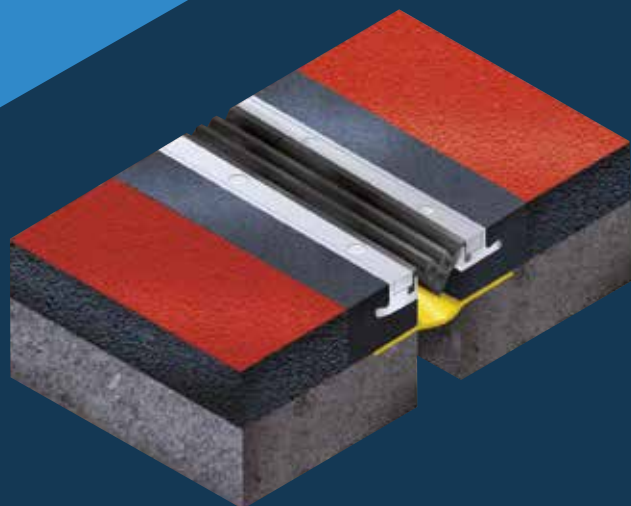


# EXPANSION JOINTS

## BRITFLEX UCP

FOOTBRIDGES AND  
ELEVATED STRUCTURES



# 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.

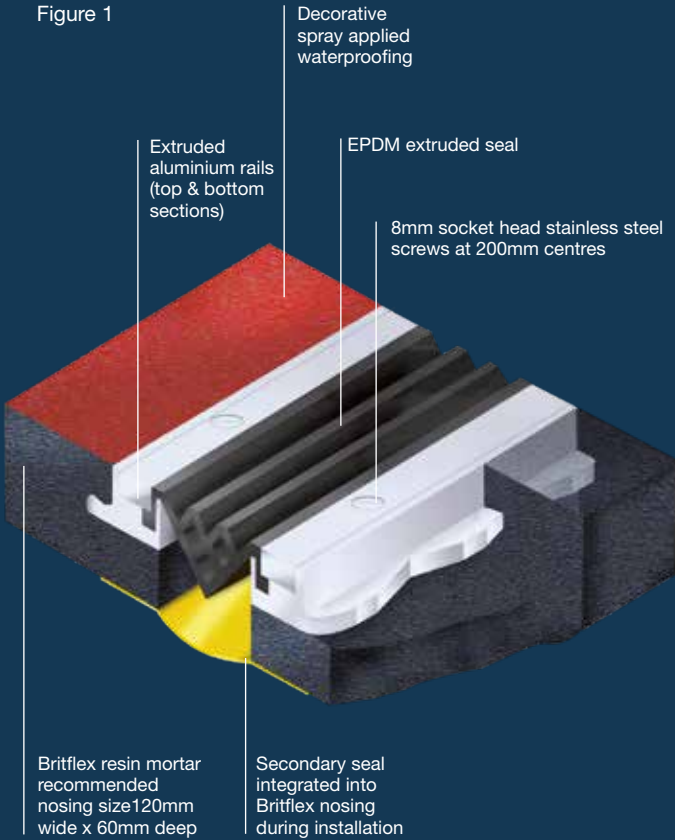
We offer an unrivalled range of specialist services including spray applied bridge deck membranes, bridge deck expansion joints, structural bearings, bridge deck drainage as well as bespoke structural fabrications.

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.



Figure 1



### 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 polyureide 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.

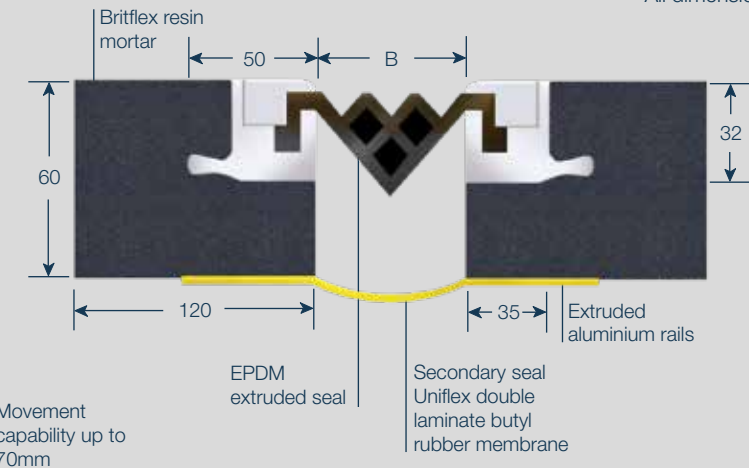
USL Ekspan has a progressive attitude to product development, manufacturing excellence and quality control.



UCP design detail

UCP	Movement Capacity		Minimum Nosing Sizes		Nominal Nosing Gap	Minimum Nosing Gap	Maximum Nosing Gap
	Horizontal	Vertical	C	D	B	B.Min	B.Max
50	50	±12	120	60	50	25	75
70	70	±15	120	60	70	30	105

All dimensions in mm



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

OTHER APPLICATIONS

Applications for UCP joints are numerous and include:

- Multi-storey car parks
- Podiums and elevated structures
- Pedestrian footbridges
- Access and egress ramps

Each UCP joint is available from stock. Special sections are available to accommodate changes in direction both in plan and elevation. Furthermore, intersections are available at 90° changes of direction or other skew angles as requested.

SPECIFICATION FOR THE UCP EXPANSION JOINT

- i) 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.
- ii) Aggregate:  
The aggregate is a graded mix supplied in sealed plastic bags.
- iii) 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.
- iv) 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.
- (v) 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.





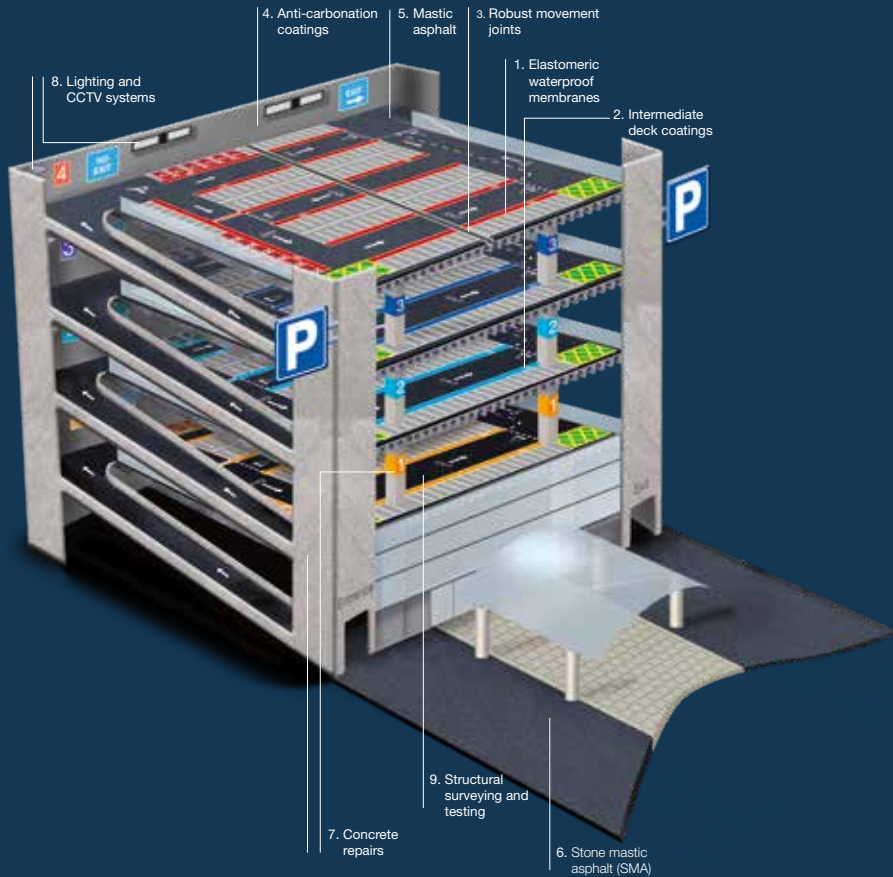
## ADDITIONAL SERVICES

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:

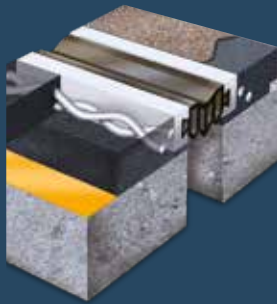
- Structural waterproofing
- Anti carbonation / protective coatings
- Mastic asphalt
- Stone mastic asphalt (SMA)
- Concrete repairs
- Structural surveying and testing

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](http://www.uslekspan.com)

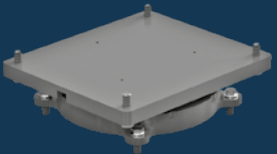


# USL EKSPAN PRODUCT RANGE



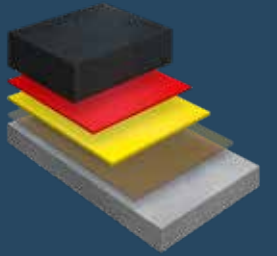
### EXPANSION JOINTS - CD 357

- |   |   |                             |
|---|---|-----------------------------|
| <b>Uniflex</b> - Buried                   | <b>Brittflex BEJ</b> - Modular          | <b>Finger Joint</b>         |
| <b>BP1</b> - Buried                       | <b>Brittflex MEJS</b> - Modular         | <b>Roller Shutter Joint</b> |
| <b>FEBA</b> - Flexible Plug               | <b>LJ</b> - Longitudinal Joint          |                             |
| <b>Brittflex NJ</b> - Nosing              | <b>ES</b> - Joint Seal                  |                             |
| <b>EC &amp; EW</b> - Joint Seal           | Aqueduct/Immersed Joint                 |                             |
| <b>Transflex &amp; Transflex HM</b> - Mat | <b>Open Type Joint</b> - Rail Joint     |                             |
| <b>T-MAT</b> - Mat                        | <b>Brittflex UCP</b> - Footbridge Joint |                             |



### STRUCTURAL BEARINGS

- |  |   |                                 |
|--|---|---------------------------------|
| <b>EKE</b> - Elastomeric (EN1337-3)      | <b>D</b> - Line Rocker (BS5400-9)       | <b>Link Bearing</b> (BS5400-9)  |
| <b>KE</b> - Pot (EN1337-5)               | <b>F</b> - Restraint & Guide (BS5400-9) | <b>EA</b> - Sliding Bearing     |
| <b>DE</b> - Line Rocker (EN1337-6)       | <b>G</b> - Spherical (BS5400-9)         | <b>EKR</b> - Rubber Pad & Strip |
| <b>GE</b> - Spherical (EN1337-7)         | <b>J</b> - Roller (BS5400-9)            | <b>EQF</b> - Sliding Bearing    |
| <b>FE</b> - Restraint & Guide (EN1337-8) | <b>K</b> - Pot (BS5400-9)               | <b>Bespoke Bearings</b>         |



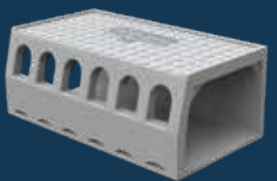
### STRUCTURAL WATERPROOFING - CD 358

- |  |  |
|--|--|
| <b>Pitchmastic PmB</b><br>Polyurethane (Pu) Waterproofing System     | <b>Brittdex CPM Tredseal</b><br>Combined Waterproofing and Anti Skid Surfacing (MMA) |
| <b>Britdex MDP</b><br>Methyl Methacrylate (MMA) Waterproofing System | <b>Uradeck BC</b><br>Combined Waterproofing and Anti Skid Surfacing (Pu)             |



### SUB-SURFACE BRIDGE DRAINAGE

- Ekspan 325 Channel**
- Ekspan 302 System**
- ES Seal System**
- DriDeck**



### SURFACE BRIDGE DRAINAGE

- Envirodeck**



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