



## Safety Ladders - Type 1616

### Part 1- General

#### 1.1 Standards

- .1 Conform to CSA W59.1 -M191 Welded Stainless Steel Construction and CSA W47.1-M1987 Certification of Companies for Fusion Welding of Stainless Steel.

#### 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 W47.1-M1987, Certification of Companies for the Fusion Welding of Stainless Steel.

#### 1.3 Shop Drawings

- .1 Submit shop drawings in accordance with Section 01300 - Submittals.
- .2 Indicate materials, thicknesses, weld symbols, reinforcement, details and accessories.
- .3 Manufacturer shall supply installation drawings and instructions.
- .4 Shall be stamped by a P.Eng. registered in the Province of Ontario

### Part 2- Products

#### 2.1 Materials

- .1 Structural Shapes: 316L Type Stainless Steel
- .2 Fasteners and Anchoring Systems: 316 stainless steel.
- .3 Slip resistant, perforated rung material: 316L 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 Wall attachment brackets shall be offset 150mm, 180mm or as required.
- .3 Vertical rung spacing shall be 300mm centre to centre.
- .4 Attachment brackets shall be spaced at 1800mm maximum centre to centre.
- .5 Ladders longer than 4.2M shall be joined with an external splice system.
- .6 Attachment anchors shall be expansion type for new concrete or as dictated by the concrete.
- .7 Top rung of ladder must be level with adjacent surface.



### **2.3 Stainless Steel Ladders**

- .1 Provide the appropriate ladders complete with all necessary attachment brackets to the dimensions on the Contract Drawings. Ensure all ladders are:
  - .a assembled using GMAW welding method,
  - .b supplied with 6 x 50mm flat bar side rails,
  - .c supplied with 28 x 43mm 3 hole perforated slip-resistant rungs,
  - .d supplied with brackets which are 6 x 50 bent flat bar welded to ladder side rail & offset from the wall face as required,
  - .e supplied with 12 x 95mm long 304ss wedge anchor assemblies as manufactured by Hilti, and
  - .f MSU type 1416.

## **Part 3- Execution**

### **3.1 Installation**

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