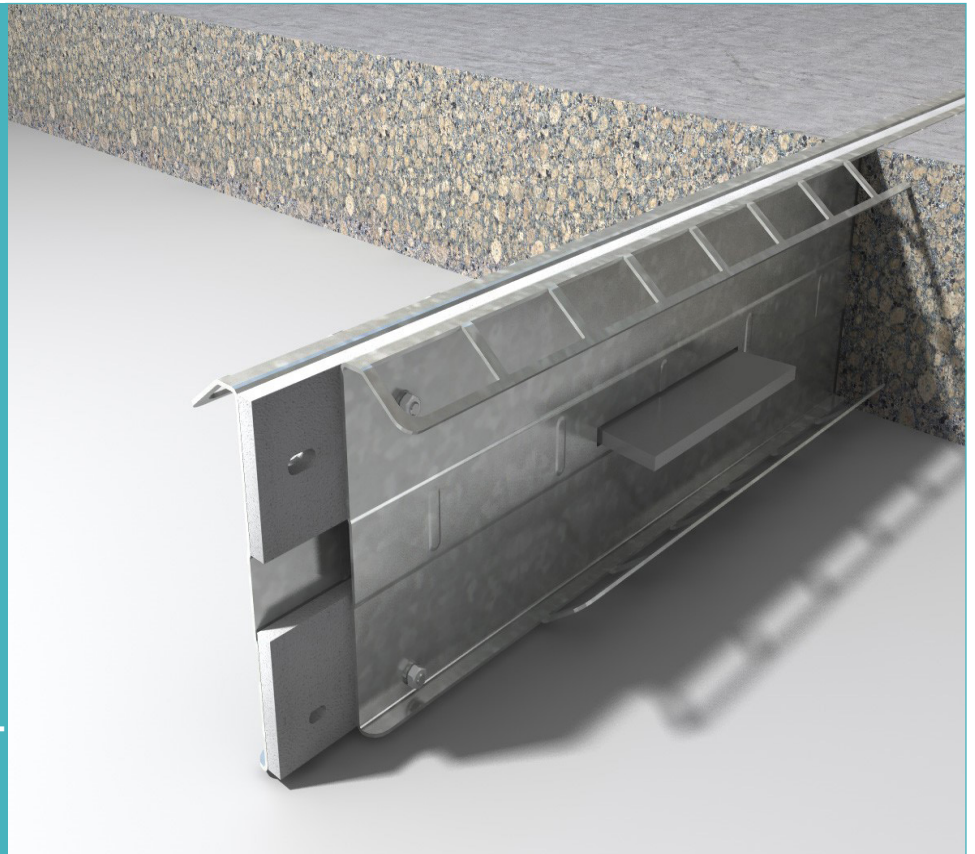


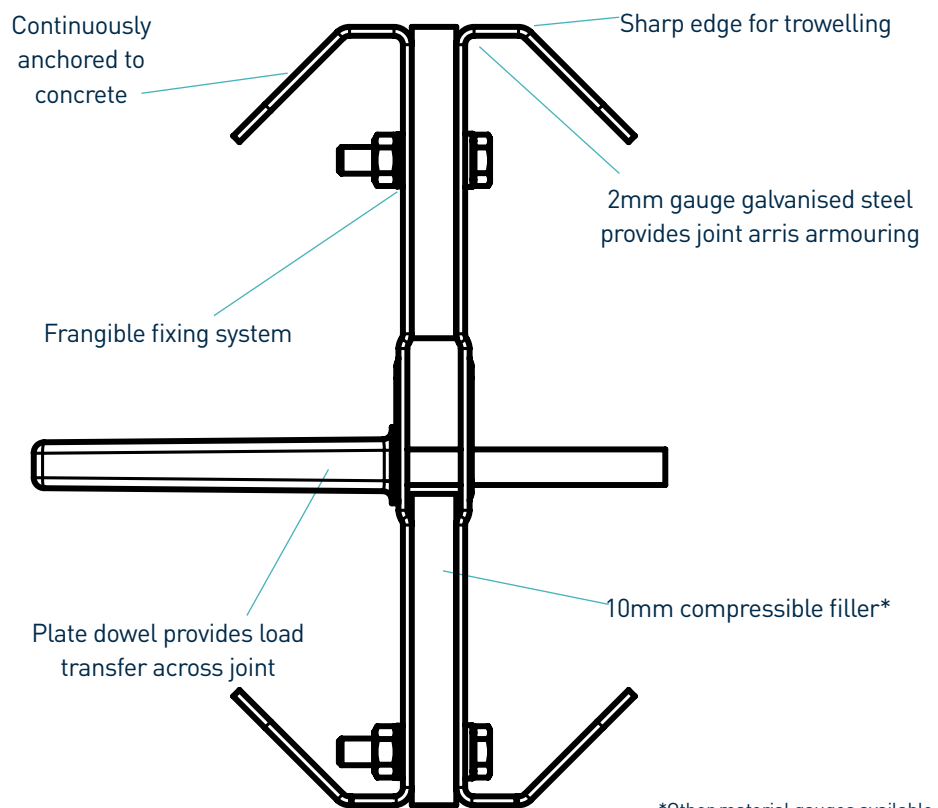
betaexpansion

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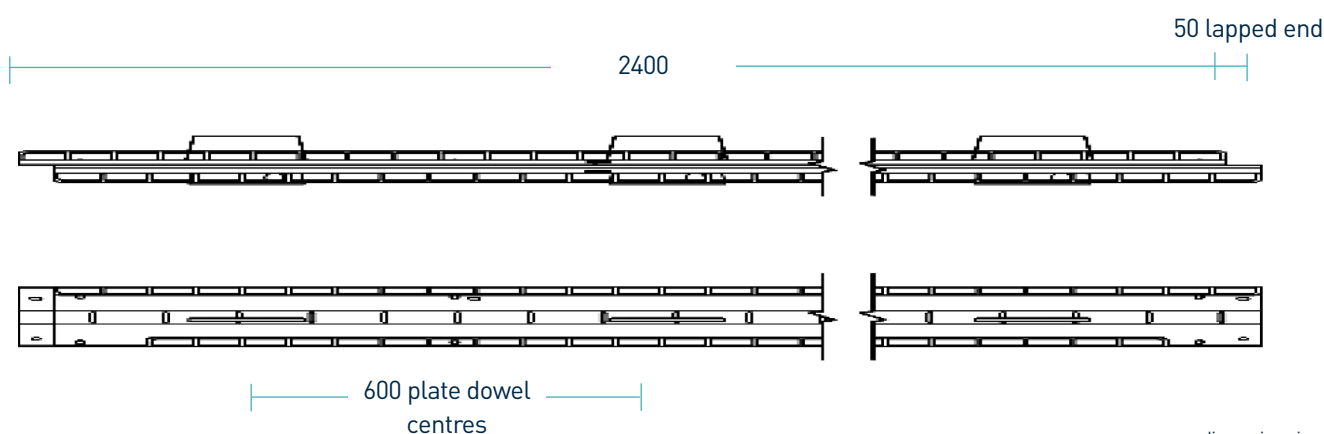
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manufacturing tolerances

| | | | | | |
|---------------|--------|---------------|------|---------------------|--------------|
| Length | ±2.0mm | Height | ±1mm | Straightness | ±0.5mm/600mm |
|---------------|--------|---------------|------|---------------------|--------------|

dimensions of betaexpansion



dimensions and weight of betaexpansion

| Nominal Slab Depth (mm) | Joint Height, h (mm) | Dowel Size (mm) | Dowel Centres (mm) | Length (mm) | Single Joint Weight (kg) | Number Per Bundle | Weight per bundle incl packaging @ 120 kg |
|-------------------------|----------------------|-----------------|--------------------|-------------|--------------------------|-------------------|---|
| 150 | 130 | 151 x 120 x 8 | 600 | 2400 | 15.3 | 72 | 1222 kg |
| 175 | 150 | | | | 17.0 | 60 | 1140 kg |
| 200 | 175 | | | | 19.5 | 48 | 1056 kg |
| 225 | 200 | | | | 21.4 | 48 | 1147.2 kg |

Typical height and length values shown only. Weight values shown are based on BetaExpansion including TD8 dowels and are approximate.

materials

| Component | Material |
|-----------------------|-------------------------|
| Joint arris armouring | EN 10346: 2015 Dx514+Z |
| Plate dowel | EN 10025-2: 2004 S275JR |
| Plate dowel sleeve | HDPP |

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theoretical calculated ultimate loads at failure of dowel or concrete

(For typical slabs, 40N/mm² concrete and 20mm joint opening)

| Slab Depth (mm) | Dowel Type | Unreinforced Slab | |
|-----------------|------------|-------------------|----------------|
| | | Bursting (kN/m) | Bending (kN/m) |
| 150 | TD6 | 31.2 | 53.4 |
| | TD8 | 31.2 | 87.2 |
| | TD10 | 31.2 | 124.7 |
| 175 | TD6 | 40.0 | 53.4 |
| | TD8 | 40.0 | 87.2 |
| | TD10 | 40.0 | 124.7 |
| 200 | TD6 | 49.9 | 53.4 |
| | TD8 | 49.9 | 87.2 |
| | TD10 | 49.9 | 124.7 |
| 225 | TD6 | 60.7 | 53.4 |
| | TD8 | 60.7 | 87.2 |
| | TD10 | 60.7 | 124.7 |
| 250 | TD6 | 72.4 | 53.4 |
| | TD8 | 72.4 | 87.2 |
| | TD10 | 72.4 | 124.7 |
| 275 | TD6 | 85.6 | 53.4 |
| | TD8 | 85.6 | 87.2 |
| | TD10 | 85.6 | 124.7 |
| 300 | TD6 | 86.9 | 53.4 |
| | TD8 | 86.9 | 87.2 |
| | TD10 | 86.9 | 124.7 |

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Ultimate load (kN/m)

This table shows the load at failure in bursting (failure of the concrete) and bending (failure of the dowel) for a joint opening of 200mm – larger joint openings can be accommodated. The ultimate load has been calculated in accordance with TR34 4th edition. Dowel position taken at mid depth slab. For more detailed analysis please contact RCR Flooring Products Ltd.

*All design calculations should be verified by a suitably qualified structural engineer.

compatible dowel systems

