

Nois-eNvelope™

Architectural Environmental Noise Barrier Systems

Noise Control Enclosure Systems



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Architectural Environmental Noise Barrier Systems (AENBS) Noise Control Enclosure Systems (NCES)

Two Similar but Distinctly Different Approaches to Noise Reduction:

dBNR Nois-**e**Nvelope[™] Architectural Environmental Noise Barrier Systems and Noise Control Enclosure Systems are both light-weight engineered modular metal panel systems designed with integral structural supporting steel for easy installation, exceptional aesthetics and high performance acoustics.

Architectural Appearance; but Engineered for Noise Reduction:

Depending on which dBNR Nois-**e**Nvelope[™] system is required, the noise source and sound path will be blocked, surrounded or completely enveloped with a high performance noise reduction system incorporating a visually pleasing architectural look. The systems are designed to absorb sound energy and block noise transmission between the noise source and the receiver. We guarantee it.

Innovative Designs Reduce Labor and Materials:



In order to realize exceptional savings on field installation time and labor, reduce the number of structural steel supports, and to further refine architectural appearance and quality, dBNR Nois-eNvelope[™] systems have optimized the maximum panel length to 24 ft. (7.32 m.) span, which is 2-3 times the length of most competitors' panels.



Unlike many competitors, dBNR Nois-**e**Nvelope[™] systems eliminate the need for the extra labor cost of applying additional external fastening screws to each panel edge. The elimination of exposed screws also greatly improves the finish quality and appearance of the completed installation.

dBNR Nois-eNvelope[™] systems material standards are 18 GA solid exterior/22 GA perforated interior (noise absorption side) galvannealed steel panel with 18 GA internal support channels.16 GA is available for solid exterior and internal support channels, as well as other materials and gauges when required. Standard panel thickness is 4" and panels are available in continuous lengths up to 24'. Other panel thicknesses are also available. Standard acoustical media core of 4 p.c.f. mineral wool, which is inert, noncombustible, mildew resistant and nonsettling Media encapsulation is available with acoustic-spacer as required.

dBNR Nois-eNvelope[™] Architectural Environmental Noise Barrier Systems (AENBS) are typically installed to eliminate noise problems outdoors at grade or on rooftops. Options include man doors and equipment doors, acoustical louvers for airflow, and many other adaptations. Panel components can be configured vertically or horizontally; with single panels **spanning up to 24'**.





Enclosures, Buildings, and Portability

dBNR Nois-eNvelope[™] Noise Control Enclosure Systems (NCES) are typically installed to eliminate environmental and industrial noise problems indoors or outdoors; at grade or on rooftops and are even available preassembled and skid-mounted for portability. Panel systems can be disassembled where required. Panel components can be configured vertically or horizontally; with single panels spanning up to 24'. Longer panels save costs and installation time.

Comprehensive noise control packages include:

- -Acoustic panels, doors, windows
- -Silencers and acoustically treated intake and exhaust ventilation needs
- -Specialized control rooms

-Process accommodations, mechanized door systems, complete isolation bases or equipment, and many more options as required.

*As part of our packaging, all prefinished and factory coated materials are shipped with protective PVC adhesive coverings on each panel and separated to prevent damage in shipping/site handling.



Longevity and Maintenance

dBNR Nois-eNvelope[™] systems are designed to be maintenance free for the life of the project. Other than doors, there are no moving parts and virtually nothing to replace. Screws and fasteners are minimized. Panels offer exceptional cleanability – there are no crevices, reveals or recesses for dirt to accumulate.

Our weatherproof designs and corrosion resistant construction add to the longevity of the systems – high quality galvannealed and galvanized steel or aluminum panels are self-draining and internal acoustical media is non-absorbent.

dBNR Nois-eNvelope[™] systems use industry leading coatings and abuse resistant finishes to enhance appearance and add protection from the environment. Many other options are available to suit project needs.

*dBNR Nois-eNvelope[™] systems have superior aesthetic appeal – with a superb quality fit, finish and architectural appearance that make the systems look as great as they perform.



Sales, Engineering and Customer Service

dBNR Nois-**e**Nvelope[™] systems are backed by friendly, knowledgeable salespeople to assist you with detailed estimates representing the best value solution for your project. Complete AutoCAD submittals and installation drawings accompany all shipments, and dedicated project managers and customer service staff ensure on-time and secure delivery.

Acoustical Performance

dBNR Nois-eNvelope[™] systems are designed by experts in noise reduction applications and acoustics. We guarantee the performance of our systems and work with owners, contractors and independent acoustical consultants to ensure compliance with codes, ordinances and regulatory conditions.

To ensure the highest standards for performance and integrity, our products are tested at independent third party laboratories in strict accordance with required industry test standards, assuring that our published data is reliable and unbiased. dBNR Nois-**e**Nvelope[™] systems provide superior noise reduction with industry-leading results for both the Noise Reduction Coefficient (NRC) and Sound Transmission Class (STC) ratings.

Octave Ctr Frequency (Hz)		63	125	250	500	1000	2000	4000	8000
Noise Reduction Coefficient	NRC 1.0	0.18	0.75	1.02	1.07	0.98	0.89	0.8	0.86
Transmission Loss (TL)	STC 42	21	21	30	41	52	59	64	67
ASTM E84			Tests c	onducte	ed by Riv	verbank	Acousti	cal Labo	oratorie
Flame Spread	15								
Smoke Developed	0								

dBNR Nois-eNvelope™ Panel A4



Architectural Environmental Noise Barrier Systems (AENBS) are needed to:

- Protect people and the environment from the harmful effects of noise
- Reduce stress and disruption caused by noise in residential, business, institutional, recreational and wildlife areas
- Shield mechanical equipment from view and sound
- Shield processes from view and sound
- Provide a visual screen and acoustical privacy
- Be in compliance with OSHA requirements and/or local noise ordinances

Noise Control Enclosure Systems (NCES) are needed to:

- Protect people and the environment from the harmful effects of noise
- Completely enclose noisy equipment and allow it to ventilate quietly
- Reduce dangerous noise to safe ambient levels
- Protect and secure equipment and processes from the environment and destructive effects of noise
- Be in compliance with OSHA requirements and/or local noise ordinances

Industries/Sectors:

- Oil and Gas
- Power Generation
- Manufacturing
- Pharmaceutical
- Equipment Testing and Calibration

Other Applications:

- Businesses with loading docks adjacent to residential areas
- Generator, process and
- equipment yards
 - Railways and spurs adjacent to
- residential areas
 - Highway barriers
 - Environmentally sensitive areas

- Health Care
- Governmental Agencies
- Transportation
 - Commercial, Residential, Institutional, Medical
- Industrial, Heavy Industrial, Environmental Applications
 - Property barriers
 - Weather/Storm shelters and enclosures
 - Blast protection
 - Control rooms
 - Modular structures



Our Commitment

dB Noise Reduction is committed to providing the best noise control solutions for our customers.

Our team of engineers, designers and manufacturers are experts in the production of high quality customizable noise control solutions for a variety of applications.

We are committed to designing with the right solution for the application, with the right equipment, priced competitively and completed in a timely matter to ensure customer satisfaction.

All of our products are evaluated and designed by professional engineers with years of experience in application engineering, product design and the latest in technology and standards.

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