
Special Specification 7260

Modular Bridge Expansion Joint System



1. DESCRIPTION

Design, fabricate, test, ship, and inspect installation of a modular bridge expansion joint system in accordance with this specification and as shown on the plans.

2. GENERAL

Provide the modular bridge expansion joint system supplied by the D.S. Brown Company, 300 East Cherry Street, North Baltimore, Ohio 45872, phone 419-257-3561, fax 419-257-2200, attention Mr. Mark Francis. No alternative modular joint supplier will be considered.

Fabricate the modular bridge expansion joint system at an AISC Category "CBR" (Major Steel Bridges) facility owned and operated by the modular bridge expansion joint system supplier who designs, fabricates, and inspects the installation of the joint assemblies.

Design and test the modular joint in accordance with NCHRP Report 402, "Fatigue Design of Modular Bridge Expansion Joints." Alternatively, provide prior design and test data if original tested components are to remain unchanged. Complete testing before submission of shop drawings.

Deliver assemblies to the jobsite as a continuous unit with the seals installed. Damage to the joint during shipping will be cause for rejection of the joint system.

Ensure materials conform to the requirements shown on the plans.

3. SUBMITTALS

Submit design calculations and shop drawings in enough detail to enable installation of the modular joints without reference to the plan sheets. The shop plans and calculations must be prepared, signed, and sealed by a licensed professional engineer who is a full-time employee of the manufacturer. The submittal must include but is not limited to:

- written warranty,
- temporary support details and lifting hardware details to be supplied with the joint,
- written installation instructions,
- welding procedure for support bar to center beam connection in accordance with AASHTO/AWS D1.5 Bridge Welding Code,
- manufacturer's certificate of compliance with the AISC Quality Certification Program Major Steel Bridges (CBR) Category,
- certification that welding inspection personnel are qualified and certified as welding inspectors under AWS QC1 Standard for Qualification and Certification of Welding Inspectors.

4. WARRANTY

The joint manufacturer must provide technical assistance and replacement parts for any part of the modular bridge expansion joint system that becomes defective within 5 yr. from the time the bridge is opened to traffic at the manufacturer's expense. The warranty must include an agreement to provide inspection annually, by a qualified manufacturer's representative, for 5 yr. to address wearing of any part before progressive failure

occurs in the system. Failure to provide complete access to the modular bridge expansion joint system on an annual basis will void the warranty.

5. CONSTRUCTION

To aid in the proper installation of each expansion joint, a qualified modular bridge expansion joint installation technician who is fully trained and employed full time by the manufacturer must be available on site for up to 30 days at a maximum of three intervals. Contractor must adhere to recommendations made by the installation technician and approved by the Engineer. The installation technician must advise the Contractor and the Engineer, and certify that proper installation procedures have been followed. A written, signed, and dated certification must be supplied to the Engineer.

The modular bridge expansion joint system should be shipped at the appropriate width for the month of installation. No adjustment should be made in the field.

6. MEASUREMENT

This Item will be measured by each modular bridge expansion joint system.

7. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid by each "Modular Bridge Expansion Joint System." This price is full compensation for designing, inspecting, manufacturing, shipping, assisting with on-site installation, furnishing hardware to lift the modular joint, supporting the modular joint prior to grouting; and materials, services, labor, tools, equipment, and incidentals.