

**SPECIFICATIONS**

**PART 2—PRODUCTS**

(For Part 1 and Part 3, see General Specifications.)

**2.01 Manufacturer**

- A. Shall furnish all electrical control components, shades, and accessories for a complete installation and single source responsibility.

**Castec, Inc.**  
**7531 Coldwater Canyon Avenue**  
**North Hollywood, CA 91605**  
**(800) 828-2500**

**2.02 Product**

**A. Castec Rollstar Blackout Shades:**

Top quality manual and motorized blackout shades available in a variety of blackout fabrics ideal for audio visual (A/V), conference rooms, and any application where light must be kept out.

**1. Manual Rollstar Blackout Clutch Roll Shades:**

Shall be a ball chain operated system using a bi-directional wrap spring clutch. The system must be capable of smoothly raising and lowering the shade to any desired height and maintaining that position without slippage. The shade cannot be operable by any means other than the chain. Pulling on the hem bar will not disengage the clutch. Fabric roll: regular or reverse. Clutch never needs adjustment. Friction-dependant disc brakes are unacceptable.

- 2. Motorized Rollstar Blackout Shades:** Highest quality motorization available using the simplest and most sought-after lifting control system. Operation will provide infinite stop positions and a wide range of control options, such as individual, group, master, and remote switching.

**2.03 Materials**

- A. Blackout/Darkroom Fabric:** Shall be totally opaque. Fabric must be made of first quality materials with no pin holes, breaks, or cracks. Must be washable and colorfast. The following Blackout/Darkroom fabrics are available:

- a. Flocke, OF 0%:** 48% fiberglass with 52% acrylic flocked backing. Available in widths up to 78".
- b. Hexcel 1260, OF 0%:** Made from fiberglass coated with acrylic. Available in widths up to 71".

- c. Darkroom 100, OF 0%:** In 12 or 14 oz. 1 ply fiberglass, 3 plies plasticized PVC. Available in widths up to 72".

**2.04 Operating Systems**

**A. Motorized Operation:**

- 1. Motors:** Shall be asynchronous capacitors 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 shall be thermally protected, tubular in shape, and totally enclosed within the roller tube. Motors shall be UL-recognized and CSA-certified for safe operation. Most motors operate at either 38 RPM or 64 RPM.

- 2. Motorized Roller Tube:** Shall be of sufficient diameter, based on a width and height scale, to properly lift the fabric without sagging. All tubes shall be of extruded aluminum .063" or larger depending on the width of the shade. All will have a double-sided adhesive strip applied for exact and firm mounting of the fabric. A minimum of one turn of fabric will be placed on the roller before the working section of fabric starts. This will protect the fabric attachment and smooth out the starting seam.

- 3. Motorized Idler End Cap:** Shall include a steel shaft that will allow easy but positive locking of roller tube into idler end bracket.

**B. Clutch Operation:**

- 1. Clutch:** Shall be a bi-directional wrap spring clutch that shall never require any adjustment and may be mounted on either the right or left end of the roller tube with fabric forward or reverse rolled. The clutch shall be made of a high-strength fiberglass reinforced polyester or nylon with high carbon steel springs. Castec will provide different size clutches depending on the size of the shade and lifting requirement. All clutches will be of the same quality materials.

- 2. Spring-Assisted Clutch:** Shall be used to easily lift shades that exceed lift capacity of standard clutches. The bi-directional wrap spring clutch is outfitted with an external assistance spring that fits inside the tube for added lifting capacity.

- 3. Clutch Control Loop** shall be one of the following:

- a.** #10 nickel-plated 45-pound steel ball chain
- b.** Plastic 122-pound bead chain (woven polyester cord with molded acetal beads)
- c.** #10 stainless steel 90-pound ball chain

Chain is provided with connector and upper and lower ball stops.

**4. Lifting Capacities:** Castec offers four clutches, each with different lifting capacities, as listed below.

**a. C8 clutch lifts up to 8 lbs.**

Used for Rollstar 100 Series shades.

**b. C16 clutch lifts up to 16 lbs.**

Used for Rollstar 200 Series shades.

**c. C24 clutch lifts up to 24 lbs.**

**d. C24 Spring Assist clutch lifts up to 35 lbs.**

Use the following formulas to determine approximate maximum shade lift weight:

Light Fabrics: W" x L" divided by 3456

Medium Fabrics: W" x L" divided by 1480

Heavy Fabrics: W" x L" divided by 777

**5. Clutch Roller Tube** shall be one of the following:

**a. .030" enameled roll-formed steel:** Available in 1", 1<sup>3</sup>/<sub>8</sub>", 1<sup>3</sup>/<sub>4</sub>" diameters.

**b. Extruded aluminum:** Available in 1", 1<sup>1</sup>/<sub>4</sub>", 1<sup>1</sup>/<sub>2</sub>", 2", 2<sup>3</sup>/<sub>4</sub>", and 3<sup>1</sup>/<sub>4</sub>" diameters.

Tube size depends on shade width and height.

**6. Clutch Idler End Cap:** Shall be a two-piece unit, with outside sleeve and center bearing shaft, self-lubricating and made of high strength fiberglass-reinforced polyester.

**7. Clutch Mounting Bracket:** .060" galvanized steel.

**8. Exposed Hem Bar:** Shall be extruded aluminum containing a spline groove at the top to receive and secure fabric, and a central cavity for a weight bar if required. Ends caps will be used to cover the ends.

**2.05 Standard Rollstar Blackout Accessories**

**A. Snap-On Fascia Mounting Brackets:** Shall support both the roller tube and the fascia panel. They must be capable of mounting inside, outside, or to the ceiling, with the motor on either the right or left side of the roller. All fascia brackets will be made of .060" steel. Fascia brackets for 3" fascias shall be painted with a high quality finish to match the fascia panel. Fascia brackets for 4" fascias have a clear zinc finish—a molded polymer end cap is provided to cover the bracket.

**B. Fascia Panel:** Shall be installed to completely conceal the roller tube and mounting hardware, providing a clean, finished look and blocking out light. Fascia shall hook onto the top of the bracket and snap in place, remaining firmly attached. Either 3" high or 4" high fascia panel shall be made of .075" extruded

aluminum and shall be painted with a high quality baked enamel finish.

**C. Back Closure Panel:** Shall be .085" extruded aluminum with baked enamel finish and shall fit over fascia brackets and completely cover the top and back of the roll shade. Available to match 3" and 4" fascia.

**D. Side Closure Channels:** Shall be one piece 1" by 2<sup>1</sup>/<sub>2</sub>", .062" extruded aluminum with "T" slots to receive wool pile light seal on both leading edges. A two-piece 1" by 2" extruded aluminum side closure is also available for wider openings.

**E. Sill Angle:** Shall be 1" x 1<sup>1</sup>/<sub>2</sub>" extruded aluminum to provide complete light seal at the sill of the window.

**F. Hem Bar:** Shall be extruded aluminum containing a spline groove at the top to receive and secure fabric, and a central cavity for a weight bar if required. End caps will be used to cover the ends.

**2.06 Colors and Finishes**

**A.** Aluminum extrusions are of 6063-T5 alloy available in dark bronze, clear anodized, or white enameled Polycron III or equivalent Duracron finish.

**2.07 Motorized Control Options**

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

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

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

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

**E. Integrated System Operator:** Capable of integrating with complete building automation systems.