

THREE PART SHORT FORM SPECIFICATIONS (CSI)

**AS700 Series Specifications**

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## AS700AAABP GUARDIAN SLIDING GRILLE

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Sliding Grille – Side Folding Door and Grille

#### 1.2 RELATED SECTIONS

- A. Section 033000 – Concrete: Concrete openings.
- B. Section 042000 – Masonry: Masonry openings.
- C. Section 055000 – Metal Fabrications: Supporting members.
- D. Section 061000 – Carpentry: Framing and trim.
- E. Section 092500 – Gypsum Drywall: Opening finish.

#### 1.3 REFERENCES

- A. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Stacking:
  - 1. Minimum stacking shall be 1.05 inches/linear foot (87.5 mm/meter) of opening plus 3.5 inches (89 mm) for each locking member.
  - 2. Grille support must be designed to carry the weight of a fully stacked door at any point along its length. Support is to carry the total weight / the total stacking and is expressed as lbs./lin. ft.
- B. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
- C. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
- C. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A company that specializes in the manufacturing of the folding grille products required for the project with a minimum of 10 years documented experience.
- B. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
- C. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- D. Store materials in a ventilated weather tight location.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.

## 1.9 WARRANTY

- A. Manufacturers standard limited product warranty for a period of two years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc  
128 Centre Street East, Richmond Hill, Ontario. L4C 1A6. Canada.  
Ph. 1-800-663-6206 or 905-508-0855 Fx. 1-866-525-1304 or 905-508-8487  
E. [projects@amstel-doors.com](mailto:projects@amstel-doors.com)  
W. [www.amstel-doors.com](http://www.amstel-doors.com).
- B. Substitute products by the following manufacturers are accepted:
  - 1. Cornell Iron Works Inc.
  - 2. The Cookson Company, Inc.
  - 3. McKinlay Door Sales
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 MATERIALS

- A. AS700AA Guardian Sliding Security Grille
  - 1. Curtain:
    - a. Standard: AS700AAABP
      - 1) Panels to have full height butt hinges on 7 inches (178 mm) centers.

- 2) Aluminum grille constructed of 6 inches (152mm) wide by 3/4 inch (19 mm) high truss-like horizontal members spaced at either every 12 inches (305mm)/ 9 inches (229mm)/ 6 inches (152mm)/ 3 inches (76mm) vertical intervals.
  - 3) Center of panel to have a concealed 5/16 inch (8 mm) diameter rod and a full height 7/16 inch (11 mm) diameter aluminum tube.
  - 4) Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in brick pattern.
2. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
  3. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
  4. Locking:
    - a. Lead Posts:
      - 1) Standard:
        - (a) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages hook bolt into full height wall channel.
      - 2) Options:
        - (b) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at edge of locking post.
    - b. Intermediate posts:
      - 1) Standard:
        - (a) Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.
      - 2) Options:
        - (b) Provide (#4) intermediate posts at maximum of 10 feet (3048 mm) of curtain length for floor mounting condition. For counter mounts and at each curve provide intermediate posts at maximum of 6 feet (1828 mm) of curtain length. Only to be used when post is behind a window application or any other obstacle.
    - c. End Posts:
      - 1) Standard:
        - (a) Provide (#6) self-locking post with an attached full height protection plate, self-locking into a steel V-stop mounted to the floor or counter inside the storage pocket.
      - 2) Options:
        - (b) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages the hook bolt into full height wall channel.
        - (c) Provide (#8) fixed end post.
        - (d) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at the edge of the locking post.
    - d. Bi-parting Posts:
      - 1) Standard:
        - (a) Provide (#5) bi-parting posts for sliding grilles at maximum 30'0" wide intervals. One lock member will retain a hook-bolt deadlock activated by

keyed cylinder or thumb-turn cylinder. A second intermediate locking member is provided with a steel floor bolt and shall include a full height channel to accept the hook-bolt deadlock.

- 2) Options:
  - (b) Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.
  
5. Emergency Egress Door (Optional):
  - a. Emergency Egress provided as required. Where local by-laws dictate provide fall-away man-door egress operable by means of thumb-turn. Egress door for AS700 Guardian Sliding Grille c/w AS400 Perforated Vista Panels. Door should not be used as regular means of passage.
  
6. Floor Sockets:
  - 1) Standard:
    - (a) Supply Stainless Steel dustproof floor sockets for all drop bolts.
  - 2) Optional:
    - (b) Custom shortened floor sockets available if required.
  
7. Track:
  - a. Overhead track shall be 1.3 inches (33 mm) wide by 1.8 inches (46 mm) high and sized to accept 1-1/8 inches (29 mm) diameter roller trolleys.
  - b. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.
  - c. Radius Track: Provide the following where indicated.
    - 1) Standard:
      - (a) Radius: 14.625 inches (372 mm) in 90 degrees.
      - (b) Radius: 14.625 inches (372 mm) in 45 degrees.
    - 2) Optional:
      - (c) Radius: 10.625 inches (270 mm) in 90 degrees.
      - (d) Radius: 36 inches (914 mm) in 90 degrees.
      - (e) Radius: 48 inches (1219 mm) in 90 degrees.
  
8. Factory Finishes: Use two letter suffix to denote required door finish.
  - 1) Standard:
    - (a) AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.
  - 2) Options:
    - (b) WH White, Duracron acrylic paint K1285
    - (c) MB Medium Bronze, Duracron acrylic paint K71232
    - (d) BL Black, Duracron acrylic paint K90421
    - (e) CC Custom Colour, Duracron acrylic paint or Powder Coat Finish.

## 2.3 ACCESSORIES

- A. Fasteners: Galvanized or corrosion resistant steel.

## **2.4 FABRICATION**

- A. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
- B. Ensure joints and connections are flush and hairline.
- C. Accurately and rigidly fit joints and corners.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
- B. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.
- C. Provide full size template or CAD file for custom radius track prior to fabrication.
- D. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.2 PREPARATION**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.

### **3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
- D. Separate aluminum and other corrodible surfaces from sources of corrosive or electrolytic action at points of contact with other materials.
- E. Adjust hardware for smooth operation.

### **3.4 CLEANING**

- A. Remove protective material from factory finished surfaces.
- B. Remove temporary labels and visible markings

### **3.5 PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

## **END OF SECTION**

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

## AS700AAASL GUARDIAN SLIDING GRILLE

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Sliding Grille – Side Folding Door and Grille

#### 1.2 RELATED SECTIONS

- A. Section 033000 – Concrete: Concrete openings.
- B. Section 042000 – Masonry: Masonry openings.
- C. Section 055000 – Metal Fabrications: Supporting members.
- D. Section 061000 – Carpentry: Framing and trim.
- E. Section 092500 – Gypsum Drywall: Opening finish.

#### 1.3 REFERENCES

- A. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Stacking:
  - 1. Minimum stacking shall be 1.05 inches/linear foot (87.5 mm/meter) of opening plus 3.5 inches (89 mm) for each locking member.
  - 2. Grille support must be designed to carry the weight of a fully stacked door at any point along its length. Support is to carry the total weight / the total stacking and is expressed as lbs./lin. ft.
- B. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
- C. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
- C. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A company that specializes in the manufacturing of the folding grille products required for the project with a minimum of 10 years documented experience.
- B. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
- C. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- D. Store materials in a ventilated weather tight location.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.

## 1.9 WARRANTY

- A. Manufacturers standard limited product warranty for a period of two years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc  
128 Centre Street East, Richmond Hill, Ontario. L4C 1A6. Canada.  
Ph. 1-800-663-6206 or 905-508-0855 Fx. 1-866-525-1304 or 905-508-8487  
E. [projects@amstel-doors.com](mailto:projects@amstel-doors.com)  
W. [www.amstel-doors.com](http://www.amstel-doors.com).
- B. Substitute products by the following manufacturers are accepted:
  - 1. Cornell Iron Works Inc.
  - 2. The Cookson Company, Inc.
  - 3. McKinlay Door Sales
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 MATERIALS

- A. AS700AA Guardian Sliding Security Grille
  - 1. Curtain:
    - a. Standard: AS700AAASL
      - 1) Panels to have full height butt hinges on 7 inches (178 mm) centers.



- 2) Aluminum grille constructed of 6 inches (152mm) wide by 3/4 inch (19 mm) high truss-like horizontal members spaced at either every 12 inches (305mm)/ 9 inches (229mm)/ 6 inches (152mm)/ 3 inches (76mm) vertical intervals.
  - 3) Center of panel to have a concealed 5/16 inch (8 mm) diameter rod and a full height 7/16 inch (11 mm) diameter aluminum tube.
  - 4) Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in straight pattern.
2. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
  3. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
  4. Locking:
    - a. Lead Posts:
      - 1) Standard:
        - (a) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages hook bolt into full height wall channel.
      - 2) Options:
        - (b) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at edge of locking post.
    - b. Intermediate posts:
      - 1) Standard:
        - (a) Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.
      - 2) Options:
        - (b) Provide (#4) intermediate posts at maximum of 10 feet (3048 mm) of curtain length for floor mounting condition. For counter mounts and at each curve provide intermediate posts at maximum of 6 feet (1828 mm) of curtain length. Only to be used when post is behind a window application or any other obstacle.
    - c. End Posts:
      - 1) Standard:
        - (a) Provide (#6) self-locking post with an attached full height protection plate, self-locking into a steel V-stop mounted to the floor or counter inside the storage pocket.
      - 2) Options:
        - (b) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages the hook bolt into full height wall channel.
        - (c) Provide (#8) fixed end post.
        - (d) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at the edge of the locking post.
    - d. Bi-parting Posts:
      - 1) Standard:
        - (a) Provide (#5) bi-parting posts for sliding grilles at maximum 30'0" wide intervals. One lock member will retain a hook-bolt deadlock activated by

keyed cylinder or thumb-turn cylinder. A second intermediate locking member is provided with a steel floor bolt and shall include a full height channel to accept the hook-bolt deadlock.

- 2) Options:
  - (b) Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.
  
5. Emergency Egress Door (Optional):
  - a. Emergency Egress provided as required. Where local by-laws dictate provide fall-away man-door egress operable by means of thumb-turn. Egress door for AS700 Guardian Sliding Grille c/w AS400 Perforated Vista Panels. Door should not be used as regular means of passage.
  
6. Floor Sockets:
  - 1) Standard:
    - (a) Supply Stainless Steel dustproof floor sockets for all drop bolts.
  - 2) Optional:
    - (b) Custom shortened floor sockets available if required.
  
7. Track:
  - a. Overhead track shall be 1.3 inches (33 mm) wide by 1.8 inches (46 mm) high and sized to accept 1-1/8 inches (29 mm) diameter roller trolleys.
  - b. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.
  - c. Radius Track: Provide the following where indicated.
    - 1) Standard:
      - (a) Radius: 14.625 inches (372 mm) in 90 degrees.
      - (b) Radius: 14.625 inches (372 mm) in 45 degrees.
    - 2) Optional:
      - (c) Radius: 10.625 inches (270 mm) in 90 degrees.
      - (d) Radius: 36 inches (914 mm) in 90 degrees.
      - (e) Radius: 48 inches (1219 mm) in 90 degrees.
  
8. Factory Finishes: Use two letter suffix to denote required door finish.
  - 1) Standard:
    - (a) AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.
  - 2) Options:
    - (b) WH White, Duracron acrylic paint K1285
    - (c) MB Medium Bronze, Duracron acrylic paint K71232
    - (d) BL Black, Duracron acrylic paint K90421
    - (e) CC Custom Colour, Duracron acrylic paint or Powder Coat Finish.

## 2.3 ACCESSORIES

- A. Fasteners: Galvanized or corrosion resistant steel.

## **2.4 FABRICATION**

- A. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
- B. Ensure joints and connections are flush and hairline.
- C. Accurately and rigidly fit joints and corners.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
- B. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.
- C. Provide full size template or CAD file for custom radius track prior to fabrication.
- D. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### **3.2 PREPARATION**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.

### **3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
- D. Separate aluminum and other corrodible surfaces from sources of corrosive or electrolytic action at points of contact with other materials.
- E. Adjust hardware for smooth operation.

### **3.4 CLEANING**

- A. Remove protective material from factory finished surfaces.
- B. Remove temporary labels and visible markings

### **3.5 PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

## **END OF SECTION**

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

## AS700PAABP GUARDIAN SLIDING GRILLE

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Sliding Grille – Side Folding Door and Grille

#### 1.2 RELATED SECTIONS

- A. Section 033000 – Concrete: Concrete openings.
- B. Section 042000 – Masonry: Masonry openings.
- C. Section 055000 – Metal Fabrications: Supporting members.
- D. Section 061000 – Carpentry: Framing and trim.
- E. Section 092500 – Gypsum Drywall: Opening finish.

#### 1.3 REFERENCES

- A. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Stacking:
  - 1. Minimum stacking shall be 1.05 inches/linear foot (87.5 mm/meter) of opening plus 3.5 inches (89 mm) for each locking member.
  - 2. Grille support must be designed to carry the weight of a fully stacked door at any point along its length. Support is to carry the total weight / the total stacking and is expressed as lbs./lin. ft.
- B. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
- C. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
- C. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

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- A. Manufacturer Qualifications: A company that specializes in the manufacturing of the folding grille products required for the project with a minimum of 10 years documented experience.
- B. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
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- D. Store materials in a ventilated weather tight location.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.

## 1.9 WARRANTY

- A. Manufacturers standard limited product warranty for a period of two years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc  
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Ph. 1-800-663-6206 or 905-508-0855 Fx. 1-866-525-1304 or 905-508-8487  
E. [projects@amstel-doors.com](mailto:projects@amstel-doors.com)  
W. [www.amstel-doors.com](http://www.amstel-doors.com).
- B. Substitute products by the following manufacturers are accepted:
  - 1. Cornell Iron Works Inc.
  - 2. The Cookson Company, Inc.
  - 3. McKinlay Door Sales
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 MATERIALS

- A. AS700AA Guardian Sliding Security Grille
  - 1. Curtain:
    - a. Standard: AS700PAABP
      - 1) Panels to have full height butt hinges on 7 inches (178 mm) centers.

- 2) Aluminum grille constructed of 6 inches (152mm) wide by 3/4 inch (19 mm) high truss-like horizontal members spaced at either every 12 inches (305mm)/ 9 inches (229mm)/ 6 inches (152mm)/ 3 inches (76mm)) vertical intervals.
  - 3) Center of panel to have a concealed 5/16 inch (8 mm) diameter rod and a full height 7/16 inch (11 mm) diameter PVC tube.
  - 4) Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in brick pattern.
2. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
  3. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
  4. Locking:
    - a. Lead Posts:
      - 1) Standard:
        - (a) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages hook bolt into full height wall channel.
      - 2) Options:
        - (b) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at edge of locking post.
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      - 1) Standard:
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    - c. End Posts:
      - 1) Standard:
        - (a) Provide (#6) self-locking post with an attached full height protection plate, self-locking into a steel V-stop mounted to the floor or counter inside the storage pocket.
      - 2) Options:
        - (b) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages the hook bolt into full height wall channel.
        - (c) Provide (#8) fixed end post.
        - (d) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at the edge of the locking post.
    - d. Bi-parting Posts:
      - 1) Standard:
        - (a) Provide (#5) bi-parting posts for sliding grilles at maximum 30'0" wide intervals. One lock member will retain a hook-bolt deadlock activated by

keyed cylinder or thumb-turn cylinder. A second intermediate locking member is provided with a steel floor bolt and shall include a full height channel to accept the hook-bolt deadlock.

- 2) Options:
  - (b) Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.
  
5. Emergency Egress Door (Optional):
  - a. Emergency Egress provided as required. Where local by-laws dictate provide fall-away man-door egress operable by means of thumb-turn. Egress door for AS700 Guardian Sliding Grille c/w AS400 Perforated Vista Panels. Door should not be used as regular means of passage.
  
6. Floor Sockets:
  - 1) Standard:
    - (a) Supply Stainless Steel dustproof floor sockets for all drop bolts.
  - 2) Optional:
    - (b) Custom shortened floor sockets available if required.
  
7. Track:
  - a. Overhead track shall be 1.3 inches (33 mm) wide by 1.8 inches (46 mm) high and sized to accept 1-1/8 inches (29 mm) diameter roller trolleys.
  - b. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.
  - c. Radius Track: Provide the following where indicated.
    - 1) Standard:
      - (a) Radius: 14.625 inches (372 mm) in 90 degrees.
      - (b) Radius: 14.625 inches (372 mm) in 45 degrees.
    - 2) Optional:
      - (c) Radius: 10.625 inches (270 mm) in 90 degrees.
      - (d) Radius: 36 inches (914 mm) in 90 degrees.
      - (e) Radius: 48 inches (1219 mm) in 90 degrees.
  
8. Factory Finishes: Use two letter suffix to denote required door finish.
  - 1) Standard:
    - (a) AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.
  - 2) Options:
    - (b) No substitution for Clear Anodized.

## 2.3 ACCESSORIES

- A. Fasteners: Galvanized or corrosion resistant steel.

## 2.4 FABRICATION

- A. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
- B. Ensure joints and connections are flush and hairline.
- C. Accurately and rigidly fit joints and corners.

---

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
- B. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.
- C. Provide full size template or CAD file for custom radius track prior to fabrication.
- D. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

**3.2 PREPARATION**

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.

**3.3 INSTALLATION**

- A. Install in accordance with manufacturer's instructions.
- B. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
- C. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
- D. Separate aluminum and other corrodible surfaces from sources of corrosive or electrolytic action at points of contact with other materials.
- E. Adjust hardware for smooth operation.

**3.4 CLEANING**

- A. Remove protective material from factory finished surfaces.
- B. Remove temporary labels and visible markings

**3.5 PROTECTION**

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

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## AS700PAASL GUARDIAN SLIDING GRILLE

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Sliding Grille – Side Folding Door and Grille

#### 1.2 RELATED SECTIONS

- A. Section 033000 – Concrete: Concrete openings.
- B. Section 042000 – Masonry: Masonry openings.
- C. Section 055000 – Metal Fabrications: Supporting members.
- D. Section 061000 – Carpentry: Framing and trim.
- E. Section 092500 – Gypsum Drywall: Opening finish.

#### 1.3 REFERENCES

- A. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

#### 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Stacking:
  - 1. Minimum stacking shall be 1.05 inches/linear foot (87.5 mm/meter) of opening plus 3.5 inches (89 mm) for each locking member.
  - 2. Grille support must be designed to carry the weight of a fully stacked door at any point along its length. Support is to carry the total weight / the total stacking and is expressed as lbs./lin. ft.
- B. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
- C. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.

#### 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
- C. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A company that specializes in the manufacturing of the folding grille products required for the project with a minimum of 10 years documented experience.
- B. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

## 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
- C. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
- D. Store materials in a ventilated weather tight location.

## 1.8 COORDINATION

- A. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.

## 1.9 WARRANTY

- A. Manufacturers standard limited product warranty for a period of two years.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc  
128 Centre Street East, Richmond Hill, Ontario. L4C 1A6. Canada.  
Ph. 1-800-663-6206 or 905-508-0855 Fx. 1-866-525-1304 or 905-508-8487  
E. [projects@amstel-doors.com](mailto:projects@amstel-doors.com)  
W. [www.amstel-doors.com](http://www.amstel-doors.com).
- B. Substitute products by the following manufacturers are accepted:
  - 1. Cornell Iron Works Inc.
  - 2. The Cookson Company, Inc.
  - 3. McKinlay Door Sales
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.

### 2.2 MATERIALS

- A. AS700AA Guardian Sliding Security Grille
  - 1. Curtain:
    - a. Standard: AS700PAASL
      - 1) Panels to have full height butt hinges on 7 inches (178 mm) centers.

- 2) Aluminum grille constructed of 6 inches (152mm) wide by 3/4 inch (19 mm) high truss-like horizontal members spaced at either every 12 inches (305mm)/ 9 inches (229mm)/ 6 inches (152mm)/ 3 inches (76mm)) vertical intervals.
  - 3) Center of panel to have a concealed 5/16 inch (8 mm) diameter rod and a full height 7/16 inch (11 mm) diameter PVC tube.
  - 4) Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in straight pattern.
2. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
  3. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
  4. Locking:
    - a. Lead Posts:
      - 1) Standard:
        - (a) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages hook bolt into full height wall channel.
      - 2) Options:
        - (b) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at edge of locking post.
    - b. Intermediate posts:
      - 1) Standard:
        - (a) Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.
      - 2) Options:
        - (b) Provide (#4) intermediate posts at maximum of 10 feet (3048 mm) of curtain length for floor mounting condition. For counter mounts and at each curve provide intermediate posts at maximum of 6 feet (1828 mm) of curtain length. Only to be used when post is behind a window application or any other obstacle.
    - c. End Posts:
      - 1) Standard:
        - (a) Provide (#6) self-locking post with an attached full height protection plate, self-locking into a steel V-stop mounted to the floor or counter inside the storage pocket.
      - 2) Options:
        - (b) Provide (#7) hook bolt post with a concealed hook bolt lock activated by a keyed cylinder or thumb turn that engages the hook bolt into full height wall channel.
        - (c) Provide (#8) fixed end post.
        - (d) Provide (#2) top and bottom post with top rod and bottom ratcheted rod activated by a keyed cylinder or thumb turn. Provide rubber bumper at the edge of the locking post.
    - d. Bi-parting Posts:
      - 1) Standard:
        - (a) Provide (#5) bi-parting posts for sliding grilles at maximum 30'0" wide intervals. One lock member will retain a hook-bolt deadlock activated by

keyed cylinder or thumb-turn cylinder. A second intermediate locking member is provided with a steel floor bolt and shall include a full height channel to accept the hook-bolt deadlock.

- 2) Options:
  - (b) Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.
  
5. Emergency Egress Door (Optional):
  - a. Emergency Egress provided as required. Where local by-laws dictate provide fall-away man-door egress operable by means of thumb-turn. Egress door for AS700 Guardian Sliding Grille c/w AS400 Perforated Vista Panels. Door should not be used as regular means of passage.
  
6. Floor Sockets:
  - 1) Standard:
    - (a) Supply Stainless Steel dustproof floor sockets for all drop bolts.
  - 2) Optional:
    - (b) Custom shortened floor sockets available if required.
  
7. Track:
  - a. Overhead track shall be 1.3 inches (33 mm) wide by 1.8 inches (46 mm) high and sized to accept 1-1/8 inches (29 mm) diameter roller trolleys.
  - b. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.
  - c. Radius Track: Provide the following where indicated.
    - 1) Standard:
      - (a) Radius: 14.625 inches (372 mm) in 90 degrees.
      - (b) Radius: 14.625 inches (372 mm) in 45 degrees.
    - 2) Optional:
      - (c) Radius: 10.625 inches (270 mm) in 90 degrees.
      - (d) Radius: 36 inches (914 mm) in 90 degrees.
      - (e) Radius: 48 inches (1219 mm) in 90 degrees.
  
8. Factory Finishes: Use two letter suffix to denote required door finish.
  - 1) Standard:
    - (a) AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.
  - 2) Options:
    - (b) No substitution for Clear Anodized.

## 2.3 ACCESSORIES

- A. Fasteners: Galvanized or corrosion resistant steel.

## 2.4 FABRICATION

- A. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
- B. Ensure joints and connections are flush and hairline.
- C. Accurately and rigidly fit joints and corners.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
- B. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.
- C. Provide full size template or CAD file for custom radius track prior to fabrication.
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