





ACCEPTABLE MANUFACTURER

Rolling counter shutters shall be DuraShutter STANDARD as manufactured by Raynor of Dixon, Illinois.

OPERATION

- A. Operation Type: Rolling counter shutters shall be operated by (select from list below):
 - 1. Push-up: as normally-provided (not recommended for shutter doors over 10' (3048 mm) wide and/or 7' (2134 mm) high, counter top restriction should be considered).
 - 2. Hand Crank: as normally-provided by means of a gear reduction hand crank, for shutter doors over 10' (3048 mm) wide and/or 7' (2134 mm) high.
 - Tube Motor: as optionally-provided by means of a Raynor Eclipse TM tube motor type electric operator. Tube motor shall be concealed inside the barrel assembly and bracket cover.
 - 4. Jack-shaft Motor: as optionally-provided by means of a Raynor PowerHoist jackshaft type electric operator (specified separately).

B. Mounting:

- 1. Face-Mount: as normally-provided and fastened to the face of the wall opening.
- 2. Between-Jamb Mounting: as optionally-provided and fastened between the jambs of the wall opening.
- C. Integral Frame: Rolling counter shutter may be provided with an integral frame, with the shutter factory pre-installed in a completed frame assembly (select from list below or delete this section if not applicable):
 - 1. Painted Slip-in Frame: as normally-provided, typical for use with a pre-existing finished opening in a wall.
 - 2. Painted Build-in Frame: as optionally-provided, for use with masonry block wall construction.

CURTAIN

- A. Material: The curtain shall consist of 22 gauge (.030 minimum steel thickness) interlocking steel slats roll-formed from commercial quality hot-dipped galvanized (G-90) steel per ASTM A-653.
- B. Slat Type: The rolling counter shutter curtain shall be comprised of interlocking, flat type steel slats.
- C. Finish/Color: The curtain shall be finished in (select from list below):
 - 1. Gray: as normally-provided, with one coat white epoxy primer and one top coat of gray polyester paint.
 - 2. ArmorBriteTM Powdercoat: as optionally-provided from manufacturer's selection of 187 standard colors.
- D. Endlocks: Lateral movement of the slats to be contained by means of zinc-plated stamped steel endlocks fastened to the slat.
- E. Bottom Bar and Seal: Bottom bar shall be roll-formed painted tubular steel. The bottom bar shall include ¼" (6.3 mm) thick protective strip to cushion impact of bottom bar on countertop.

GUIDES

- A. Guide Assemblies: Guides shall consist of 13 gauge (.086 minimum thickness) steel, formed from galvanized steel and finished to match the curtain.
- B. Jamb Construction: Rolling counter shutter shall be mounted to (select from list below):
- 1. Steel Jambs: as normally-provided, and supplied with self-tapping fastener.
- 2. Wood Jambs: as optionally-provided, and supplied with lag bolt fasteners.
- 3. Masonry Jambs: as optionally-provided, and supplied with anchor bolt fasteners.
- 4. Non-masonry Jambs: as optionally-provided for jambs consisting of drywall or plaster (fasteners not included).
- C. Wear Strips: Rolling counter shutter shall be furnished with wool pile wear strips inside the guides to discourage the curtain from premature wear and noise.

COUNTERBALANCE SYSTEM

- A. Headplates: Mounting brackets shall be made from 10 gauge galvanized steel plate and attached to the wall and guide.
- B. Barrel: The barrel shall be made from a minimum 4 ½" (114.3 mm) O.D. x .120" (3.1 mm) wall structural steel pipe. Deflection of pipe under full load shall not exceed .03" (.8 mm) per foot of span.
- C. Counterbalance:
 - 1. The curtain shall be counterbalanced by means oil-tempered, helical torsion springs, grease packed and mounted on a continuous steel torsion shaft.
 - 2. Tube Motor Operation (see Operation Type)

ENCLOSURES

- A. Hood: Rolling counter shutter shall be furnished with a square hood enclosure comprised of 24 gauge steel finish-painted to match the curtain.
- B. Headplate Cover: Rolling counter shutter shall be furnished with an enclosure for the headplates, consisting of 24 gauge steel finish-painted to match the curtain.





HARDWARE

- A. Lock: Rolling counter shutter may be provided with an optional lock (select from list below or delete this section if not applicable).
 - 1. Thumb Lock: as optionally-provided with a locking bar for use with push-up and hand crank operated doors (motor operated doors will require an interlock switch with the locking bar).
 - 2. Cylinder Lock: as optionally-provided and available for use with push-up and hand crank operated doors (motor operated doors will require an interlock switch with the cylinder lock).