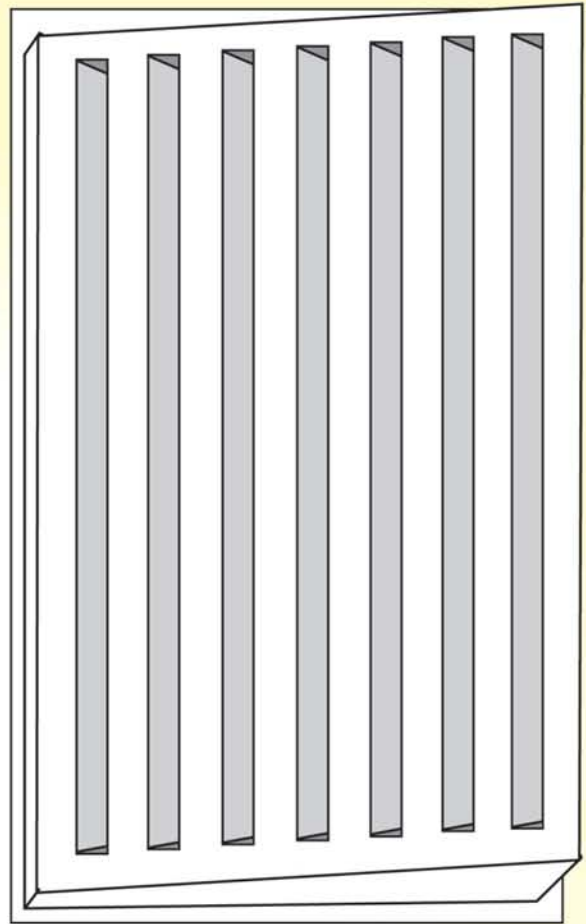
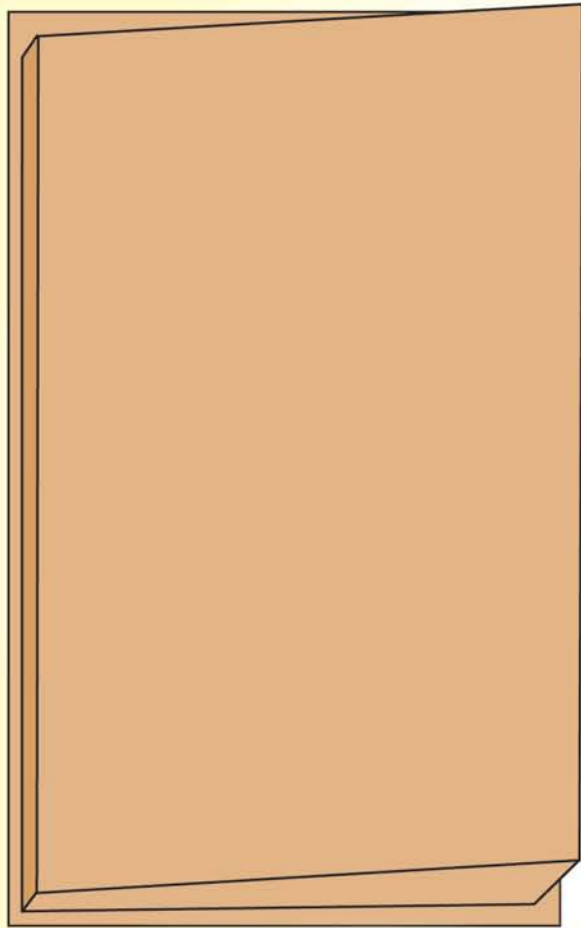


LSS-WDP

High-impact construction with patented diffusion "wells"



Finished raw or with your choice of class-A fabric wrap or paint

Wedge™ Diffuser



SECTION 09840
ACOUSTICAL WALL/CEILING DIFFUSER PANELS
WEDGE™ DIFFUSER: “LSS-WDP”
MEGAWEDGE™ DIFFUSER: “LSS-MWDP”
SPECIFICATION

PART I. GENERAL

- 1.1 Acoustical sound treatment shall be of type and size herein described.
- 1.2 Manufacturer shall have a minimum of 3 years experience in the production of acoustical products.
- 1.3 Submittals: Submit detailed documentation of construction and NRC testing of diffuser.

PART II. PRODUCTS

- 2.1 All diffusers shall consist of approximately .2000 thickness of high-impact styrene construction at an approximate weight of 1.5 lbs per sq. ft. The diffusers shall have square edges where the 2' width of the Wedge™ diffuser slopes from 1 ¼" thick on one side to 3 ¼" thick on the other side, and the MegaWedge™ diffuser slopes from 3 ¼" thick on one side to 5 ¼" thick on the other side. End-to-end is a series of complex chambers diffusing sound in all directions and at all frequencies from 400Hz to 12,000Hz., as proven by testing in both the time domain and frequency domain. These diffusion chambers are based on a Perdue Acoustics patent using formulas of non-incident mathematics and cannot be used without permission.
- 2.2 Diffusers shall be of a construction type such as high-impact styrene. (Class A fire retardant spray or cloth covering is optional.)
- 2.3 Testing at 5% angles of axis should demonstrate a scattering of energy from 400 Hz. to 12,000 Hz. Energy vs. time tests indicate a spread over time of 3 times or greater the original incident of energy at test frequencies from 500 Hz. to 4000 Hz. taken at standard NRC test intervals. All absorption numbers must be in accordance with ASTM C423 for Type A mounting and certifiable acoustical data as obtained by an approved, independent testing laboratory shall be submitted to verify if the sound absorption at specified frequencies is satisfactory for this project.

Sound absorption coefficients for diffusers shall be as follows:

100 Hz	.32	500 Hz	.23
125 Hz	.31	1000 Hz	.13
250 Hz	.26	2000 Hz	.09

Sound absorption coefficients for cloth-covered diffusers shall be as follows:

100 Hz	.34	500 Hz	.58
125 Hz	.33	1000 Hz	.57
250 Hz	.40	2000 Hz	.54

- 2.4 Fabric or paint shall be selected from manufacturer's standard fabrics and paint color selections. Fabrics shall be bonded to the edges and returned at edges to the back of diffusers. Manufacturer shall ensure flat, wrinkle-free surface and tailored corners if fabric wrapped, and complete coverage of every component of the standard painted units.
- 2.5 Each ceiling diffuser shall be dimensionally manufactured so as to lie perfectly in the T-grid in place of 1 – 2' x 4' ceiling tile or 2 – 2' x 2' ceiling tiles. Each wall diffuser shall have built in angle bracket attachment provided.

PART III. EXECUTION

3.1 Installation

Each ceiling diffuser will lie in place of 1 – 2' x 4' or 2 – 2' x 2' ceiling tiles or panels, settling in level and tight against the "T-grid."

Manufacturer shall provide wall attachment pieces for each wall-attached diffuser, and installer will provide proper screws for proper attachment for that type of wall construction. All wall-mounted diffusers should be level and square with the surrounding architectural environment.