

SOUND SOLUTIONS FOR THE FUTURE



From cutting edge Research and Development facilities to noise control in a community hall, Eckel has played an integral role in technological advances in science and technology as well as helping make the world a quieter place to live and work.

Eckel's products and systems range covers acoustic test

ESTABLISHED 1952

facilities, anechoic and reverberation chambers, modular noise control enclosures, audiology rooms and booths, heavy duty silencers and architectural noise control products.



Aerospace Test Chamber

Over the past five decades, industries such as automotive, aircraft, aerospace, instrumentation, telecommunications, IT, utilities, construction, transportation as well as religious facilities, medical institutions, educational establishments such as schools, colleges and universities and leading research and development laboratories have relied on Eckel for the design, fabrication and installation of NOISE CONTROL PRODUCTS AND SYSTEMS.

We are grateful for this trust in our capabilities and proud of our record of outstanding service.

As Eckel is committed to maintaining the high standards we have set for ourselves and industry, we will continue to

develop innovative products that will allow our clients to carry out their projects with the confidence that they are working with the best noise control products and systems available anywhere. We invite you to discover why the world looks to Eckel for sound solutions for the future.



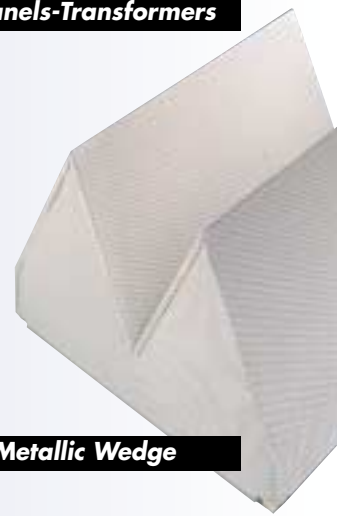
O.E.M. Enclosure



EFP Panels-Transformers



Wastewater Treatment Facility - Panel Treatment



EMW Metallic Wedge

PRODUCTS AND SYSTEMS

50 YEARS OF SERVICE TO INDUSTRY



Industrial



Broadcast



Medical



Aviation



Automotive



Components



Utilities



Architectural



Research



Aerospace

SPECIALISTS IN ENGINEERED NOISE CONTROL
PRODUCTS AND SYSTEMS



Since 1952 Eckel has specialized in designing, fabricating, and installing full and hemi-anechoic chambers that fit our clients' requirements exactly.

Eckel Anechoic Chambers allow for the precise measurement of

create a 99% echo-free environment above the designed cut-off frequency.

Size is no object.

Eckel designed an anechoic chamber for General Electric that housed an electric transformer over three storeys



Today's Eckel anechoic wedges and elements are fabricated from a variety of high performance acoustic materials and are covered in hardware cloth, fiberglass cloth, or perforated metal.

New design wedges perform better and resist damage more effectively than their predecessors. Eckel offers several wedge designs to meet the most demanding acoustical research and design requirements.

Portable Anechoic Chambers

Eckel offers six standard models of portable anechoic chambers for a wide range of applications, including microphone calibration, speaker response, hearing aid

evaluation, and small component testing. Chambers can also be adapted for use in acoustic research.

SuperSoft™ Anechoic Panels

Eckel SuperSoft™ panels or compact panel absorbers provide superior acoustical treatment where economic and space considerations make the erection of anechoic wedges impractical or unfeasible. SuperSoft™ panels are filled with high performance acoustical material, and covered in perforated steel or aluminium which makes them easy to clean and resistant to damage. The system's modular design makes removal of panels quick and simple.

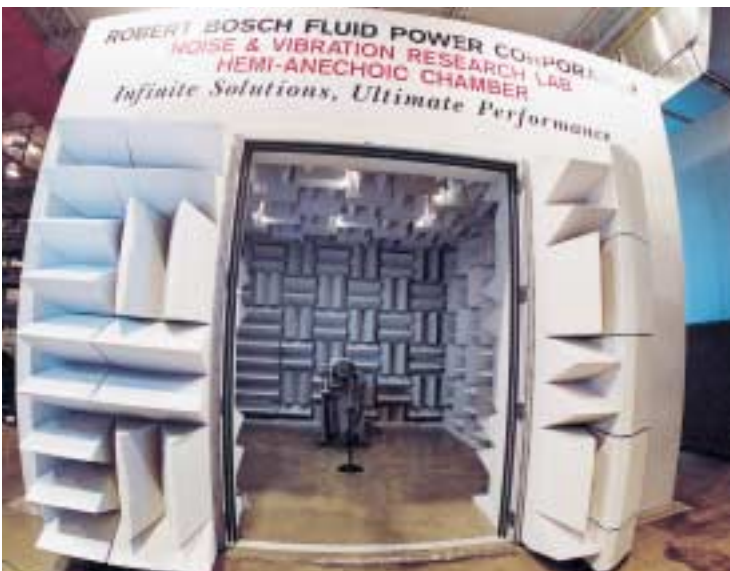
ANECHOIC CHAMBERS

sound and noise levels of machinery, instrumentation, and equipment. Engineered for optimum performance, these chambers consist of sound attenuating structures lined with pretested acoustic anechoic wedges or elements, sound doors, and non-reflecting working floor systems that

high (then the largest in the world), and a chamber with a free field of 30" (762mm) for hearing aid calibration (one of the world's smallest).

The basic wedge developed at Harvard was fabricated by Oliver Eckel and was made from fiberglass and covered with muslin.

**BUILT IN 1996 USA
RELOCATED TO GERMANY 2003**





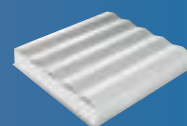
EMW
METALIC
WEDGE



E-ELEMENT



FOAM
WEDGE



SUPERSOFT™
ELEMENT

Jet Engine Test Cells

The competence of Eckel acoustical engineers in the highly specialized field of jet engine sound suppression has long been recognized by aircraft engine manufacturers. Eckel provides complete service from initial planning and design through installation and testing.

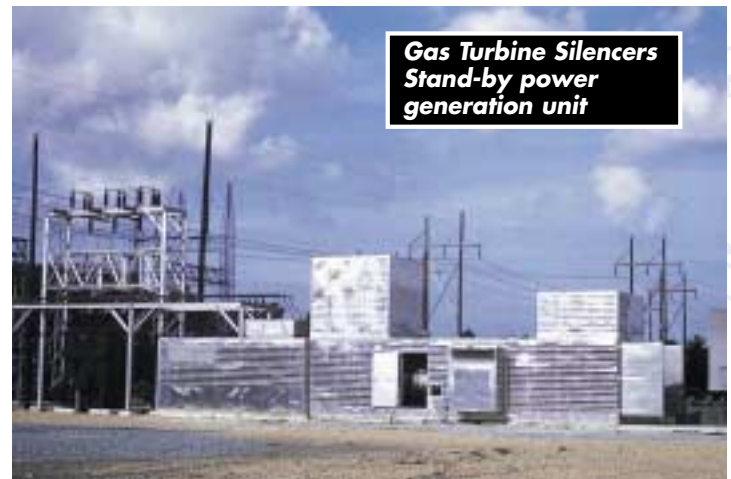


TEST CELLS & GAS TURBINE SILENCERS

Gas Turbine Silencers

Silencing gas turbine installations in industrial, military, and commercial environments requires the attenuation of noise from the turbine's atmospheric inlet and exhaust openings.

Eckel TEC silencers are custom engineered to ensure optimum acoustic performance and superior aerodynamic characteristics. They are prefabricated and can be erected in the field, are maintenance free, and will give a lifetime of useful service.



Gas Turbine Silencers

From ground run-up pens, to research chambers for the next generation of space travel equipment, Eckel has designed, fabricated and installed noise control products and systems.

In addition, Eckel has provided facilities to meet the

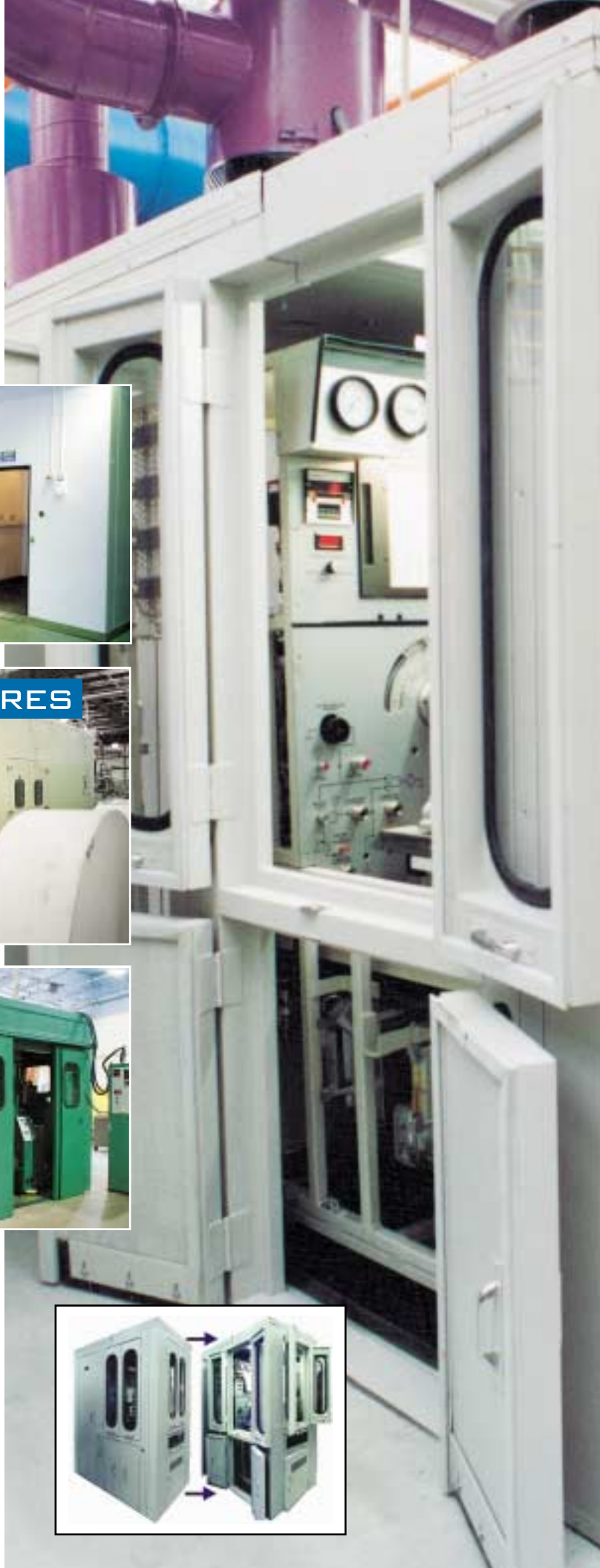
AEROSPACE

needs of clients to enable research and product development projects to flourish, and some to withstand hurricanes and other harsh environments.

Local environmental issues relating to any new facilities is also a key factor for consideration in acoustical design.

Eckel engineers will therefore work to produce a solution to the noise control issue.





For over 50 years Eckel has provided design, development, and manufacture of high quality dependable noise control products and systems. Eckel's modular panel systems offer removability and flexibility in constructing a wide range of noise control enclosures.

modular component design to allow quick, easy installation of the desired noise control structure. Neither special tools nor lengthy construction procedures are required. These

Eckoustic Modular Panels Series C&H (EMPs)

EMPs are an effective long-term solution to industrial/community



NOISE CONTROL ENCLOSURES

noise problems. These pre-engineered panels feature a patented removable design that combines outstanding noise reduction properties with unusual versatility in application.



EMPs are ideal for enclosing process equipment, punch presses, cold headers, wire braiders, etc., as well as for control rooms, in-plant offices and sound test enclosures (quiet rooms for studying noise).



TEC Noise Barrier Panels

The economic 2" (50mm) TEC Noise Barrier Panel & Connector System utilizes a

interchangeable components can be used to construct barriers, enclosures, walls/partitions, and in-plant offices.





Cummins Engine test rooms and enclosures

Shielded Rooms

Eckel provides engineered shielded enclosures that provide maximum RF isolation using the patented type "C" RF panel system. These enclosures meet the high security requirements of U.S. Government Tempest class rooms utilizing the patented corner pillar and beam connector design. *US Patent 5,260,525.*



Shielded Enclosure Framework

Reverberation Rooms

Eckel reverberation rooms are designed to satisfy all reverberation requirements. Rooms are tailored to provide suitable working spaces and sizes. They can include doors, lighting and electrical systems, and climate controls as well as RF shielding appropriate to the work intended.



Reverberation Room



EMP Testing Room

Doors

Eckel acoustic doorsets have been installed in industrial and commercial buildings throughout the world, in virtually every area where noise needs to be controlled. Eckel service is to design bespoke doors for particular clients or select from our standard design and performance ranges. Eckel TEC sound doors give effective transmission loss of STC 52 or better. These quality engineered doors are available in thicknesses from 1.75" (45mm) to 6" (152mm). The multi-layer construction ensures excellent acoustic performance.



Doors and Windows

Eckel's High-Performance Sound Absorbing Panels provide the solution for reverberant and background noise problems in almost any building or facility.

Eckoustic Functional Panels (EFPs)

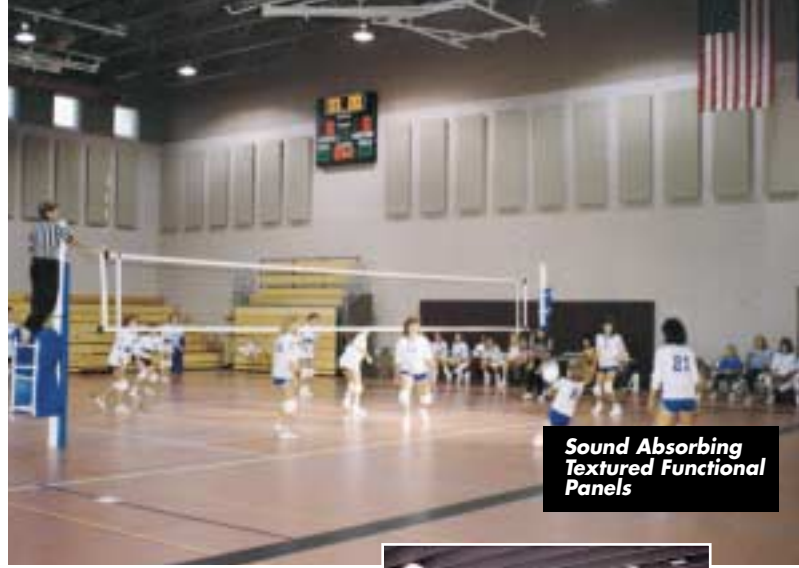
Eckoustic Functional Panels are attractive, sound-absorbing, fire-resistant panels which can be mounted on walls or ceilings to achieve effective noise control. Since EFPs are independent panels, they can be put into place without disturbing existing utilities, making them more cost-effective than continuous ceiling or wall treatments.

Textured Functional Panels (TFPs)

Eckel's flat Textured Functional Panels (TFPs) are engineered to provide maximum sound control. They offer a simple, attractive, eye-pleasing, cloth-like appearance and are an efficient way to reduce reverberation levels and background noise in studios, commercial, office, retail, and institutional environments.



Correctional Panels



Sound Absorbing Textured Functional Panels

Eckoustic Correctional Panels (ECPs)

Our Eckoustic Correctional Panels (ECPs) are reinforced, 2" (50mm) thick, flat perforated 16



ARCHITECTURAL SOUND ABSORBING PANELS

EFPs are ideal for correcting noise problems in: gymnasiums, swimming pools, auditoriums, and similar acoustically "hard" spaces such as:

- machine shops
- computer rooms
- restaurants
- subway stations - rapid transit facilities
- churches
- open plan school rooms
- multi-purpose rooms
- factories & assembly and production areas
- recording studios
- radio and T.V. studios
- power plants
- wastewater treatment facilities
- test cells
- plant rooms

Acoustic Lay-in Panels (ALPs)

Eckel Acoustic Lay-in Panels (ALPs) provide a convenient, economic system for upgrading acoustic ceilings. They are also ideal for special purpose applications requiring maximum ceiling sound absorption. Panels are designed for easy installation and are available with sound attenuating backs to eliminate flanking noise problems.



Acoustic Lay-in Panels

gauge steel sound absorbing panels with special security fastening system.

Delta - Acoustic™ Panel (DAPs)

This unique panel design and edge geometry provides maximum sound absorption and is ideal for studios, theaters, restaurants, radio, TV, auditoriums and multipurpose rooms.



Delta - Acoustic Panels



Eckoustic Functional Panels

Eckoustic Security Ceiling (ESCs)

Eckel Eckoustic Security Ceiling (ESC) provides continuous acoustic treatment with extra strong 2" (50mm) thick acoustic panels.



Security Ceiling



Eckoustic Functional Panels

AUDIOLOGY

Eckel audiology rooms provide the correct solution for precise noise control environments for the medical profession, meeting all prevailing standards.

Eckel, over the last five decades, has developed a range of standard audiology booths, rooms and suites, with a custom engineered audiology room design, fabrication and installation service. Eckel's audiology products have been used around the world to meet demanding standards.



BROADCAST

Eckel designs and builds modular studios, voice-over booths and editing rooms. Eckel studios are constructed using a high performance modular acoustic panel system, which creates complete structures of outstanding acoustic performance. This applies to the walls, floors and doors, both swing and sliding. Fabric wall coverings, suspended ceilings, skirting boards, carpets, can be part of any Eckel design to give the complete studio. Standard sizes and a customised design service are available.





Flexible Design

Modular system to allow creation of any design, size and performance

Fast Installation

Complete installation can be installed from as little as a few days, normally less than traditional and more disruptive options.

Reliable Performance

All Eckel products are laboratory or field tested.

Easy Relocation

One of the real advantages of modular structures is that they can be dismantled, modified and re-assembled in the existing or a new location.

The ECKEL turnkey approach

Eckel's service can cover when required, under a single contract, the complete design, fabrication, installation including many other 'add ons' (electrics, air conditioning, etc.)

ECKEL'S PARTIAL CLIENT/PROJECTS

3M Co.
Acoustic Research
Alpine Electronics
Artic Cat
BBC
Beltone Electronic
BMW
Boeing Electronics
Bose Corp.
Cadillac Motor Co.
Carrier Corp.
Courtyard by Marriott
CBS News
Chrysler Corp.
Cummins Engine Co.
Danvers YMCA
Deere & Co.
Deer Island
Wastewater Treatment Plant
Delco-Radio Div., GMC
Diablo Systems
Digital Equipment Corp.
Eastman Kodak Co.
Electro-Voice Corp.
Fairfield Inns
Federal Signal
FEV
Ford Motor Co.
Fort Belvoir
Fuddrucker's Restaurants
Fusilli Cafe Italia
Gillette
General Electric Co.
General Motors Corp.
Goodyear Tire & Rubber Co.
Harvard University
Hewlett-Packard
Holset Engineering
Homelite Corp.
Honeywell Bull
IBM Corp.
Iowa State University
ITT
J.B. Lansing/Harmon
Jet Propulsion Laboratory
J.P. Stephens
Kimberly Clark
Klipsch
Legal Seafood Foods
Levi Strauss Company
Lockheed Aircraft Co.
Mass Eye and Ear
Mack Truck Corp.
McDonnell Douglas Corp.
Mercury Marine
NASA
National Institute of Standards & Technology (formerly NBS)
National Physical Laboratory
National Research Council
Newton Wellesley Hospital
NHS
Oklahoma State University
Penn State University
Perkins School for the Blind
Pratt & Whitney
Raytheon
Recordings for the Blind
Redstone Arsenal
Sacramento State College
San Angelo Coliseum
Saturn Corp.
Shure Bros., Inc.
Sikorski Aircraft
Southwest Research Institute
Statue of Liberty
Storage Technology
Sweetheart Plastics Co.
Syracuse University
Toyota Motor Co.
TRW
U.S. Army
U.S. Navy
United Technologies
University of Iowa
University of Plymouth
Westinghouse Electric Co.
Widex
York International
Zenith Corp.

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