THREE PART SHORT FORM SPECIFICATIONS (CSI)

**AS700 Series Specifications**

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**AS700AAABP GUARDIAN SLIDING GRILLE**

1. **GENERAL**
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Select from the following list. Delete items not required for project.

* + 1. Sliding Grille – Side Folding Door and Grille
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 033000 – Concrete: Concrete openings.
		2. Section 042000 – Masonry: Masonry openings.
		3. Section 055000 – Metal Fabrications: Supporting members.
		4. Section 061000 – Carpentry: Framing and trim.
		5. Section 092500 – Gypsum Drywall: Opening finish.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
	1. DESIGN / PERFORMANCE REQUIREMENTS

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs to suit project requirements. Delete paragraphs not required. Indicate on the Drawings stacking, anchorage and relationship to adjacent materials as required. Locking members are generally provided for every 10 feet on full height models and countertop applications generally provided for every 5 feet. In addition it is wise to place posts at curved portions of the grille.

* + 1. 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.
		2. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
		3. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00.
		2. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
		3. 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.
	2. QUALITY ASSURANCE
		1. 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.
		2. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* 1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
		3. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
		4. Store materials in a ventilated weather tight location.
	2. COORDINATION
		1. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.
	3. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Warranty covers products installed by a recognized or approved installer and covers reasonable labor costs performed during regular business hours. Maintenance must be completed and followed as laid out in the Owners Manual.

* + 1. Manufacturers standard limited product warranty for a period of two years.
1. **PRODUCTS**
	1. MANUFACTURERS
		1. 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

W. [www.amstel-doors.com](http://www.amstel-doors.com/).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitute products by the following manufacturers are accepted:
			1. Cornell Iron Works Inc.
			2. The Cookson Company, Inc.
			3. McKinlay Door Sales
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
	1. MATERIALS

\*\* NOTE TO SPECIFIER \*\* Select from the following list of Sliding Security Grille models. Delete models not used.

* + 1. AS700AA Guardian Sliding Security Grille
			1. Curtain:
				1. Standard: AS700AAABP

Panels to have full height butt hinges on 7 inches (178 mm) centers.

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.

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.

Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in brick pattern.

* + - 1. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
			2. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
			3. Locking:
				1. Lead Posts:

Standard:

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.

Options:

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.

* + - * 1. Intermediate posts:

Standard:

Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.

Options:

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.

\*\* NOTE TO SPECIFIER \*\* Select the mount(s) required from the following two paragraphs and delete the paragraph not required.

* + - * 1. End Posts:

Standard:

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.

Options:

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.

Provide (#8) fixed end post.

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.

* + - * 1. Bi-parting Posts:

Standard:

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.

Options:

Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.

* + - 1. Emergency Egress Door (Optional):
				1. 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.
			2. Floor Sockets:

Standard:

Supply Stainless Steel dustproof floor sockets for all drop bolts.

Optional:

Custom shortened floor sockets available if required.

* + - 1. Track:

\*\* NOTE TO SPECIFIER \*\* Track is available in standard 8 foot and 10 foot lengths or cut to size.

* + - * 1. 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.
				2. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for limitation on custom radius track. Custom radius track will require a full size template to manufacture. Full size templates produced at a 1 to 1 ratio are plotted with Autocad..

* + - * 1. Radius Track: Provide the following where indicated.

Standard:

Radius: 14.625 inches (372 mm) in 90 degrees.

Radius: 14.625 inches (372 mm) in 45 degrees.

Optional:

Radius: 10.625 inches (270 mm) in 90 degrees.

Radius: 36 inches (914 mm) in 90 degrees.

Radius: 48 inches (1219 mm) in 90 degrees.

* + - 1. Factory Finishes: Use two letter suffix to denote required door finish.

Standard:

AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.

Options:

WH White, Duracron acrylic paint K1285

MB Medium Bronze, Duracron acrylic paint K71232

BL Black, Duracron acrylic paint K90421

CC Custom Colour, Duracron acrylic paint or Powder Coat Finish.

 \*\* NOTE TO SPECIFIER \*\* Select one the following standard factory finishes. Delete the finishes not required.

* 1. ACCESSORIES
		1. Fasteners: Galvanized or corrosion resistant steel.
	2. FABRICATION
		1. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
		2. Ensure joints and connections are flush and hairline.
		3. Accurately and rigidly fit joints and corners.
1. **EXECUTION**
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
		2. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for radius track. Custom radius track will require a full size template. Full size templates produced at a 1 to 1 ratio are plotted with Autocad.

* + 1. Provide full size template or CAD file for custom radius track prior to fabrication.
		2. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.
	2. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
		3. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
		4. Separate aluminum and other corrodible surfaces from sources of corrosive of electrolytic action at points of contact with other materials.
		5. Adjust hardware for smooth operation.
	3. CLEANING
		1. Remove protective material from factory finished surfaces.
		2. Remove temporary labels and visible markings
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

**AS700AAASL GUARDIAN SLIDING GRILLE**

1. **GENERAL**
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Select from the following list. Delete items not required for project.

* + 1. Sliding Grille – Side Folding Door and Grille
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 033000 – Concrete: Concrete openings.
		2. Section 042000 – Masonry: Masonry openings.
		3. Section 055000 – Metal Fabrications: Supporting members.
		4. Section 061000 – Carpentry: Framing and trim.
		5. Section 092500 – Gypsum Drywall: Opening finish.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
	1. DESIGN / PERFORMANCE REQUIREMENTS

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs to suit project requirements. Delete paragraphs not required. Indicate on the Drawings stacking, anchorage and relationship to adjacent materials as required. Locking members are generally provided for every 10 feet on full height models and countertop applications generally provided for every 5 feet. In addition it is wise to place posts at curved portions of the grille.

* + 1. 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.
		2. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
		3. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00.
		2. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
		3. 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.
	2. QUALITY ASSURANCE
		1. 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.
		2. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* 1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
		3. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
		4. Store materials in a ventilated weather tight location.
	2. COORDINATION
		1. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.
	3. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Warranty covers products installed by a recognized or approved installer and covers reasonable labor costs performed during regular business hours. Maintenance must be completed and followed as laid out in the Owners Manual.

* + 1. Manufacturers standard limited product warranty for a period of two years.
1. **PRODUCTS**
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc

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E. projects@amstel-doors.com

W. [www.amstel-doors.com](http://www.amstel-doors.com/).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitute products by the following manufacturers are accepted:
			1. Cornell Iron Works Inc.
			2. The Cookson Company, Inc.
			3. McKinlay Door Sales
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
	1. MATERIALS

\*\* NOTE TO SPECIFIER \*\* Select from the following list of Sliding Security Grille models. Delete models not used.

* + 1. AS700AA Guardian Sliding Security Grille
			1. Curtain:
				1. Standard: AS700AAASL

Panels to have full height butt hinges on 7 inches (178 mm) centers.

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.

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.

Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in straight pattern.

* + - 1. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
			2. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
			3. Locking:
				1. Lead Posts:

Standard:

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.

Options:

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.

* + - * 1. Intermediate posts:

Standard:

Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.

Options:

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.

\*\* NOTE TO SPECIFIER \*\* Select the mount(s) required from the following two paragraphs and delete the paragraph not required.

* + - * 1. End Posts:

Standard:

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.

Options:

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.

Provide (#8) fixed end post.

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.

* + - * 1. Bi-parting Posts:

Standard:

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.

Options:

Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.

* + - 1. Emergency Egress Door (Optional):
				1. 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.
			2. Floor Sockets:

Standard:

Supply Stainless Steel dustproof floor sockets for all drop bolts.

Optional:

Custom shortened floor sockets available if required.

* + - 1. Track:

\*\* NOTE TO SPECIFIER \*\* Track is available in standard 8 foot and 10 foot lengths or cut to size.

* + - * 1. 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.
				2. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for limitation on custom radius track. Custom radius track will require a full size template to manufacture. Full size templates produced at a 1 to 1 ratio are plotted with Autocad..

* + - * 1. Radius Track: Provide the following where indicated.

Standard:

Radius: 14.625 inches (372 mm) in 90 degrees.

Radius: 14.625 inches (372 mm) in 45 degrees.

Optional:

Radius: 10.625 inches (270 mm) in 90 degrees.

Radius: 36 inches (914 mm) in 90 degrees.

Radius: 48 inches (1219 mm) in 90 degrees.

* + - 1. Factory Finishes: Use two letter suffix to denote required door finish.

Standard:

AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.

Options:

WH White, Duracron acrylic paint K1285

MB Medium Bronze, Duracron acrylic paint K71232

BL Black, Duracron acrylic paint K90421

CC Custom Colour, Duracron acrylic paint or Powder Coat Finish.

 \*\* NOTE TO SPECIFIER \*\* Select one the following standard factory finishes. Delete the finishes not required.

* 1. ACCESSORIES
		1. Fasteners: Galvanized or corrosion resistant steel.
	2. FABRICATION
		1. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
		2. Ensure joints and connections are flush and hairline.
		3. Accurately and rigidly fit joints and corners.
1. **EXECUTION**
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
		2. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for radius track. Custom radius track will require a full size template. Full size templates produced at a 1 to 1 ratio are plotted with Autocad.

* + 1. Provide full size template or CAD file for custom radius track prior to fabrication.
		2. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.
	2. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
		3. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
		4. Separate aluminum and other corrodible surfaces from sources of corrosive of electrolytic action at points of contact with other materials.
		5. Adjust hardware for smooth operation.
	3. CLEANING
		1. Remove protective material from factory finished surfaces.
		2. Remove temporary labels and visible markings
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

**AS700PAABP GUARDIAN SLIDING GRILLE**

1. **GENERAL**
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Select from the following list. Delete items not required for project.

* + 1. Sliding Grille – Side Folding Door and Grille
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 033000 – Concrete: Concrete openings.
		2. Section 042000 – Masonry: Masonry openings.
		3. Section 055000 – Metal Fabrications: Supporting members.
		4. Section 061000 – Carpentry: Framing and trim.
		5. Section 092500 – Gypsum Drywall: Opening finish.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

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\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs to suit project requirements. Delete paragraphs not required. Indicate on the Drawings stacking, anchorage and relationship to adjacent materials as required. Locking members are generally provided for every 10 feet on full height models and countertop applications generally provided for every 5 feet. In addition it is wise to place posts at curved portions of the grille.

* + 1. 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.
		2. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
		3. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00.
		2. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
		3. 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.
	2. QUALITY ASSURANCE
		1. 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.
		2. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

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* 1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
		3. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
		4. Store materials in a ventilated weather tight location.
	2. COORDINATION
		1. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.
	3. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Warranty covers products installed by a recognized or approved installer and covers reasonable labor costs performed during regular business hours. Maintenance must be completed and followed as laid out in the Owners Manual.

* + 1. Manufacturers standard limited product warranty for a period of two years.
1. **PRODUCTS**
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Amstel Manufacturing (1993) Inc

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W. [www.amstel-doors.com](http://www.amstel-doors.com/).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitute products by the following manufacturers are accepted:
			1. Cornell Iron Works Inc.
			2. The Cookson Company, Inc.
			3. McKinlay Door Sales
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
	1. MATERIALS

\*\* NOTE TO SPECIFIER \*\* Select from the following list of Sliding Security Grille models. Delete models not used.

* + 1. AS700AA Guardian Sliding Security Grille
			1. Curtain:
				1. Standard: AS700PAABP

Panels to have full height butt hinges on 7 inches (178 mm) centers.

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.

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.

Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in brick pattern.

* + - 1. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
			2. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
			3. Locking:
				1. Lead Posts:

Standard:

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.

Options:

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.

* + - * 1. Intermediate posts:

Standard:

Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.

Options:

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.

\*\* NOTE TO SPECIFIER \*\* Select the mount(s) required from the following two paragraphs and delete the paragraph not required.

* + - * 1. End Posts:

Standard:

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.

Options:

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.

Provide (#8) fixed end post.

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.

* + - * 1. Bi-parting Posts:

Standard:

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.

Options:

Provide (#5) bi-parting posts – additional posts can be added at intervals shorter than 30’0” wide.

* + - 1. Emergency Egress Door (Optional):
				1. 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.
			2. Floor Sockets:

Standard:

Supply Stainless Steel dustproof floor sockets for all drop bolts.

Optional:

Custom shortened floor sockets available if required.

* + - 1. Track:

\*\* NOTE TO SPECIFIER \*\* Track is available in standard 8 foot and 10 foot lengths or cut to size.

* + - * 1. 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.
				2. Rollers bear on 0.27 inch (7 mm) thick aluminum surface within the track.

\*\* NOTE TO SPECIFIER \*\* Select one of the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for limitation on custom radius track. Custom radius track will require a full size template to manufacture. Full size templates produced at a 1 to 1 ratio are plotted with Autocad..

* + - * 1. Radius Track: Provide the following where indicated.

Standard:

Radius: 14.625 inches (372 mm) in 90 degrees.

Radius: 14.625 inches (372 mm) in 45 degrees.

Optional:

Radius: 10.625 inches (270 mm) in 90 degrees.

Radius: 36 inches (914 mm) in 90 degrees.

Radius: 48 inches (1219 mm) in 90 degrees.

* + - 1. Factory Finishes: Use two letter suffix to denote required door finish.

Standard:

AA Clear Anodized, 0.0004 inch (10 micron) clear anodizing.

Options:

No substitution for Clear Anodized.

 \*\* NOTE TO SPECIFIER \*\* Select one the following standard factory finishes. Delete the finishes not required.

* 1. ACCESSORIES
		1. Fasteners: Galvanized or corrosion resistant steel.
	2. FABRICATION
		1. Size and fabricate grille assembly to allow for tolerances of rough framed openings, clearances, shim spacing and shims around perimeter of assemblies.
		2. Ensure joints and connections are flush and hairline.
		3. Accurately and rigidly fit joints and corners.
1. **EXECUTION**
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared and are able to carry the weight of the folded grille.
		2. Verify openings are ready to receive work and opening dimensions and clearances are as indicated on shop drawings.

\*\* NOTE TO SPECIFIER \*\* Select the following paragraphs if radius track if required. Delete if not required. Consult with manufacturer for radius track. Custom radius track will require a full size template. Full size templates produced at a 1 to 1 ratio are plotted with Autocad.

* + 1. Provide full size template or CAD file for custom radius track prior to fabrication.
		2. If openings are the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	1. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces as recommended by the manufacturer for achieving the correct installation under the project conditions.
	2. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Attach frame and shims to perimeter opening to accommodate construction tolerances and other irregularities.
		3. Use anchoring devices that securely fasten sliding door assembly to wall and ceiling construction without distortion or imposed stresses.
		4. Separate aluminum and other corrodible surfaces from sources of corrosive of electrolytic action at points of contact with other materials.
		5. Adjust hardware for smooth operation.
	3. CLEANING
		1. Remove protective material from factory finished surfaces.
		2. Remove temporary labels and visible markings
	4. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

**END OF SECTION**

*SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE*

**AS700PAASL GUARDIAN SLIDING GRILLE**

1. **GENERAL**
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Select from the following list. Delete items not required for project.

* + 1. Sliding Grille – Side Folding Door and Grille
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 033000 – Concrete: Concrete openings.
		2. Section 042000 – Masonry: Masonry openings.
		3. Section 055000 – Metal Fabrications: Supporting members.
		4. Section 061000 – Carpentry: Framing and trim.
		5. Section 092500 – Gypsum Drywall: Opening finish.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
	1. DESIGN / PERFORMANCE REQUIREMENTS

\*\* NOTE TO SPECIFIER \*\* Edit the following paragraphs to suit project requirements. Delete paragraphs not required. Indicate on the Drawings stacking, anchorage and relationship to adjacent materials as required. Locking members are generally provided for every 10 feet on full height models and countertop applications generally provided for every 5 feet. In addition it is wise to place posts at curved portions of the grille.

* + 1. 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.
		2. Lintel Deflection: Accommodate deflection of lintel to prevent damage to components, deterioration of seals, or movement between door frame and perimeter framing.
		3. Thermal Movement: Design sections to permit thermal expansion and contraction of components to match perimeter opening construction.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00.
		2. Shop Drawings: Indicate opening dimensions, curves, type of locking posts, elevations and framed opening tolerances.
		3. 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.
	2. QUALITY ASSURANCE
		1. 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.
		2. Installer Qualifications: Contractor that has minimum of two years documented experience installing folding grille products similar to those specified.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* 1. DELIVERY, STORAGE, AND HANDLING
		1. Store products in manufacturer's unopened packaging until ready for installation.
		2. Protect finished surfaces with wrapping. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather
		3. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.
		4. Store materials in a ventilated weather tight location.
	2. COORDINATION
		1. Coordinate Work with other operations and installation of finish materials to avoid damage to the materials.
	3. WARRANTY

\*\* NOTE TO SPECIFIER \*\* Warranty covers products installed by a recognized or approved installer and covers reasonable labor costs performed during regular business hours. Maintenance must be completed and followed as laid out in the Owners Manual.

* + 1. Manufacturers standard limited product warranty for a period of two years.
1. **PRODUCTS**
	1. MANUFACTURERS
		1. 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

W. [www.amstel-doors.com](http://www.amstel-doors.com/).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitute products by the following manufacturers are accepted:
			1. Cornell Iron Works Inc.
			2. The Cookson Company, Inc.
			3. McKinlay Door Sales
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00.
	1. MATERIALS

\*\* NOTE TO SPECIFIER \*\* Select from the following list of Sliding Security Grille models. Delete models not used.

* + 1. AS700AA Guardian Sliding Security Grille
			1. Curtain:
				1. Standard: AS700PAASL

Panels to have full height butt hinges on 7 inches (178 mm) centers.

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.

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.

Panels are framed on 7 inches (178 mm) centers. Horizontal members are provided in straight pattern.

* + - 1. Weight: AS700 Guardian: 1.5 lbs./sq. ft. (7.3 kg/sq.m).
			2. Aluminum is to be 6063 aluminum alloy with T-5 temper conforming to ASTM B 221.
			3. Locking:
				1. Lead Posts:

Standard:

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.

Options:

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.

* + - * 1. Intermediate posts:

Standard:

Provide (#3) intermediate posts with an adjustable manually operated drop bolt with cylinder locks.

Options:

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.

\*\* NOTE TO SPECIFIER \*\* Select the mount(s) required from the following two paragraphs and delete the paragraph not required.

* + - * 1. End Posts:

Standard:

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.

Options:

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.

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				1. 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.
			2. Floor Sockets:

Standard:

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Optional:

Custom shortened floor sockets available if required.

* + - 1. Track:

\*\* NOTE TO SPECIFIER \*\* Track is available in standard 8 foot and 10 foot lengths or cut to size.

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		1. Fasteners: Galvanized or corrosion resistant steel.
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		1. Remove protective material from factory finished surfaces.
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