1. **GENERAL**
   1. **SECTION INCLUDES**
      1. Light-filtering shades.
      2. Manual Operation.
      3. Operating hardware.
      4. Metal housings for recessed application.
   2. **REFERENCES** 
      1. Chapter 8 California Building Code.
   3. **SYSTEM DESCRIPTION**
      1. Shades installed at window openings, manual control of raising and lowering.
   4. **SUBMITTALS**
      1. Shop drawings indicating opening sizes, tolerances required, installation of blind at window opening, method of attachment, clearances and operation.
      2. Product data indicating physical and dimensional characteristics and operating features.
      3. Three samples illustrating materials and finish.
      4. Manufacturer's installation instructions.
   5. **QUALITY ASSURANCE**
      1. Manufacturer: Company specializing in manufacturing the products specified in this Section with five years experience.
      2. Conform to Chapter 8 California Building Code for Fire Resistive Standards.
   6. **FIELD SAMPLES**
      1. Construct a field sample panel for one opening illustrating complete blind assembly with operable hardware and accessories.
      2. Provide field sample after submitted shop drawings are approved.
      3. Locate where approved.
      4. If accepted, field sample will demonstrate minimum standard for the Work. Field sample may remain as part of the Work.
   7. **DELIVERY, STORAGE AND HANDLING**
      1. Deliver blinds wrapped and crated in a manner to prevent damage to components or marring of surfaces.
      2. Store in a clean, dry area, laid flat and blocked off ground to prevent sagging, twisting or warping.
2. **PRODUCTS**
   1. **MANUFACTURERS**
      1. Products of the following manufacturers form the basis for design and quality intended.
         1. MechoShade Systems, Inc., Long Island, NY. Product: MechoShade-Manually operated.
         2. Graber Industries, Inc., Montgomery, PA.
         3. Hunter Douglas, Inc., Los Angeles, CA.
         4. Draper Inc., Spiceland, IN.
      2. Or equal as approved in accordance with Section 01600 for substitutions.
   2. **FABRIC**
      1. Fire retardancy: Federal Specification CCC-C-521E, NFPA 701, anti-microbial without topical treatment. Class A Flame Spread ASTM E84.
      2. EuroVeil (Sunsreen Material): MechoShade, 5300 group suncreen, dense basket weave, 5% openness factor.
      3. Bottom Hem: Backstitched with corrosive-resistant metal hem bar, concealed.
      4. Shade Orientation: Regular roll.
   3. **CONTROLS**
      1. Manual Control:
         1. Roller Tube: 1-1/2 inch O.D. steel tube for shades up to 65 sq. ft.
         2. Clutch: Fiberglass reinforced polyester housing assembly, carbon steel springs, bi-directional operation. Clutch mechanism: Manufacturer’s Standard.
         3. Idler: Fiberglass reinforced polyester with outside sleeve and center shaft.
         4. Control Loop: Endless nickel plated steel ball chain.
      2. Components
         1. Idler: Fiberglass reinforced polyester with outside sleeve and center shaft.
         2. Brackets: Minimum .060 inch thick steel.
         3. Bottom Weight: 1 x 1/8 inch aluminum, hemmed in fabric.
         4. Fascia Panel: Minimum .062 inch thick extruded aluminum angle, baked enamel finish, 3-inch profile, fully concealed brackets. Color to be selected by Architect.
      3. Mounting: pocket-mounted unit.
   4. **ACCESSORIES**
      1. Shade Pockets: for recessed mounting in drywall ceilings. Extruded aluminum with removable aluminum access closure panel. Provide hardware supports. Color to be selected by Architect.
      2. Fascia: continuous removable extruded fascia, bracket attached. Fully concealed brackets.
   5. **FINISHES**
      1. Aluminum Components: baked enamel, color to be selected by Architect.
      2. Steel Components: Factory color coated with manufacture’s baked-enamel finish. Color to be selected by Architect.
3. **EXECUTION**
   1. **EXAMINATION**
      1. Verify that openings are ready to receive the work.
      2. Do not commence fabrication until field measurements are confirmed.
      3. Ensure structural supports are correctly placed.
      4. Beginning of installation means installer accepts existing surfaces.
   2. **INSTALLATION**
      1. Install shades in accordance with manufacturer's instructions.
      2. Secure in place with flush countersunk fasteners.
   3. **TOLERANCES**
      1. Maximum Variation of Gap at Window Opening Perimeter: 1/4 inch.
      2. Maximum Offset From Level: 1/8 inch.
   4. **ADJUSTING**
      1. Adjust shades for smooth operation.
   5. **CLEANING**
      1. Touch up and repair minor damage. Remove and replace damaged units that cannot be satisfactorily repaired in the opinion of the Owner.
      2. Clean exposed surfaces per manufacture’s instructions.

**END OF SECTION**