Reaching around the world to bring you the future in THERMOELECTRICS

TETECHNOLOGY, INC.

CUSTOM AND STANDARD THERMOELECTRIC ASSEMBLIES

TE Technology, Inc. provides all aspects of thermoelectric assembly design, manufacturing, testing and production under one roof. We offer the best solutions with the highest quality, competitive prices and fast turn-around.



Engineering Assistance

When you call TE Technology you talk with an engineer - not a salesperson. We work with you on every project and become important members of your design team.

Manufacturing Excellence

Forty years of thermoelectric experience go into every product. We provide reliable, durable, cost-effective systems, and we provide them on-time. Our large inventory and vast global resources provide added versatility.

HIGH QUALITY COMPETITIVE PRICES

QUICK DELIVERY

MISSION STATEMENT

Serve our customers through quality, cost-effective, on-time thermoelectric assembly production. Remain at the forefront of thermoelectric technology and development on a global basis, and use our thermoelectric expertise, materials and equipment to give our customers a competitive edge.



TE Technology software confirms assemblies are optimized according to your needs.



Our unique TE potting compound seals out water vapor and adds mechanical strength.

WHY TE TECHNOLOGY IS A LEADER

EXPERIENCE

Technical expertise in all relevant disciplines and the most design experience in the industry.

LEADERSHIP

Authorship of many technical papers published around the world, and participation in global research and development.

DESIGN EXPERTISE

Proprietary modeling software combined with experience reduces development costs.

MOISTURE PROTECTION

Proprietary sealing technology provides durability and a hermetic seal from water vapor.

VALUE

Sources from all over the world provide the best performance-to-cost ratio.

UNIQUETESTING

Exclusive series of testing methods and equipment to ensure top performance.

COMPLETE SERVICE

Design, manufacturing and testing under one roof.

more information on TE Technology, Inc.

www.tetech.com



Our assembly area adapts to large and small production orders.



Thermoelectric assemblies are solid-state heat pumps that extract or add heat to an object. These assemblies can be used for cooling, heating and power generation. Thermoelectric assemblies consist of a cold sink, modules, heat sink, fan and vapor sealing material.

Thermoelectric Module uses electrical current to pull heat from the cold sink and push it into the heat sink.

Unique TE modules vapor sealed with TE Technology's
proprietary compound provides unparalleled reliability,
durability and protection against moisture.

• Global selection process of module components improves performance-to-cost ratio.



Advantages of using Thermoelectrics:

- Precise temperature control
- Vibration free
- Low maintenance
- Small
- Silent
- CFC free, no "green house" effect
- Operational in high ambient temperatures
- Operational in any orientation

SUPERIOR PROCESSES PRODUCE SUPERIOR PRODUCTS

WHY SHOULD TE TECHNOLOGY DESIGN YOUR THERMOELECTRIC COOLER?

EXPERIENCE

Forty years of experience goes into every design. Performance, size, manufacturability, budget - we optimize all of these and give you exactly what you need.

COMPETITIVE EDGE

An exclusive line of heat sinks, modules, vapor seals, and special optimization ensures that your competition will not surpass you.

SHORT DESIGN CYCLES

We eliminate guesswork and risky assumptions and make the prototype right the first time.

LOWEST COST

A custom thermoelectric assembly gives the capacity and features needed without increased cost for anything extra. It's the lowest cost solution!



PLATE-TO-PLATE

Typical Applications:

- Detectors
- Sensors
- CCD's
- · Small laser diodes
- Integrated circuits
- Lamps

How It Works:

- Object is cooled through direct contact with a customized cold plate
- Plate style heat exchanger on hot side attaches to other secondary heat sink

System Benefits:

• Ability to control temperature with high precision



Typical Applications:

- Electronic enclosures
- Medical cabinets
- Small refrigerators
- Environmental chambers
- Battery boxes
- Minibars
- Picnic boxes
- · Vending machines

How It Works:

• Air is cooled as it is recirculated within the enclosure and through the cold sink

System Benefits:

• Effective cooling of multiple objects





cooling assemblies

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Typical Applications:

- Therapy pads for medical treatments
- Laser chillers
- Cooling process fluids
- Temperature baths
- Semiconductor processing equipment

How It Works:

- Serpentine liquid channel on cold side
- Object is cooled via contact with a secondary liquid loop

System Benefits:

LIQUID-TO-AIR-

• Effective cooling in areas remote to the cooler

MANUFACTURING

We do not just "inspect" the quality of our assemblies, we build it in. We control all aspects of assembly to ensure stringent quality standards are achieved. In addition, our in-house machine shop utilizes computer controlled equipment to build components according to exact specifications.

Superior Test Capability

TE Technology is the ONLY thermoelectric manufacturer that designs and sells a wide range of test equipment. This unique equipment provides complete characterization of materials, modules and systems at only seconds per test. TE Technology's exclusive series of tests assures that <u>all</u> assemblies are top performers.

Best Value

From your initial call to final production, TE Technology is relentless in achieving the optimal balance of size, weight, cost and performance for your specific needs.

Engineer tests the thermal performance of a prototype refrigerator for the food service industry.

Assembler inspects solder joints on an air cooler.



Call TE Technology to get the best solution for your thermoelectric needs.

Highly trained manufacturing specialists build air cooling assemblies for the telecommunications industry.









A state-of-the-art machining center provides manufacturing precision and efficiency.

MANUFACTURING EXCELLENCE

QUALITY ASSURANCE

In addition to ISO, we build to meet military, medical, aerospace, and NASA standards.

AUTOMATION

Our in-house machine shop utilizes the latest in equipment, software, and CNC machining.

TRAINING

Manufacturing specialists are continually NASA trained and certified in soldering and inspection.

ON-TIME DELIVERY

We maintain a large inventory of raw materials to expedite your orders.



Inspector checks flatness of a machined heat sink plate. Quality flatness promotes good thermal contact, resulting in optimum thermal transfer.

Every assembly is thoroughly checked for performance.



VERSATILITY

TE Technology accommodates everything from single piece prototypes to large scale manufacturing.



STANDARD PRODUCTS

TE Technology's standard products allow you to quickly and inexpensively evaluate thermoelectrics for your application. We stock a wide range to meet your

cooling needs, so you can begin testing immediately. Standard products can also act as a starting point for future customization. No matter how you use them, you gain extensive savings on engineering and development costs and time!



The AC-045 air-to-air exchanger cools electronic enclosures and similar environments.







The TC-1600 temperature controller may be wired to some of our standard products for turnkey operation.

HOW TO APPLY THERMOELECTRICS IS UP TO YOU ...

Used in CONSUMER applications to keep beverages cold.



Used in SPACE to grow protein crystals in AIDS research.



Applied in the MEDICAL field to cool laser diodes in surgical instruments.



... THE POSSIBILITIES ARE ENDLESS





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