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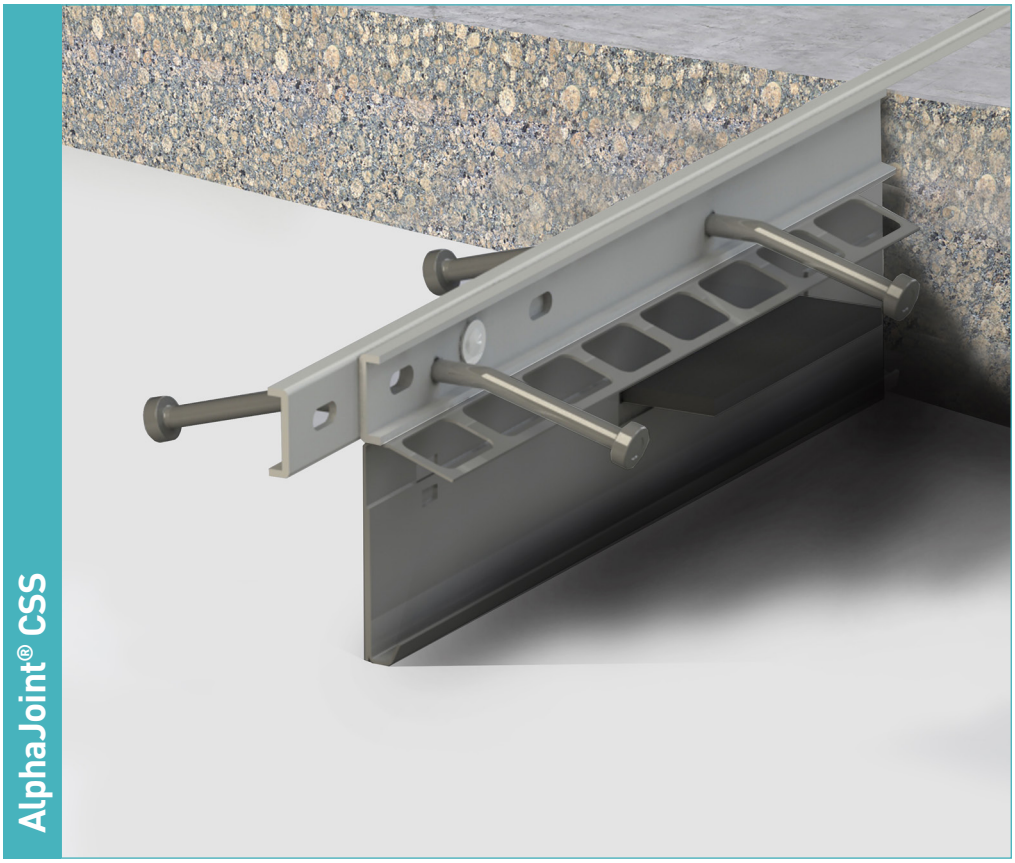
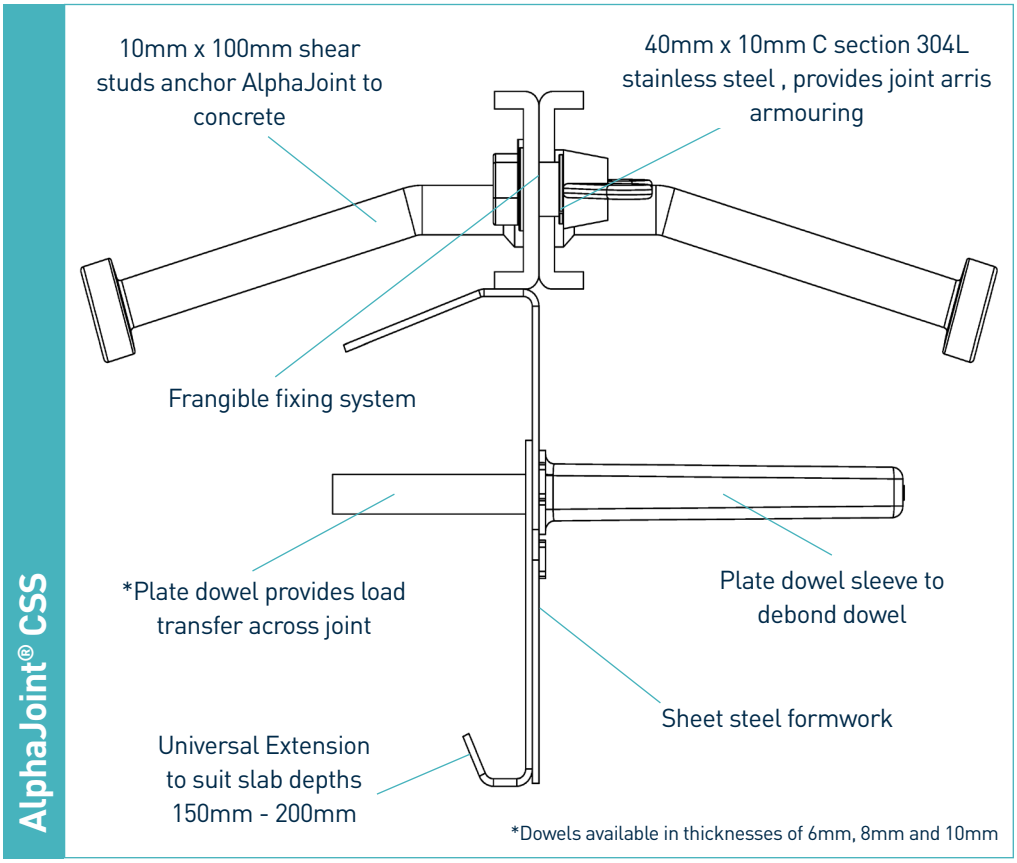
permaban®

AlphaJoint® CSS





Specification Sheet
Issue 3.9
01/07/2024

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AlphaJoint® CSS

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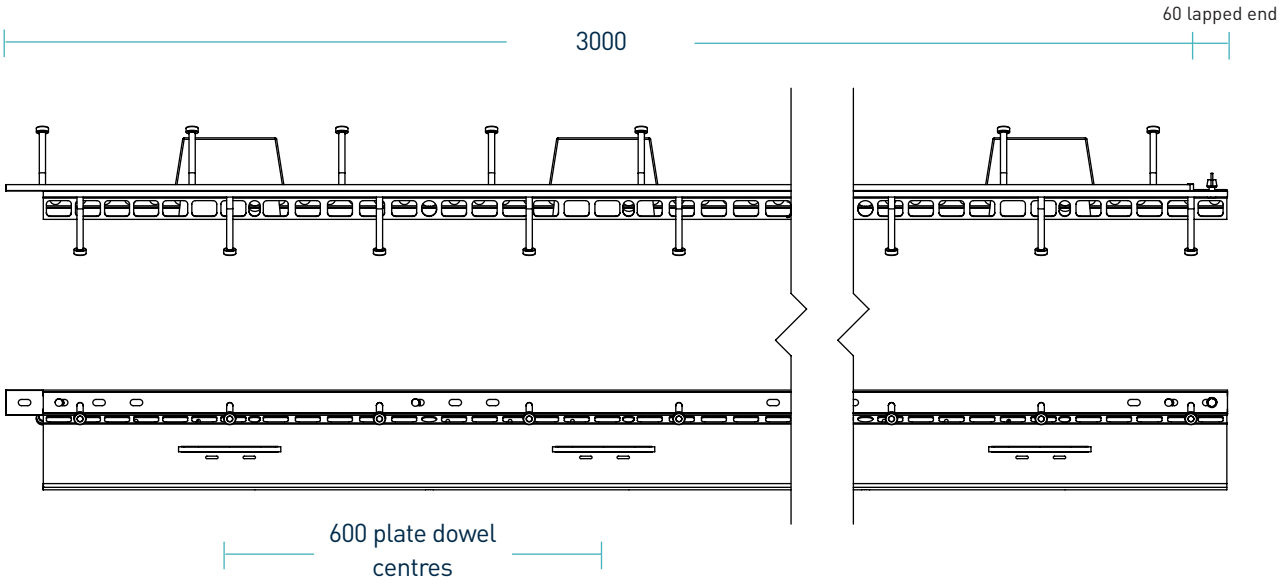
manufacturing tolerances

Length	±2.0mm	**Height**	±1mm	**Straightness**	±0.5mm/600mm

dimensions of AlphaJoint® CSS



*dimensions in mm

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 - 200	140-190	151 x 120 x 8	600	3000	22	42	1049
225	200				23	40	1045
250	225				24	40	1085

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
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)

		Unreinforced Slab	
Slab Depth (mm)	**Dowel Type**	**Bursting (kN/m)**	**Bending (kN/m)**
Universal Divider Plate to Suit 150 - 200	TD6	34.5	53.0
	TD8	34.5	86.2
	TD10	34.5	123.0
225	TD6	58.8	53.0
	TD8	58.8	86.2
	TD10	58.8	123.0
250	TD6	70.3	53.0
	TD8	70.3	86.2
	TD10	70.3	123.0
275	TD6	82.9	53.0
	TD8	82.9	86.2
	TD10	82.9	123.0
300	TD6	84.2	53.0
	TD8	84.2	86.2
	TD10	84.2	123.0
325	TD6	79.5	53.0
	TD8	79.5	86.2
	TD10	79.5	123.0

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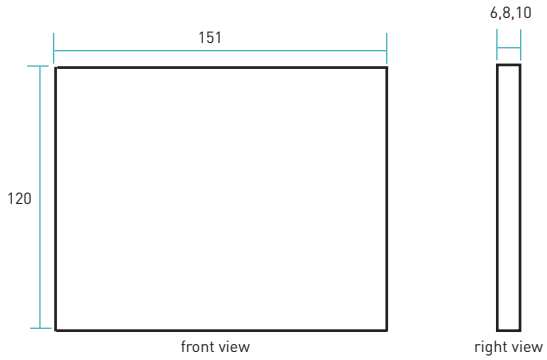
Ultimate load (kN/m)

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.

compatible dowel systems



dimensions in mm

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