

New Construction and Renovation Projects

Single source for all of your laboratory requirements

Laboratory Furniture and Casework

Fumehoods/Biological Safety Cabinets

Laboratory Equipment/Analytical Instruments

Laboratory Consumables and Plastics

Asset Management/Financial Services

*Depend on
Thermo Scientific
quality and proven
product names
including:*

Barnstead

Finnpipette®

Forma®

Hamilton

Harris®

Heraeus®

IEC®

Jewett®

Jouan

Lab Vision

Matrix

Microm

Nalgene®

Nunc™

Revco®

Richard Allen
Scientific

Savant

Shandon

Sorvall®

SAMPLE PREPARATION

Sample Storage

Laminar Flow Hoods
Freezers
Refrigerators
Cryopreservation
Baths
Ovens
Shakers

Water Purification

Separation

Centrifuges
Concentrators
Lyophilizers
Magnetic Particle
Separators
Cell Washers

Consumables & Pipetting

Pipettes
Microplates
Laboratory Plastics

Tissue & Cell Preparation

Biological Safety Cabinets
Incubators
Histology
Cytology
Necropsy
Pathology

Laboratory Automation

Robotics
Stackers
Microplate Readers
Microplate Washers
Microplate Dispensers
Hybridization Ovens
Systems Integration

SAMPLE ANALYSIS

Mass Spectrometry

Ion Trap
Triple Quad
Hybrids
Inorganic

Molecular Spectroscopy

FT-IR, NIR
Raman
UV-Vis, Fluorescence
Microplate Readers

Elemental Analysis

Atomic Absorption
ICP, ICP-MS
TOC, TOX, OES
X-Ray

Chromatography

HPLC
GC

Setting up a New Laboratory

Setting up a new laboratory involves critical decisions at every step of the project – from choosing an architect and construction company to financing options, equipment selection, validation and training. The right expertise can save you considerable expense and time, and assure that your laboratory is productive and environmentally responsible in the decades ahead.

We offer the best single-source solution for planning, building and commissioning a fully-optimized new laboratory or existing laboratory renovation.

As the world leader in laboratory instrumentation and equipment, we are uniquely qualified to partner with you. Our experienced team of experts works closely with your team, and we provide a convenient single source for most of your equipment and instrumentation needs. No one can match our broad and deep understanding of your applications, products and business requirements. We have proven experience in solutions consulting and management, from needs assessment to laboratory layout and workflow optimization, project management, support, and training.

- *Site Preparation*
- *Logistics*
- *Existing Equipment Inventory/Assessment*
- *Procurement/Delivery Scheduling*
- *Fixed Equipment Installation*
- *Commissioning Coordination*

DATA INTERPRETATION

Protein Analysis Software

Thermo Scientific BioWorks™
Thermo Scientific TurboSEQUENT™

Chromatography/Data Systems Software

Thermo Scientific Atlas™

LIMS

SampleManager
Thermo Scientific Nautilus
Thermo Scientific Watson
Thermo Scientific Galileo

Database Analytical Tools

Thermo Scientific Enterprise
Pharmacology Series
Thermo Scientific Kinetica

| Preconstruction | Construction | Move in/Stocking | Ongoing Operations |
|-----------------|--------------|------------------|--------------------|
|-----------------|--------------|------------------|--------------------|

| | | | |
|-----------------|--|--|--|
| Fixed Equipment | | | |
|-----------------|--|--|--|

| | | | |
|--|----------------------------|--|--|
| | Benchtop Equip/Instruments | | |
|--|----------------------------|--|--|

| | | | |
|--|--|------------------------|--|
| | | Equipment, Consumables | |
|--|--|------------------------|--|

| | | | |
|--|--|--|----------|
| | | | Services |
|--|--|--|----------|

Partner with the industry leader to simplify the challenges of

Our consultants can assist with every aspect of your new laboratory project, every step of the way.

Initial Assessment and Definition:

Together, we will help you to assess your needs and define the project, documenting a clear set of deliverables

Project Proposal:

We will provide a complete proposal to meet your specific new laboratory requirements, specifying details with timeframes

Preconstruction Phase:

Project Management

- *Program management*
- *Needs assessments*
- *Planning, scheduling, regular reporting*
- *Information exchange facilitation*

Laboratory Layout

- *Lab planning and design development*
- *Equipment and Instruments*
- *Utilities requirements*
- *Laboratory process and workflow expertise*

Equipment Consulting

- *Needs/list development, for both fixed capital equipment and laboratory instruments*
- *Specification development*
- *Equipment and instrument differentiation, including vendor comparisons and market assessments*

Procurement Support

- *Thermo Scientific equipment and instruments*
- *Budget development assistance, with quotation support*
- *Bid package development, including equipment grouping and bundling opportunity assessment*
- *Integrated supply of Thermo Scientific equipment and instruments*
- *Project financing – line of credit/leasing*

Construction Phase:

We will partner with your team to create and execute the project plan – coordinating subcontractors, acquiring equipment, arranging installation – whatever is defined in the scope-of-work.

Implementation and Set-Up

- *Logistics*
- *Procurement/delivery scheduling*
- *Existing equipment inventory/assessment*
- *Site preparation*
- *Fixed equipment installation/commissioning coordination*

Installation Phase:

- *On-site project coordination*
- *Equipment and instrument relocation*
- *Set-up services, including coordination of OEM set-up, unpacking and set-up, and debris removal*
- *Installation/commissioning of Thermo Scientific- and non-Thermo Scientific equipment and instruments*

Ongoing Support:

We will continue to provide a broad range of post-installation services as defined in the project plan, including maintenance, training and technical support. A summary of some of our services is listed on page 10 of this brochure.



laboratory design and operation



Providing the expertise and insight to assure the success of your new project

EQUIPMENT

Fixed Equipment

Laboratory Furniture
Fumehoods
Custom Hood Enclosures
Biological Safety Cabinets
Necropsy Equipment
Morgue and Autopsy Equipment
Glassware Washers

Architecturally-Significant Equipment

Freezers
Refrigerators
Cryopreservation Equipment
Incubators
Floor Model Centrifuges
Laminar Flow Workstation
Laminar Flow Clean Benches

INSTRUMENTS / SYSTEMS

Architecturally-Significant Instruments

Mass Spectrometers
FT-IR Spectrometers
Raman
UV-Vis Spectrometers
ICP, ICP/MS
GC, GC/MS
HPLC
OES
AA
X-ray

Architecturally-Significant Systems

Standard
– Cell Culture/Cell-Based Assay
– DNA Amplification/Purification
– Immuno Assay Screening
Custom
– ADME/Toxicology
– Genomics
– Proteomics
– HTS
Robotics



Academia



Environmental



Drug Discovery

Biochemistry



Our experts will work with you to bring your new laboratory vision to life – addressing workflow, productivity and efficiency.



Forensics



Research

Healthcare

Cell Culture



Smart laboratory design: Meeting the needs



We invest significant resources to make sure our products protect not only laboratory users and their precious samples, but the natural environment as well. In addition to superior performance and ergonomics, our equipment and instruments are engineered to deliver unmatched efficiency. The result: lower operating costs that save you money while protecting the environment.

Laboratory Workstations: Leading the Industry in Environmental Stewardship

Within the laboratory furniture industry, Thermo Scientific products have been recognized as leaders in environmentally-certified laboratory solutions. Our commitment is underscored by our use of renewable and recycled raw materials, and the development of furniture solutions for sustainable laboratory solutions. Thermo Scientific workstations support and meet benchmark initiatives based on the U.S. Green Building Council LEED 2.2 building rating system. The entire approach encourages and facilitates a collaborative, integrated design via a construction/demolition/reuse process.

Other features include:

- Support of USGBC LEED 2.2, and continued development and implementation of LEED-AGL
- Use of Chain-of-Custody wood products from sustainable forests that adhere to Forestry Stewardship Council standards; our wood products are certified by SmartWood™
- Development of highly chemical-resistant, waterborne wood finishes to meet SEFA requirements, with no HAPs and minimal VOCs
- Steel products that meet SEFA 8 industry performance standards
- Use of sheet steel with a minimum of 25% recycled content
- Energy-efficient fume hoods that use 40-50% less tempered air via auto sash returns, sash and Variable Air Volume (VAV) exhaust controls

of science, the researcher, and the environment

Thermo Scientific Biological Safety Cabinets: Highest Performance with the Smallest Carbon Footprint

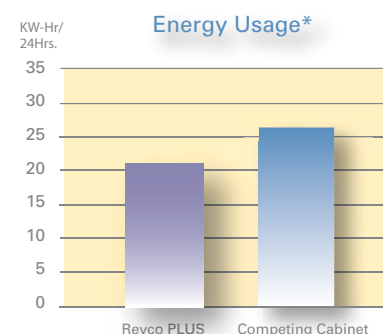
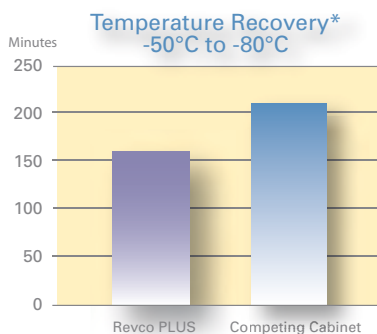
Thermo Scientific technology provides the safest, most reliable and energy efficient biological safety cabinets available. The Thermo Scientific 1300 Series A2 biological safety cabinet offers significantly lower energy consumption and heat emissions than competitive units, reducing your energy and laboratory air conditioning costs.

Advancements in motor technology dramatically improve energy efficiency. During low usage, an intelligent controller automatically reduces blower speed to 30% when the cabinet window is closed. This unique technology extends HEPA filter usage life, ensures a sterile working environment, and minimizes energy and operating costs.

| This table shows savings based on typical use & cooling assumptions of non-vented biological safety cabinets | Thermo Scientific 1355 | Alternative A* | Alternative B* |
|--|------------------------|---|---|
| Power consumption in normal operation (fan and lights on) | 196 Watts | 851 watts | 588 watts |
| Power consumption in night set-back mode (fan at reduced speed, if possible, and lights off) | 32 watts | 759 watts | 476 watts |
| Annual energy consumption in kilowatt-hours, assuming 2,000 operating hours per year with the remainder (6,736) in maintenance mode | 608 | 6,815 | 4,342 |
| Additional annual energy consumption for cooling in kilowatt-hours consumed by the A/C to cool the operational BTUs, assuming a seasonal energy efficiency rating (SEER) of 10 | 207 | 2,307 | 1,481 |
| Total annual operating cost for operation and cooling, assuming average price (9.54 cents/kWh) ending July 2007 <small>See http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html</small> | \$77.73 | \$872.12 | \$555.53 |
| Annual CO ₂ emissions calculated using 1.19lbs CO ₂ kWh from APPA generation and emissions data for 200; EIA Annual Energy Review 2001, tables 8.1, 12.2 | 970 lbs | 10,879 lbs | 6,930 lbs |
| Annual savings in electricity and emissions per unit | NA | \$794.39 and 9,909 lbs. CO₂ | \$477.80 and 5,960 lbs. CO₂ |

Thermo Scientific Laboratory Refrigerators and Ultra Low Temperature Freezers: Highest Efficiency with the Lowest Energy Consumption

Our lab refrigerators and ULT freezers set new industry standards for energy efficiency. Their unique design achieves superior operational efficiency, consuming 15% less power to maintain cabinet temperature compared to other leading freezers. In addition, the Thermo Scientific Revco PLUS emits 15% less heat into the laboratory environment, minimizing air conditioning costs.



Thermo Scientific Barnstead Water Systems: Highest Level of Purity with the Lowest Cost of Ownership

Our water purification offerings are designed to provide reduced capital equipment and operational costs that are the lowest in the industry.

| Annual Operating Cost Comparison | U.S. List Price |
|--|-----------------|
| Thermo Scientific Barnstead | |
| NANOpure Cartridge Pack (2 yr) | \$637 |
| Replacement UV Lamp (2 yr) | \$0 |
| Ultrafiltration Membrane (1 per 2 yrs) | \$0 |
| Total Thermo Scientific Barnstead | \$637 |
| Leading Competitor | |
| Cartridge Pack (2 yr) | \$964 |
| Replacement UV Lamp (2 yr) | \$734 |
| Ultrafiltration Membrane (1 per 2 yrs) | \$671 |
| Total Competitors | \$2,369 |
| Annual Operating Cost Savings | \$1,732 |

| Capital Cost Comparison | U.S. List Price |
|--|-----------------|
| Thermo Scientific Barnstead | |
| NANOpure Life Science Unit | \$6798 |
| Pressure Regulating Valve | included |
| Wall Mounting Bracket | included |
| Remote Display | included |
| Initial Cartridge Package | \$637 |
| Total Thermo Scientific Barnstead | \$7,435 |
| Leading Competitor | |
| Water Purification Unit | \$8,050 |
| Pressure Regulating Valve | \$901 |
| Wall Mounting Bracket | \$482 |
| Remote Display | \$887 |
| Initial Cartridge Package | \$482 |
| Total Competitors | \$9,756 |
| Capital Equipment Cost Savings | \$2,321 |

* Based on internal performance data. Tested in 25°C ambient environment. Freezer cycling at -80°C. Cabinet volume, 25 cu. ft. Average cabinet temperature based on temperature mapping (17 thermocouples).

LIFECYCLE Enterprise Solutions

Just as your work requires unique knowledge, we have the comprehensive expertise to support your business completely. Thermo Scientific LIFECYCLE Enterprise Solutions address customer requirements in every dimension—from setting up new laboratories to acquiring, supporting and maintaining your equipment, including its end-of-life disposition.



Acquisition – empowering you with information you need to make the right purchase decisions

New Labs

We have a broad and deep understanding of our customers' products, applications and business requirements. And we have decades of experience in solutions consulting and management, with capabilities ranging from needs assessment to project engineering, implementation, support and training.

Financial Services

We can help you with all of your leasing and financial needs, including pre-approved lines of credit for qualified customers, tax advantaged packages, technology upgrades, and more.

Operations – maximizing your operational efficiency and the total value of your assets

Installation

For most installations, we develop an implementation plan to determine the best way to integrate and install your Thermo Scientific and non-Thermo Scientific equipment, including system layout and connectivity. We also supervise all necessary site modifications.

Relocation

We will manage the entire process of equipment relocation – even if it includes multiple systems from different manufacturers. We can also re-qualify and re-certify your systems to ensure that they continue to meet performance and regulatory specifications.

Calibration

Upon installation of your equipment, our service engineers will re-calibrate and test each unit to make sure it operates at optimal levels.

Education Services

Our Education Services portfolio is designed to help you gain greater productivity on your instruments while also expanding user proficiency of your staff- through instrument, application, maintenance and/or software training.

Regulatory Compliance

Our extensive knowledge of laboratory methods and information technologies – especially in the pharmaceutical industry – has allowed us to develop tools that can help you manage, certify and validate your results.

Support Plans

With each of our plans, you benefit from a selection of guaranteed response times and predictable per-visit costs that include travel expenses, labor and replacement parts. Preventive maintenance can also be customized.



Maintenance – rest assured that your equipment is in compliance

Certification/Compliance

We will verify that your instruments are running according to manufacturers' specifications and meet compliance standards, providing consistent service reporting and documentation across all manufacturers, and we will arrange all necessary tests to keep your equipment and instruments in-spec.

Repairs and Technical Support

The combination of an extensive engineering staff and our global parts network allows us to provide unmatched parts and service delivery anywhere, anytime.

Thermo Scientific 3D Model

We will help you reduce your total cost of ownership, improve productivity, streamline your processes, and ensure compliance. Beginning with a comprehensive needs assessment, our experts will help you customize a service solution that will help you achieve your business objectives.

MVS Multi-Vendor Direct Services

Now you can streamline your processes and reduce your overall equipment expenses with a single source to manage all of your multivendor equipment, efficiently and cost-effectively.

Thermo Scientific Direct Service: Worldwide Expertise Unmatched in the Industry

Our award-winning service team of over 1,500 certified engineers is continually trained to service all of your Thermo Scientific- and non-Thermo Scientific equipment. As a result, you're assured of high-quality support anywhere in the world.

Disposition – better decision-making, from tracking idle assets to disposing chemicals

Determining the best time to replace, re-deploy or de-commission your assets can be a complex challenge. We provide you with valuable business intelligence through our exclusive resource tracking methodology. With easy access to an up-to-date inventory of all your critical assets, you can instantly see any idle or non-performing equipment and determine the real need to acquire new resources, saving significant expense while freeing new capital to invest elsewhere in your enterprise.



Visit www.thermo.com/labdesign or call your Thermo Scientific product representative. We'll send you additional information about our complete range of services, or will meet with your project team for an informational session at a time convenient for you.

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