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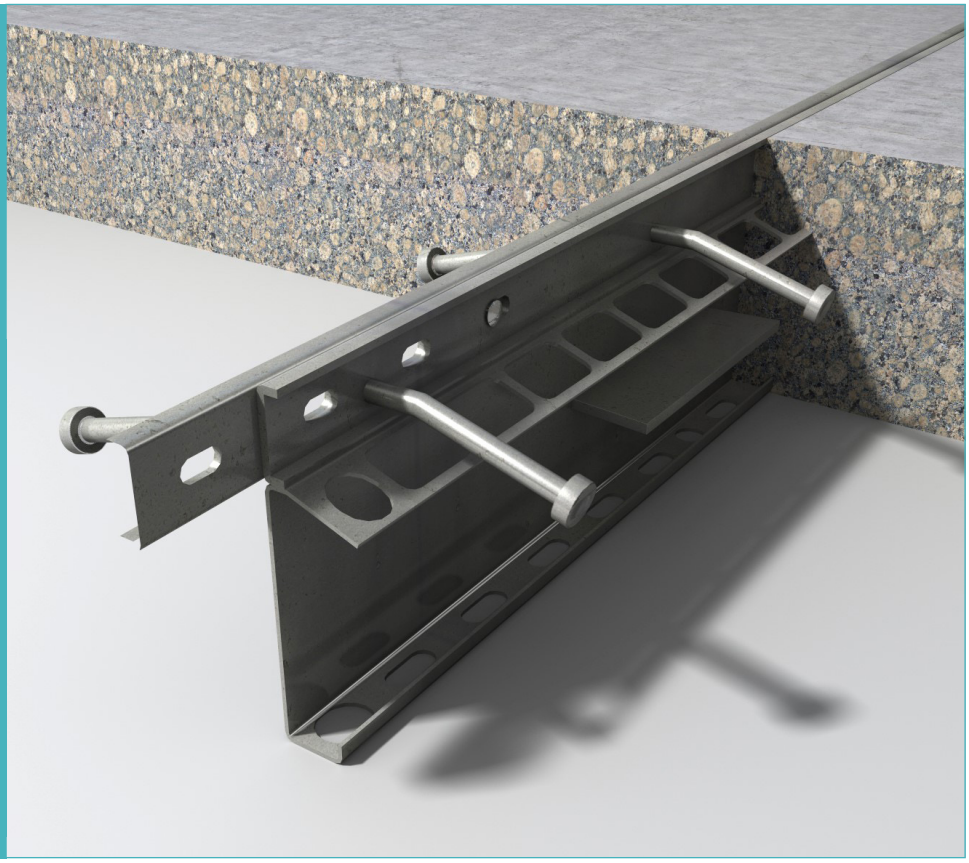
protecting concrete floors worldwide

alphajoint® css

Specification Sheet
Issue 3.1
20/04/2015



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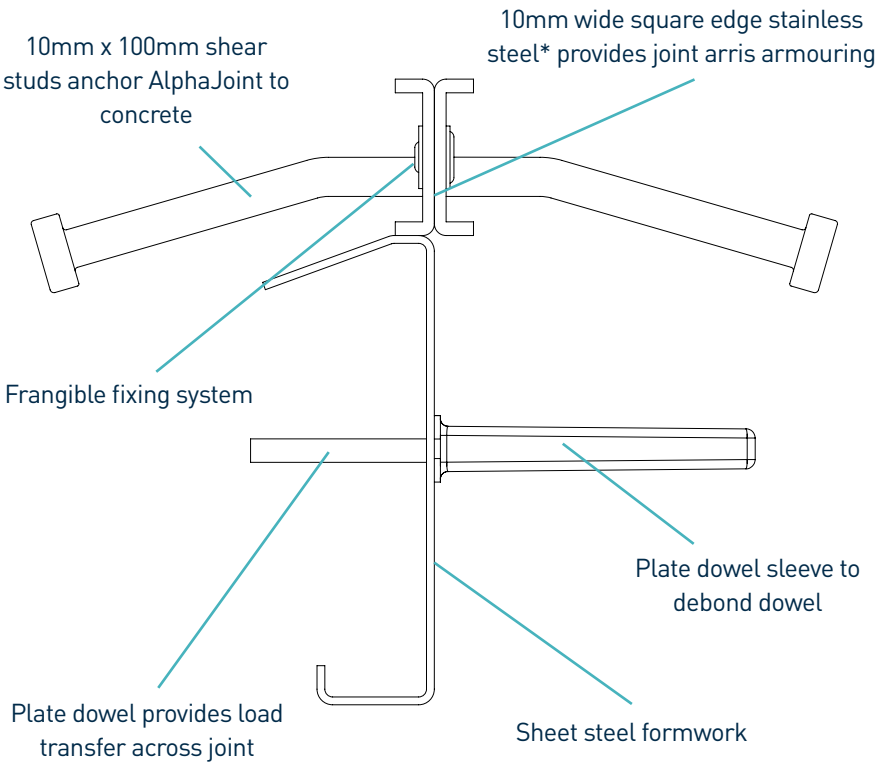

*Also available in cold rolled mild steel

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Permaban Ltd is registered in England & Wales - No. 02815314.
AlphaJoint® European Patent No. 1389648.

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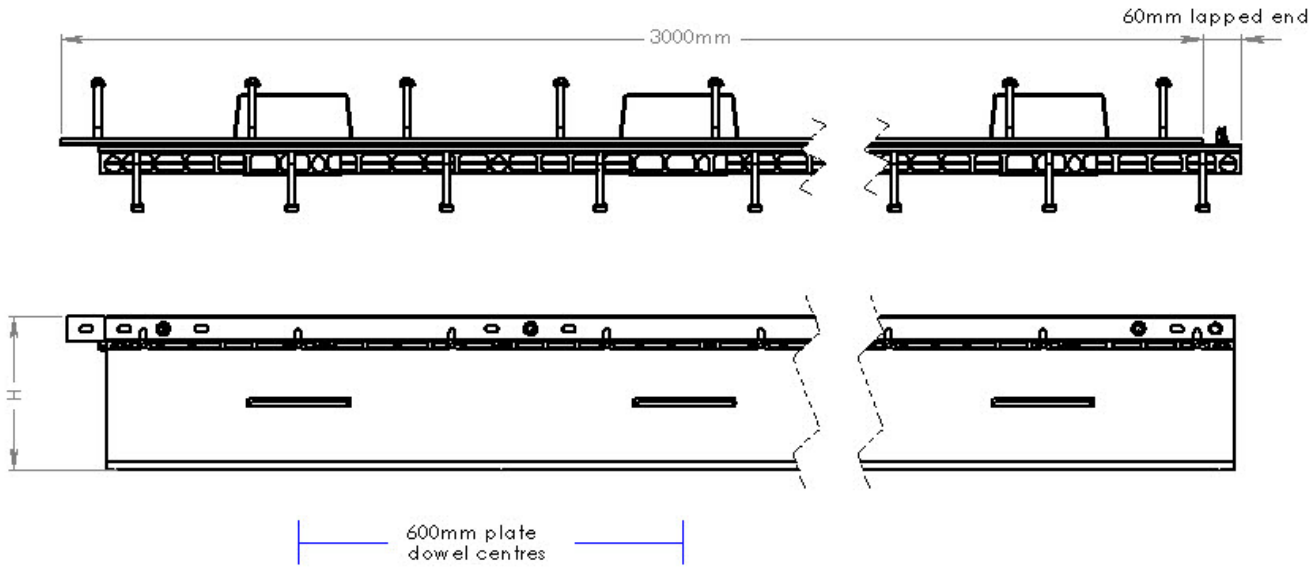
manufacturing tolerances

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

dimensions of alphajoint® css



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	40	1498.6
190	175				23.8	40	1357.6
210	200				24.9	40	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)	BS EN 10088-2 1.4301 304L
Sheet steel formwork	BS EN 1030:1999 DC01
Shear stud	S275JR or equivalent
Plate dowel	BS EN 10025-2:2004 S275JRG2 min 410 N/mm²
Plate dowel sleeve	HDPP

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theoretical calculated ultimate loads at failure of dowel or concrete

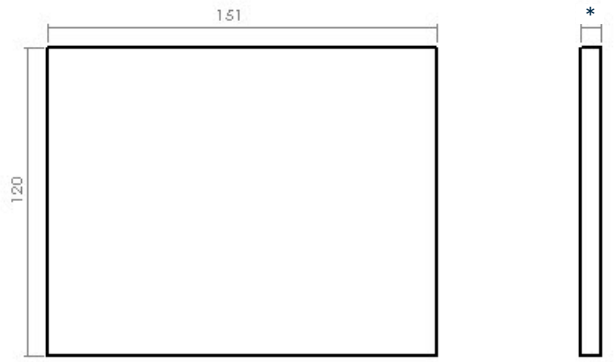
(For typical slabs, 40N/mm² concrete and 20mm joint opening)

		Unreinforced Slab		Steel Fibre Reinforced Slab (Re3 = 0.8)	
Slab Depth (mm)	Dowel Type	Bursting (kN/m)	Bending (kN/m)	Bursting (kN/m)	Bending (kN/m)
150	TD6	50.50	80.83	87.17	80.83
	TD8	50.50	143.50	87.17	143.50
	TD10	50.50	224.34	87.17	224.34
200	TD6	82.00	80.83	141.67	80.83
	TD8	82.00	143.50	141.67	143.50
	TD10	82.00	224.34	141.67	224.34
250	TD6	81.00	80.83	136.50	80.83
	TD8	81.00	143.50	136.50	143.50
	TD10	81.00	224.34	136.50	224.34
300	TD6	87.33	80.83	147.50	80.83
	TD8	87.33	143.50	147.50	143.50
	TD10	87.33	224.34	147.50	224.34
350	TD6	94.00	80.83	160.00	80.83
	TD8	94.00	143.50	160.00	143.50
	TD10	94.00	224.34	160.00	224.34

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 20mm - larger joint openings can be accommodated. The ultimate load has been calculated in accordance with TR34 4th Edition. For more detailed analysis please contact Permaban.

compatible dowel systems



Dimensions in mm

*Available in 6, 8, 10mm

DD is not available in the following territories: Mexico, Canada, USA, Australia and New Zealand.

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