

**Quotation No.**



*Please reference our quotation number above in all related correspondence.*



Quotation for:

**Proposed Solution**

Line No.	Part No.	Description	Quantity	Amount (In USD)
1	1016769	Helios NanoLab 600i	1	1,775,394.00
2	FP 3440/48	System Covers for Helios NanoLab	1	
3	FP 3400/31	Platinum Deposition (Pt)	1	
4	FP 3400/51	Insulator Enhanced Etch	1	
5	FP 6842/23	Beam Deceleration Mode	1	
6	FP 6903/20	Retractable DBS Detector	1	
7	FP 2303/09	ICE Detector	1	
8	FP 6843/51	6-Channel Detector Amplifier	1	
9	1024112	Maps Tiling & Stitching	1	
10	FP 3610/13	Quick Loader	1	
11	FP 3660/00	UMB Specimen Holder Kit	1	
12	FP 2301/29	Integrated Plasma Cleaner	1	
13	FP 6761/49	Nav-Cam	1	
14	FP 6822/10	52-pin Electrical Feedthrough	1	
15	1026859	Windows 7 Support PC Upgrade	1	
16	FP 2311/01	Joystick	1	
17	FP 2311/05	Manual User Interface	1	
18	9432 909 96461	Thermoflex Chiller 60 Hz	1	
19	FP 6343/02	Mains Matching and Isolation Transformer SEM	1	
20	FP 6940/15	Seismic Restraint Kit	1	
21	9425 060 99100	On-site Training/Support (1 day, offered by Hillsboro)	3	
22	FP 2354/09	Oxford EDS Integration Kit	1	
23	4022 404 41070	Installation Labor Helios NanoLab 600i NA	1	
24	4022 404 02070	Installation Material Helios NanoLab 600i NA	1	
25	4022 404 43070	Warranty Labor Helios NanoLab 600i NA	1	
26	4022 404 04070	Warranty Material Helios NanoLab 600i NA	1	
27	4022 400 40031	EXW Brno (T-3)	1	
28	9425 061 69625	NanoE NA Installation Kit for Nova NanoLab / Strata / Helios / V600	1	

**Options**

1	1016990	Aztec Installation and Training from Oxford - Installation of EDS 250/Aztec Standard/Advanced/Automated	1	9,350.00
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		Global		
2	1018208	<b>Aztec Xmax80 - AZtecEnergy Advanced with X-Max SDD 80sqmm, 127eV resolution detector.</b> <b>Hardware includes:</b> <b>X-Max80 detector, PC (Win7), x-stream-2 digital pulse processor and micsF+ Microscope Image Capture System</b> <b>Software includes:</b> <b>AZtecEnergy Advanced (Analyser, Point&amp;ID, Mapping, Linscan, Standardisation Manager, TruMap, AutoLock, AutoLayer)</b> <b>INCAEnergy 350 (Navigator - Analyser Navigator and Mapping Navigator, Point &amp; ID, The AdvisorTM , Information Management System (IMS) , Reporting, SmartMap, XPP Quantitative Algorithm, Data Export, Spectrum Examiner, Pile-Up Correction, Spectrum Subtraction, SiteLock, Spectrum Synthesis, Lines &amp; Grids, Cameo+, PhaseMap, QuantMap)</b>	1	<b>89,100.00</b>

Sub Total:	<b>1,873,844.00</b>

**Duty\* and Taxes NOT included**

\*You may qualify for duty free entrance if an application is submitted to the Department of Commerce and US Customs. If you elect not to submit an application or your application is denied, duty is 3.5% of the purchase price.



## Product Descriptions

### 1016769 Helios NanoLab™ 600i

The Helios NanoLab 600i is a SEM/FIB DualBeam workstation designed for nano-prototyping, nano-machining, nano-analysis and advanced sample preparation. The key enabling technologies are all integrated onto a single platform, such as:

- XHR electron optics (magnetic immersion lens type) with electrostatic scanning, and advanced SE and BSE in-lens detection
- A high brightness NG electron source which enables sub-nanometer resolution at higher beam energies
- Optional high sensitivity, retractable solid-state directional backscattered detector (DBS).
- ConstantPower™ design of electromagnetic lenses for ultimate stability, high controllability and reproducibility of the electron beam
- High-resolution (field emission) ion optics (Tomahawk™ column), featuring a two-stage differential pumping and time of flight correction enabling fine high-accuracy FIB milling, deposition and etching.
- An integrated CryoCleaner<sup>EC</sup> (optional) with spare vessel and a plasma cleaner (optional) to ensure that the specimen-surface is exceptionally clean. A very clean specimen surface is especially important when working at low landing energies, where the deposition rate of hydrocarbon is highest and true sample-surface information desired.
- Advanced control of Gas Chemistries (optional) including FEI proprietary gases such as Delineation Etch or Selective Carbon Mill
- High-precision specimen Piezo goniometer with full 150 mm travel along the x and y axes.
- An optional optical navigation camera (door-mounted NavCam) can be added to facilitate low magnification sample navigation
- Integrated beam current measurement
- A high-resolution, 16-bit digital patterning engine capable of Simultaneous Pattern and Imaging (SPI™)
- Integrated Real Time Monitor (iRTM)
- Selective Etch Software to enable selective milling of complex shapes based on image contrast.
- System architecture is optimized for automation to support consistent TEM preparation or Slice and View applications, including support for recipes created using iFast
- Designed for SEMI S2 and CE compliance
- A Windows 4-quadrant -Beam/detector per Quad1 User Interface optimized for 241 widescreen LCD

#### *Features and specifications:*

##### *Geometry:*

On a 21-detector port specimen chamber the electron and ion column are mounted at 52 degrees to each other. The beam coincidence point is at 4 mm (e-beam) working distance, which is also the eucentric working distance of the stage and the analytical working distance. There are 5 ports available for installing Gas Injection Systems, grouped around the ion column.

##### *Vacuum*

The Helios NanoLab 600i uses a vacuum system, which is entirely oil-free. Differential pumping on the electron column ensures tip operation at the ultra-high vacuum levels ( $10^{-10}$  mbar) even with a controlled gas flow in the specimen chamber. Meanwhile, differential pumping on the ion column allows finer and more accurate milling, deposition and etching.

##### *Sample navigation*

The Helios NanoLab 600i is equipped with a 5-axes motorized x-y-z-rotate-tilt stage, of which x, y and rotation movements are piezo-controlled. Travel along the x and y-axis is 150 mm, the tilt range is -10 to 60 degrees. The motorized z-range is 10 mm. Minimum step size is 100 nm, repeatability at 0 degrees tilt is 1  $\mu$ m, and 2  $\mu$ m at 52 degrees tilt. High-resolution sample holder for five 0.51 specimen stubs included.

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A selection of sample holder kits is optionally available (including stub holders, TEM sample holders, vise specimen holders and wafer holders). Joystick stage control is available as an option. An optional door-mounted optical navigation camera can be ordered and mounted externally to the chamber to facilitate low magnification sample navigation.

#### *Electron optics*

Dual-mode magnetic immersion / field free lens electron optics with ultra-high brightness, next-generation FEG emitter.

Source:	Schottky field emitter mounted on the innovative hot-swap gun module
Source lifetime:	One (1) year guaranteed
Voltage:	350 V to 30 kV, continuously adjustable
Beam current:	≤22 nA
Resolution (the room needs to meet the installation requirements):	0.9 nm at 15 kV (at eucentric WD) 1.4 nm at 1 kV (at optimum WD)
Detection:	In-lens SE and BSE with high-angle collection

With the optional beam deceleration package improved resolution specifications for landing energies  $\leq$  ~2 kV can be obtained.

#### *Ion optics*

Tomahawk™ field emission focused ion beam optics with liquid Gallium ion emitter.

Source lifetime:	1000 hours
Voltage:	0.5 kV to 30 kV
	Differentially pumped
Beam current:	0.1 pA - 65 nA (15-position aperture strip)
Resolution:	4.0 nm at 30 kV using preferred statistical method 2.5 nm at 30 kV using selective edge method
Detection:	ICE detector (direct ion detector)

#### *Scanning system*

High-resolution digital scanning engine controlled from the User Interface.

Resolution:	512x442, 1024x884, 2048x1768, 4096x3536 pixels (conventional) 768x512, 1536x1024, 3072x2048, 6144x4096 pixels (widescreen)
Minimum Dwell Time:	25 ns/pixel
	Electronic scan rotation by n x 360 degrees

#### *Patterning system*

High-resolution digital patterning engine controlled from the User Interface

Maximum resolution:	64k x 64k
Maximum pattern size:	8M pixels
Minimum Dwell Time:	25 ns/pixel
Maximum Dwell Time:	25 ms/pixel
	Multiple pattern shapes including circle (annulus), rectangles, cross sections, line scans and polygons
	Dynamically variable pixel dwell time to give 3D pattern milling
	Complex milling patterns through Bitmap and dedicated stream-file import

#### *Detection*

The Helios NanoLab 600i features in-lens SE and BSE detection specially designed for high-resolution imaging at both high and low kV's, as well as an Everhart-Thornley SE detector for conventional SE detection, and ICE detector for SE and secondary ion imaging. The in-lens SE detector features a technique where the energy range of the detected secondary electrons can be selected.

An integrated IR-CCD camera is standard for in-chamber viewing.

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The ICE is an optional detector for secondary ion and electron detection. Its novel design is optimized for imaging with the ion column in both ion and electron collection mode. The patented ion detection scheme provides revolutionary secondary ion imaging. Additionally, ICE has a high current and low current mode, increasing the useful beam current dynamic range. The ICE detector can be used in combination with charge neutralizer (optional), enabling secondary ion imaging while the specimen is flooded with electrons to neutralize charge.

The optional retractable DBS (Directional Back Scatter) detector is a highly sensitive low voltage solid state detector optimized for low energy electron large solid angle detection. It can be used in combination with beam deceleration to optimize materials contrast and/or obtain mixed topographic and materials images. Also optionally available is a retractable, solid-state STEM 3 detector for both bright- and dark-field imaging and for Nano-analysis of FIB-prepared cross-sections.

#### *Imaging*

Images are displayed in an area of 1536 x 1024 pixels, configurable for single frame display or 4-quadrant (768x512 pixels) display. Images can be viewed live (up to 4 channels), averaged or integrated. Images can be saved in TIFF, BMP or JPEG file formats, and in 8-bit, 16-bit or 24-bit depth, to the hard disk or LAN from the graphical user interface. Image printing is also available from the user interface.

#### *Patterning*

Predefined patterns including circle (annulus), rectangles, cross sections, line scans and polygons can be drawn in overlay in any of the four quadrants in the UI. Progress of the patterning is monitored in the User Interface through a progress bar. End-point detection is available through a specimen current graph and a software-integrated Real-Time Monitor. Simultaneous imaging and patterning is a standard feature of the Helios NanoLab 600i.

#### *Integrated Real-Time Monitor (iRTM)*

The integrated real-time monitor displays a live image within the patterning window during ion beam patterning (imaging, deposition or milling). The intensity (image brightness) is proportional to the level of the detector signal (amount of secondary particles being detected during patterning). As such, the real-time monitor can give instant feedback on the ion beam process. This is typically most useful when milling through a stack with different material layers. Since the yield of secondary particles changes when transitioning from one layer to the next, it is possible to follow the progress by monitoring the brightness changes on the real-time monitor. The real-time monitor is highly recommended for such tasks as device edit and micro-/ nano-machining.

#### *System control*

The Helios NanoLab 600i is controlled from a Windows Graphical User Interface running at 1920 x 1200 screen resolution on a dedicated microscope controller. A support computer is standard on the system for software utilities that could interfere with the control software running on the controller (e.g. LAN connection). The system includes three 241 widescreen LCD monitors, an optical mouse and a height-adjustable office desk. The two computers are controlled with a single keyboard and mouse using an automatic switch box (-MagicSwitch1). A manual user interface (optional) allows for hands-on control of focus, stigmation, magnification, XY fine position, and contrast/brightness in addition to standard mouse control. The stage can be controlled through the user interface or by an optionally included joystick.

#### *System Covers*

To complete the instrument, System Covers for Helios NanoLab must be ordered. Alternatively, it is also possible to order an Acoustic Enclosure (for the system), which can be used to relax the acoustic pre-install requirement from <55 dBC to <70 dBC.

RAPI  
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This instrument is RAPID-enabled. RAPID (Remote Access Program for Interactive Diagnostics) is a highly secure connectivity tool that enables FEI's service engineers to connect directly to the instrument to address system issues remotely. RAPID can significantly speed up repair time and thus reduce instrument downtimes, while improving FEI's overall quality of service. FEI's service engineers use RAPID to perform remote system diagnostics and repairs, support user operation and view images for enhancing system performance. However, customers maintain complete control of how and when RAPID is used -- each RAPID session must be initiated by the customer. RAPID requires a high-speed internet connection (> 5 MB/sec recommended, 1 MB/sec required). For full details please browse to the RAPID pages on [www.fei.com](http://www.fei.com).

#### *System Support*

The microscope entitles the owner to free access to the on-line resources of FEI for Owners and free membership of the FEI FIB & DualBeam User Club (see [www.fei.com/owners](http://www.fei.com/owners) for details). These are valuable resources enabling users to link to other users of FEI instruments around the world. Main features are:

- Learn and stay updated on new developments, microscope enhancements and applications
- Share expertise and knowledge with peers
- Discuss and communicate with FEI specialists

By using these support activities, customers of FEI are able to interact with other users directly and share knowledge, which will help them being more successful.

#### *Installation requirements*

Please refer to the Helios NanoLab 600i pre-installation guide.

#### **FP 3440/48 System Covers for Helios NanoLab**

The System Covers for Helios NanoLab are required to complement the main Helios NanoLab instrument when no acoustic enclosure (FP 3440/49) is ordered. This option includes covers for the column and the console of the instrument.

This option is available for Helios NanoLab 450/450S/650/600i.

#### **FP 3400/31 Platinum Deposition**

Gas chemistry solution for Ion or Electron beam deposition of Platinum-containing material. Platinum gas chemistry is the preferred metal deposition in case ease of use, high deposition rate and precision of the deposition is required. The package includes the gas precursor, injection needle, gas injector system and controller. This gas chemistry option is assembled, tested and shipped with the basic microscope or DualBeam.

Important note: the customer is responsible for making sure a fume hood is present for on-site service of this chemical by an FEI engineer

#### **FP 3400/51 Insulator Enhanced Etch**

Gas chemistry solution ( $\text{XeF}_2$ ) for enhanced etching of insulator materials, mounted on any of the available GIS ports. This gas chemistry is used to selectively remove insulating materials while inhibiting the removal of conducting materials. The package includes the gas precursor, injection needle, gas injector system and controller. Due to hazardous goods regulations, this option will be drop-shipped at the customer site.

Important note: the customer is strongly recommended to ensure a fume hood is present for on-site service of this chemical by an FEI engineer

#### **FP 6842/23 Electron Beam Deceleration**

Electron Beam Deceleration enables:

- Improved resolution at landing energies of 2 kV and lower
- Landing energies 50 V – 30 kV



- Stage bias between -4 kV and -50 V

This part number (FP 6842/23) is available for Helios NanoLab 600i.

#### **FP 6903/20 Retractable DBS detector**

The annular, Back-scattered (BS) detector (called the DBS – Directional Back Scatter detector) is an ultra-sensitive, Solid State (SS) detector which is sensitive to emitted electrons from 500 V onwards. Using Beam deceleration (sample bias to reduce the landing energy), images with beam landing energies down to 50 V are possible. Especially when Beam Deceleration is applied in combination with immersion field, it is possible to detect all BS electrons emitted up to 90 degrees.

The retractable DBS detector features four annular segments that enable separate detection of electrons emitted at different angles. All four segments may be acquired simultaneously and mixing based on adding / subtracting individual segments is possible. This way it is possible to select multiple contrasts (material and topographical) that can be optimized per application.

This detector is mounted on a software-controlled retractable arm and allows simultaneous EDS spectra acquisition for WD ≥ 5 mm. Fast imaging becomes possible with this detector.

The Retractable DBS detector (FP 6903/20) is available for Helios NanoLab 450/450S, 650 and 600i systems and for Magellan 400. It requires the presence of a 6-channel Detector Amplified (which is standard included with Helios NanoLab 450 and 450S)

#### **FP 2303/09 ICE Detector**

The ICE detector is an optional detector for secondary ion and electron detection. Its novel design is optimized for imaging with the ion column in both ion and electron collection mode. The patented ion detection scheme provides revolutionary secondary ion imaging. Additionally, ICE has a high current and low current mode, increasing the useful beam current dynamic range. The ICE detector can be used in combination with the charge neutralizer enabling secondary ion imaging while the specimen is flooded with electrons to neutralize charge.

#### **FP 6843/51 6-Channel Detector Amplifier**

Pre-amplifier for all solid-state backscattered detectors such as the low-kV, solid-state backscattered detector, the two-segment STEM detector or the annular STEM detector. 6 channels allow mounting of multiple detectors to the same pre-amplifier. The design of the pre-amplifier allows TV-rate imaging throughput even for solid-state backscattered detectors.

#### **1024112 Maps Tiling & Stitching.**

Maps is a software suite for high-throughput, fully automated, image acquisition system. Maps Tiling & Stitching is the basis for other Maps packages and enables recording information from large areas in a smart way.

Maps Tiling & Stitching is capable of recording images with a pixel size up to 8k x 8k (the maximum size depends on the instrument and server software) and stitches these images together to create a distortion-free, high-resolution overview of the sample area. Maps is supported both on SEM as well as DualBeam products. For SEM products, Maps works with all available detectors: with the high signal-yield, in-lens detectors, the super-sensitive STEM detectors, as well as with the angular selective detector on the Magellan, NanoSEM and Quanta products. For the DualBeam products, Maps functionality is limited to the SEM column functionality. FEI's high precision stages allow image acquisition with minimal overlap (typically a 5% overlap is sufficient for distortion-free stitching of the individual tiles). Maps is optimized for minimal process overhead and offers instant feedback during the acquisition process.

Creating large images by tiling & stitching has the following benefits:

- Ease the demand on ambient conditions stability for stable and non-distorted image acquisition.
- Allow user to start analyzing the data during the acquisition process.





- Acquisition time is optimized by imaging relevant areas only

This product includes a license for the stitching and viewing functionality of Maps on the Support PC as well as one additional license for another PC. This frees up time on the instrument for the time consuming stitching operation.

Maps can handle microscope data in the following formats: jpeg, bmp, Tiff and png. Maps image data can be saved in RAW format, Tiff format, or in the appropriate format for visualization with Microsoft HD View.

Maps is supported with the following xT server versions:

Helios NanoLab	xT 5.0 and beyond
Versa 3D	xT 6.1.2 and beyond
Magellan	xT 4.5.x and beyond
Quanta (FEG)	xT 4.1.10 and beyond
Nova NanoSEM	xT 6.2 and beyond

*Note*

Maps Tiling & Stitching requires at least 4 GB of RAM memory.

**FP 3610/13 QuickLoader**

The Quick Loader is designed to load regular, 12.5 mm to 32 mm size sample stubs into the specimen chamber via a chamber port without breaking the working vacuum. This alone helps provide a cleaner environment for electron optical work to proceed. With an exchange time of less than one minute from sample to sample loading and unloading is invariably faster than system door entry, providing more time for observation and analysis.

The vacuum operation is totally integrated into the vacuum of the SDB or SEM it is loading and therefore utilizes all necessary internal safety interlocks. Operation is via indicating buttons for only Pump and Vent on the Quick Loader console, thus simplifying the loading and unloading cycles. Stage location is automatically set when either Pump or Vent buttons are pressed allowing immediate loading/unloading at the computed position to take place.

The Quick Loader can be upgraded at any time to cryogenic operation. With the addition of a CryoMAT kit (FP 3610/09), the Quick Loader transforms to a cryo-stage version for cooling non-hydrated samples. This proves to be very useful for FIB work or even just observing Polymers, composites and other beam or vacuum sensitive samples. The addition of CryoMAT does not compromise the operation of the Quick Loader as a room temperature loader.

*Key points*

- Fast pumping time of 25 seconds
- Image to image less than 1.5 minutes
- Integrated into microscope vacuum system
- Uses system safety interlocks
- Software automated control of stage positioning
- Upgradeable to CryoMAT

This part number (FP 3610/13) is suitable for Helios NanoLab 650 and 600i.

**FP 3660/00 UMB Stub holder kit**

Specimen stub holder kit containing the following items:

- Universal mounting base (UMB)
- 2 stub modules each holding 3 ½ inch stubs or 2 1 inch stubs
- 2 clamp bars
- User guide
- Storage box



- System calibration sample

**FP 2301/29 Integrated Plasma Cleaner**

An integrated Plasma cleaner helps to ensure that the specimen surface stays clean. Its integration allows for a direct access through the user interface to two cleaning modes: chamber cleaning, and a mild specimen surface cleaning. The removal of hydrocarbon contaminants is of particular importance when operating at low kV for true surface imaging,

This option is available for Helios NanoLab 600i, Versa 3D, Nova NanoSEM x50, and the FEG versions of Inspect and Quanta.

**FP 6761/49 Nav-Cam**

The Nav-Cam is an optical camera for Nova NanoSEM 650 and Helios NanoLab 650/600i which mounts to the chamber door and which provides a means to acquire a 5-megapixel image of samples mounted on the specimen stage. The Nav-Cam is optimized to capture images at the analytical working distance in color so areas of interest can be found and investigated. The system incorporates sample lighting and a push button capture mechanism to ensure easy operation for high quality images. The resulting image covers the complete stage travel area of 6" (150 mm) and can be zoomed in the user interface to look more closely at a specific sample location.

This Nav-Cam (FP 6761/49) requires xT Control Software version 4.7.x or higher on Nova NanoSEM or xT Control Software version 4.5.x or higher for Helios NanoLab 650/600i. Please note that this Nav-Cam is only available to older Helios 650/600i systems (i.e. with part numbers starting with FP 20..., or with part numbers starting with 10167..).

**FP 6822/10 52-pin Electrical Feedthrough**

The 52 pins are arranged in four groups of 13 pins each. Connection is made by flat cables having 14-pin connectors on both sides. Each cable is keyed differently and therefore cannot be interchanged.

**1026859 Windows 7 Support PC upgrade**

Upgrade of the Magellan or Helios NanoLab Support PC Operating System from Windows XP to Windows 7 Professional – 64 bit. Also these hardware parts are added to the Support PC:

- Hard disk with 500 GB or more storage capacity
- Upgrade to 12 GB RAM (or more) for HP Z400 PC

**FP 2311/01 Joystick**

Optional, supplementary control joystick providing direct control of the specimen stage movements.

**FP 2311/05 Manual User Interface USB**

Optional, supplementary control console providing direct manual control of microscope parameters such as focus, magnification, contrast, brightness, beam shift and stigmator.

**9432 909 96461 ThermoFlex Chiller 60 Hz, 208 / 230 V and 50 Hz, 200 V**

The ThermoFlex 900 recirculating chiller delivers guaranteed, continuous cooling between 10 and 40 °C with a high temperature stability of 0.1°C. This chiller is air-cooled.

Cooling capacity: up to 900 W  
Dimensions: 69.6 x 36.1 x 62.7 cm (HxWxD)  
Weight: 57.2 kg  
Branch Circuit Reqs: 208-230 V, 60 Hz, and 200 V, 50 Hz, 15 A

**FP 6343/02 Mains Matching and Isolation Transformer SEM**

The mains matching and isolation transformer provides a galvanic isolated, AC-regulated output voltage of 115 or 230 V, 50 or 60 Hz from the local grid.

**FP 6940/15 Seismic Restraint Kit**



The seismic restraint kit contains all hardware for bolting the electrical and mechanical consoles, the operator table and the power conditioner of the tool to the floor of the installation site. Use of this kit will limit the risk of damage to equipment, room and/or personnel during earthquakes.

**9425 060 99100 North America on-site training, price per day**

North America on-site training, per day, includes travel and expenses. Training includes basic operation and basic applications training for 2 to 4 people.

**FP 2354/09 Oxford EDS Integration Kit**

The Oxford EDS integration kit prepares the support computer of Helios x50/600i or Magellan 400/400L to control the Oxford Instruments the Oxford Instruments EDS and Wave WDX systems. In order to do so, it requires a FireWire card that connects to the Oxford hardware. The INCA Energy and/or Wave software comes with this kit. The kit limits the number of PC's, keyboards and mice to the absolute minimum and ensures smooth installation in the field as the kit was developed in close collaboration with Oxford Instruments.

**4022 404 41070 Installation Labor Helios NanoLab 600i NA**

Standard Installation Labor coverage - see Terms and Conditions

**4022 404 02070 Installation Material Helios NanoLab 600i**

Standard Installation Material coverage - see Terms and Conditions

**4022 404 43070 Warranty Labor Helios NanoLab 600i NA**

Standard Warranty Labor coverage - see Terms and Conditions

**4022 404 04070 Warranty Material Helios NanoLab 600i**

Standard Warranty Material coverage - see Terms and Conditions

**4022 400 40031 EXW Brno (T-3)**

Ex Works Brno (Czech Republic) Incoterms 2010. This term signifies that the price quoted is for supply of Product, packed for transport/export, at the Seller's premises. The Seller's delivery obligation is discharged when the Product is made available to the Buyer at the Seller's premises. The Seller is not responsible for any element of transport or insurance or the cost of compliance with export formalities. However, the Seller does have an obligation to load the Product onto the buyer's collecting vehicle. Buyer collects the Product at the above-mentioned pick-up location. Buyer has to inform Seller the contact details of the preferred forwarder. The risk of loss or damage passes to the Buyer upon collecting the Product by the Buyer's forwarder at the Seller's premises. In accordance with FEI's terms and conditions of sale, title transfers at the same point that risk of loss transfers.

**9425 061 69625 NanoE NA Installation Kit for Nova NanoLab / Strata / Helios / V600**

PartNumber	Qty	SSD Supplied items
13289	25	PVP Hose
25066	1	External 10-inch water filter kit
1001224	1	Specimen stubs (20)
1020166	2	NIPPLE,SS,3/8BSPP-NPT
1020171	1	CONNECTOR,1/2IN STRT
1020172	4	CLAMP,HOSE,WORMDRIVE,24
4022 297 06181	5	8 mm Poly Tubing
4035 273 22521	1	Power strip, 6 out 220 IEC type
4035 273 43491	1	Chloramine-T algacide (250 gram jar)
9425 061 69549	1	10 pack DVD+R x 10 - 4.7 GB Disks
9425 061 69585	1	50 ft. each - 3/8 inch Air Hose
9425 061 69586	8	Hose Clamps, Size 08
9425 061 69587	2	Brass Reducer 1/2NPT - 3/8NPT,
9425 061 69588	2	Brass Hose Barbs 3/81 NPT to 3/81 Hose
9425 061 69617	4	IEC Power cords, 6 ft