

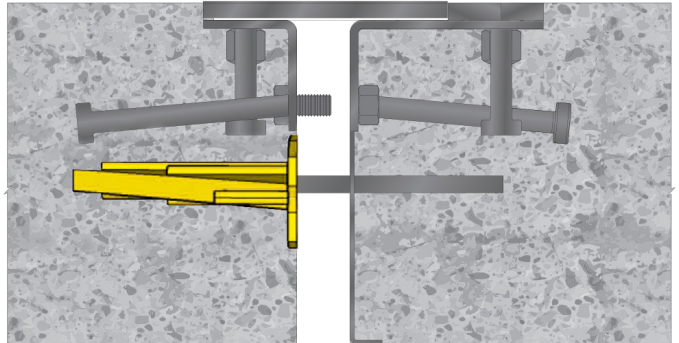
QuicWave – Slide

Impact free sliding plate joint system



SYSTEM BENEFITS

- Prefabricated Steel Armoured Free Movement Joint System
- The Wave opening allows wheels to roll smoothly over the joint
- Robust heavy duty design incorporating welded studs directly attached to both the body and the top plates for superior performance and longevity
- Countersunk nylon top plate securing screws ensures alignment and allows trowel machine to pass over the edge
- Available in Plain Steel Finish or Zinc Galvanised
- Utilizes BoMetals Quic Diamond Load Transfer System
- Can be used for joint openings up to 20mm/.79inch wide
- Adjustable design, one part can be used for slab thickness/depth from 150mm/6 inch up to 200mm/8inch
- Available as Top Section Only for use on timber forms.
- Available in 2.4 meter/7.8' lengths



DOWEL TYPES

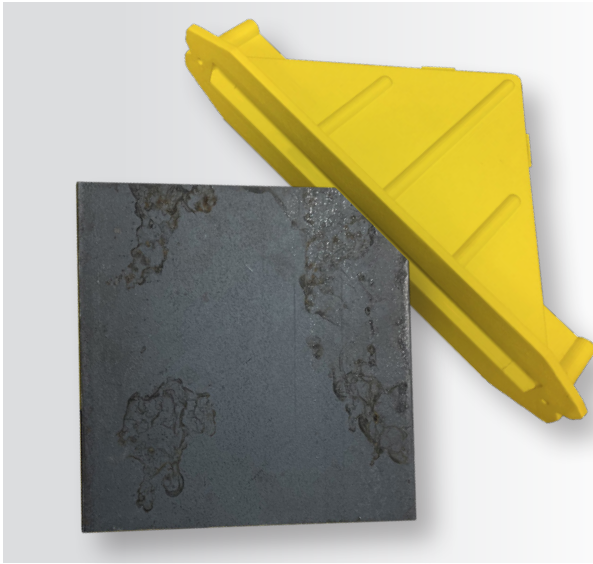


Table 1: QuicWave – Slide Dowel

Dowel Type	QuicDiamond 10mm/.375"
Thickness	10mm
Dimensions w x l	115mm x 115mm
Sleeve Color	Yellow
Adjustable Joint Opening	0 - 20mm

MATERIALS AND DIMENSIONS

Table 2: Materials and standards of QuicWave Slide 6-8 10mm

Versions	Top Rails +Anchors	Divider Plate	Plate Dowels	Sheer Connectors	Sleeves
QuicWave Slide 6-8	S235JRC+C	DC01	QD 10mm	S235J2=C450	ABS, Yellow
QuicWave Slide TR-Wood	S235JRC+C HDG	N/A	Not Included	S235J2=C450 HDG	Not Included
QuicWave Slide 6-8HDG	S235JRC+C HDG	DC01 HDG	QD 10mm HDG	S235J2=C450 HDG	ABS, Yellow

HDG = Hot dipped galvanized. Standard is black steel.

DIMENSIONS

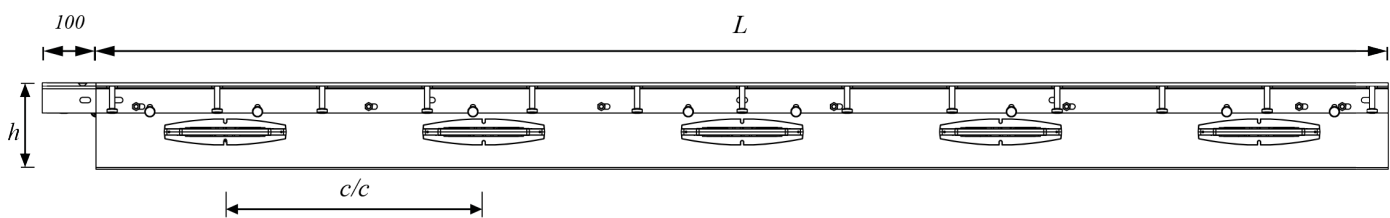


Table 5: Dimensions [mm] of QuicWave Slide 6-8 10mm

Type	Min. Height <i>h</i>	Dowel Type	Dowel Centers <i>c/c</i>	Length <i>l</i>	Weight [kg/LBs]	Adjustable Slab Depth*	Sleeve Color
QWS 6-8	145mm 5.75"	QD-10mm	480mm	2400mm	38.3Kg/85Lb	150mm-200mm 6 - 8"	Yellow
QWS 6-8HDG	145mm 5.75"						
QWS TR Wood	2.3"	QD-10mm	adjustable	2400mm	27Kg/60Lb	adjustable	Yellow

CALCULATED RESISTANCES

Resistances

The resistances of the QUIC WAVE SLIDE dowels are determined based on the UK Concrete Society TR34.4 (August 2013). In the U.S., equivalent guidelines can be referenced from ACI 302.1R-15 for slab-on-ground applications and ACI 318-19 (Chapter 22) for structural punching shear design. All calculated design resistances apply to single plate dowels.

Table 9 presents the design resistances of dowels in shear and bearing/bending [kN/lbf], based on TR34.4 for C32/40 (5,000 psi concrete per ACI 318-19 equivalent)

Dowel Type	Joint Opening <i>x</i>	Shear Psh (kN/lbf)	Maximum Plate Resistance <i>P</i> (kN/lbf)
QD 10mm	20mm/.79"	257.87 kN/57971.01 lbf	73.87kN/16605.97lbf

Table 11: Designing punching shear resistance per TR34.4/ACI302.1R-15 for QWS-68 with QD-10 at a 20mm (0.79") joint opening.

Slab	Punching Pp C25/30 3,600 psi (kN/lbf)	Punching Pp C28/30 4,000 psi (kN/lbf)	Punching Pp C30/37 4,600 psi (kN/lbf)	Punching Pp C32/40 5,000 psi (kN/lbf)	Punching Pp C35/45 5,500 psi (kN/lbf)
6" (150 mm)	18.19 kN / 4088.48 lbf	19.20 kN / 4316.89 lbf	19.91 kN / 4476.78 lbf	20.52 kN / 4613.82 lbf	21.54 kN / 4842.23 lbf
7" (175 mm)	21.89 kN / 4922.17 lbf	23.11 kN / 5196.26 lbf	3.98 kN / 5390.40 lbf	4.74 kN / 5561.71 lbf	5.91 kN / 5824.38 lbf
8" (200 mm)	5.60 kN / 5755.86 lbf	27.03 kN / 6075.63 lbf	28.04 kN / 6304.03 lbf	28.96 kN / 6509.60 lbf	30.28 kN / 6806.53 lbf

The punching shear resistances are calculated for plain concrete without any kind of additional reinforcement, according to TR34.4 / ACI 302.1R-15. These calculations are provided for reference purposes only and should not be used as a substitute for site-specific structural engineering analysis. Actual performance may vary based on material properties, construction practices, and loading conditions. It is the responsibility of the designer or engineer to verify all calculations and ensure compliance with applicable building codes and project requirements.

SELECTING

Selecting QuicWave Slide Free Movement Joint

QuicWave Slide is selected according to the following criteria.

- **Environment.** For internal floors we would suggest the basic steel plain Quic Wave Slide version. When corrosion resistance is required, Quic Wave Slide HDG (Hot Dipped Galvanised) version is recommended, and for a more aggressive external environment or high hygienic requirement, Quic Wave Slide can be designed in Stainless Steel.
- **Joint aspect ratio.** Individual slabs should ideally have an aspect ratio of 1:1, this may not always be possible, but the ratio should never exceed 1:1.5.