



# sound science

## Industrial Building Noise Control

The logo consists of a large, stylized letter 'U' formed by two overlapping shapes: a red one on top and a blue one on the bottom. The red shape has a rounded top and a vertical cutout in the center, while the blue shape is a solid, rounded rectangle that fits beneath the red one.

UNITED STEEL STRUCTURES  
INCORPORATED

**sound science** is  
the application of the latest in  
acoustic technology.

**sound science** is  
a fundamental and systematic  
approach to achieve an overall  
balanced design.

**sound science** is  
continuous product development  
since 1979 through research,  
design and testing.

**sound science** is  
the application of acoustic  
treatments during the planning,  
permitting, and design phases of  
industrial building projects to  
assure an economical solution.

**sound science** is  
sensitivity to those working in or  
living near noise sensitive areas.

**sound science** is  
a precisely engineered solution  
guaranteed to satisfy the most  
discriminating client.

**sound science** is  
using the highest quality,  
economical, commercially  
available construction  
materials; expertly applied  
to solve your noise  
control problems.

**sound science** is  
guaranteed performance.



**During the past thirty plus years, **United Steel Structures** has encountered virtually every type of noise control problem imaginable. Our broad base in engineering, testing, modeling, and constructing acoustical buildings benefits from these years of seasoning and has resulted in the acoustic philosophy we call **sound science**.**

## **DESIGNERS**

At **United Steel Structures** we engineer effective noise control solutions based on a solid understanding of acoustical physical principles, thorough analysis, testing and modeling, with years of experience, and by using **sound science**, we deliver superior technology and products, combined with advanced engineering know-how to implement some of the foremost acoustic solutions.

## **MANUFACTURERS**

**United Steel Structures** provides a complete turnkey, manufactured acoustic solution to our clients in the oil and gas industry, power generation, and heavy industrial sectors around the world. As a result, we have developed a broad base of experience, knowledge, and practical **sound science** solutions to serve our customers, and can play an important role as the EPC.

Some of our products and services include:

- **sound science** library of more than 100 proven acoustical solutions which vary in range from STC 29 to STC 68 and are independently tested in an NVLAP laboratory in accordance with ASTM standards which are then field verified for compliance.
- absorptive and non absorptive walls and roof systems utilizing a combination of inert, non combustible acoustic media.
- load bearing and non load bearing secondary steel.
- design-build of complete structural steel buildings of both pre-engineered and heavy industrial structural systems.
- mass layered walls and roofs consisting of light to heavy septum barriers for the attenuation of low frequency noise.
- proven and tested low frequency noise problem solving below 63 Hz.
- acoustic ventilation systems including low noise fans, silencers, louvers and dampers.
- acoustic doors, acoustic blow out panels and acoustic windows.
- cranes, building electrical systems, and interior platforms or other structural steel requirements.

## **CONSTRUCTORS**

The construction services **United Steel Structures** offers today have been augmented by our past history of research and development of the acoustic properties of our buildings. In 1979 we commissioned the first studies to determine the acoustic properties of our buildings, and then in 1983, we commissioned additional studies forming the foundation for the **sound science** and building techniques that we currently employ in our acoustic buildings today.

We are not only designers and manufacturers, but also a superior construction organization able to implement some of the most advanced acoustical solutions known today, and by balancing the acoustic needs of the project with the acoustic requirements, **USSI** will provide an economical acoustic building utilizing carefully selected, commercially available materials. With our roots in building engineering, construction and acoustic technology, we understand the problems that our clients face when making decisions about what type of steel structure to use, and how **sound science** can be applied.

Some of the in-house concept-to-completion services **United Steel Structures** includes:

- acoustic and structural steel design and engineering.
- project planning, budgeting and scheduling management.
- review and analysis of the acoustic problem, with project coordination services offered to the client's engineer or consultant.
- noise modeling with the assistance of our network of qualified acoustic consultants.
- installation and field supervision of construction.
- pre and post construction acoustic verification for project compliance.
- turnkey services for the true implementation of the single source of responsibility.

Our team is comprised of some of the industry's leading engineers, designers and constructors with a reputation for innovation and problem solving, geared specifically to optimizing product technology and economic superiority in the full spectrum of noise problem solving.

At **United Steel Structures**, we offer ideas, acoustic innovations, acoustic solutions, and **sound science**.







The application of acoustic treatments in the planning, design and construction of industrial building projects is often mandated by regulatory requirements or motivated by sensitivity to those living near and working in industrial environments.



**United Steel Structures** assures the integration, compatibility, and acoustic performance of the manufactured system. Single source responsibility is a process which begins and ends with a commitment to satisfy the extended client: the builder, the architect and the owner. And whatever the project, our promise to you is the highest quality product, economically priced, designed and engineered to meet your specifications.



For guaranteed acoustic solutions demand **sound science**.





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