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permaban®

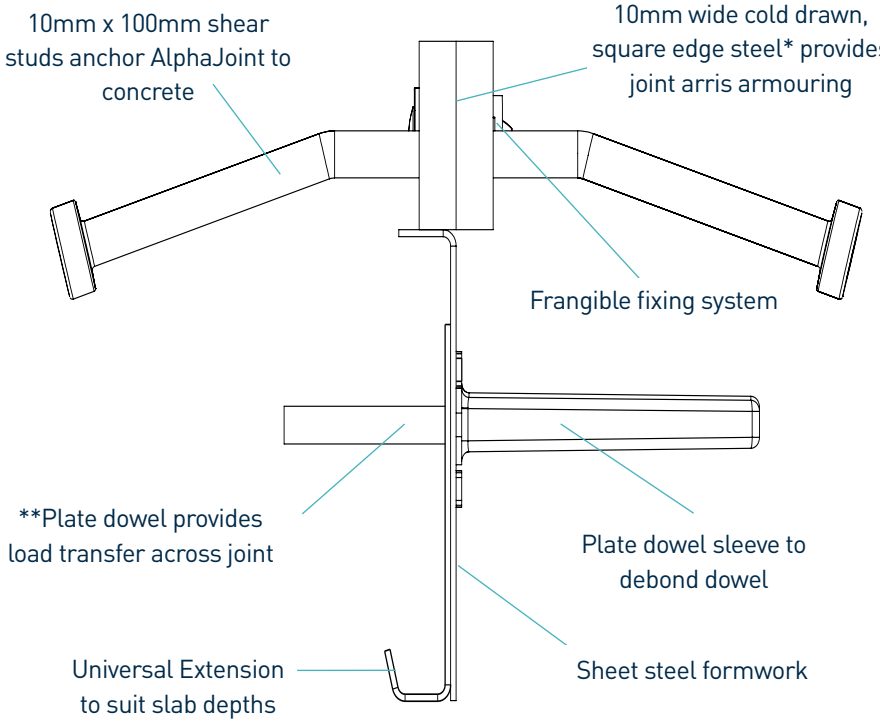
AlphaJoint® Classic 4010 Universal Range

Specification Sheet
Issue 1.1
01/09/2024

AlphaJoint® Classic 4010 Universal / Universal Midi

AlphaJoint Classic 4010 Universal to suit slab depths 150mm - 200mm
AlphaJoint Classic 4010 Universal Midi to suit slab depths 200mm - 250mm

AlphaJoint® Classic 4010 Universal / Universal Midi



*Also available in electro-galvanised steel and stainless steel
**Dowels available in thicknesses of 6mm, 8mm and 10mm

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AlphaJoint® Classic 4010 Universal Range

Specification Sheet
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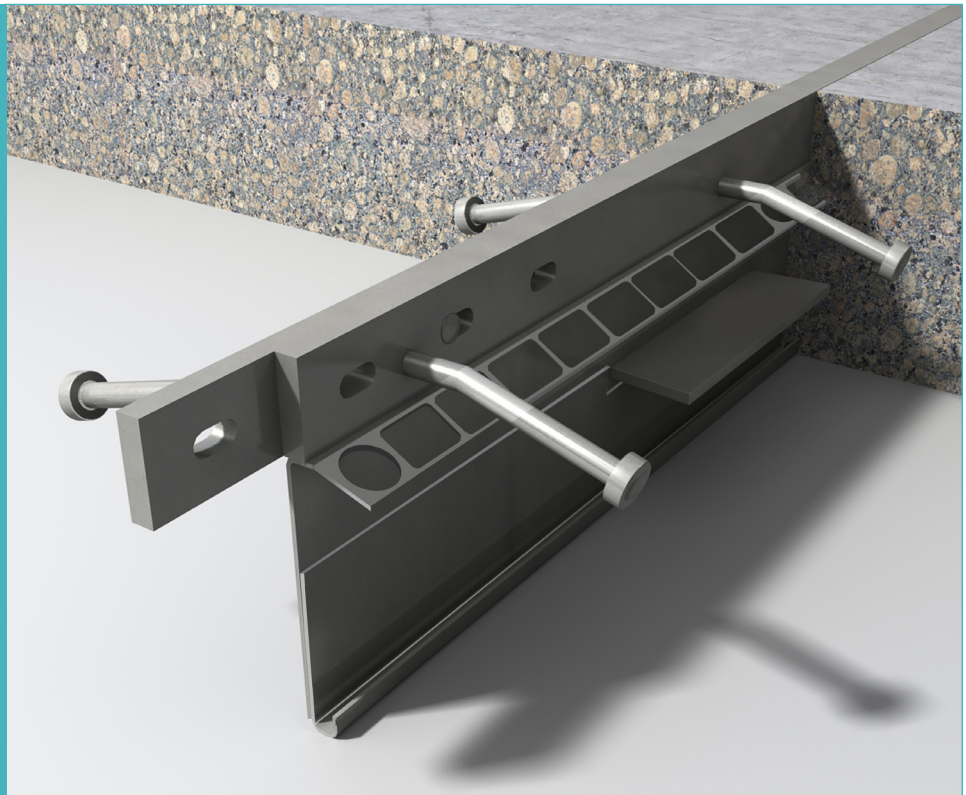
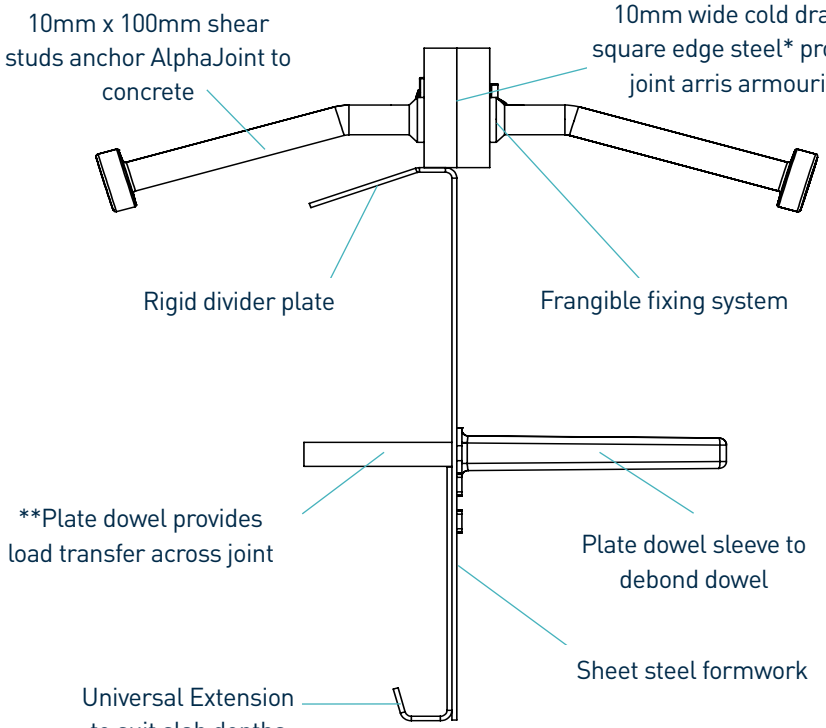
AlphaJoint® Classic 4010 Universal Plus



AlphaJoint Classic 4010 Universal Plus to suit slab depths 250mm - 300mm

AlphaJoint® Classic 4010 Universal Plus



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AlphaJoint® Classic 4010 Universal Range

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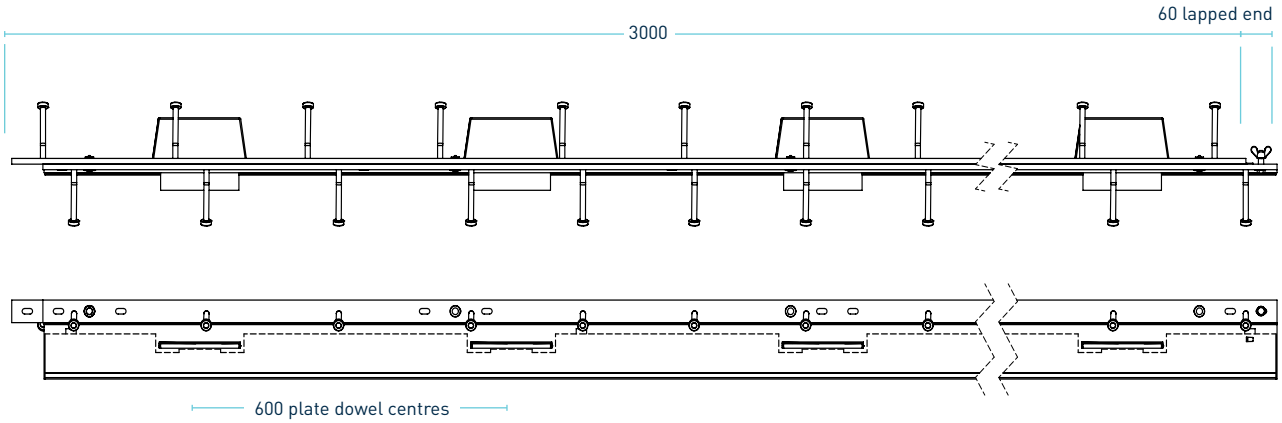
manufacturing tolerances

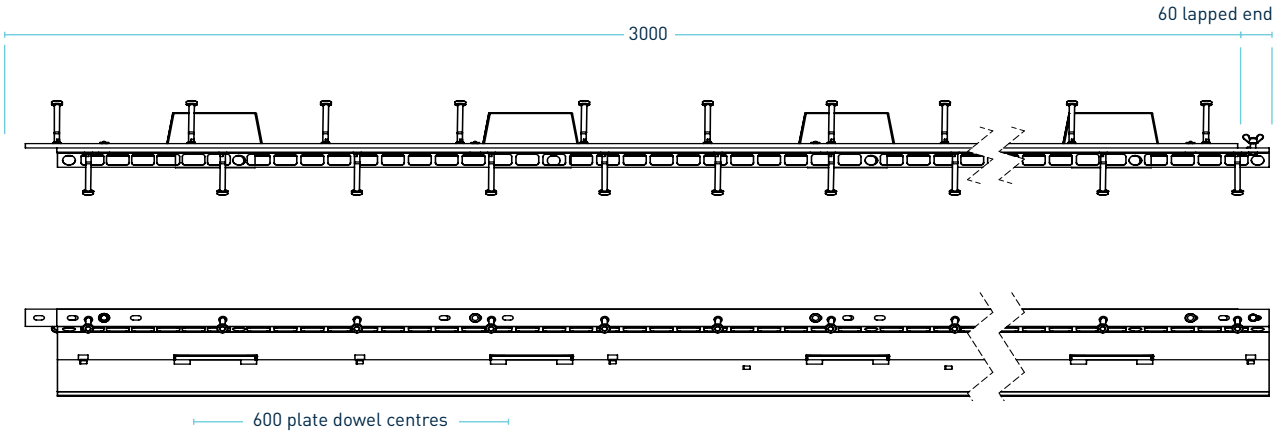
Length	±2.0mm	**Height**	±1mm	**Straightness**	±0.5mm/600mm

dimensions of AlphaJoint® Classic 4010 Universal / Universal Midi



dimensions in mm

dimensions of AlphaJoint® Classic 4010 Universal Plus



dimensions in mm

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dimensions and weight of AlphaJoint® Classic 4010 Universal Range

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)
AlphaJoint Universal 150 - 200	140 - 190	151 x 120 x 8	600	3000	32	42	1469
AlphaJoint Universal Midi 200 - 250	175 - 225	151 x 120 x 8	600	3000	33	42	1511
AlphaJoint Universal Plus 250 - 300	225 - 275	151 x 120 x 8	600	3000	34	35	1315

Weight values shown are based on AlphaJoint ® Classic 4010 Universal including TD8 dowels and are approximate.

materials

Component	Material
Joint arris armouring (4010)	EN 10277-1:2018 S235JRC
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)**
AlphaJoint Universal Universal Divider Plate to Suit 150 - 200	TD6	34.5	53.0
	TD8	34.5	86.2
	TD10	34.5	123.0
AlphaJoint Universal Midi Universal Divider Plate to Suit 200 - 250	TD6	58.6	53.0
	TD8	58.6	86.2
	TD10	58.6	123.0
AlphaJoint Universal Plus Universal Divider Plate to Suit 250 - 300	TD6	81.3	53.0
	TD8	81.3	86.2
	TD10	81.3	123.0

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. 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