

Acoustical doors and frames

Uses

Among its product line, Métalec manufactures acoustic steel doors having all of the ASTM acoustic requirements:

- E336 Standard Test Method for Measurement of Airborne Sound Insulation in Building.
- E413 Standard Classification for Determination of Sound Transmission Class (STC).
- C423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

Métalec offers complete sets including the door, the frame, the acoustic perimeter seal, the bottom seal and the aluminium threshold.

- Acoustic degree available: STC-36, STC-40, STC-42, STC-44.
- Product available with fire resistance up to 3 hours (180 min.).

FRAME

Frame description

- The acoustical steel frames from the "CS" series are manufactured using 14 or 16 gauge galvanized steel;
- The frame has precise mitred corners. These corners are linked with a continuous weld on the inside faces of the mitred corners;
- All welded corners are ground smooth and primed to achieve a good looking finish;
- The steel frames have two temporary spreader bars welded at the base of the frame, six frame anchors adapted to various types of wall construction and two floor anchors;
- The frames are mortised, reinforced, drilled and threaded in order to receive three 0.180" heavy weight hinges measuring 114 mm x 102 mm (4-1/2" x 4") and one ASA strike;
- The hinge and the strike reinforcements are protected by mortar boxes;
- The steel frames are manufactured with a reinforcement for a surface-mounted door closers;
- The frames are provided with a label indicating the Sound Transmission Classification rating (STC).

DOOR

Door description

- The acoustic steel door from the "PI" series are manufactured using 18, 16 or 14 gauge galvanized steel;
- The door is perfectly smooth, without visible joints on the faces and edges;
- The door edges are beveled, 3 mm x 51 mm (1/8" x 2"). 16 gauge steel end channels are outcrop welded at the top and the bottom of the door;
- Inside the door, all the voids are completely filled with an acoustic core specific to Métalec;
- The door is prepared to receive three 0.180" heavy weight hinges measuring 114 mm x 102 mm (4-1/2" x 4");
- The door has a standard cylindrical lock preparation (161). In addition, the door is reinforced for a surface mounted door closer and automatic door bottom;
- A label is applied indicating the Sound Transmission Classification rating (STC).

STC-42

"STC-42" acoustic system description

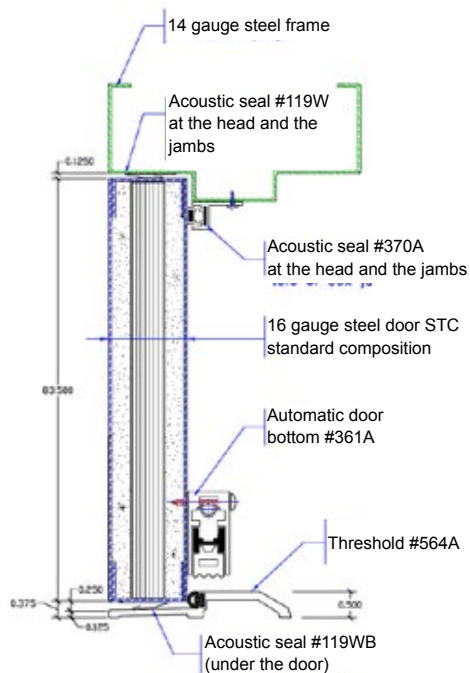


Illustration: STC-42

(MANUFACTURER "ZERO")

The acoustic system is made up of these following elements:

- Magnetic acoustic seal #370A installed on the door stop;
- Compressible acoustic seal #119W installed on the frame jamba and head (as illustrated), and under the door;
- Surface mounted automatic door bottom #361A;
- Aluminium threshold #564A.

To meet the specified STC rating, only Métalec acoustic seals can be used.