EXPANSION JOINTS
BRITFLEX UCP
FOOTBRIDGES AND ELEVATED STRUCTURES
www.uslekspan.com
Introduction

Market Leaders In Expansion Joint Technology.

We are a world class, multi-disciplined engineering solution provider, with core competencies in structural protection and movement control.

We offer an unrivalled range of specialist services including spray applied bridge deck membranes, bridge deck expansion joints, structural bearings, bridge deck drainage as well as bespoke structural fabrications.

Through early project engagement with stakeholders, we are able to provide high quality engineering solutions by way of consultancy support or the delivery of a complete project management service.

From design, manufacture and installation, to inspection, site maintenance and replacement work, our single point of responsibility offering, leaves USL Ekspan uniquely placed to solve complex challenges on a truly global scale.

UCP OVERVIEW

Unlike conventional expansion joints which require deck drilling, the UCP joint is a surface mounted mechanical system which is bonded into the deck using a specially formulated polyurethide resin.

Significant savings in installation costs and site possession periods can be achieved with each installation undertaken by USL Ekspan’s fully trained, experienced personnel offering reassuring supply and installation packages.

There are currently two sizes of joint within the range UCP 50 and 70, capable of accommodating horizontal movements of 50mm and 70mm respectively.

In addition to the unique design, longevity and ease of installation, the joints are produced to the highest standards using premium ISO 9001 certified components.

These include heavy gauge aluminium rails, a resilient waterproof EPDM seal and additional secondary waterproof membrane.

UCP joints are particularly suitable for applications where watertightness, low noise and smooth riding characteristics are paramount.

USL Ekspan has a progressive attitude to product development, manufacturing excellence and quality control.
### UCP design detail

<table>
<thead>
<tr>
<th>UCP</th>
<th>Movement Capability</th>
<th>Minimum Nosing Sizes</th>
<th>Nominal Nosing Gap</th>
<th>Minimum Nosing Gap</th>
<th>Maximum Nosing Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Horizontal</td>
<td>Vertical</td>
<td>C</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>50</td>
<td>50</td>
<td>±12</td>
<td>120</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>70</td>
<td>70</td>
<td>±15</td>
<td>120</td>
<td>60</td>
<td>70</td>
</tr>
</tbody>
</table>

All dimensions in mm

- Britflex resin mortar
- Movement capability up to 70mm
- Britflex double laminate butyl rubber membrane
- Extruded aluminium rails
- EPDM extruded seal
- Secondary seal

---

### System Advantages

- Versatile
- Watertight
- Rapid installation
- No drilling of deck required
- No mechanical fixings
- EPDM seal easily removed if required
- Provides quiet comfortable riding characteristics
- Capable of accommodating movement up to 70mm

### Application

Applications for UCP joints are numerous and include:
- Multi-storey car parks
- Podiums and elevated structures
- Pedestrian footbridges
- Access and egress ramps

### Specification for the UCP Expansion Joint

1. Polyureide Resin:
   - The Britflex Polyureide Resin is a two part liquid system comprising one clear component (base) and one black (hardener), packed in colour coded drums.

2. Aggregate:
   - The aggregate is a graded mix supplied in sealed plastic bags.

3. Aluminium Rails:
   - The extrusions are supplied in 4 metre lengths and are cut to length on site to suit requirements. Kerb units and mitred junctions may be prefabricated when considered necessary.

4. EPDM Elastomeric Insert:
   - The extruded elastomeric insert is available in two sizes namely UCP 50 and 70 capable of accommodating horizontal movements of ±25mm and ±35mm respectively. The insert is supplied and installed in one continuous length up to 50 metres unless otherwise specified.

5. Secondary Membrane:
   - Uniflex membrane is a butyl rubber membrane capable of withstanding elongation.

---

### Additional Information

Notes:

- The colours used in the illustrations may not be indicative of the finished product.
- USL Ekspan reserve the right to update and improve the ‘UCP’ Expansion Joint and its specification without notice and Engineers and Contractors should ensure that they have full and up to date information.
- Britflex is a registered trade mark of the USL Group.
- Technical & Advisory Service: Further technical information may be obtained on request and consultation is encouraged to ensure choice of materials selected and detailing are optimised to suit in-service performance requirements and economic solutions.
ADDITIONAL SERVICES

In addition to expansion joints USL Ekspan also offer their clients the comfort of a ‘one stop shop’ car park refurbishment solution by utilising a range of state of the art, high performance, proprietary systems including:

- Structural waterproofing
- Anti-carbonation / protective coatings
- Mastic asphalt
- Stone mastic asphalt (SMA)
- Concrete repairs
- Structural surveying and testing

Clients should be safe in the knowledge that all products are manufactured to strict ISO 9001:2000 quality standards and all work is carried out by USL’s own highly trained and experienced contracting teams.

For more information on USL Ekspan’s services please refer to their company brochure or visit www.uslekspan.com
CONTACT US

Head Office
Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear, NE38 8QA, UK

**t:** +44 (0) 191 416 1530  **e:** info@uslekspan.com

Sales & Manufacturing
Compass Works, 410 Brightside Lane, Sheffield, South Yorkshire, S9 2SP, UK

**t:** +44 (0) 114 261 1126  **e:** info@uslekspan.com

www.uslekspan.com