**SECTION 07 72 53**

**SNOW GUARDS**

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 *This guide specification has been prepared in printed and electronic media, as an aid to specifiers in preparing written construction documents for concrete restoration and renovation.*

*Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [\_\_\_\_\_] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Editor notes to guide the specifier are included between lines of asterisks to assist in choices to be made. Remove these notes before final printing of specification.*

*This guide specification is written in accordance with the Construction Specifications Institute (CSI) Section Format standards.*

*For specification assistance on specific product applications, please contact our offices or any of our local product representatives/distributors throughout the country.*

*Manufacturer reserves the right to modify these guide specifications at any time. Updates for this guide specification will be posted on the manufacturer’s web site and/or in printed matter as they occur. Manufacturer makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.*

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1. **GENERAL**
	* + 1. SUMMARY
				1. Related Section: This Section specifies snow-guards for installation on sloped roofing.
				2. Refer to the following Section for roofing material specifications:

Section 07 31 13 – Asphalt Shingles.

Section 07 31 26 – Slate Shingles.

Section 07 31 29 – Wood Shingles and Shakes

Section 07 31 33 – Composition Rubber Shingles

Section 07 31 53 – Plastic Shakes

Section 07 32 00 – Roof Tiles

Section 07 41 13 – Metal Roof Panels

* + - 1. SUBMITTALS
				1. General: Submit listed submittals in accordance with Conditions of the Contract and Section [**01 33 00 - Submittal Procedures**] [**\_\_\_\_\_\_\_\_\_\_\_**].
				2. Product Data: Submit product data, including manufacturer's SPEC-DATA and installation instructions, for specified products.
				3. Shop Drawings: Include roof plan(s) showing layout of snow guards.
				4. Samples: Submit one full size snow guard in size and finish specified.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 01 Quality Assurance Section.

* + - 1. QUALITY ASSURANCE

Specifier Note: Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Conditions of the Contract and Section 01 41 00 - Regulatory Requirements. Repetitive statements should be avoided.

* + - * 1. Regulatory Requirements: In accordance with Section [**01 41 00 - Regulatory Requirements**] [**\_\_\_\_\_\_**].
				2. Manufacturer Qualifications: Provide snow guards manufactured by a company with at least 20 years of experience in manufacturing snow guards.
				3. Installer Qualifications: Installer is to have not less 5 years of experience in installation of specified roofing material and snow guards.

Specifier Note: Article below should include special and unique requirements. Coordinate article below with Division 01 Product Requirements Section.

* + - 1. DELIVERY, STORAGE & HANDLING
				1. General: Comply with Division 01 Product Requirements Section.
				2. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
				3. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer. Protect from damage.

Specifier Note: Coordinate article below with Conditions of the Contract and with Section 01 78 36 - Warranties.

* + - 1. WARRANTY
				1. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
				2. Manufacturer's Warranty: Submit in accordance with Section [**01 78 36 - Warranties**] [**\_\_\_\_\_\_**] for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official.
1. **PRODUCTS**

Specifier Note: Retain article below for proprietary method specification. Add product attributes performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

* + - 1. SNOW GUARDS

Specifier Note: Retain or delete paragraph below per project requirements and specifier.

* + - * 1. Manufacturer: Gough SnoGuards, Inc., 4133 DuBois Blvd., Brookfield, IL 60513; Telephone: (708) 485-6272; Fax: (708) 485-6273; Cell (708) 878-3375; E-mail: sales@snoguard.com; website: [www.snoguard.com](http://www.snoguard.com). Below information is for padded snow guard systems. For rail systems or snow fence, contact manufacturer at sales@snoguard.com.

Specifier Note: Select model, size, material, finish and color below to conform to project requirements.

* + - * 1. Model and Size: [**SGAR, 3 1/4 inches W x 6 3/8 inches L x 1 1/4 inches H]** [**SGAR SLS, 3 1/4 inches W x 16 9/16 inches L x 1 1/4 inches H**] [**SGAR-SLS, 3 1/4 inches W x16 1/2 inches L x 1 1/4 inches H**] [**SGNL, 3 1/4 inches W x 8 7/16 inches L x 1 /4 inches H**] [**SGPM, 3 1/4 inches W x 6 3/8 inches L x 1 1/4 inches H**] [**SGPJ, 3 1/4 inches W x 6 3/8 inches L x 1 1/4 inches H**] [**SGSP / SGSP+3, 3 1/4 inches W x 9 inches (varies) L x 2 1/4 inches H] [SGBK, 3 ¼ inches W X 11 ½ inches (varies) L X 1 ¼ inches H**] [**SGFR, 3 1/4 inches W x 7 ¾ inches L x 1 1/4 inches H**] [**SGBK, 3 1/4 inches W x Variable L x 1 1/2 inches H**]
				2. (All type SnoGuards are available in Copper. Confirm with manufacturer availability of other Materials, Finishes and Powder Coating Colors.)

Specifier Note: Copper is recommended for copper roofing; aluminum is recommended for all other metal roofing materials.

Material:

Copper, 24 oz. cold rolled, alloy 110, ASTM B370

Lead coated copper, 24 oz. cold rolled

Aluminum, .040 thick, alloy 3003 H14, ASTM B209

Rheinzinc, 20 ga, .039”, ASTM B69-11

[\_\_\_\_\_\_\_]

Specifier Note: Aluminum and copper are available in mill finish; only aluminum is available in powder coated finish.

Finish:

Copper

Lead coated copper

Powder Coated Aluminum

Mill finished aluminum

Anodized, color [\_\_\_\_\_\_\_]

[\_\_\_\_\_\_\_]

For Powder Coated Color above: Insert metal roofing manufacturer's name and roof color below to select closest appropriate standard color to match. [\_\_\_\_\_\_\_]

* + - 1. ACCESSORIES

Specifier Note: Adhesive cited below has been tested for compatibility and endorsed by manufacturer. Performance of product using other adhesives is unknown.

* + - * 1. Adhesive: Sure Bond 190, (not winter grade) or equivelant.
			1. PRODUCT SUBSTITUTIONS
				1. Substitutions: Substitutions in accordance with Section [**01 25 13 - Product Substitution Procedures**] [**No substitutions permitted**] [**\_\_\_\_\_\_**].
1. **EXECUTION**
	* + 1. MANUFACTURER'S INSTRUCTIONS
				1. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.
			2. EXAMINATION
				1. Site Verification of Conditions: Verify that conditions of substrates previously installed under other sections are acceptable for product installation in accordance with manufacturer's instructions.
				2. Note: When installing Gough SnoGuards, consult your architect or engineer to assure that you are not exceeding your building’s “dead-load” limits within the snow belt, especially in mountainous areas with heavy snow loads.
			3. PREPARATION
				1. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
				2. RAFTER LENGTHS UP TO 16 FEET: \*SnoGuards have been installed 30" to 36" on center in each row with 3 staggered rows beginning above the outside wall at the “eave, i.e. approximately one per linear foot of gutter line. Slate and tile roofs may need two additional rows of snow guards for this length rafter. For standing seam roofing, there should not be less than two per panel. Contact Manufacturer for snow guards per square, snow guards per linear foot of gutter-line for estimating purposes and patterns to consider.
				3. RAFTER LENGTHS OVER 16 FEET : The number of rows is increased with rafter lengths over 16 feet. Call or write for details. Contact Manufacturer for snow guards per square, snow guards per linear foot of gutterline for estimating purposes and patterns to consider.
				4. OTHER FACTORS: Increased snow load in some areas, drifting, vibration, proximity to other buildings, etc., may require additional SnoGuards per square farther up the roof.
			4. INSTALLATION
2. Comply with Manufacturer’s installation specifications.
3. New Installation – method of fastening on roof material / roof system

1. Slate, natural or synthetic, (Type SGAR) – nail to deck material. For Nu-Lok’s slate system (Type SGNL)

2. Tile (Type SGBK) – custom hook. For some tile submit two samples tile. Install with tile or lift tile above slightly (perhaps ½ to 1”) to access top of lower tile. Insert and snap in place.

 3. Copper (Type SGAR) – sweat solder in place onto copper roof material.

4. Asphalt Shingle (SGAR, SGPM) – nailing per manufacturer’s specifications.

5. Standing Seam (powder coated) (Type SGPM) – secure with adhesive, SB190 or equivelant (not winter grade), for a snow rail or snow fence type system contact Manufacturer.

6. Other: [\_\_\_\_\_\_\_\_]

 C. Retrofit Installation – method of fastening on roof material / roof system

 1. Slate, natural or synthetic, (Type SGAR-SLS) – slide slotted strap between slate and hook onto hidden copper nail. (On synthetic slate, you may need to use a slate ripper or other tool to slightly loosen the nails holding the slate in place.)

 2. Tile (Type SGBK) – custom hook. For some tile submit two samples of tile for fitting. Lift tile above slightly (perhaps ½ to 1”) to access top of lower tile. Insert and snap in place.

 3. Copper (Type SGAR) – sweat solder in place onto copper roof material.

 4. Asphalt Shingles (SGAR, SGPM) – per manufacturer’s specifications.

5. Standing Seam (powder coated) (Type SGPM) – secure with adhesive, SB190 or equivelant (not winter grade). For a mechanically fastened S-5 type system, snow rail or snow fence, contact Manufacturer.

 6. Other: [\_\_\_\_\_\_\_\_]

END OF SECTION