

## **BSA-1-3-4 Foot grilles:**

To supply and install to location and sizes Bolar foot grilles manufactured **under a proven quality system** model **BSA-1-3-4**

### **As manufactured by:**

Grillage Bolar (Canada) Inc.  
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Blainville, Québec  
J7C 5H2

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All aluminum components shall be extruded aluminum alloy 6061-T6

Deflection under live load:

The foot grilles shall be so conceived so as to accept a minimum uniform load of 2270 Newton applied over a 4 square inch (100mm) surface in order to obtain a 1/180" deflection over a 2'-0" (610 mm) span.

The perimeter frames shall be in aluminum like an inverted "T" shape such as model "VV" by Bolar, in order to anchor the structure into the concrete. Supply with sound gasket. For sections larger than 6'-0 X 8'-0 (1828mm X 2438mm) a mechanical joint is to be provided (if specified).

**OR**

The perimeter frames shall be in aluminum like "L" shaped such as model "AD" by Bolar, for existing openings, supplied with sound gasket. For sections larger than 6'-0 X 8'-0 (1828mm X 2438mm) a mechanical joint is to be provided (if specified).

**OR**

The perimeter frames shall be in aluminum like "Z" shaped such as model "TT" by Bolar. For installation over finished floor surfaces. Supplied with sound gasket. For sections larger than 6'-0 X 8'-0 (1828mm X 2438mm) a mechanical joint is to be provided (if specified). A silicone joint is to be applied between the frame and the finished floor to prevent any water infiltration (by others).

Blades shall be "T" shaped size: 3/16" X 1/8" X 1" (4.7mm X 3mm X 25mm) striated at every 7/8" (22mm). The notch shall be 9/64" (3.2mm) in width by 3/16" (4.7mm). Spacing between blades is not to exceed 3/16" (4.7mm). Such as model BSA-1-34 by Bolar. Overall depth: 2" (50mm) from finished floor.

Spacing between blades and retaining rods shall be so as to meet manufacturer's specifications for the minimum weight capacity. Foot grille will be manufactured in sections so as to increase ease of maintenance.

The frames will be supplied with a pan. Pan shall be of 22-gauge stainless steel, no drain.

**OR**

The frames will be supplied with a pan. Pan shall be of 22-gauge galvanized steel, no drain. Coat all surfaces in contact with masonry with two coats of bituminous paint.

**OR**

The frames will be supplied without a pan. A coat of waterproofing is to be applied to the concrete base to avoid water infiltration (by others).

The sections shall have a friction coefficient of 1,19 and a cleaning efficiency of 57 %, percentage of opening shall be 58%.

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The deformation under lateral charge is not to exceed 10 (visual) after application of a maximal charge of 2270 Newton at a 45-degree angle in relation to the surface.

All sections shall be in accordance with ASTM B117 norms and be able to sustain a 1000 hour salt fog without any notable changes.

Manufacturer shall be able to confirm this data and be able to supply architect with all necessary reports and shop drawings.

#### **Installation:**

The foot-grille sections will be installed in their frames, as a last item, to prevent damages during construction. The foot-grille sections will be installed in their frames, as a last item, to prevent damages during construction. Install all foot grilles, square and level with finished floor so as to permit easy manipulation of all sections. All frame members and intermediary supports are to be level and well supported on all their lengths in order to avoid any deflection over a long-term period.

All frames and pans are to be thoroughly cleaned before installing any grille section for them not to exceed finished floor level. All sound gaskets damaged during installation, are to be replaced before final inspection. Protect grilles from construction traffic. Install all hinges (if required). Verify that all latches are in a closed position and properly greased (if required).

#### **ACCESSORIES/OPTIONS**

##### **Option #1: Hinges and lock notch: (except on irregular shape and level base installation)**

All sections of grille will be supplied with hinges and lock notch. The hinges and lock notch will be fabricated in stainless steel and installed on the grille by the manufacturer. They will be attached to the frame by the general contractor and verified by the architect prior to final approbation.

##### **Option #2: Hinges and lock notch with GB-46 lock downs: (except on irregular shape and level base installation)**

All sections of grilles will be supplied with a combination hinges/lock notch and lock downs model GB-46. The hinges and lock notch will be fabricated in stainless steel and installed on the grille by the manufacturer. The lock downs will be fabricated of galvanized steel and teflon, they will be attached to the grille sections by the manufacturer. The lock downs will be supplied with a special key for easy of operation (one per vestibule). All lock downs have to be greased (BSRS 2000 water resistant)) at the time of installation by the general contractor. We suggest they be greased at least 4 times a year. All systems are to be verified by the architect prior to final approbation.

##### **Option #3: Lock downs GB-46 (4 per grilles): (except on irregular shape and level base installation)**

All sections of grille will be supplied with a lock downs mechanism GB-46 (4 per sections of grille). The lock downs will be fabricated of galvanized steel and Teflon, they will be attached to the grille sections by the manufacturer. The lock downs will be supplied with a special key for easy of operation (one per vestibule). All lock downs must be greased (BSRS 2000 water resistant)) at the time of installation by the general contractor. We suggest they be greased at least 4 times a year. All systems are to be verified by the architect prior to final approbation.

##### **Option #4 Plates and Screws :**

Install by the supplier on each corner of the grilles, they have to be fixed by the general contractor with the screws provided by the manufacturer and will have to be verify by the Architect before final approbation. The plates and screws will come with an adapted screwdriver to ensure a good use (1 per vestibule). All plates and screws need to be greased with (BSRS 2000 grease waterproof) when the contractor is ready to do the final installation for the foot grille. We suggest that the screws and the holes are greased at least 4 times a year. Verify by the Architect that everything is exact before the final approbation.

##### **Option #5: Lifting hooks:**

All grilles will be supplied with lifting hooks in order to provide easy lifting of sections without efforts or risk of damaging the grille surfaces (one per vestibule).

**NOTE: They will not be incorporated to each section in order to minimize unauthorized manipulations of grilles, and thus prevent possible accidents.**

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**Option #6: Sound gasket:**

All frame sections will be supplied with a sound gasket, as per manufacturer's specifications. The sound gasket's function will be to buffer noise and vibrations that could occur between frames and blades.