



1105 Aluminum Ladder System

Part 1- General

1.1 Standards

- .1 Conform to CAN3-S157 -M83 Strength Design in Aluminum.
- .2 Conform to CSA W59.2 -M191 Welded Aluminum Construction and CSA W47.2-M1987 Certification of Companies for Fusion Welding of Aluminum.
- .3 Ladders Systems shall be MSU Mississauga Type 1105 as manufactured by MSU Mississauga Ltd. 2222 S. Sheridan Way, Mississauga, Ontario L5J 2M4, 1-800-268-5336, www.msumississauga.com, info@msumississauga.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-M1987, Certification of Companies for the Fusion Welding of Aluminum.

1.3 Shop Drawings

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

Part 2- Products

2.1 Materials

- .5 Aluminum Extruded Shapes: to CSA HA.5-M1980, Alloy 6351-T6.
- .6 Cast Aluminum to CSA HA.5-M1980 Alloy 6290
- .7 Polyethylene - Sclair 2107
- .8 Fasteners & Rivets in 304 stainless steel.
- .9 Glass Filled Nylon

2.2 Fabrication

- .10 Fabricate square, true, and accurate to required size, with joints closely fitted. Remove all burrs and sharp edges.
- .11 Rungs of ladder shall be joined to the ladder side rail using the patented MSU conical bracing system.
- .12 Rung spacing shall be 300mm centre to centre.



2.2 Fabrication (continued)

- .13 Attachment brackets shall be spaced at 1500mm maximum centre to centre.
- .14 Aluminum shall be isolated from contact with the concrete with polyethylene anchors or isolation pads.
- .15 Ladders longer than 6.4M shall be joined with the MSU internal splice system.
- .16 Ladders longer than 5M shall be equipped with an MSU #3108 Safety Cage system.
- .17 Ladders accessing roofs shall be equipped with an MSU #1114 Self Supporting Entry and Exit Extension System.

2.3 Aluminum Ladders

- .18 Provide the appropriate ladders complete with all necessary attachment brackets and accessories to the dimensions on the Contract Drawings. Ensure all ladders are:
 - .a assembled using the conical bracing method,
 - .b provided with polyethylene end caps on the top and bottom,
 - .c equipped with MSU type 8120 vertically and horizontally adjustable flanged brackets equipped complete with, 1/2 x 3 3/4" Hilti wedge anchors sockethead capscrews and allen keys,
 - .d supplied with 30mm diameter internally reinforced side rails,
 - .e supplied with 20mm diameter ribbed - slip resistant rungs,
 - .f where required equip ladders with MSU #3108 safety cage system; cage shall clamp around ladder side rails with horizontal hoop sections spaced at 1.5M maximum; vertical cage shall consist of 5 hollow oval bars evenly spaced around the circumference of the cage and attached to the support hoops with stainless steel rivets, and
 - .g ladders accessing roofs shall be equipped with MSU #1114 self supporting entry and exit extensions. Extensions shall be welded to #1105 ladder.

Part 3- Execution

3.1 Installation

- .19 Install access ladders where indicated on the drawings.