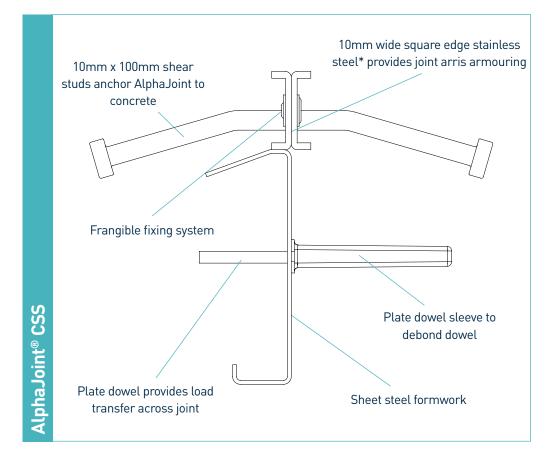


Alpha Joint CSS













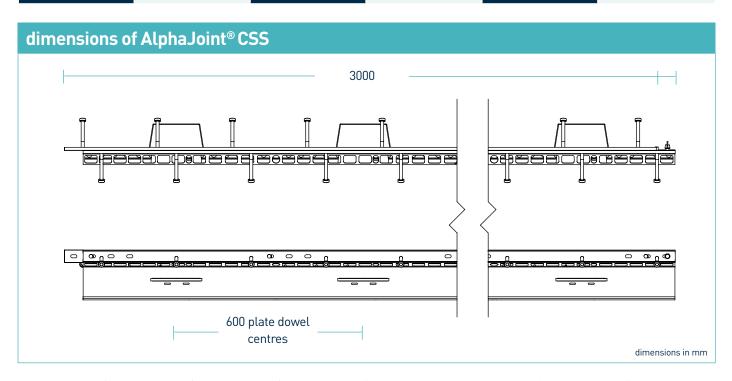


AlphaJoint® CSS

Specification Sheet Issue 3.4 12/11/2019

manufacturing tolerances

Length±2.0mmHeight±1mmStraightness±0.5mm/600mm



dimensions and weight of AlphaJoint® CSS

| Nominal Slab Depth (mm) | Joint Height, h (mm) | Dowel Size (mm) | Dowel Centres (mm) | Length (mm) | Single Joint Weight (kg) | Number Per Bundle | Bundle Weight (kg) |
|----------------------------|-------------------------|--------------------|-----------------------|-------------|-----------------------------|----------------------|-----------------------|
| 150 | 130 | 151 x 120 x 8 | 600 | 3000 | 21.7 | 63 | 1487.1 |
| 170 | 150 | | | | 22.6 | 61 | 1498.6 |
| 190 | 175 | | | | 23.8 | 52 | 1357.6 |
| 210 | 200 | | | | 24.9 | 52 | 1414.8 |

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

| materials | | | | | | |
|-----------------------------|---|--|--|--|--|--|
| Component | Material | | | | | |
| Joint arris armouring (CSS) | EN 10088-2 1.4301 304L | | | | | |
| Sheet steel formwork | EN 10130: 2006 DC01 | | | | | |
| Shear stud | EN ISO 13918: 2017 S235J2 | | | | | |
| Plate dowel | EN 10025-2: 2004 S275JR min 410 N/mm ² | | | | | |
| Plate dowel sleeve | HDPP | | | | | |











AlphaJoint® CSS

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theoretical calculated ultimate loads at failure of dowel or concrete

| (For typical slabs, 40N/n | nm² concrete and 20mm joint opening) | Unreinforced Slab | | |
|---------------------------|---|-------------------|----------------|--|
| Slab Depth (mm) | Dowel Type | Bursting (kN/m) | Bending (kN/m) | |
| | TD6 | 31.2 | 53.4 | |
| 150 | TD8 | 31.2 | 87.2 | |
| | TD10 | 31.2 | 124.7 | |
| | TD6 | 40.0 | 53.4 | |
| 175 | TD8 | 40.0 | 87.2 | |
| | TD10 | 40.0 | 124.7 | |
| | TD6 | 49.9 | 53.4 | |
| 200 | TD8 | 49.9 | 87.2 | |
| | TD10 | 49.9 | 124.7 | |
| | TD6 | 60.7 | 53.4 | |
| 225 | TD8 | 60.7 | 87.2 | |
| | TD10 | 60.7 | 124.7 | |
| | TD6 | 72.4 | 53.4 | |
| 250 | TD8 | 72.4 | 87.2 | |
| | TD10 | 72.4 | 124.7 | |
| | TD6 | 85.6 | 53.4 | |
| 275 | TD8 | 85.6 | 87.2 | |
| | TD10 | 85.6 | 124.7 | |
| | TD6 | 86.9 | 53.4 | |
| 300 | TD8 | 85.9 | 87.2 | |
| | TD10 | 85.9 | 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 200 - larger joint openings can be accommodated. The ultimate load has been calculated in accordance with TR34 4th Edition. Dowel positions taken at mid depth of slab. For more detailed analysis please contact RCR Flooring Products Ltd.

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

