

GUIDE SPECIFICATIONS
EXTERIOR SUN CONTROL SPECIALTIES - FIXED Z LOUVER BRISE SOLEIL SYSTEM

Division 10 - Specialties
Section 10.000 Fixed Z louver brise soleil system

1.0 GENERAL

1.1 RELATED SECTIONS:

- 1.1.1 Section 0 .. Structural steel
- 1.1.2 Section 08920 Glazed aluminum curtain wall
- 1.1.3 Section 0 .. Aluminum cladding

Products supplied by this section and installed by other trades:

Specifier co-ordinate this work with designated trades in other sections of these project specifications.

- 1.1.4 Fixed Z louver brise soleil system installed to the window wall as indicated on the architectural drawings.
- 1.1.5 Steel or aluminum attachment brackets for Z louver brise soleil system

1.2 SUMMARY:

- 1.2.1 Provide exterior fixed aluminum Z louver brise soleil system with related specified hardware to complete the installation to the following locations:
Specifier provide the scope of the work
- 1.2.2 Brise soleil system shall be mounted to brackets protruding from the window wall / facade as indicated on the architectural drawings
- 1.2.3 Aluminum cladding supplied and installed by other trades shall be coordinated with this trade to ensure smooth integration of the specified system

1.3 QUALITY ASSURANCE:

- 1.3.1 All bidders submitting bids on the work of this section shall meet or exceed the quality of materials, components and assemblies herein. Bidders who do not comply with these specifications shall refrain from submitting a bid
- 1.3.2 Alternate bids, alternate products shall be submitted to the Design Consultant ten (10) days prior to tender closing. Alternate bids can only be submitted as an alternate to the specified base bid product
- 1.3.3 Manufacturer shall have a minimum of fifteen (15) years experience in the manufacture of the specified shading system. All work specified under this section shall be supplied by one subcontractor
- 1.3.4 Conform to applicable Building Codes, relevant local codes and all other standards noted
Specifier provide details of any specific codes to be met
- 1.3.5 Install one complete sample with accessories on site. Review the installation before proceeding with the remainder of the work. Adjust sample installation, as required, to gain acceptance. Accepted work may form part of the final installation

1.4 SUBMITTALS AND TEST REPORTS:

- 1.4.1 Submit fully detailed drawings prepared in AutoCAD 2000 version format showing all components, finishes and other construction conditions, installation, controls and all applicable dimensions according to Section 01300 Submittals
- 1.4.2 Submit structural calculations for local approval, taking account of maximum potential wind and snow loads
- 1.4.3 Submit duplicate samples of the key components of the specified fixed horizontal louver system with the specified finish. Minimum size 400 (1000mm) for review
- 1.4.4 Submit duplicate samples of the specified brackets and attachment methods

- 1.4.5 Submit duplicate copies of maintenance instructions including the name, address and other contact details of local service company

1.5 INSPECTION / PREPARATION

- 1.5.1 Verify that the structure necessary to carry the brise soleil system is a proper installation and secure
1.5.2 Notify general contractor in writing of any deficiencies in the work of other trades that would affect the brise soleil system
1.5.3 Make accurate measurements at the site before fabrication.. Check layout of glazing framing sections, spans and loading capabilities

1.6 DELIVERY, STORAGE AND HANDLING:

- 1.6.1 Do not deliver to site until areas to receive the brise soleil system are completely finished
1.6.2 Deliver materials in original protective wrappers or containers, with manufacturer's labels and sealed intact
1.6.3 Handle and store materials in accordance with the manufacturer's recommendations, protecting materials and finishes from damage or soiling

1.7 WARRANTY:

- 1.7.1 Provide a limited manufacturer's warranty from date of Substantial Completion covering the following periods:
Aluminum components and steel hardware Two (2) years
Aluminum and steel finishes Ten (10) years
1.7.2 Provide a limited installation warranty from date of Substantial Completion of one (1) year

2.0 PRODUCTS

2.1 MANUFACTURER:

- 2.1.1 Arc Structures, Inc.
1, 115 28 Street NE
Calgary, Alberta,
Canada T2A 5K4
Tel: 403 204 8699
Fax: 403 204 8676
e-mail: sales@arcstructures.com
Web: www.arcstructures.com

2.2 SYSTEM:

- 2.2.1 System to comprise:
Specifier select appropriate option
1. Factory assembled panels **or**
 2. Continuous system with louvers fixed on site to projecting support arms

2.3 MATERIALS:

- 2.3.1 Aluminum and steel hardware and brackets:
Specifier: Dependent upon the system selected above, certain items in the section will need to be deleted

Mounting brackets:

Mounting brackets to be supplied for the main system, **and**

Mounting brackets to be supplied for the brace arms (optional)

Specifier select appropriate option

1. System to be attached to steel or aluminum plates projecting from the window wall, supplied by the window wall manufacturer, or
2. System to be attached to mounting brackets to be supplied by the manufacturer of the fixed horizontal louver system. Brackets to fix to:

Specifier select the appropriate option

- a. Projecting studs supplied by the window wall manufacturer
- b. Nosing of the window wall mullions
- c. Brick or block work, using resin anchors or similar
- d. Studs (provided by the structural steel contractor) projecting through the cladding
- e. Steel work behind the cladding using engineered steel or aluminum spacers to take up the distance between the steel structure and the cladding, or

Mounting brackets shall be manufactured from engineered wall thickness to support the full weight of the system and applied wind and snow loads including the safety ratio as determined by the local building and construction codes.

Mounting assembly will be equipped with attachment provision for cladding integration, as appropriate. Method of attaching to the structure to be coordinated with the structural steel contractor or the window wall contractor as appropriate.

Z Louvers:

Extruded aluminum Z louvers shall be 60mm high x 90mm wide and shall incorporate a protruding leg for fixing to the support arm.

Support arms (continuous system only):

- a. Extruded aluminum support arms shall be 73mm high x 36mm wide and shall incorporate an internal chamber that will allow the arm to be slid onto a projecting plate or the stub arm of a bracket that is 2 x in section
- b. System to include extruded aluminum double support arms (73mm high x 40mm wide) to allow Z louvers to be joined on a single arm. Extrusion shall incorporate an internal chamber that will allow the arm to be slid onto a projecting plate or the stub arm of a bracket that is 2 x in section

Front rail (continuous system only):

Front rail to comprise: *Specifier select appropriate option*

- 80mm high x 60mm wide extruded aluminum bullnose section, or
- 80mm high x 25mm wide extruded aluminum channel section

Panel frame (factory assembled panels only):

- a. Front rail to comprise: *Specifier select appropriate option*
 - 80mm high x 60mm wide extruded aluminum bullnose section, or
 - 80mm high x 25mm wide extruded aluminum channel section
- b. Back rail to comprise 80mm high x 25mm wide extruded aluminum channel section
- c. Side arms to comprise 73.5mm high x 25mm wide extruded aluminum extrusions with integral groove to accept louver clamps
- d. UV resistant nylon fixing clamps and stainless steel fasteners

Brace arms (optional):

- a. Brace arms to be designed to cope in both expansion and compression with the maximum calculated loads
- b. General design of the brace arms to be in accordance with architect's drawing no. (*Specifier to insert drawing reference*)

2.3.2 Material quality and coatings:

- c. All extruded aluminum components shall be extruded from 6063-T6 quality aluminum

- d. All aluminum components shall have the following finish: *Specifier select appropriate option*
 - Two (2) coat fluoropolymer finish to a standard non-metallic color, or
 - Three (3) coat fluoropolymer finish to a standard metallic color, or
 - Polyester powder coated finish to a standard color, or
 - Clear anodized finish according to AA-M12C22A31
- c. Steel components shall be manufactured from mild steel Fe230G while any stainless steel components shall be manufactured from Stainless 18-8
- d. Steel components shall be hot dip galvanized or zinc plated

3.0 EXECUTION

3.1 FABRICATION:

- 3.1.1 Brise soleil system components manufactured and assembled allowing for custom installation techniques to suit project requirements
- 3.1.2 Finished assemblies shall be square, true to size and free from twist or other defects that could affect their strength or appearance. Factory applied finish should be uniform, smooth and without blemishes

3.2 INSTALLATION:

- 3.2.1 Install work using skilled tradesman and install in strict accordance with manufacturer's recommendations.
- 3.2.2 All items installed, plumbed, squared and rigidly anchored maintaining uniform clearances and accurate alignment measurements
- 3.2.3 The brise soleil system shall be pre-measured and manufactured off-site

3.3 ADJUSTING AND CLEANING:

- 3.3.1 Adjust components as required to ensure trouble free performance
- 3.3.2 Prior to Substantial Completion clean down once the brise soleil system
- 3.3.3 Replace work which cannot be satisfactorily repaired, adjusted or cleaned.

END