

SECTION 08 33 26

OVERHEAD COILING GRILLES

PART 1 – GENERAL

1.01 DESCRIPTION

- A. This Section includes aluminum and stainless steel rolling grilles at Parking Structure, complete with curtains, bottom bars, guides, brackets, hoods, operating mechanisms and specified special features.
- B. Related Sections:
 - 1. Metal fabrications are specified in Section 05 50 00.
 - 2. Overhead coiling doors are specified in Section 08 33 23.
 - 3. Electrical wiring, conduit and disconnect switches are specified in Division 26.

1.02 SUBMITTALS

- A. Product Data: Manufacturer's product data, roughing-in diagrams, and installation instructions for each type and size of grille.
- B. Shop Drawings: Furnish shop drawings for special components and installations not fully dimensioned or detailed in manufacturer's product data.
- C. Operating and Maintenance Instructions: Complete data for maintenance and operation.
- D. Samples: Sample of grille with specified finish.
- E. Warranty.

1.03 QUALITY ASSURANCE

- A. All rolling grilles shall be designed to a standard maximum of 25 cycles per day and an overall maximum of 50,000 operating cycles for the life of the grille.

1.04 WARRANTY

- A. Warrant overhead coiling grilles to be free from defects in materials and workmanship for a period of 2-years from the Date of Substantial Completion. This warranty shall be in addition to and not a limitation of other rights the County may have against the Developer Design/Builder under the Contract Documents.

PART 2 – PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. The Cookson Company Type JMG – Motor (Gearhead – Horizontal) or equal by Cornell Iron Works, Overhead Door Corp., Pacific Rolling Door or approved equal.

2.02 MATERIALS AND FABRICATION

- A. Grille Curtain: Cookson Pattern 5015-9 constructed of solid 5/16-inch diameter horizontal stainless steel rods with 1/2-inch stainless steel tube spacers on 1-1/2-inch centers with 3/16-inch thick stainless steel hinged vertical connecting links 9-inches on center. The finish on the rods, tube spacers and links shall be #2B.
- B. Bottom Bar: Stainless steel tube measuring 4-inches high by 2-inches deep and shall include the Cookson Featheredge safety edge system. The finish on the bottom bar shall be #2B.

- C. Guides: Constructed of a 1/4-inch thick continuous aluminum wall angle connected to 1-1/2-inch by 2-1/2-inch by 1/8-inch thick continuous extruded aluminum guide section. Continuous nylon wearstrips shall be inserted on both sides of the guide to eliminate metal-to-metal contact. The aluminum wall angle and the aluminum guide shall be 204-R1 clear anodized finish.
- D. Brackets: Constructed of steel not less than 1/4-inch thick. The finish on the brackets shall be one coat of aluminum prime paint.
- E. Barrel: Steel tubing of not less than 6-inch in diameter. Oil tempered torsion springs shall be capable of correctly counter balancing the weight of the curtain. The barrel shall be designed to limit the maximum deflection to .03-inch per foot of opening width. The springs shall be adjusted by means of an exterior wheel. The finish on the barrel shall be one coat of bronze rust-inhibiting paint.
- F. Hood: Fabricate from 24-gauge stainless steel sheet and shall be formed to fit the curvature of the brackets. The finish on the hood shall be #4.

2.03 OPERATION

- A. The grilles shall be operated at a speed of 2/3 foot per second by an open drip-proof electric motor with belt drive and roller chain sprocket reducer. The motor operator shall include a geared limit switch, and an electrically interlocked emergency chain operator. The motor starter shall be housed in a NEMA 1 housing and include a magnetic reversing starter size 0, a 24 volt control transformer, and complete terminal strip to facilitate field wiring. The motor operator shall be activated by a 3 button push-button station in a NEMA 1 enclosure. The motor shall be size as required by the grille, 230 V, single phase. The motor operator shall be mounted to the grille bracket and shall be UL listed.
- B. The grille shall include a safety edge system with the following features:
 - 1. The safety edge system shall be installed on the bottom bar of the grille and shall automatically reverse the grille if the device detects an obstruction in the downward travel of the grille.
 - 2. The safety edge shall consist of a rubber boot attached below the bottom bar with an electrical switch secured to the back of the bottom bar. The safety edge shall operate with air wave technology and shall not rely on pneumatic pressure or electrical strip contacts to operate properly. The safety edge shall create an air wave that shall be detected and reverse the direction of the grille.
 - 3. The operation of the safety edge shall not be subject to interferences by temperature, barometric pressure, water infiltration, or cuts in the rubber boot.
 - 4. The safety edge system shall be connected to the motor operator with a coil cord.

2.04 LOCKING MECHANISMS

- A. Motor operated grilles shall be secured by means of a cylinder lock in the bottom bar, electrically interlocked to prevent the motor from operating when the grille is locked.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Install grilles and operating equipment with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with manufacturer's instructions and as specified.
- B. Upon completion, lubricate and adjust grilles to operate easily, free from warp, twist or distortion. Test grilles for proper operation.

- C. Exposed surfaces shall be clean and free from scratches, dents, tool marks, stains, discoloration, and other defects and damage.

END OF SECTION