

SPECIFICATION

**GHS SEISMIC JOINT COVER SYSTEM**

Pre-formed, Watertight, Traffic Durable, Seismic Expansion Joint Cover System consisting of Primary Seal and cover plate suitable for Large Vertical and Horizontal gaps in civil structures.

**PART 1 – GENERAL**

1.01 Work Included

A. The work shall consist of furnishing and installing waterproof expansion joints in accordance with the details shown on the plans and the requirements of the specifications. Expansion joint shall be comprised of a pre-formed, low density, closed cell, cross-linked, nitrogen blown polyethylene seal, and heavy-duty extruded spline and heavy duty cover plate of construction grade aluminium. The spline shall act as receptor for attaching a surface-mounted cover plate.

- B. Related Work
- Division 3 – Cast-in-Place Concrete
  - Division 7 – Thermal & moisture Protection
  - Division 7 – Sealants, Caulking and Waterproofing

1.02 Submittals

- A. General – Submit the following according to Division 1 Specification Section.
- B. Standard Submittal Package – Submit typical expansion joint drawing(s) indicating pertinent dimensions, general construction, expansion joint opening dimensions and product information.
- C. Alloys where used:
- 1) Plates: Aluminum 6061-T6 alloy meeting ASTM B221-95a
  - 2) Plates: Stainless Steel Grade 304 meeting ASTM A240 and A666
- D. Sample of material is required at time of submittal.

- E. All products shall be certified in writing to be capable of withstanding -50% (Contraction) and +50% (Expansion) movements.
- F. All foam seals / Spline shall be factory assembled.
- G. A silicone sealant bead must be installed between the substrates an outer seal edge on both sides of the gap throughout the length of the assembly as well as at the interface of factory preassembled units.

1.03 Product Delivery, Storage and handling

A. Deliver products to site in Manufacture's original, intact, labelled containers. Handle and protect as necessary to prevent damage or deterioration during shipment, handling and storage. Store in accordance with manufacturer's installation instructions.

1.04 Basis-of-Design

- A. All joints shall be designed to meet the specified performance criteria of the project as manufactured by Prospec Specialties Inc., Unit 26, 5250 Satellite Drive, Mississauga, L4W5G5, ON, Canada Tel: (905) 602-1525, (888) 749-8456, email: info@prospecspecialties.com  
Website:  
www.prospecspecialties.com
- B. Alternate manufactures must demonstrate that their products meet or exceed the design criteria and must submit certified performance test reports performed by nationally recognized independent laboratories. Submittal of alternates must be made three weeks prior to bid opening to allow proper evaluation time.

1.05 Quality Assurance

- A. The General Contractor will conduct a pre-construction meeting with all parties and trades involved in the treatment of work at end around expansion joints including, but not limited to, concrete , mechanical, electrical, HVAC, landscaping, masonry , curtain wall, waterproofing, fire-stopping, caulking, flooring and other finish trade subcontractors. All superintendents and foremen with responsibility for oversight and setting of the joint gap must attend this meeting. The general contractor is responsible to coordinate and schedule all trades and ensure that all subcontractors understand their responsibilities in relation to expansion joints and that their work cannot impede anticipated structural movement at the expansion joints, or compromise the achievement of water-tightness or life safety at expansion joints in any way.
- B. Warranty – Manufacturer’s standard warranty shall apply.
- C. LEED Building Performance Requirements: The VOC of the silicone must not exceed 50 grams/liter.

**PART 2 – PRODUCT**

2.01 General

- A. Provide “GH” Series water-tight durable, sound dampened, seismic, expansion joint system for large-gaps and high-movements by PROSPEC SPECIALTIES INC. suitable but not limited to Planters or Green Areas, Car Parks, Stadiums, Metro or railway Stations. System capable of performing waterproofing, traffic bearing and movement accommodation functions as the result of single installation and without the addition of gutters, vapor barriers, bladders, or other devices suspended beneath or within the system in any way.
- B. Provide “GH” as manufactured by PROSPEC SPECIALTIES INC and

as indicated on drawings for horizontal expansion joint locations.

- C. Expansion Joint Cover System shall be comprised of the following components: 1.) closed cell, cross linked, nitrogen blown, low-density, polyethylene foam seal 2.) Heavy-duty aluminium center plate 3.) Field-applied epoxy adhesive, primers, mortar and silicone sealant.
- D. Material shall be capable of movements of  $\pm 50\%$  of nominal gap.
- E. GH Series Expansion joint cover system to be installed levelled and cleaned expansion gap
- F. Expansion Joint Cover System to be installed with manufacturer’s standard field-applied epoxy adhesive.
- G. The foam seal is to be installed slightly recessed from the surface such that when the field-applied injection band of silicone is installed between the substrates and the seal, the system will be essentially flush with the substrate surface.
- H. Manufacturer’s Checklist must be completed by expansion joint subcontractor and returned to manufacturer at time of ordering material.

2.02 Fabrication

- A. Expansion Joint Cover System must be supplied pre-assembled.
- B. Directional changes and terminations into vertical plane surfaces (walls, parapets, ends of decks, etc.) as well as to transition the material through curbs, treads and risers or other in-slab plane changes to be provided by factory-manufactured single units or through field fabrication in strict accordance with published installation instructions.

**PART 3 - EXECUTION**

3.01 Installation

- A. Preparation of the Work Area
  - 1. The contractor shall provide properly formed and prepared

expansion joint openings constructed to the exact dimensions and elevations shown on manufacturer's standard system drawings or as shown on the contract drawings. Deviations from these dimensions will not be allowed without the written consent of the engineer of record.

2. The contractor shall clean the joint opening of all contaminants immediately prior to installation of expansion joint system. Repair spalled, irregular or unsound joint surfaces using accepted industry practices for repair of the substrates in question. Remove protruding roughness to ensure joint sides are smooth. Ensure that there is sufficient depth to receive the full depth of the size of the Expansion Joint Cover System being installed. Refer to Manufacturers Installation Guide for detailed step by step instructions.

3. No drilling, or screwing, or fasteners of any type are permitted to anchor the system into the substrate.
4. System to be installed by qualified sub-contractors only according to detailed published installation procedures and/or in accordance with job-specific installation instructions of manufacturer's field technician. Bids must include for presence of paid-for manufacturer's field technician to be present during initial preparation, inspection, and material installation.

#### 3.02 Clean and Protect

- A. Protect the system and its components during construction. Subsequent damage to the expansion joint system will be repaired at the general contractor's expense. After work is complete, clean exposed surfaces with a suitable cleaner that will not harm or attack the finish.

END OF SECTION