

SECTION 11 52 13 - PROJECTION SCREENS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Manually operated projection screens.
2. Electrically operated projection screens and controls.
3. Rigid rear-projection screens.

B. Related Sections:

1. Division 06 Section "Interior Architectural Woodwork" for wood trim for recessed screen installation wood trim and wood ceiling closure panel for recessed screen installation and wood frames for field-installed, rear-projection screens.
2. Division 26 Sections for electrical service and connections including device boxes for switches and conduit, where required, for low-voltage control wiring.

1.2 SUBMITTALS

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

B. Shop Drawings: For projection screens. Show layouts and types of projection screens. Include the following:

1. For electrically operated projection screens and controls:
 - a. Location of screen centerline relative to ends of screen case.
 - b. Location of wiring connections.
 - c. Location of seams in viewing surfaces.
 - d. Anchorage details.
 - e. Wiring diagrams.

PART 2 - PRODUCTS

2.1 MANUALLY OPERATED PROJECTION SCREENS

A. General: Manufacturer's standard spring-roller-operated units, consisting of case, screen, mounting accessories, and other components necessary for a complete installation.

1. Tab Tensioning: Provide units that have a durable low-stretch cord, such as braided polyester, on each side of screen connected to edge of screen by tabs to pull screen flat horizontally.

B. Surface-Mounted, Metal-Encased, Manually Operated Screens: Units designed and fabricated for surface mounting on wall or ceiling, fabricated from formed-steel sheet or from aluminum extrusions; with flat back design and vinyl covering or baked-enamel finish.

1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Bretford, Inc.; Series 500.
 - b. Da-Lite Screen Company; Model C.
 - c. Draper Inc.; Luma 2.
 - d. Draper Inc.; Premier/Series C.
 - e. Stewart Filmscreen Corporation; Luxus Communicator.

2.2 ELECTRICALLY OPERATED PROJECTION SCREENS

A. General: Manufacturer's standard units consisting of case, screen, motor, controls, mounting accessories, and other components necessary for a complete installation.

1. Controls: Remote, three-position control switch.
 - a. Provide locking cover plates for switches.
 - b. Provide key-operated, power-supply switch.
 - c. Provide radio-frequency remote control.
2. Motor in Roller: Instant-reversing motor with permanently lubricated ball bearings, automatic thermal-overload protection, preset limit switches, and positive-stop action to prevent coasting.
3. End-Mounted Motor: Instant-reversing, gear-drive motor with permanently lubricated ball bearings, automatic thermal-overload protection, preset limit switches, and positive-stop action to prevent coasting.
4. Tab Tensioning: Provide units that have a durable low-stretch cord, such as braided polyester, on each side of screen connected to edge of screen by tabs to pull screen flat horizontally. In lieu of tab tensioning, screens may be constructed from vinyl-coated screen cloth that contains horizontal stiffening monofilaments to resist edge curling.

B. Surface-Mounted, Metal-Encased, Electrically Operated Screens: end-mounted motor units designed and fabricated for surface mounting on wall or ceiling, fabricated from formed-steel sheet or from aluminum extrusions; with flat back design and vinyl covering or baked-enamel finish.

1. Products: Subject to compliance with requirements, provide one of the following:
 - a. End-Mounted Motor.
 - 1) Bretford, Inc.; Series 700.

C. Suspended, Electrically Operated Screens with Automatic Ceiling Closure: end-mounted motor units with bottom of case composed of two panels: one panel designed to open and close automatically, the other removable or openable for access to interior of case.

1. Products: Subject to compliance with requirements, provide one of the following:
 - a. End-Mounted Motor:
 - 1) Da-Lite Screen Company; Executive Electrol.
 - 2) Draper Inc.; Ambassador.
2. Provide screen case with trim flange to receive ceiling finish.

2.3 FRONT-PROJECTION SCREEN MATERIAL

- A. Matte-White Viewing Surface: Peak gain not less than 0.9, and gain not less than 0.8 at an angle of 50 degrees from the axis of the screen surface.
 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. BEI Audio-Visual Products; Matte White.
 - b. Bretford, Inc.; Matte White.
 - c. Da-Lite Screen Company; Matte White.
 - d. Draper Inc.; Fiberglass Matte White.
- B. Matte-Gray Viewing Surface: Peak gain not less than 0.8, and half-gain angle of not less than 50 degrees from the axis of the screen surface.
 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Da-Lite Screen Company; High Contrast Da-Mat.
 - b. Draper Inc.; HiDefGrey.
 - c. Stewart Filmscreen Corporation; GrayHawk.
- C. Seamless Construction: Provide screens, in sizes indicated, without seams.
- D. Edge Treatment: Without black masking borders.
- E. Size of Viewing Surface: **[50 by 50 inches] [60 by 60 inches] [70 by 70 inches] [84 by 84 inches] [48 by 65 inches] [54 by 72 inches] [58 by 79 inches] [72 by 96 inches] <Insert size>**.

PART 3 - EXECUTION

3.1 FRONT-PROJECTION SCREEN INSTALLATION

- A. Install front-projection screens at locations indicated to comply with screen manufacturer's written instructions.
- B. Install front-projection screens with screen cases in position and in relation to adjoining construction indicated. Securely anchor to supporting substrate in a manner that produces a smoothly operating screen with vertical edges plumb and viewing surface flat when screen is lowered.

1. Install low-voltage controls according to NFPA 70 and complying with manufacturer's written instructions.
 - a. Wiring Method: Install wiring in raceway except in accessible ceiling spaces and in gypsum board partitions where unenclosed wiring method may be used. Use UL-listed plenum cable in environmental air spaces, including plenum ceilings. Conceal raceway and cables except in unfinished spaces.
2. Test electrically operated units to verify that screen controls, limit switches, closures, and other operating components are in optimum functioning condition.

END OF SECTION 11 52 13