**Worldscreen, Inc. Microcassette Specification**

843 Echo Lake Rd, Watertown, CT 06795

800-445-4142, [www.Worldscreeninc.com](http://www.worldscreeninc.com), mail@Worldscreeninc.com

# Part 1 – GENERAL

* 1. **Scope**
1. **Supplier**: furnish and install all accessories and attaching hardware of cassette systems manufactured by:

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1. **Related Work Specified Elsewhere**:
	1. Wood Blocking: rough carpentry section or submittal drawings.
	2. Electrical Supply for Motorize Shades: Division 16.
	3. **References:**
2. **Flame-retardant Fabrics**: shall meet or exceed the requirements of the National Fire Protection Association (NFPA) test #701 and the California Administrative Code, Title 19, Public Safety, Subchapter 8, Article 4, Section 1237, paragraph (b) as amended in 1986 and as modified by the State Fire Marshall.
	1. **Submittals:**
3. **Product Data:** Submit manufacturer’s descriptive literature indicating materials finishes, construction and installation instructions, and data verifying that product meets requirements specified. Include manufacturer’s recommendations for maintenance and cleaning.
4. **Shop Drawings:** Indicate fasteners, installation methods and clearance at head, jamb and sill for each mounting condition. Wiring diagrams of motorized components or units available upon request.
5. **Samples:** Submit minimum 8” wide by 10” long fabric sample including materials and accessories for complete installation and operation. Submit manufacturer’s color samples for color selection by an Architect.
	1. **Quality Assurance:**
6. **Responsibility**: Shade manufacturer shall furnish all electrical control equipment, shade and accessories for a complete installation and single source responsibility.
7. **Supplier**: The manufacturer, subsidiary or licensed agent shall be approved to supply the products specified and to honor any claims against the product presented in accordance with the warranty.
8. **Installer**: Shall be qualified to install the specified products by prior experience, demonstrated performance and acceptance of any requirement of Worldscreen or any subsidiary or licensed agent. The installer shall be responsible for an acceptable installation.
	1. **Delivery, Storage and Handling:**
9. Deliver to project site in manufacturer’s original packaging.
10. Handle and Store: to prevent damage to materials, finishes and operating mechanisms.
	1. **Job Conditions:**
11. Square and uniform window openings are required. If out of square, mounting brackets will have to be shimmed resulting in a perfectly level mount.

# Part 2 – Products & Controls

**2.01 Manufacturer**: Shall furnish all shades, controls and necessary accessories for a complete installation.

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**2.02 Product**

**A. Worldscreen Motorized Shades**:

Electrically controlled top quality roller shades with a maximum capability of 40 feet wide by 30 feet drop. Operation includes stop positions and a wide range of motorization options including, group, master, and remote switching. Solar shades improve comfort, protect furnishings and conserve energy by filtering excessive heat and glare while preserving the view. Room darkening and blackout shades are desirable in any conference, theater or bedroom application. Worldscreen shades may also be ideal when a clean environment is mandatory. Worldscreen shades are available for either interior or exterior applications.

**2.03 Materials**

1. **Shade Fabric**: Shall be selected from a large choice of vinyl coated fiberglass and/or vinyl coated polyester yarns woven into various configurations and colors. Woven yarn will be interlocking and heat-treated so that all materials are securely bonded. The woven fabrics are made by coating a high strength polyester or fiberglass yarn with a proprietary vinyl compound that employs performance additives. This vinyl compound is specially formulated to withstand fading, fire, mildew, soiling and wear and tear of outdoor use.

**Vinyl Coated Polyester Fabrics**: Contact Worldscreen for Options.

**Vinyl Coated Fiberglass Fabrics**: Contact Worldscreen for Options.

**Combinations Fabrics**: Contact Worldscreen for Options.

**Blackout Shading Fabric**: Shall be totally opaque. Contact Worldscreen for Options.

**2.04 Components**

# A. Motorized Operation

**1. Motors**: Shall be asynchronous capacitor start and run, single phase type operating on 120v-60HZ. They shall have planetary type gears, solenoid activated disc brakes and built-in limit switch units. Each motor must be thermally protected, tubular in shape and totally enclosed within the roller tube. Most motors operate at either 36 RPM or 16 RPM and shall also be UL recognized.

**2.** **Motorized Roller Tube**: Shall be of sufficient diameter to properly lift and roll the fabric while always being supported by the extruded aluminum polyethylene sheathed cassette cradle. All tubes shall be of extruded aluminum. All will have a grove to accept a T-spline system for exact and firm mounting of the fabric. Worldscreen model 4016 systems will be motorized for widths up to 40 feet and 16 feet of drop with a 1-1/2” or 2” diameter roller tube. Worldscreen model 4030 systems will motorized for shades up to 40 feet wide and 30 feet of drop with a 2” diameter roller tube.

**3.** **Motorized and Idler Slider End Cap**: Shall consist of a patented slide mechanism to easily allow the tube to raise and lower within the cassette system as it gathers material in either direction of the travel direction. It is an extruded self-lubricating mechanism.

**4.** **Mounting Bracket**: Specifically designed brackets that can be either wall mounted or ceiling mounted to accept the MicroCassette casing and smoothly snap into place at desired areas. The number of brackets needed is established by the width of the shade. The brackets are made of extruded aluminum.

**5.** **Standard Weight/Hem Bar**: A concealed weight bar is standard for interior application. Three visible weight bar choices are available for exterior or extremely large shades.

**6. MicroCassette 4016:** An extruded self- storing cassette measuring 3-1/8” x 3-1/8” made of .075 extruded aluminum and shall be painted with a high quality baked enamel finish. The 4016 will accommodate shades up to 40 feet wide and 16 foot drop in most solar and blackout fabrics. The MicroCassette incorporates the new patented floating fabric suspension system.

**7. Micro Cassette 4030:** An extruded self-storing cassette measuring 4.5”x 4.5” made of .075 extruded aluminum and shall be painted with a high quality baked enamel finish. A maximum shade of 40 feet wide x 30 feet drop will fit inside the cassette using the recommend fabric selection. The MicroCassette incorporates the new patented floating fabric suspension system.

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**2.05** **Optional Accessories**

**A. Guide Wires:** Shall be of cassette color matched vinyl coated galvanized steel with a threaded level adjustment ring to be able to easily tighten the wires once installed.

**C.** **Side Closure Channels**: Shall be one piece 1.5” by 1.5”, 062” extruded aluminum painted with a high quality baked enamel finish. Closure will have a pre-determined slot to accept the leg from the micro-cassette box.

**D.** **Light Short** **Exposed Weight/Hem Bar**: 1 1/8”h x 1 1/4”w bar will be of extruded aluminum containing a spline groove at the top to receive and secure fabric. Ends caps will be used to cover the ends. A secondary slot on the bottom of the bar is incorporated to receive a light seal or brush depending on sill conditions. All extrusions shall be painted with a high quality baked enamel finish.

**E**. **Tall Light and Tall Heavy** **Exposed Weight/Hem Bar**: Will be of extruded aluminum measuring 2 5/32h” x 3/4”w containing a spline groove at the top and a center cavity to accept an additional weight bar if needed. The extrusion shall be painted with a high quality baked enamel finish.

**2.06 Colors and Finishes**:

Aluminum extrusions are of 6063T5 alloy available in White, Ivory, Bronze PPG Duracon finish and Clear Anodized. Custom colors are also available depending on size.

**2.07 Motorized Control Options**

**A. Individual or Group switching:** Multiple and remote switching available.

**B. Group Control Systems:** For operating any number of motors from one or more switches or remote control. Can be configured to control entire elevations.

**C. Available Switches:** Rocker, toggle, key or decorator.

**D. Other Accessories:** Infrared and radio remote controllers, 7 day timers, and sun and wind sensors.

**E. System Integration:** Integration to most automation systems is available through a variety of optional connections**.**

# Part 3 – EXECUTION

**3.01 Inspection and preparation**:

1. **Shade Installer**: Shall be responsible for inspection of site, approval of mounting surfaces, installation conditions and field measurements prior to shade installation.

**3.02 Installation**:

1. **Install**: Shades in windows level and plumb and in accord with manufacturer’s product data and approved shop drawings.
2. **Clean**: Finished installation of all spots, smears, stains, etc. and remove all resulting debris from the site.

**3.03 Maintenance**:

1. **Worldscreen Shading Fabrics**: May be PVC coated yarns that are heat bonded for extra strength at each crossover so as not to unravel. Woven fabric requires a minimum of maintenance. It can be periodically vacuumed, brushed in place, or cleaned with soapy water or a mild detergent and a soft brush, followed by a thorough rinsing with clean water.

Other Non-PVC coated and cloth fabric is also available. Contact Worldscreen for specific recommendations.

**3.04 Warranty**:

1. Worldscreen provides manufacturer’s standard (5) year written warranty against defects in materials and workmanship. Beginning at date of substantial completion. Electrical components and motors are warranted for a period of five years only. For Fabric warranties or more details, see each manufacturers specific warranty.

**305 Technical Services**:

1. Worldscreen maintains a toll free number, (800) 445-4142 and Website ([www.Worldscreeninc.com](http://www.worldscreeninc.com)), with complete technical data. For solar control and motorized solutions ask for technical support.

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