



**» Bridge Components**

**Bridge Expansion Joints  
&  
Bearing Pads**

October 2012



[www.assaflex.co.uk](http://www.assaflex.co.uk)



## Aiming for Excellence

In early 1991 we began research and development on the use of Rubbers / Elastomers for industrial applications. This has led to the creation of a range of highly sought after products in an ever increasing range of specialist applications.

At AssaFlex we manufacture bridge components including Expansion Joints Systems, Bearing Pads, pot bearings and associated accessories, etc. We are the Middle East's leading producer of Bridge components. Our research and development division continues to be the driving force behind the growth of the company. As well as development concerning rubbers / elastomers in existing and new fields, a most recent development involves electronic monitoring systems in bridges.



The company manufactures to all the international specifications such as BS 5400, DIN 4141, etc.

AssaFlex rubber products including expansion joints and bearing pads are manufactured in conformity of EU construction directive NO: 89 / 106 / EC . Assamrof management system is in conformance with ISO 9001:2008 standard. certificate of registration was issued by ARC International of Canada, SCO-IAF Accreditation Scope Category: 14 All calculations relating to AssaFlex RE (Reinforced Elastomeric Expansion Joints) have been approved by the British Highways Agency-March 2011

**For further information please refer to  
[www.assaflex.co.uk](http://www.assaflex.co.uk)**

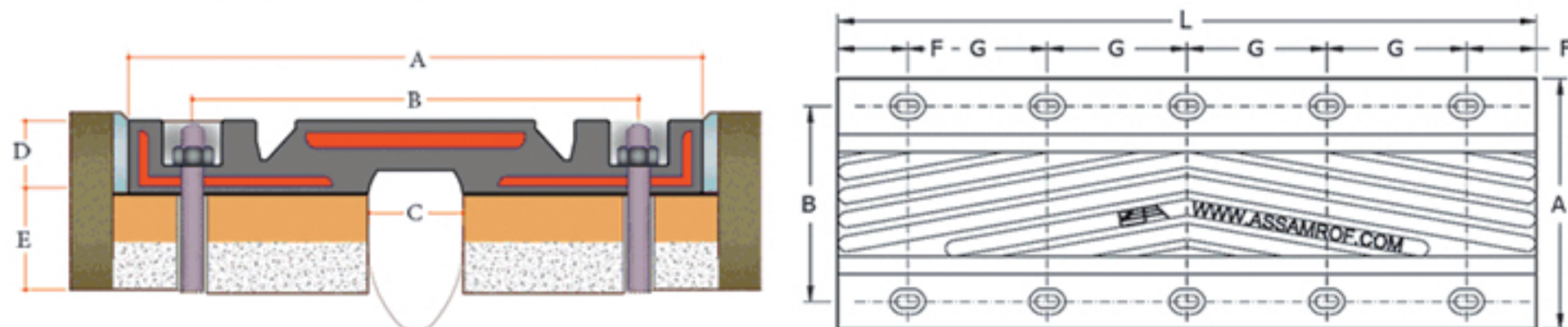


# Reinforced Elastomeric Expansion Joints

Design Feature & Benefits

## RE Type 280-440

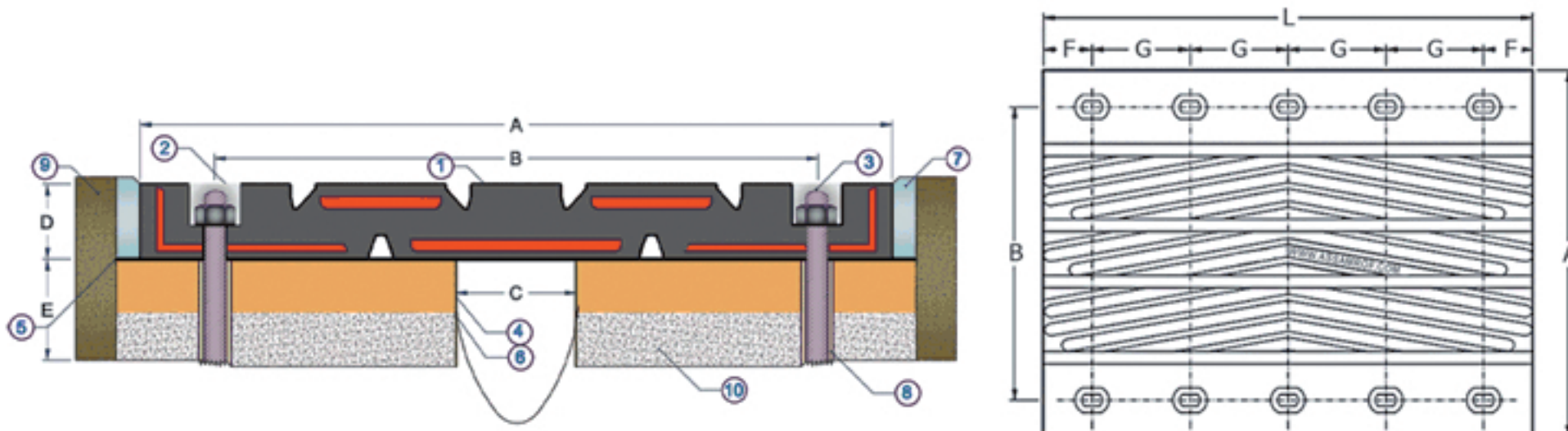
In this type of design, the module is reinforced in three areas following the "Central Steel Framework", allowing the area under stressed to be distributed.



TYPE	MOVEMENT	A	B	C	D	E	F	G	L
RE 280	45	280	200	40	42	200	100	200	1000
RE 360	65	360	280	60	46	200	100	200	1000
RE 361	65	360	280	60	46	200	125	250	1250
RE 391	70	390	310	70	54	200	125	250	1250
RE 440	80	440	340	70	52	200	100	200	1000

## RE Type 580-1100

In this design the module is reinforced in five areas and movements are distributed in four points, following the "Double Upper Steel Frame"



TYPE	MOVEMENT	A	B	C	D	E	F	G	L
RE 580	100	580	450	80	55	250	100	200	1000
RE 750	165	750	600	120	75	250	100	200	1000
RE 900	220	900	740	150	92	250	100	200	1000
RE 1100	320	1120	940	200	110	250	100	200	1000

## Benefits

- Designed to accept differential movement.
- Designed to improve traffic conditions & reduce noise.
- No fixing per one meter unit increasing durability of unit 10.
- Rapid installation due to segmental nature of the unit.
- Anti skid surface.
- Easy to use system.
- Oil based chemicals & heat/flame resistance.
- Can be installed one lane at a time



## Assaflex Bearing Pads

Bridge bearings have the job of transferring forces caused by dead weight and live loads, as well as braking forces and wind forces to the piers and abutment bearing pads are designed for use in bridges and other structures such as buildings as a vertical load bearings component.

Rubber used in the composition of bearings can be either natural or NR for "Natural Rubber" or "synthetic, generally a chloroprene polymer poly-chloroprene or CR for "Chloroprene Rubber.

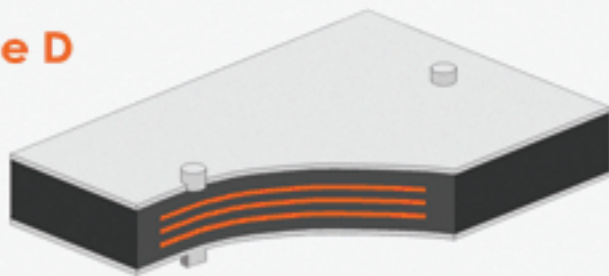
### Bearing Types

#### ASSAFLEX LEB

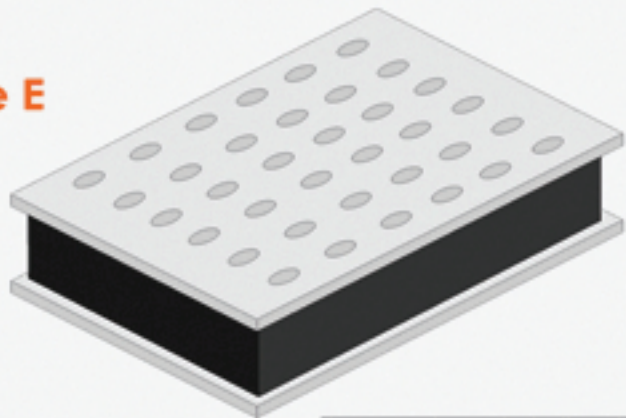
Type A



Type D



Type E



#### We manufacture 5 different types of LEB bearing pads

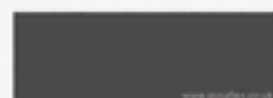
Type, A, B, C, D, E

Type A & B are reinforced elastomeric bearing pads provide a uniform transfer of load beam to structure. They permit beam rotation at the bearing point due to deflection or misalignment. Type C to E having metal plates top & bottom designed to act as Anti-Lift due to different movements or, etc. The external plates are vulcanised with the rubber pads during the production processes. They are laminated elastomeric bearing in a block of vulcanised rubber, reinforced internally by one or several steel layers.

The reinforced block with additional steel layers at the top & bottom with or without dowel or checker plate, allowing slip resistance, transfer of horizontal loads when it is restrained or acting as anti lift.

### Plain Bearing Pad

#### ASSAFLEX Type F

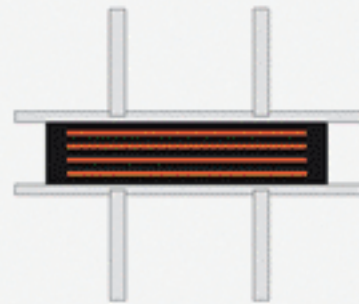
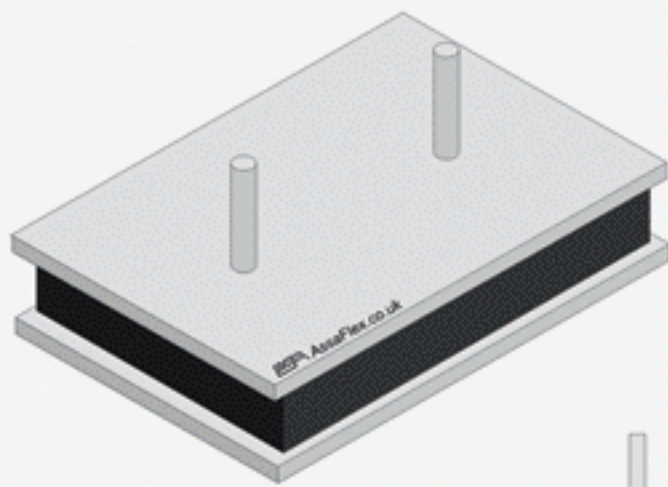


This type has no reinforcement and mainly used on buildings to support structure from movements and lateral loads. This type will resist some displacement.

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## ASSAFLEX BP-R

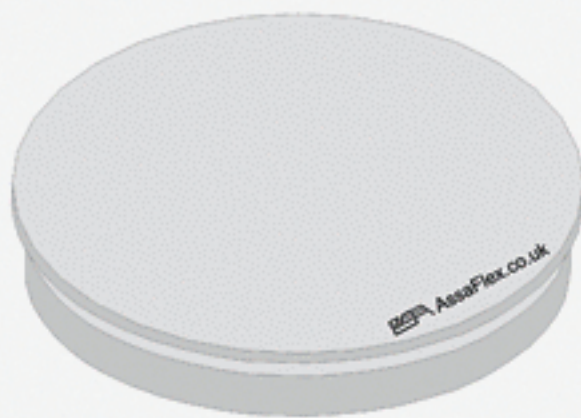


## Restrained Bearing Pads

In cases where there is significant horizontal displacement, in particular on the abutments, the number of laminations required for these deformations risks being incompatible with the buckling stability of the bearings or in the case of a very flexible support.

In these cases, sliding bearings may be required instead of ordinary bearings.

## ASSAFLE Pot Bearing



## Pot Bearing

This type of bearing may be considered the most important one from the commercial point of view, since the pot bearings represent the largest portion of the bearings market in the world. Pot bearings consist of an elastomeric pad confined in a steel cylindrical pot by means of a close fitting piston and an internal seal. They can be combined with a sliding element to accommodate translational movements in one or any direction.

## Bearing Selection Diagram

**Note:** The limit lines which define the regions in this diagram are only approximate. The limits could move 5% in either direction. As a result, the user should examine both options when the application falls near one of

- Steel reinforced E bearing with sliding
- CPD with PTFE sliding surface
- PEP with PTFEE sliding
- Steel reinforced Elastomeric bearing
- Steel reinforced E sliding Bearing
- POT sliding
- POT with PTFE sliding
- Transition between steel reinforced & sliding POT
- Transition between steel reinforced and steel reinforced
- Transition between PEP sliding & Steel r with PTFE
- PEP
- Transition between PEP & steel reinforced B

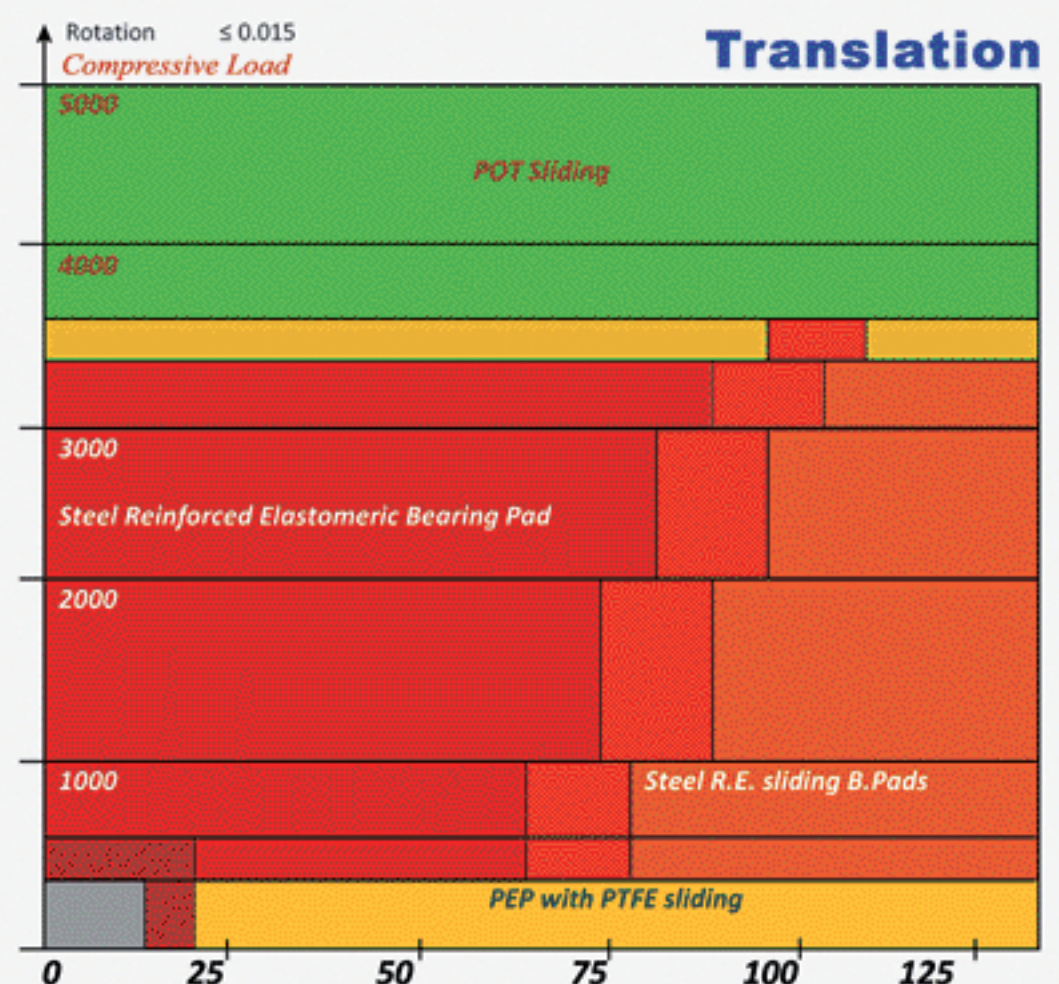
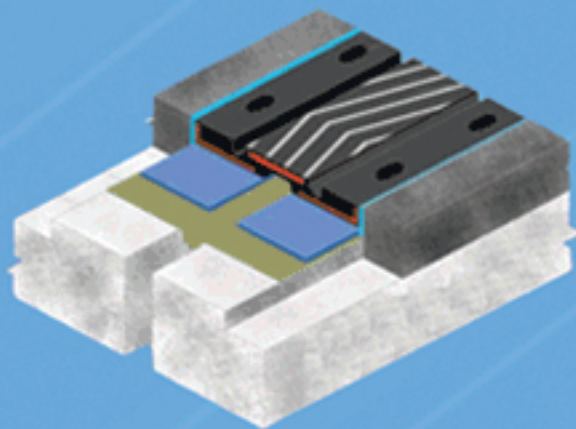


Table A1 Translation mm

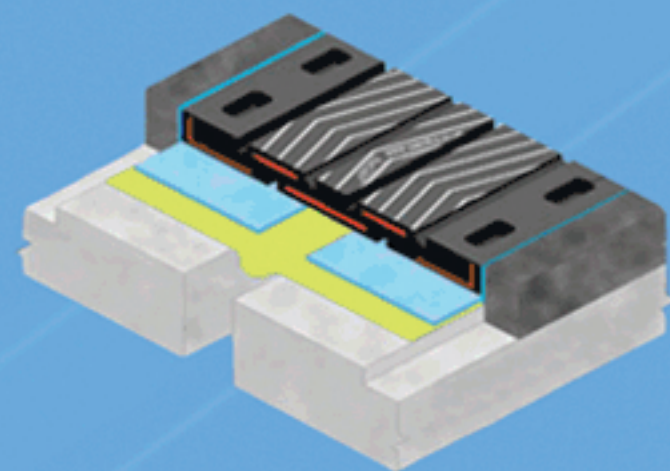


**Assaflex RE is a durable and versatile expansion joint system with properties such as puncture resistance, anti skid, flexible and waterproof with 10 No standard modules designed to accommodate movements of maximum up to 320 mm**

AssaFlex RE 280,361,391, 440



AssaFlex RE 580,750,900,1100



- ✓ **AssaFlex products Conform to European directive 89/106/EC**
- ✓ **Passed all the required tests to receive CE mark Certification**
- ✓ **Quality management system in accordance with ISO 9001-2008**

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