

Maintenance Manual

For

Iso-Flex Expansion Joint Systems

General Maintenance

Iso-Flex expansion joint systems will provide the best long term service life when given planned out maintenance and attention. With this thought in mind it is recommended that scheduled walk-through surveys be conducted, providing a visual inspection of the expansion joint systems and surrounding substrate.

The walk-through should be conducted with a focus on the following items:

- **Condition of expansion joint elements; steel, rubber and sealant materials, guide bars, gutter, drain tubes.**
- **Review attachment medium, whether it be mechanical or adhesive bond.**
- **Inspect surrounding concrete for cracking or other deterioration that can lead to leakage.**
- **Review all curb, directional change and splice conditions.**
- **It is also important to inspect the underside of the expansion joint location in order to look for any staining or leaking indicating water passage.**
- **For seismic systems the guide bar fasteners should be checked for correct tightness and adjusted if necessary.**

It is recommended that this sort of walk-through be conducted at six month intervals by facility maintenance personnel. It is further recommended that a qualified engineer be retained every two years to inspect the structure, including expansion joints, for more serious conditions that may have been overlooked in the above mentioned general walk-through.

Drainage

As a related matter, drainage can play a key role in proper expansion joint service function. Due to this it is important to see that all drainage systems are maintained to ensure proper flow. Beyond drainage it is also important to note that any surface ponding of rain water is directed away from expansion joint locations.

In regards to guttered expansion joint systems it is essential to keep debris from blocking the flow of water within the gutter and at the drain spouts. If the flow of water is blocked from exiting the gutter system the gutter membrane can tear away from the joint opening and fall causing serious injury.

Housekeeping

It is recommended that expansion joint systems and all floor areas be swept and washed down on a regular basis. The wash down should be of a heavy duty nature ensuring that any chlorides on the surface will be washed away. Any accumulations of sand, dirt or debris, should be removed from the immediate expansion joint area.

Snowplowing & Power Sweeping

It is recommended that snow removal & power sweeping equipment be kept to vehicle axle weights below 4,000 pounds. Check with your garage designer to ensure safe loading per the structure design.

The snow plow blade must not damage the expansion joint system, or the surrounding deck surface. A heavy rubber blade edge should be mounted to the plow's steel edge in order to protect the surface. Steel shoes should be removed or positioned above the rubber blade to avoid contact with the traffic surface.

Procedures used to plow the snow should incorporate a plan to plow over the expansion joint system at a 45 degree angle. This will help to ensure that the plow blade will not get caught up in the joint opening of the system, and result in damage.

Further caution is advised not to use front loader type of equipment (ie. Bobcats) as it can cause significant damage to expansion joint systems as well as the deck surface. Also, avoid piling of snow on top of the expansion joint and drainage conductors.

Power sweeping equipment must lift their sweeper/vacuum unit while passing over the expansion joint. Failure to follow this procedure could result in serious damage to the expansion joint gland, cover plate, wing plates, nosing/header and guide bars.

Expansion Joint Repair

As defects and damage may develop with in-place joint systems, it is recommended that an approved applicator for the Iso-Flex product line be called in to consult on a proper repair procedure. Contact LymTal International for approved applicators in your area.

Repairs should be performed immediately to prevent further damage to the expansion joint system.

Traffic Control

Parking garage expansion joint systems are not designed to withstand high speed impact. If traffic speeds are excessive over the expansion joint system, action should be taken to reduce speeds with the use of speed bumps, signage and/or other means.

Reference Materials

PARKING GARAGE MAINTENANCE MANUAL

National Parking Association
1112 16th Street, NW, Suite 300
Washington, DC 20036
800.647-PARK

GUIDE FOR MAKING A CONDITION SURVEY OF CONCRETE IN SERVICE

American Concrete Institute
P.O. Box 9094
Farmington Hills, MI 48333
248.848.3800