# **S&V OBSERVER**

# Making the World a Quieter Place – the IAC Story

Industrial Acoustics Company, Inc. (IAC) was founded in 1949 by the late Martin Hirschorn, who received his engineering education in England and came to the United States after WW II. The company began as a one-man operation in New York City, where today its principle offices, laboratories and manufacturing facilities continue to be located. The company's mission was - and still is - to develop and market sound control products and solutions designed and dedicated to the improvement of the acoustical environment. What began as the "standard of silence" is today a global noise control giant making speech intelligible, music more enjoyable, reducing community and industrial noise, and protecting our sense of hearing . . . "making the world a quieter place."

For nearly 50 years, Hirschorn pioneered in sound control products and solutions for the big noise makers of modern technology, including airborne and stationary gas turbines, rockets, air-handling systems and manufacturing machinery. An engineer, entrepreneur, and mentor dedicated to a quieter, healthier and more enjoyable environment.

In 1998, after his retirement, IAC was faced with the challenges of new ownership, economic uncertainty, fundamental process changes and the reality of the integration of global economies. The company's continued growth reflects the hard work of its employees and colleagues and is the direct result of important strategic choices that have put IAC in an excellent position for continued success. The IAC brand is strong, and our noise control products and systems are well known for their high quality, outstanding acoustic performance and customer value. Founded on excellent engineering capabilities, extensive 60-year experience, patented technology and efficient manufacturing capabilities, IAC solutions are still today laboratory developed and field proven in a variety of applications around the world. Our products are much copied but never matched.

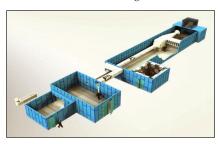
IAC is now an international company with engineering, manufacturing and testing capabilities serving eight major markets including energy and power, aerospace and defense, security, commercial construction, education and media, health care, transportation and industrial noise control. Today The IAC Group of companies includes offices in the UK, Australia, China, Denmark, France, Germany, Italy and Spain.

Combined, the IAC GROUP of companies employs nearly 700 people, has more than 450,000 square feet of manufacturing facilities and owns and operates two major research laboratories.

## **Research and Testing Laboratories**

Engineering and R & D capability is IAC's

key differentiator. We consistently enhance our capability to drive growth with robust investment in research and continue to rethink our noise control products and system solutions. Our methodology is to model and test engineered product solutions to unusual acoustics problems and adapt standard products to special applications for guaranteed in-field performance. In addition to new product development, the laboratory facilities perform basic quality control testing of existing products. The IAC laboratory is also available as a resource to acoustical consultants and other manufacturers for acoustical testing services.



In New York, the 12,000-square-foot NVLAP accredited aero-acoustic laboratory includes two reverberation rooms, three impedance tubes, wind tunnel and hemi-anechoic chamber. The facility is capable of aerodynamic, thermodynamic, acoustical, mechanical and RF testing and is NVLAP accredited for 15 test methods.

In France, IAC's Simulation and Engineering facility was established in 1988 and provides a high level of acoustics expertise in environmental noise mapping and measurement for industrial sites. Our facilities are on call to demonstrate specification compliance and acoustic component performance for ASTM, ANSI, ISO, and other standards.

#### Manufacturing

Today IAC has a very large worldwide manufacturing base designed to serve the needs of our customers locally. From lightgauge sheet metal fabrication to heavy-gage plate, IAC is the benchmark of quality. IAC is powering up production worldwide to meet the many demands of our long-term relationships from a diversified group of global blue chip customers. The company is currently manufacturing in more than 20 locations, on six continents and is positioned to provide cost-competitive solutions for any noise control problem. Manufacturing facilities are based on product range and incorporate a combination of dedicated process lines for standard products and "flexible space" for custom applications and special solutions. Our quality management systems are designed to operate within the requirements ISO 9001-2000, and IAC maintains a "preferred" supplier status with many blue chip customers.







### **Market Areas**

Energy and Power. IAC designs, develops and installs barrier systems and turnkey enclosures complete with intake and exhaust silencers and filtration. IAC also offers a wide range of standard products for reciprocating engines, transformers, mine ventilation fans, gas turbines, high-pressure gas compression, and safety equipment linked with natural gas, oxygen and fuel networks.

The main customers are either engine manufacturers or engineering companies that manage major energy related projects. Globally, energy requirements are still growing, and this is forecast to continue for the next several years. The markets have also become international, with global customers requiring suppliers to project manage, manufacture and install globally. The key driver to the market is to be able to offer and guarantee noise performance, while still being able to offer competitive pricing by manufacturing through a worldwide network of qualified manufacturers to ensure a proper quality product for the best cost.

Aerospace and Defense. In the aerospace market sector, IAC is a supplier of both the on- and off-wing, full-turnkey engine test facilities and a large range of individual Noise-Lock $^{\text{TM}}$  acoustical components for

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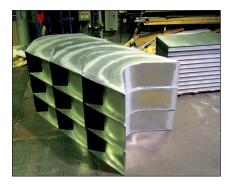


engine test solutions. In the early 1990s, the aviation division was located in both the U.S. and U.K. In early 2000 the global aviation team was established in the U.K. as a "center of excellence" to provide worldwide design, engineering, project management and construction services for the aerospace industry. The team offers expertise in every relevant discipline, from structural, mechanical, acoustical engineering, aero and fluid dynamics, and electronics. On a single contract, with single-source responsibility, IAC can deliver the initial design concept to the completed facility, including full customer training and in-service support.



**Security**. Making the world a quieter and "secure" place is important to IAC. We have been involved with RF shielding since our early medical rooms and jet

engine test facilities as early as 1960. We got into it in a big way when asked by a jet engine manufacturer if we could design a jet engine test cell that would also provide high level RF shielding. After saying yes, we scratched our heads about just how we were going to provide 100 dB of RF shielding along with all the other "usual" jet engine test cell requirements. Utilizing our diverse experience, we "combined" RF and acoustic shielding technologies with our jet engine test cell experience and successfully designed, built and tested the only cell of its kind that we know of. After that, RF/ acoustic shielded secure compartmented information facilities used for classified data processing and communications followed. Modular, demountable, or portable the IAC AccuTone™2 Sentry Series facilities meet the requirements of DCID, JAFAN, NSA and DOD and are deployed around the world.



Commercial Construction. IAC provides a full range of QuietDuct™ silencers, ConicFlow™ silencers and QuietFlow™ plenums to control noise from all types of air handling systems. First introduced in 1955, the commercial line of silencers provides a full range of silencers with insertion loss/ pressure drop options for all applications including offices, public buildings, airport terminals and sports stadiums. Today the commercial line is complimented with QuietDuct CleanFlowTM, UltraLowTM, UltraGreen<sup>TM</sup>, UltraZAPD<sup>TM</sup>, and UltraPals<sup>TM</sup> (packless) to meet the demands of the market including dynamic insertion loss data in the 31.5 Hz octave band driven by recent research into human response to low-frequency noise and new noise control legislation enacted in New York City.



IAC Noise-Lock™ Sound Control doors are the highest performing doors in the world today. The IAC door system is fully factory assembled and tested prior to shipment and includes glass, glazing and all finished architectural hardware. Acoustic

performance ratings range from STC43 to STC64 with full-glass options to STC55. IAC doors are available in single swing, pairs, multileaf, horizontal slide and vertical lift, and most are available with fire, blast, and RF shielded performance ratings.

IAC Noise-Lock<sup>TM</sup> Sound Control Windows are manufactured for both interior and exterior applications and are an ideal choice for LEEDS certification projects. They are available with acoustic performance ratings from STC35 to STC59.



Education and Media. For the Education and Media sector, IAC provides a wide range of modular AccuTone2<sup>TM</sup> Studios, and Concert Series Music Practice rooms. The AccuTone2<sup>TM</sup> series delivers the look and feel of traditional construction with all of the advantages of lightweight modular construction. The system offers any "size" and any "shape" to create a signature architectural space for every application. Each room incorporates Noise-Lock<sup>TM</sup> doors, windows, and QuietDuct<sup>TM</sup> silencers for the highest in-field noise reduction, guaranteed.

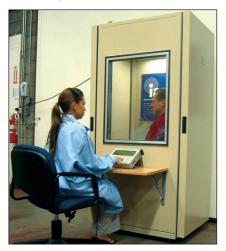


IAC TrackWall™ operable wall systems were first introduced in 1960 as a 4-inchthick system with acoustic performance ratings of STC48 and in-field noise reduction of NIC43. Through the years, the system was expanded to include fire ratings, and walls were built to 40 feet tall. Today the New TrackWall™ NIC Series 854 delivers in-field noise reduction to NIC60. It is the consultant's choice for applications where in-field noise reduction is imperative, including dance studios, law offices and auditoria. The all-steel construction, machined trolley system, and free flow design is durable and it is the architects' choice for its ability to accept a wide variety of finishes, including stretched-leather absorption systems, raised-wood diffusion panels, and even marble or stone.

Healthcare. The first Series 400 single wall audiology room was developed in 1954, and later in 1956, the double-wall Series 1200 room made it to the market,

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rounding out the product line to 16 standard configurations. Today IAC is the largest global supplier of Audiology rooms and suites. With more than 105 standard configurations, the new AccuTone2<sup>TM</sup> Audiology Series offers space-saving custom floor plans as well. The rooms are UL listed, fire rated, RF shielded, and ADA compliant. The AccuTone2 Audiology Series is available in four acoustic performance levels, NIC50, NIC53, NIC60, and NIC70 and is the choice of audiologists around the world.



Transportation. In this sector, we provide a variety of acoustic packages, including automotive/truck/rail acoustic testing facilities, Noishield® sound barriers for railways, highways, and airport run-up pens and blast fences. Panels are capable of spans of up to 20 feet between columns. Our experience and a total project approach to sound barriers delivers planning, building and environmental approval, detailed design, foundations, grade beams and structural steel supports for single-source responsibility and guaranteed property line noise levels.

IAC's turnkey project approach continues with the design and construction of anechoic chambers and test facilities for transportation and other industries concerned with the development of quieter products. Applications for education, computer, microphone, electronics, power, and



automotive are worldwide. IAC laboratories first developed the IAC Metadyne™ Metal Anechoic Wedge System in 1990 for the automotive industry. During the past two decades, the IAC Metadyne™ Wedge has been re-engineered for improved acoustic performance and durability. The IAC Metadyne™ system is the user's choice for anechoic chambers of all shapes and sizes around the world. Automobiles manufactured by Ford, GM, Chrysler, Mercedes, Jaguar, BMW and Porsche were improved in IAC Metadyne anechoic chambers.

Industrial Noise Control. When congress passed Public Law 91-596 (the Occupational Safety and Health act of 1970), it created a market for retrofit engineered solutions to meet the noise exposure limit of 90 dBA for 8 hours. Although equipment manufacturers are now designing "quiet" into their products, IAC still provides noise control enclosures for a wide variety of manufacturing applications such as punch presses, flame spray booths and alike.

#### The Future

Coming to IAC as a project engineer in 1980 and now as president and general manager, "I have had the experience of the tradition and the opportunity to influence the future" says Kenneth DeLasho. IAC



has achieved strong growth and increasing success in all markets. Built on a solid foundation, IAC is a company with such a unique identity and more than 60 years of experience that can achieve and succeed in even the most challenging environment.

The best integrated and world's strongest noise control company has individual and distinct product groups (business units) designed to meet the needs of each market, while "centers of excellence" throughout the IAC Group support the worldwide demand for special applications. "We have grown to be an international turnkey design, manufacturing, construction and management service company with multidiscipline engineering capability serving the noise control industry," says DeLasho, "which was the vision from the very beginning. Our noise control experience will continue to drive organic growth, and we look to improve our competitive advantage through the acquisition of more complimentary companies."

Industrial Acoustics Company Inc. (IAC) will continue to provide customer value in every product and service offered. Supplying world-class noise control solutions is our business. Customers and associates can be assured that IAC will only undertake those tasks that we do well. Our mission will be accomplished in an environment of continuous and never-ending improvement through research, development, training, technology, and a commitment to excellence.

For more information about IAC history request Bulletin 0.0031.0 or visit their web site: <a href="www.industrialacoustics.com">www.industrialacoustics.com</a>.

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