

## SECTION 122413 - ROLLER WINDOW SHADES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:

- 1. Manually operated roller shades QD-2 and QD – 85 [QD – 105 **with single rollers**]

- B. Related Requirements:

- 1. Section 061053 "Miscellaneous Rough Carpentry" for wood blocking and grounds for mounting roller shades and accessories.
  - 2. Section 079200 "Joint Sealants" for sealing the perimeters of installation accessories for light-blocking shades with a sealant.

#### 1.3 ALLOWANCES

- A. Roller shades are part of [**Window-Covering Allowance**] <Insert name of allowance>.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions for roller shades.

- B. Shop Drawings: Show fabrication and installation details for roller shades, including shadeband materials, their orientation to rollers, and their seam and batten locations.

- 1. Manual-Operated Shades: Include details of installation.

- C. Samples: For each exposed product and for each color and texture specified, 10 inches (250 mm) long and 8 inches (200 mm) wide.

- D. Samples for Initial Selection: For each type and color of shadeband material.

- E. Samples for Verification: For each type of roller shade.
  - 1. Shadeband Material: Not less than 10 inches (250 mm) by 8 inches (200 mm).
  - 2. Roller Shade: Full-size operating unit, not less than 22 inches (560 mm) wide by 36 inches (900 mm) long for each type of roller shade indicated.
  - 3. Installation Accessories: Full-size unit.
- F. Roller-Shade Schedule: Use same designations indicated on Drawings.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Product Certificates: For each type of shadeband material, signed by product manufacturer.
- C. Product Test Reports: For each type of shadeband material, for tests performed by **[manufacturer and witnessed by a qualified testing agency] [a qualified testing agency]**.

#### 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roller shades to include in maintenance manuals if applicable.

#### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Installer trained by the manufacturer in installing products comparable to those specified in this section.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
  - 1. Approval of mockups does not constitute approval of deviations from Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roller shades in factory packages, marked with manufacturer, product name, and location of installation using same designations indicated on Drawings.
- B. Do not deliver window shades until building is enclosed and construction within spaces where shades will be installed is substantially complete.
- C. Store products in manufacturer's unopened packaging until ready for installation. Store in a dry location.

## 1.9 FIELD CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and finish work in spaces, including painting, is complete and dry and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operating hardware of operable glazed units through entire operating range. Notify Architect of installation conditions that vary from Drawings. Coordinate fabrication schedule with construction progress to avoid delaying Work.

## 1.10 WARRANTY

- A. Roller Shade Hardware and Shade Fabric: Manufacturer's standard ten year limited warranty.
- B. Roller Shade Installation: One year from date of Substantial Completion, not including scaffolding, lifts, or other means to reach inaccessible areas.

## PART 2 - PRODUCTS

### 2.1 MANUALLY OPERATED SHADES WITH SINGLE ROLLERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Motion Shades; **[QD-2 Chain and Clutch Shade no Fascia] (QD-85 and QD - 105with Fascia system)**
- B. Chain-and-Clutch Operating Mechanisms: With bead chain and clutch that stops shade movement when bead chain is released; permanently adjusted.
  - 1. Bead Chains: Available in Nickel plated, **[Stainless steel]**, and **[Plastic]** #10 ball chain.
    - a. Loop Length: **<Insert length>**.
    - b. Limit Stops: Provide upper and lower ball stops.
    - c. Chain-Retainer Type: **[Clip, jamb mount] [Chain tensioner, jamb mounted] [Chain tensioner, sill mounted]**. Approved as a child safety device.
  - 2. Chain Driven Clutch Mechanism:
    - a. QD-2 and QD - 85 Basic multidirectional clutch with 146 balls per lineal yard.
    - b. Easy Lift mechanism in all shades for maximum efficiency in lift with minimum effort. ELM must be interchangeable for use in either right or left use. System has in field adjustable pull capacity.
    - c. Brackets: Made of painted metal of substantial material configured to be able to be installed in an universal manner for any type of installation. Brackets will have a plastic cover to be available in 6 standard colors.
    - d. Idler: Made of different sizes to match tube dimension and with permanent lubricated drive end assemblies. Allows easy movement of shade in an up and

down motion without noise or friction. Pin end to have an 1/8 of an inch adjustment for in the field adjustments.

e. Shade Hem Bar: Available in a plastic mold or of extruded aluminum. Available in 6 colors with coordinated color end caps.

- 1) Type: Enclosed in sealed pocket of shade fabric material.  
Type: Exposed Aluminum hem bar with color matching end caps.

C. Rollers: Corrosion-resistant extruded-aluminum tubes of either diameters and wall thicknesses required to accommodate operating mechanisms and weights and widths of shadebands indicated without deflection..

1. Direction of Shadeband Roll: [**Regular, from back of roller**] [**Reverse, from front of roller**].
2. Shadeband-to-Roller Attachment: **Manufacturer's standard method.**
  - a. Adhesive strip attachment system.

D. Roller-Coupling Assemblies: Coordinated with operating mechanism and designed to join up to into a multiband shade that is operated by one roller drive-end assembly. .

E. Shadebands:

1. Shadeband Material: [**Light-filtering fabric**] [**Light-blocking fabric**] <Insert requirements>. See manufacturers fabric book for style and color selection. Over 200 fabrics to choose from.

F. Installation Accessories:

1. Front Fascia: Made of aluminum extrusion that conceals front and underside of roller and operating mechanism and attaches to roller endcaps without exposed fasteners. Available with either QD-85or QD-105 Clutch system. Available in 5 colors.
  - a. Shape: [**L-shaped**] <Insert requirements>.
  - b. Integrated Light-blocking Wool Pile: Inserted in extruded channel for enhanced light management when shades are inside mounted.
  - c. Fascia Attachment: [**Snap onto integrated bracket system**]
  - d. Interchangeable pin system for field adjustment of bracketing to fascia.
2. Exposed Headbox: Rectangular 3 sided extruded-aluminum enclosure including removable bottom closure.
  - a. Height: Manufacturer's standard height required to enclose roller and shadeband when shade is fully open, but not less than [**4 inches (102 mm)**] [**3 inches (76 mm)**] [**height indicated on Drawings**] <Insert dimension>.
3. Endcap Covers: To cover exposed ends.
4. Recessed Shade Pocket: Rectangular, extruded enclosure designed for recessed ceiling installation; with removable bottom closure panel.

- a. Height: Manufacturer's standard height required to enclose roller and shadeband when shade is fully open, but not less than [**6 inches (152 mm)**] [**5 inches (127 mm)**] [**4 inches (102 mm)**] [**height indicated on Drawings**] <Insert dimension>.
- 5. Closure Panel and Hanger: Removable panel designed for installation at bottom of ceiling recess or pocket.
  - a. Closure-Panel Width: Manufacturer's standard dimensions.
- 6. Side Channels: With light seals and designed to eliminate light gaps at sides of shades as shades are drawn down. Made of extruded aluminum painted to match window mullion.
- 7. Bottom (Sill) Angle: Designed to eliminate light gaps at window sill when shades are closed.
- 8. Installation Accessories Color and Finish: [**As selected from manufacturer's full range**] <Insert color and finish>.

### 2.3 SHADEBAND MATERIALS

QMotion carries a wide array of light filtering fabrics, blackouts, and transitional to be used in any kind of commercial application. The fabrics carry all the major certification to make sure that they meet national and local regulations. Most of the fabrics are GreenGuard certified as well as offering then needed testing criteria for fire retardency as well as anti-microbial qualifications for healthcare facilities. Fabric samples can be selected from the QMotion fabric binder.

- A. Fabric Materials: All commercial fabric meet or exceed Flame-Resistance Rating: Comply with [**NFPA 701**] . Testing by a qualified testing agency can be provided upon request.
- B. Light-Filtering Fabric: Woven fabric, stain and fade resistant.

Refer to QMotionshades.com for assistance with selecting fabrics, if desired. Fenestration characteristics of these materials are indicated in the QMotion Shades Fabric collection, and on the Qmotionshades.com website. QMotion also may offer value engineered alternative fabrics upon request. These will be highest quality alternatives, and may be available regularly. For screening materials, request the Q-screen program.

Koolback is a unique technology that enhances dark colored yarn's energy reflectivity by increasing its near infrared reflection. This fabric offers the best of both worlds by providing great shading qualities for heat gain and glare control.

Among ecological fabrics - the Infinity is 100 percent recyclable, as is the Nature Screen, which offers a pvc free solar screen material.

### 2.4 ROLLER-SHADE FABRICATION

- A. Product Safety Standard: Fabricate roller shades to comply with WCMA A 100.1, including requirements for flexible, chain-loop devices; lead content of components; and warning labels.
- B. Unit Sizes: Fabricate units in sizes to fill window and other openings as follows, measured at 74 deg F (23 deg C):
  - 1. Between (Inside) Jamb Installation: Width equal to jamb-to-jamb dimension of opening in which shade bracketing is installed less 1/4 inch (6 mm) per side or 1/2-inch (13-mm) total, plus or minus 1/8 inch (3.1 mm). Length equal to head-to-sill or -floor dimension of opening in which shade is installed less 1/4 inch (6 mm), plus or minus 1/8 inch (3.1 mm). Shadeband light gaps as per manufacturer's specifications.
  - 2. Outside of Jamb Installation: Width and length as indicated, with terminations between shade brackets of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- C. Shadeband Fabrication: Fabricate shadebands without battens or seams to extent possible except as follows:
  - 1. Vertical Shades: Where width-to-length ratio of shadeband is equal to or greater than [1:4] <Insert ratio>, may provide battens and seams at uniform spacings along shadeband length to ensure shadeband tracking and alignment through its full range of movement without distortion of the material.
  - 2. Railroaded Materials: Railroad material where material roll width is less than the required width of shadeband and where indicated, and within manufacturer specifications. Provide battens and seams as required by railroaded material to produce shadebands with full roll-width panel(s) plus, if required, one partial roll-width panel located at top of shadeband.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, [**accurate locations of connections to building electrical system,**] and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 ROLLER-SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions.
  - 1. Opaque Shadebands: Located so shadeband is not closer than [**2 inches (51 mm)**] <Insert dimension> to interior face of glass when shade is fully lowered. Allow clearances for window operation hardware.

### 3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

### 3.4 CLEANING AND PROTECTION

- A. Clean roller-shade surfaces after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Architect, before time of Substantial Completion.

### 3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain motor-operated roller shades.

END OF SECTION 122413