



Please FAX/EMAIL Signed and completed form to your Territory Support Center

USA CUSTOMERS: fax# 877-373-4006 email: [us.customersupport.analyze@thermo.com](mailto:us.customersupport.analyze@thermo.com)




CANADIAN CUSTOMERS: fax# 905-890-9161 email: [camis.sidservice@thermofisher.com](mailto:camis.sidservice@thermofisher.com)

## iCap Q ICP-MS Laboratory Preparation Checklist



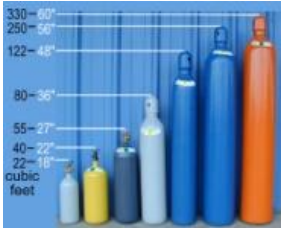
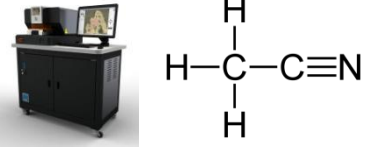
The installation of your iCap Q ICPMS cannot be scheduled until this form is completed and returned to the above address.

Please answer all of the following and return the completed form to us.

**Refer to the latest Pre-Installation Manual / Guide for more detailed Lab Requirements**

Component	Description	Specification	Test Result
<b>Electrical Requirements</b>			
<b>iCap Q</b>	NEMA Style L6-30P  <b>If a UPS is Purchased then please ensure the Appropriate Supply Breaker is used. For more information please contact your local Service Engineer</b>	Nominal Voltage = 207-240VAC (Minimum Voltage is Critical)  Supply Breaker = 30A  Power Conditioner Installed? If Yes; Model = _____  UPS Installed? If Yes; Model = _____	_____ VAC  _____ A  Yes <input type="checkbox"/> No <input type="checkbox"/>  Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Chiller</b>	NEMA Style 6-20P (Thermo Flex 2500) 	Nominal Voltage = 200-240VAC  Supply Breaker = 20A  Thermo Chiller Purchased? If No; Model = _____	_____ VAC  _____ A  Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Peripherals</b>	NEMA Style 5-15P   <b>Please note that if you are preparing your Lab for a Laser Ablation System then the required voltage may be different from what is indicated. Please contact your local Service Engineer with specific Questions regarding your specific Laser Ablation Site Requirements.</b>	Standard 115VAC North American Receptacles needed for Peripherals Current = 15A  Autosampler Computer Monitor Laser Ablation	_____ VAC  _____ A  Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>

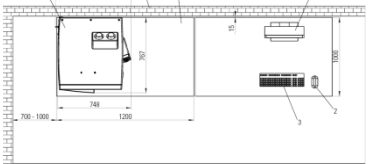



## Gas Requirements

<p><b>iCap Q Plasma Gas</b></p> 	<p>The Ar Supply Regulator must be a High Quality Dual Stage Regulator capable of delivering 80-90PSI (5.5 to 6 BAR). Flow Rate (Max) = 24L/min</p> 	<p>It is preferred the Ar Dewar/Tank be within 3 meters of the instrument. Argon / Purity (&gt;99.998%) Pressure Regulator range:</p> <p>Liquid Dewar <u>OR</u> Compressed</p> <p>If Compressed gas is used please have access to 8 tanks for the duration of the installation.</p>	<p><b>Tank within 3 m of instrument</b> Yes <input type="checkbox"/> No <input type="checkbox"/> Ar : _____ % _____ psi</p> <p>Liquid <input type="checkbox"/> Compressed <input type="checkbox"/></p> <p>Qty = _____</p>
<p><b>CCT Gas 1</b></p>	<p>The CCT requires a High Quality Dual Stage SS Regulator capable of delivering 15PSI (1 Bar).</p> <p>Thermo Fisher Scientific has the appropriate regulator available for purchase. Part Number = M3813-580-S</p> <p>CCT Gas tank can be any size. The CGA type must be 580 if using the Thermo Fisher Supplied Regulator</p> 	<p>CCT Tank must be within 2 meters of the instrument.</p> <p>CCT Gas 1 Helium Purity = &gt;99.999%</p> <p>Regulator Purchased from TFS?</p> <p>If no, please indicate Model and Pressure Delivery range of Regulator Supplied</p>	<p><b>Tank within 2m of instrument</b> Yes <input type="checkbox"/> No <input type="checkbox"/> _____ %</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/> _____</p>
<p><b>CCT Gas 2</b></p>	<p>The CCT requires a High Quality Dual Stage SS Regulator capable of delivering 15PSI (1 Bar).</p> <p>CCT Gas 2 is Optional. This is sometimes used in applications where unique gas mixtures are used for Reaction or Collision Technology.</p>	<p>CCT Gas 2 used</p> <p>CCT Tank must be within 2 meters of the instrument.</p> <p>CCT Gas 2 Type?</p> <p>Purity = &gt;99.999%</p> <p>Is the appropriate Regulator Available? Outlet must be capable of connecting to a 1/16" SS Capillary Tubing</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> <b>Tank within 3m of instrument</b> Yes <input type="checkbox"/> No <input type="checkbox"/> _____ %</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p><b>Additional Gas</b></p>	<p>The Additional Gas can be used for a number of different applications. Please consult your local Sales Person to determine the appropriate Additional Gas Needed</p> 	<p>Additional MFC Ordered? MFC Type?</p> <p>Oxygen Requirement for Organic Applications Purity = &gt;99.996% Max Water = &lt;5PPM</p> <p>Helium Requirement. Typically used in Laser Ablation Applications Purity = 99.996% Max Water = &lt;5PPM</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/> 250mL <input type="checkbox"/> 1000mL <input type="checkbox"/> _____ %</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>_____ % Yes <input type="checkbox"/> No <input type="checkbox"/></p>

## Computer

<b>Computer</b>	<p>Thermo Fisher Scientific will provide a Dell Optiplex Series Computer with the Purchase of the iCap Q. If Computer is purchased separately then please ensure the minimum computer specifications have been met.</p> <p><b>NOTE: If purchasing a PC separately the installation and performance specifications will be performed using the Thermo Supplied PC. Connecting Non Thermo Supplied Computer may result in additional charges at current Labor Rate.</b></p> <p><b>Current PC Specification Sept 2012: Dell Optiplex 990 MT Core i3-2100 3,1GHz</b></p> <ul style="list-style-type: none"> <li>- Processor, 3,1 GHz</li> <li>- Minitower</li> <li>- 4096 MB 800 MHz DDR2 RAM</li> <li>- 1TB SATA II Hard drive</li> <li>- DVD-RW Drive</li> <li>- DVI-Add in card</li> <li>- Network Adapter 10/100</li> <li>- 2 PCI- and 1 PCI-Express-Slots</li> <li>- 1 parallel port</li> <li>- 2 serial port</li> <li>- 12 USB 2.0</li> <li>- Graphics processor on board, up to 128 MB memory</li> <li>- Network chip 10/100/1000 on board</li> <li>- US keyboard black</li> <li>- Dell USB Optical Mouse black</li> <li>- Operating System, English Windows 7 Professional (32Bit OS)</li> <li>- MS Office 2010 Prof. (English)</li> <li>- English Documentation</li> <li>- 3-Years warranty</li> <li>- Norton Antivirus 2011 in English (15 Month Subscription)</li> </ul>	<p>Purchased Thermo Computer Purchased Computer Separately?</p> <p>Does the Computer meet the minimum Settings as described</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
-----------------	---	---	---

## Lab Environment

<b>Bench</b>	<p>Bench Space</p>  <p>If the bench is fixed to the wall it is recommended that holes be drilled to accommodate the drain/rinse lines from the Autosampler. Location of the hole should be at the rear and centered.</p> <p><b>Please Note: If you plan on placing the chiller underneath the bench the minimum height must 30 inches</b></p>	<p>Instrument Bench ready? H x L x D =&gt; 30 x 48 x 40    Hole(s) Drilled for Drain Lines?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/>          Yes <input type="checkbox"/> No <input type="checkbox"/>          Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<b>Exhaust</b>	<p>Exhaust for the iCap Q Can be configured with either 1 or 2 lines.</p> <p>Plasma Exhaust is Mandatory. Heat Exhaust is Optional.</p> <p><b>Please Note that if Optional Heat Exhaust is NOT installed then the Lab AC Must be capable of removing the additional 300W of Heat that will be dissipated into the room.</b></p>  <p>Labeled Components: 1=plasma exhaust, 2=heat exhaust</p> <p><b>The Outside Diameter of the Exhaust Drops must be = 63mm*</b></p> <p>Examples of Exhaust can be found in Appendix 1 below.</p>	<p>Extraction system operational</p> <p>Are dual lines installed?</p> <p>Plasma Exhaust = 6 to 8 m/s Heat Exhaust = 4 to 6 m/s</p> <p>Diameter of Exhaust Ports (mm) *63mm tubing shipped with instrument.</p> <p>Damper for Plasma Exhaust Damper for Heat Exhaust</p> <p><b>If a separate damper can't be installed then please base the exhaust flow on Plasma Exhaust</b></p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/>          Yes <input type="checkbox"/> No <input type="checkbox"/>          _____ m/s          _____ m/s          _____ mm          Yes <input type="checkbox"/> No <input type="checkbox"/>          Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<b>A/C and Humidity</b>	<p>The specification for the A/C and Humidity are guidelines that take into account extreme conditions. Optimal Room Temperature and Humidity will provide the best environment for Optimal Instrument Performance.</p>	<p>Temperature (15°C - 35°C)  <b>Optimal Temp: 18°C - 21°C</b>          Stability (&lt; 2°C/hour)          Relative Humidity (20-80%)  <b>Optimal Humidity 30% - 50%</b></p>	<p>_____ °C          _____ °C          _____ °C/hour          _____ %          _____ %</p>
<b>Water Supply</b> 	<p>Thermo Scientific chiller example</p> 	<p>Purchased Thermo chiller          Customer supplied chiller:</p> <p>Temperature (15°C-20°C)          Flow Rate (5 LPM at 80psi)          Temperature Stability (± 1°C)          &gt;2500 Watts cooling capability          Fitted for 12mm OD tubing</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/>          Yes <input type="checkbox"/> No <input type="checkbox"/>          Model: _____          _____ °C          _____ l/min          _____ °C          _____ W          Yes <input type="checkbox"/> No <input type="checkbox"/></p>

**Ventilation Note: Refer to the latest Pre-Installation Manual / Guide**

The ventilation requirement is critical for the system operation. If the minimum velocity is not reached through the 63mm connection to the plasma exhaust then the instrument cannot be operated. This setting has to be verified even if you have been operating another ICP-MS using the same ventilation system

**Electrical Note:**

The minimum voltage to the instrument is 207 VAC. If the voltage is less than 207 VAC, then we cannot install the **iCap Q**. Please inform your Sales or Service Engineer of any voltage measurements that do not meet this specification. Thermo Fisher Scientific can provide a quotation for a suitable Power Conditioner that will step the voltage up to meet the necessary requirements

**Completed Checklist Note:** Failure to ensure these requirements are met may lead to delayed installation and additional travel costs for the service engineer, for which you may be responsible.

Please complete this site form, including your signature and fax it to the attention of our service department so we can then start scheduling the installation.

USA CUSTOMERS: fax# 877-373-4006 (or email: [us.customer-support.analyze@thermo.com](mailto:us.customer-support.analyze@thermo.com))

CANADIAN CUSTOMERS: fax# 905-890-9161 (or email: [camis.sidservice@thermofisher.com](mailto:camis.sidservice@thermofisher.com))

Order Number: \_\_\_\_\_

Company Name: \_\_\_\_\_

Instrument Model: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

Email: \_\_\_\_\_ Phone #: \_\_\_\_\_

Date: \_\_\_\_\_

If you have questions or concerns, please call our Toll free number:

USA: 1-800-532-4752

Canada: 1-800-530-8447

For additional information on how to determine or measure the correct airflow visit;

[http://www.comairrotron.com/airflow\\_calc.shtml](http://www.comairrotron.com/airflow_calc.shtml)

<https://www.fishersci.com/wps/portal/PRODUCTDETAIL?productId=5386677&catalogId=29104&pos=5>

Below are some examples of some exhausts installed by **iCap Q** Customers.

