

GUIDE SPECIFICATIONS

WINDOW TREATMENT □ MOTORIZED SPECIALTY VENETIAN BLINDS - EXTERNAL

Division 12 - Furnishings

Section 12.492 □ Motorized specialty venetian blinds - external

1.0 GENERAL**1.1 RELATED SECTIONS:**

1.1.1	Section	06.100	Rough carpentry
1.1.2	Section	08520	Aluminum windows
1.1.3	Section	08920	Glazed aluminum curtain wall
1.1.4	Section	16000	Electrical

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.

1.1.5 Aluminum or steel blind pockets integrated into the window wall.

1.1.6 Electrical control components to enable control functions as specified in this section

1.2 SUMMARY:

1.2.1 Provide electrically operated external specialty venetian blind system with related specified hardware to complete the installation to the following locations:

Specifier provide the scope of the work

1.2.2 Specialty venetian blinds shall be mounted: *Specifier select applicable position*

- On the face of the window framing, *or*
- In a custom metal pocket or housing

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 All work specified under this section shall be supplied and installed entirely by one subcontractor using his own resources

1.3.5 Specialty venetian blinds to be installed by a firm with a minimum of ten (10) years □ experience, specializing in the installation of shading systems

1.3.6 Conform to applicable Building Codes, relevant local codes and all other standards noted

Specifier provide details of any specific codes to be met

1.3.7 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 duplicate samples of the key components of the specified specialty venetian blind system with the specified finish. Minimum size 12 □ (300mm) for review

- 1.4.3 Submit duplicate samples of the specified sections of headrail, bottom rail, brackets / attachment methods and side guide wires / channels for review
- 1.4.4 Electric venetian blind motors and all electronic control equipment supplied by this section shall comply with CSA/UR and ULC/UL standards. Copies of compliance available for submission upon request.
- 1.4.5 Submit duplicate copies of operating and 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 specialty venetian blind assembly is a proper installation and secure
- 1.5.2 Verify that the electrical and control wiring is completed (refer to Division 16)
- 1.5.3 Notify general contractor in writing of any deficiencies in the work of other trades that would affect the window treatment system
- 1.5.4 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 specialty venetian blinds 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:

Specialty venetian blind hardware	Five (5) years
Electric motors:	Two (2) years
Electronic control equipment:	Five (5) 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
- 1.7.3 Submit standard manufacturer's maintenance contract for review by the owner

2.0 PRODUCTS

2.1 MANUFACTURER:

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

2.2 HARDWARE:

Specifier please note: This section requires editing to meet specific project requirements. All items which are not required must be deleted

- 2.2.1 Specialty venetian blind mounting brackets:
 - a. Specialty venetian blinds to be fixed with standard top-fix saddle brackets. Number

and spacing of brackets to depend upon the width of the blind and to be advised by the manufacturer, **or**

- b. Specialty venetian blind headrail to incorporate key-hole slots to allow direct top fixing by means of bolts or screws
- c. In addition to a. or b. above, additional angle brackets to be supplied to allow face fixing of the system (**optional**)

2.2.2 Specialty venetian blind headrail

- a. Headrail to be manufactured from extruded aluminum, alloy 6063-T6, size 60mm x 54mm x 2mm wall thickness. Headrail to be open on the underside to give access to the gearbox and to the tilt shaft and tape spools for maintenance as required.
- b. slat infill pieces to close off the bottom off the headrail when the blind is installed (**optional**)
- c. Drive shaft to be manufactured from 17mm diameter, 4mm wall thickness aluminum tube, optionally fitted with sliding couplings at the end to connect blinds together.

2.2.3 Slats

Slats to be manufactured from 0.4 to 0.5mm thick aluminum, double stove enameled.

Specifier. Please select from the following slat options:

- 100mm (4) wide flexible crowned slats, **or**
- 80mm (3) wide flexible crowned slats, **or**
- 80mm (3) wide rolled edge slats, **or**
- 50mm (2) wide flexible crowned slats

2.2.4 Lifting tape and ladder tape

- a. Lifting tape to be manufactured from Trevira and tear resistant up to 110daN. Tape to be 10mm (3/8) wide.
- b. Ladder tape to be manufactured from Trevira with cross webs that are positively attached to the slats (which are specially punched) to ensure no movement.

2.2.5 Bottom rail

Bottom rail to be manufactured from extruded aluminum with aluminum end pieces and a 2mm wall thickness.

Specifier. Please select from the following bottom rail options:

- 50mm x 17mm elliptical, **or**
- 60mm x 20mm rectangular, **or**
- 80mm x 24mm rectangular, **or**
- 80mm x 18mm elliptical, **or**
- 100mm x 24mm rectangular, **or**
- 100mm x 18mm curved top, flat bottom, **or**
- 100mm x 22mm elliptical

2.2.6 Side guides

Specifier please select from the following list of options

- a. Perlon side guides
 - 4mm diameter perlon cables with a tensile strength of 320daN.
 Perlon cables to be held by an extruded aluminum housing or a special clamping bolt, **or**
 - b. PVC coated stainless steel wires
 - 4mm diameter stainless steel cables with a tensile strength of 320daN. Stainless steel cables to be held by an extruded aluminum housing or a special clamping bolt, **or**
 - c. Extruded aluminum side guide channels
 - Extrude aluminum side guide channels (single and / or double, as appropriate) with plastic infill. Only to be used with 80mm (3) rolled edge louvers

2.2.7 Electric Venetian blind motors

- a. Venetian blind motor located inside the extruded aluminum headrail. Motor to provide raise / lower and tilt function. **Specifier include this option if required by your local code:** Venetian blind motor shall be equipped with a disconnect plug at motor lead
- b. Venetian blind motor shall be an asynchronous unit, start and run, single phase type **(110V - 60 Hz or 230V - 50 Hz)**, thermally protected, with a torque rating between 6 and 12 Nm as appropriate and with integral capacitor.
- c. Venetian blind motor shall incorporate output shafts to allow the motor to be located in the center of the headrail with drive shafts extended in both directions.
- d. Motor speed shall range from 20 to 35 RPM and draw 0.45 to 1.1 amp as selected by the manufacturer for proper system operation. Motor lead shall be plenum rated quality.
- e. Venetian blind motor shall be equipped with externally located limit switches which allow exact control of the raised and lowered Venetian blind position, together with a safety cut off switch in case the upper limit fails.
- f. Include all components for proper unit operation.

2.3 OPTIONAL ACCESSORIES

2.3.1 Aluminum Head Box / Pelmet: **Specifier note: Pelmet selection shall depend upon the type of louver used, blind drop and site conditions**

Pelmet to be custom manufactured from aluminum sheet to protect the venetian blind in the raised position. Height of the pelmet to be determined by reference to the type of louver and the drop of the blind. Minimum internal depth of the pelmet to be as follows:

100mm (4") wide flexible crowned louvers	130mm (5 1/8")
80mm (3 1/8") wide flexible crowned louvers	110mm (4 3/8")
80mm (3 1/8") wide rolled edge louvers	110mm (4 3/8")
50mm (2") wide flexible crowned louvers	100mm (4")

2.4 MATERIALS

2.4.1 Material quality and coatings:

- a. All extruded aluminum components shall be extruded from 6063-T6 quality aluminum
- b. 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. Unexposed aluminum unless otherwise specified: mill finish
- d. Steel components shall be manufactured from mild steel Fe230G while any stainless steel components shall be manufactured from Stainless 18-8
- e. Steel components shall be hot dip galvanized or zinc plated

3.0 BASIC CONTROL FUNCTIONS AND OPTIONS

Specifier please select a control system from the following list of options from section

4.0 EXECUTION

4.1 FABRICATION:

- 4.1.1 Specialty venetian blind system components manufactured and assembled allowing for custom installation techniques to suit project requirements
- 4.1.2 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

4.2 INSTALLATION:

- 4.2.1 Install work using skilled tradesman and install in strict accordance with manufacturer's recommendations.
- 4.2.2 All items installed, plumbed, squared and rigidly anchored maintaining uniform clearances and accurate alignment measurements
- 4.2.3 The specialty venetian blind system shall be pre-measured and manufactured off-site

4.3 ADJUSTING AND CLEANING:

- 4.3.1 Adjust components as required to ensure trouble free performance
- 4.3.2 Prior to Substantial Completion clean down once the specialty venetian blind system
- 4.3.3 Replace work which cannot be satisfactorily repaired, adjusted or cleaned.

END

