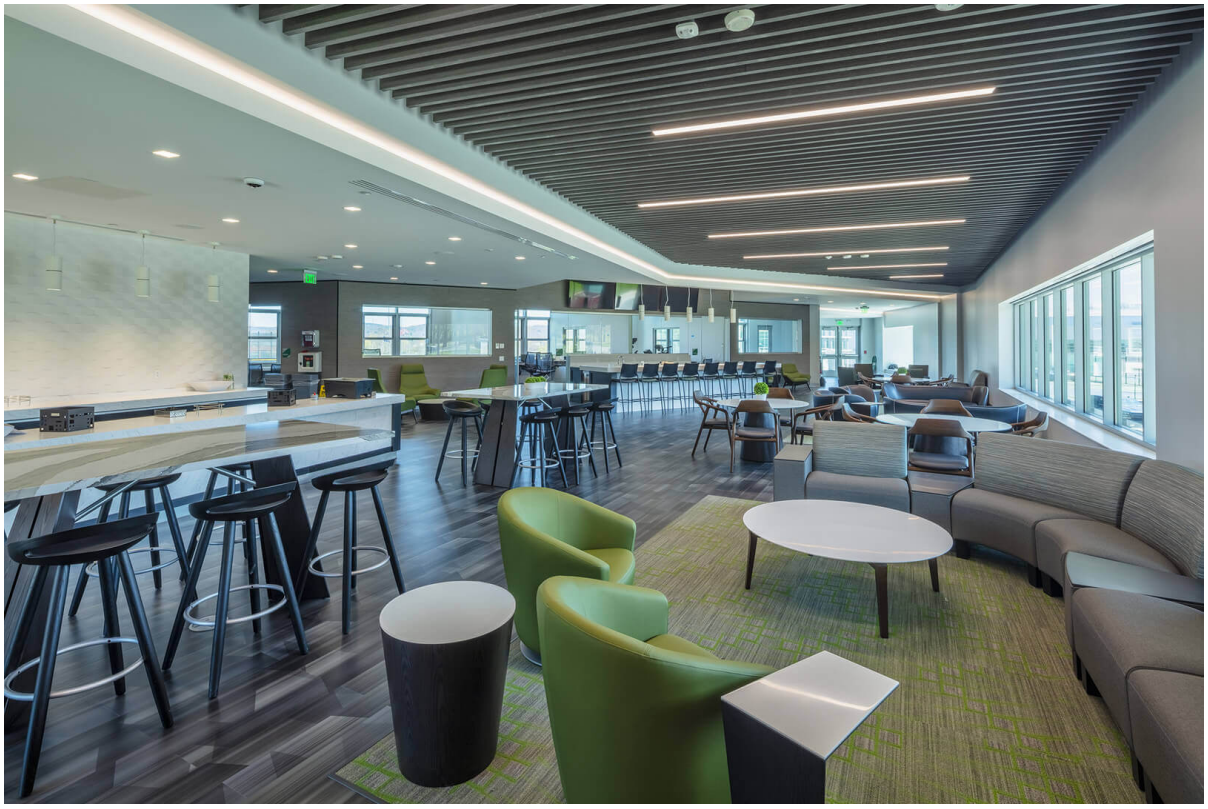
AAPG Acoustic Baffles

Vertically suspended acoustical baffles, 96" x 8" x 2", faced on both sides in real wood veneer or high-pressure laminate.



Veneer baffles installed at Binghamton University, Bearcats Stadium. Project installation shown for reference; baffle size, spacing, and finish as specified for that project.

PRODUCT OVERVIEW

AAPG Acoustic Baffles are factory-fabricated vertically suspended acoustical units supplied in a single nominal size of 96" x 8" x 2" (2438 x 203 x 51 mm), consisting of a batt-filled acoustically absorptive core faced on both sides with wood veneer or high-pressure laminate, supplied with suspension hardware, hanging accessories, and trim for attachment of aircraft cable to the baffle. Units are finished on both faces and all exposed edges and are suitable for viewing from any direction. Reference specification: Section 09 8436 - Sound-Absorbing Ceiling Units.

Nominal size	**96" x 8" x 2" (2438 x 203 x 51 mm)**
Construction	**Batt-filled core, finished both faces and all exposed edges**
Rating basis	**Sabins per baffle at a stated spacing**
Weight per baffle	**26 lbs (11.8 kg)**
Weight per linear foot	**3.25 lbs/ft (4.84 kg/m)**
Sound absorption	**6 sabins per baffle at 6 in. spacing; 48 sabins per array of eight**

TECHNICAL DATA

Characteristic	Technical data
Nominal dimensions	96" x 8" x 2" (2438 x 203 x 51 mm). Supplied in this size only; custom lengths by enquiry.
Core	Batt-filled acoustical core: mineral wool or polyester (PET) batt encapsulated within the baffle. Core construction is the basis of the stated weight and acoustic performance.
Acoustic infill	Mineral wool or polyester batt encapsulated within the baffle
Profile	Rectangular. This is the standard profile and the basis of the stated weight and acoustic performance; tapered, radiused, and custom bottom edges by enquiry and will differ in exposed area.
Wood veneer facing	Real Wood Veneers "AA" architectural-grade veneer, 0.010" to 0.015" (0.25 to 0.38 mm), with furniture-grade catalyzed finish of approximately 0.003" (0.08 mm); balancing backer 0.015" to 0.025" (0.38 to 0.64 mm), laminated to both faces
HPL facing	Vertical-grade high-pressure plastic laminate adhered to both faces of the core; differing colors on opposing faces available
Edges	All four edges finished and sealed to match the faces; exposed bottom edges free of substrate show-through
Weight and suspension loading	26 lbs (11.8 kg) per baffle and 3.25 lbs per linear foot (4.84 kg/m), equivalent to approximately 4.9 lbs per sq. ft. of single-face area. Supplied by AAPG.
Suspension method	Aircraft cable with adjustable gripper and ceiling attachment; rigid rod suspension; continuous concealed carrier rail with baffle clips; or direct attachment to structure
Cable and grippers (by others)	Galvanized or stainless steel aircraft cable with a minimum safety factor of 5:1 against the supported load; adjustable grippers permitting field leveling. **Aircraft cable, adjustable grippers, and the fasteners attaching cable to structure are not furnished under Section 09 8436 and are supplied by others.**
Suspension points	Factory-installed, located and reinforced to carry the baffle load without deflection, distortion, or facing damage
Seismic restraint	Lateral bracing and restraint provided where required by the authority having jurisdiction; IBC Chapter 8 and applicable seismic design requirements referenced
Surface burning characteristics	ASTM E84; Class A (Class 1), flame-spread index 25 or less and smoke-developed index 450 or less, or Class C. Independent test reports to be submitted
Installation tolerance	Within 1/8" (3 mm) of indicated elevation; maximum 1/8" in 12 ft (3 mm in 3.6 m) along a run; uniform spacing within 1/8" (3 mm)
Environmental limits	Maintain 60 to 80 °F (16 to 27 °C) and 35 to 55 percent relative humidity during storage, installation, and the product life cycle. Not for exterior, high-humidity, or wet locations. Acclimate 72 hours prior to installation.
Applications	Suspended from interior ceilings and overhead structure

CUSTOM SIZES

The data on this sheet describes the standard 96" x 8" x 2" baffle. The additional sizes below are available on request. All are supplied at a nominal 96 in. (2438 mm) length; height and thickness vary as shown.

Height	2 in. (51 mm) thick	3 in. (76 mm) thick	4 in. (102 mm) thick
4" (102 mm)	Available	Available	Available
6" (152 mm)	Available	Available	Available
8" (203 mm)	**Standard**	Available	Available
10" (254 mm)	Available	Available	Available
12" (305 mm)	Available	Available	Available

Acoustic performance and weight differ for every size shown. The values published on this sheet — 6 sabins per baffle at 6 in. spacing, 26 lbs per baffle, and 3.25 lbs per linear foot — apply to the standard 96" x 8" x 2" build only and must not be applied to any other size. Absorption changes with both height and thickness, and weight changes roughly in proportion to cross-sectional area: across the range offered, cross-section varies from half the standard build to three times it, so weight per baffle varies by a factor of about six and suspension loading changes accordingly. Obtain size-specific acoustic and weight data from AAPG before specifying a custom size, sizing suspension points, cable, and anchors, or carrying any absorption value into a reverberation calculation.

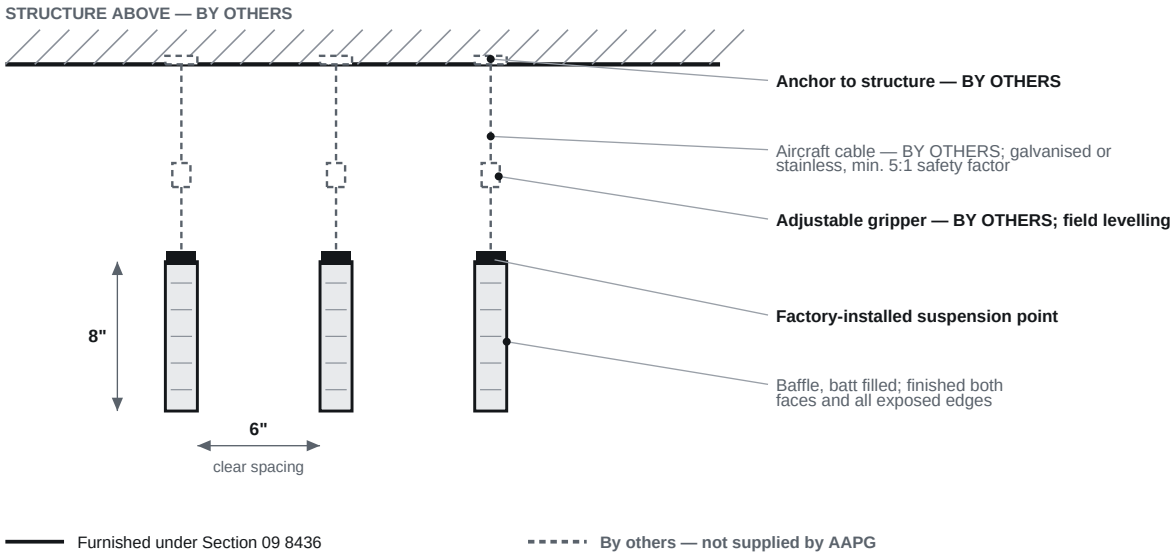
Acoustic values. 6 sabins per baffle at 6 in. spacing, and 48 sabins per array of eight for the single 96" x 8" x 2" batt-filled build described on this sheet. No mounting height is cited — see Acoustic Performance.

Nominal dimensions: All dimensions shown are nominal. Final product selection and detailing should be confirmed against current production data, project conditions, applicable codes, and installation requirements.

Installation. This data sheet is issued for product selection and design coordination only. **It is not an installation instruction and must not be used as one.** Install in accordance with AAPG's current published installation instructions and the approved shop drawings. Details shown on this sheet are schematic and illustrate the product, not the sequence, fixings, or tolerances required to install it. Where this sheet and the installation instructions differ, the installation instructions govern.

Typical Suspension Detail

The detail below shows the typical suspension interface for AAPG Acoustic Baffles. The 6 in. spacing and 8 in. depth shown are the geometry on which the stated acoustic performance is based; changing either changes absorption per baffle.

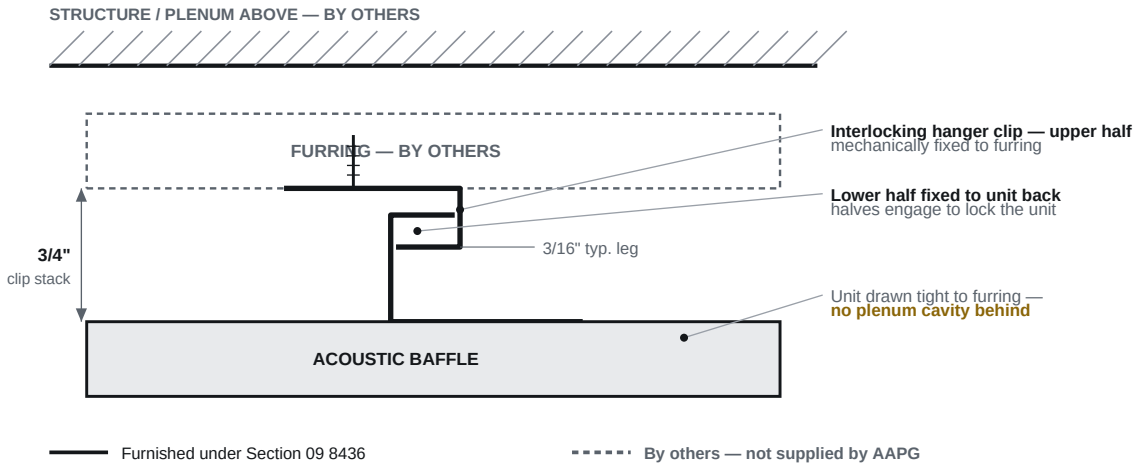


Spacing shown is the basis of the stated acoustic performance. Confirm clear versus on-centre before layout.

Typical detail, shown for coordination only. This is a schematic representation of the suspension interface and is not an engineered detail, a shop drawing, or a substitute for one. Anchors, aircraft cable, adjustable grippers, and the fasteners attaching cable to structure are not furnished under Section 09 8436 and are supplied by others. Anchor type, embedment, and capacity depend on the overhead structure and the imposed load, and must be selected and verified by the project structural engineer. Provide seismic restraint and lateral bracing where required by the authority having jurisdiction. **This detail is not an installation instruction.** Install in accordance with AAPG's current published installation instructions and the approved shop drawings, which govern.

Alternate: Direct Attachment to Structure

Section 09 8436 lists direct attachment to structure as a suspension option. Where it is used in place of cable suspension, a two-part interlocking hanger clip fixes the unit to furring: the upper half is mechanically fixed to the furring and the lower half to the back of the unit.



Clip profile is schematic. Confirm the specified clip, fastener type, and spacing against manufacturer's current data.

Direct attachment changes acoustic performance. The absorption values stated on this data sheet depend on the cavity behind the unit. Fixing the unit tight to furring removes that cavity, and the stated values do not apply to this condition. Absorption will be lower, and the reduction is greatest at low frequencies. Where direct attachment is used, obtain assembly-specific test data or have the acoustical consultant model the installed condition. Do not carry the suspended values into a reverberation calculation for a direct-fixed ceiling. **This detail is not an installation instruction** — install in accordance with AAPG's current published installation instructions and the approved shop drawings, which govern.

Acoustic Performance

Suspended baffles are rated in sabins per unit rather than NRC, because absorption depends on unit spacing and on both exposed faces. An NRC figure for a baffle is not a meaningful basis for comparison. AAPG states the performance below for the 96" x 8" x 2" batt-filled baffle hung 6 in. apart in arrays of eight.

Section 09 8436 requires the tested spacing and mounting height to be identified. **Values apply at 6 in. spacing only** — absorption per baffle rises as spacing widens, because adjacent units shadow one another less. Note that the sabins table in Section 09 8436 states 11 sabins for an 8 in. baffle at 16 in. centres; that figure is now confirmed, matching the values shown above.

Stated configuration	Spacing	Sabins (stated)
Single baffle, 96" x 8" x 2", batt filled	6 in. apart	6 per baffle
Array of eight baffles, as above	6 in. apart	48 per array

IMPORTANT LIMITATION

Values apply to the 96" x 8" x 2" batt-filled baffle at 6 in. spacing only. Absorption per baffle also varies with mounting height and with the absorption of surfaces above the baffle field. Total room absorption does not scale linearly with baffle count at close spacings, as adjacent units shadow one another. Confirm whether the 6 in. spacing is measured clear between baffles or on centre, since for a 2 in. thick baffle the two give different pitches and therefore different baffle counts per unit area.

Section 09 8436 requires submission of independent laboratory test reports establishing sound absorption in accordance with ASTM C423, reported as sabins per baffle at the tested spacing and mounting height, with the tested spacing identified.