
Qty Required	1.000
Qty Outstanding	1.000
Manuf.Instructions	
Works Order Notes	

Sales Order No. **Quantity** **DueDate**

CABLES - DAN

Booked IN 22/6/20

Drawings

Reference/Description	Valid From	ValidTo	Revision Number	Date

Required By

Works Order No.	BOM Reference	Quantity

Seq	Product Code	Qty Required	Qty Allocated	Qty Issued	To Issue	Bin Location/UOM
10.00	SI0120 NW16 Tee Aluminium - Edwards	1.000	0.000	0.000	1.000	D-Z5 Each
30.00	SI0508 24V PSU	1.000	0.000	0.000	1.000	B-H9 Each
40.00	SI0570 15 way Solder Contact ZD skt 5A 400 Vac	4.000	0.000	0.000	4.000	D-X4 Each
50.00	SI0632 15 Way D Hood	4.000	0.000	0.000	4.000	D-X4 Each
60.00	SI0648 M3x13mm Nylon Pillar Male-Female,	2.000	0.000	0.000	2.000	D-W3 Each
70.00	SI0756 Connector, Crimp Terminal, Adaptor, Male-Male	0.000	0.000	0.000	0.000	D-W1 Each
80.00	SI0794 Female NiPt D Screwlock assembly, 13mm	4.000	0.000	0.000	4.000	D-X Each
90.00	SI0960 IEC Cord - Plug	1.000	0.000	0.000	1.000	B-I2 Each
100.0(	SI2519 nEXT85 Turbomolecular Pump	2.000	0.000	0.000	2.000	 Each
110.0(	SI2520 AXC85 Air Cooler	2.000	0.000	0.000	2.000	 Each
120.0(	SI2521 N/O TAV5 vent valve	2.000	0.000	0.000	2.000	 Each
130.0(	SI2522 Accessory "Y" adaptor	2.000	0.000	0.000	2.000	 Each

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6JT, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

8 - Serial Numbers Record Document

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Units	S/N
MS/ABCA	
Integra 2	
Prep Unit 1	
Prep Unit 2/Misc	
Electronics Upgrade	30202/1-2020/1233
CETAC	
Gas Box	
Autosampler	
BCR	
Dual Heater Block	

Pump Kit and Optics	S/N
Turbo pump S	200115007
Turbo pump A	200118039
Rotary Pump	
Voltage	110 / 240
Gauge S	
Gauge A	
Source	
Collector 1	
Collector 2	
Magnet	

Parts	S/N
Fan PSU	
24V PSU	

PCBs	S/N
Electronics Box	20200001
Prep PCB	20110007
VFC PCB	-
Watchdog PCB	2019001
Head Amp PCB 1	
Head Amp PCB 2	
Electromagnet RP	

Furnaces	S/N
Combustion	
Reduction	
HT-EA	
GC Oven	
Furnace 1	
Furnace 2	

PC	S/N
PC	
Monitor	
Printer	

Key

Pumps:	E: Edwards P: Pfeiffer
Furnaces:	V/S: Vecstar E; Elite
Magnet:	E: Electromagnet S: Standard
Turbos & Gauges:	S: Source A: Analyser
Collectors:	Std: Standard S: Sulphur HD: Hydrogen Deuterium

Additional System Info:

sercon
innovators in isotopes

Packing List

Customer Reference:

Shipper / Exporter:

Sercon Limited
Unit 3B Crewe Trade park
Gateway
Crewe
CW1 6JT
UK

Tel: +44 (0)1270 580008
Reference: IN1233

Consignee:

Utah State University
Bldg/Room/Suite NR 314
5205 Old Main Hill
Logan, UT 843225205
USA
ATTN: Megan French
Email megan.french@usu.edu

Contact Name: John Stark
Contact Tel Number: (435) 797-3518

BOX: 1

Quantity	Product Code	Product Description	Serial Number: *if available*
☑ 1	30202/1	Electronic Unit.	20200001
☑ 1	30202/1	Electronic Upgrade Cables (With US mains Cable)	30202/1-2020/1233
☑ 1	10202/7	Prep PCB upgrade Kit	10202/7-2020/1233
☑ 2	30302/5	Turbo Pumps	200115007 -200118039
☑ 1	30302/5	Turbo upgrade Kit	30302/5-2020/1233
☑ 1	SI0155	PC	
☑ 1	SI2391	Monitor	
☑ 1	SI2529	Printer	
☑ 1		Software Backup USB (packed in PC)	
☑ 1		Windows Recovery USB (packed in PC)	

Packed by: P Hayes

Date: 29/6/20

Claims for damage or shortages must be made within 3 days

Sercon Limited
Unit 3B Crewe Trade Park
Gateway, Crewe
CW1 6JT U.K.
Company Registration No.: 4290072

Phone: +44 (0) 1270 580008
Fax: +44 (0) 1270 252310
sales@sercongroup.com
www.sercongroup.com
VAT No.: 771 1100 74

Packing List

Customer Reference:

Shipper / Exporter:

Sercon Limited
Unit 3B Crewe Trade park
Gateway
Crewe
CW1 6JT
UK

Tel: +44 (0)1270 580008
Reference: IN1233

Consignee:

Utah State University
Bldg/Room/Suite NR 314
5205 Old Main Hill
Logan, UT 843225205
USA
ATTN: Megan French
Email megan.french@usu.edu

Contact Name: John Stark
Contact Tel Number: (435) 797-3518

BOX: Dimensions and weights

	L		W		H			
Box 1	100	x	85	x	106	cm	gw 84	kg
Box 2		x		x		cm	gw	kg
Box 3		x		x		cm	gw	kg

Sercon Limited
Unit 3B Crewe Trade Park
Gateway, Crewe
CW1 6JT U.K.
Company Registration No.: 4290072

Phone: +44 (0) 1270 580008
Fax: +44 (0) 1270 252310
sales@sercongroup.com
www.sercongroup.com
VAT No.: 771 1100 74

sercon
innovators in isotopes

Sercon Ltd, Unit 3B Crewe Trade Park, Gateway
Crewe, Cheshire CW1 6YY, UK
Tel: +44 (0)1270 580008 Fax: +44 (0)1270 252310
Company Registration No. 4290072 Vat No. 771 1100 74

12 – Installation Acceptance and Warranty Certificate

Client:	Utah State University		
Quotation Number:	13963	Date:	16/01/2020
Job Number:	IN1233	Date:	16/06/2020

Contact:	John Stark
System:	
Software:	
Engineer:	
Installation Date:	

Warranty commences:	
Warranty Expires:	

Customer Acceptance:

Name: .....

Signature: .....

Date: .....

Engineer's Signature:
On behalf of Sercon Limited

Name: .....

Signature: .....

Date: .....

Notes: