



Safety Hatch Access Grates MSU Type MG – Aluminum

Part 1- General

1.1 Standards

- .1 Conform to CAN3-S157 Strength Design in Aluminum.
- .2 Conform to CSA W59.2 Welded Aluminum Construction and CSA W47.2 Certification of Companies for Fusion Welding of Aluminum.
- .3 Safety Hatch Access Grates shall be MSU Mississauga Type MG as manufactured by MSU Mississauga Ltd. 2222 S. Sheridan Way, Mississauga, Ontario L5J 2M4, 1-800-268-5336, www.msmississauga.com, sales@msmississauga.com.

1.2 Quality Assurance

- .1 Welding shall only be undertaken by a company Certified by the Canadian Welding Bureau to the requirements of CSA Standard W47.2, Certification of Companies for the Fusion Welding of Aluminum.

1.3 Shop Drawings

- .1 Submit shop drawings in accordance with Section 01300 - Submittals.
- .2 Indicate materials, thicknesses, reinforcement, details and accessories.
- .3 Manufacturer shall supply installation drawings and instructions.

Part 2- Products

2.1 Materials

- .1 Aluminum Extruded Shapes: to CSA HA.5, Alloy 6351-T6 and 6061-T6.
- .2 Aluminum Tread Plate to CSA HA.5 Alloy 6061-T6.
- .3 Fasteners, hinges, gas spring, and hold open arm in 316 stainless steel.

2.2 Fabrication

- .1 Fabricate square, true, and accurate to required size, with joints closely fitted. Remove all burrs and sharp edges.
- .2 Ensure hinges are vandal proof - secure bolts with nylon insert lock nuts.
- .3 Countersink all fasteners - ensure hatch is flush.

2.2 Fabrication (continued)

- .4 Paint all surfaces coming in contact with concrete with one thick coat of bituminous paint.



2.3 Access Hatches

- .1 Provide the appropriate frames and covers to the dimensions on the Contract Drawings. Ensure all covers are:
 - .a hinged with butt hinges,
 - .b framed with a drain channel complete with perimeter anchor flange, 1 1/2" drainage coupling and neoprene sealing gasket,
 - .c provided with a stainless slam lock, sealing plug and removable handle,
 - .d equipped a retractable lifting handle,
 - .e equipped with a gas spring(s) for easy operation,
 - .f equipped with a hold open arm to restrain an open hatch in a vertical position,
 - .g equipped with tamper proof fasteners,
 - .h equipped with door leaf made of 6.35mm thick slip resistant diamond pattern plate,
 - .i Hatch cover reinforced to withstand a live load of 14.4KN/m², and
 - .j Option insulation in lid.
- .2 Provide Safety access grates under all hatch covers. Ensure all access grates are:
 - .a hinged,
 - .b equipped a retractable lifting handle,
 - .c rated to withstand a live load of 14.4 KN/m²,
 - .d highly visible; either safety orange if aluminum or red if fiberglass; aluminum grating to be powder coated, applied by electrostatic spray process; coating is a thermosetting epoxy powder coat finish minimum 2mm thick and baked at 180 degrees C until cured,
 - .e equipped with lock mechanism which holds the grate at 90 degrees vertical, and
 - .f safety grating reinforced to withstand a live load of 14.4KN/m².

Part 3- Execution

3.1 Installation

- .1 Install access hatches where indicated on the contract drawings.