

SECTION 12520
WINDOW SHADES

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.2 SECTION INCLUDES

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the window shades as shown on the drawings and/or specified herein, including but not limited to, the following:
 - 1. Window shades, manual operations.
 - 2. Window shades at skylight, electric motor operation.
 - 3. Field measurements of as-built conditions.
 - 4. Accessories and hardware required for complete installation and operation.

1.3 RELATED SECTIONS

- A. Electric service - Division 16.

1.4 QUALITY ASSURANCE

- A. Provide assemblies which are complete assemblies produced by one manufacturer, including hardware, accessory items, mounting brackets, and fastenings.
- B. Provide materials in colors as selected by the Architect from manufacturer's standard colors.

1.5 SUBMITTALS

- A. Shop Drawings: Submit floor layout and elevations, indicating location of all window treatments, mechanism details, type and size of each unit, type and location of controls. Shop drawings must also show seaming of shade fabric. Submit shop drawings showing details of installation and relation to adjoining construction and conditions.
- B. Samples: Submit full size sample of each shade type for Architect's acceptance.
- C. Mock-Up
 - 1. Install each type of shade assembly on one complete column bay for Architect's acceptance of installation details, workmanship and operation.

2. Approved mock-up shall be use as the standard for installation of work under this Section, and no further installation work shall proceed before Architect's acceptance of the mock-up.

1.6 WARRANTY

- A. Five (5) years against defects in quality or workmanship.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Protect shades from damage, soiling and deterioration during transit, storage and handling to, until Owner's acceptance.

PART 2 PRODUCTS

2.1 MANUALLY OPERATED SHADES

- A. Provide manually operated shade system equal to "Mecho-Shade" made by the Mecho-Shade Corp. or equal made by Sol-R-Veil Inc. or Kirsch Co. or approved equal conforming to standards specified herein.
- B. Shade system shall be a smooth operating chain and sprocket operated roller shade system which incorporates an adjustable slip clutch to control the rate of fall, from free running zero friction factor, to a factor of 100%. The shade may be adjusted to stop and hold at an infinite number of positions, or adjustable at any percentage of friction to control the fall rate of the shade as required. The shade position when set as a free fall system to be mechanical, by use of a chain retainer. At either setting the highest and lowest shade position will have an automatic stop to prevent overwinding or unrolling. The window shade mechanism shall have sufficient latitude to accommodate small lightweight shades, as well as large heavy shades compatible with glass sizes in the building.
- C. Shade mounting brackets shall be made of 1/8" thick sheet steel and a 7/16" welded steel shaft which shall be the axis for the entire sprocket and spring clutch assembly. Reversible for left hand or right hand operation. Wall, jamb, or ceiling mounted as required, shall be permanently installed with the mechanism concealed from view when fully assembled. Delrin cover plate shall be mechanically attached to sheet steel. Injection molded Delrin cover plate is provided for each of the brackets to conceal the metal brackets from view, provide means of attaching a fabric without exposed hardware, and guide and retain the chain gear assembly. Brackets to act as protective retainer for tube and shade assembly preventing accidental dislocation of tube and shade by vibration, rough usage. The bracket assembly to be permanently mounted to the building; shade tube and fascia are removable.
- D. SnapLoc Tube: Extruded 6063-XT6 aluminum, 1-1/2" o.d., either end of tube to engage drive system through internal extruded keyway. Tube shall be extruded with two fabric mounting channels which shall provide anti-deflection support for wide span shades. All tubes removable, interchangeable without removing the drive assembly, block resetting, or readjusting the pre-set stops. Shade tube to be self aligning and self leveling.

Common Ground/

Bid Set

Window Shades
12520-2

- E. SnapLoc Fabric Mounting Spline: Spline to be of extruded vinyl with symmetrical insertion locking channels and embossed fabric guide. Spline shall have sufficient capacity to hold heavy shades when spline is snapped and locked into the tube. Fabric shade shall be readily removable without removing the tube from the retainer brackets, or removing the brackets from the wall.
- F. Fabric-Guide End Cap: Delrin end cap shall have steel pin which permits up to 5/16" lateral adjustment in tube width. End cap shall have 2-1/4" o.d. fabric-guide tapered disc feature to assure alignment and protection of the shade cloth.
- G. Finishes: All exposed aluminum parts have an anodized finish. Steel parts are either nickel plated, satin finish, or have been bonderized prior to painting with a baked, enamel finish.

2.2 SHADE CLOTH

- A. Shade cloth shall be "Euro-Veil" of weave and optical properties as selected by the Architect made by Mecho-Shade or equal by other manufacturers noted herein.
 1. Shade cloth shall have 1" hemtube with 5/8" rebar sealed inside bottom of shade cloth.
- B. Provide "Block-out" shade cloth where indicated.

2.3 FABRICATION

- A. The shade and the fabric shall hang flat without buckling or distortion. The edge, when trimmed, shall hang straight without curling or raveling. An unguided roller shade cloth shall roll true and straight, without shifting sideways more than +/- 18" in either direction due to warp distortion or weave design. All shades shall be fabricated with concealed hem weights in the hem in accordance with the manufacturer's specifications to assure a properly installed window shading system.

2.4 WINDOW SHADES SKYLIGHT

- A. Provide "Skylighter" electric operated system as manufactured by Mechoshade or approved equal.
- B. Provide assembly complete with rails, tracks and all accessories required for complete installation and operation of system.
- C. Provide "Block-out" shade cloth where indicated.

PART 3 EXECUTION

3.1 INSPECTION

- A. Examine the areas and conditions where window treatments are to be installed and correct any conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected to permit proper installation of the work.

3.2 INSTALLATION

- A. Coordinate with the work of other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Install the work of this Section in strict accordance with the indicated design and the installation recommendations of the manufacturer as approved by the Architect.
- C. Upon completion of the installation, put all components through at least ten (10) complete cycles of operation, adjusting as necessary to achieve optimum operation.

3.3 PROTECTION AND CLEANING

- A. Protect installed units to ensure proper operating condition, without damage or blemishes. Repair or replace damaged units as directed by the Architect.

END OF SECTION