

Connolly Key Joints

Technical Datasheet



Connolly Key Joints are a continuous pour solution for contraction joints in slab on ground applications. Designed for footpath, cycleways, driveways and any other urban concrete pavement.

Connolly Key Joints are a roll-formed galvanised steel section used as a leave-in-place formwork to control shrinkage induced cracking. The profile is fixed in place using the patented peg and wedge system.

Our unique tongue profile provides positive load transfer with minimal stepping. For higher load applications the preformed knock-outs allow Key Joints to be used in conjunction with Connolly Universal Dowel Sleeves (UDS). The Universal Dowel Sleeves are installed in the steel section using the patented twist-fix feature.

Key Joints are available in 3 and 6m lengths for slab thicknesses from 100mm to 300mm. Custom heights and lengths are available on request.

A wide range of permanent and removable capping, and rebate moulds are available to be used with Connolly Key Joints.

Features:

- Enables continuous pours
- 4 different profile heights
- Knockouts to accommodate a range of dowel sizes
- Minimises tripping hazard caused by tree roots or soil heave
- Patented wedge fixing mechanism allows fast and accurate height adjustment
- Additional stiffening ribs to ensure straighter joints
- Galvanised coating for corrosion protection
- Can be used to screed off which makes getting the right level quick and easy
- A range of capping for various applications
- Minimise liability risks from slip and trip claims

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Specifications

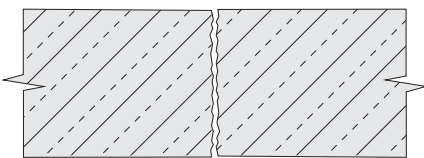
Product	KJ100	KJ150	KJ200	KJ300
Properties				
Description	Key Joint for 100mm slab	Key Joint for 150mm slab	Key Joint for 200mm slab	Key Joint for 300mm slab
Slab Thickness (mm)	100	150	200	300
Profile Heights (mm)	90	135	180	270
Length (m)	Standard lengths 3.00m and 6.00m (custom lengths available on request)			
Knock-out Holes	Round holes dia 21mm at 150mm centres	21mm holes at 150 centres (Offset by 75mm from UDS knockouts)		
Material	0.4mm steel, galvanised Z275	0.5mm steel, galvanised Z275	0.5mm steel, galvanised Z275	0.7mm steel, galvanised Z275
Pegs & Wedges	4 per 3.00m length / 8 per 6.00m length			
Peg Dimensions	8.5mm x 300mm	8.5mm x 390mm	8.5mm x 500mm	12.0mm x 750mm

Unique Design of Connolly Key Joint Profile

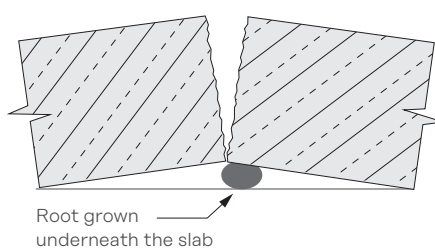
The tapered shape of the profile's keyway allows the slab segments to rotate while minimising the stepping on the top of the joint.

Standard Sawn or Groove Joint

1. Saw Cut

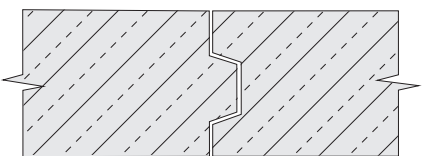


2. Wide opening due to deflection of slabs

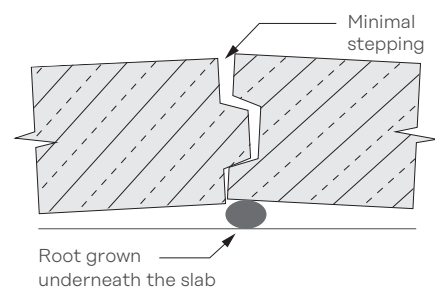


Connolly Key Joint

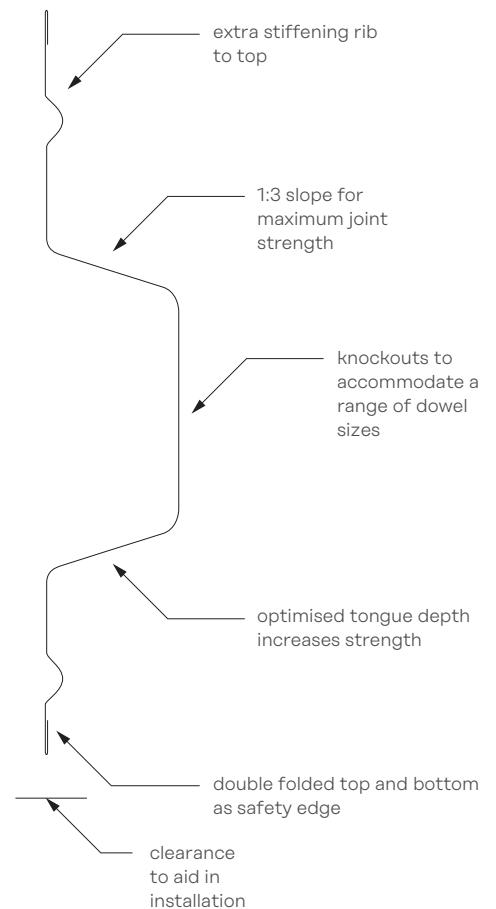
1. Joint condition before any roots grows underneath or before soil heaving



2. The key shaped profile restricts the movement of the slab resulting in minimal opening on the top of the joint



Key Joint Profile



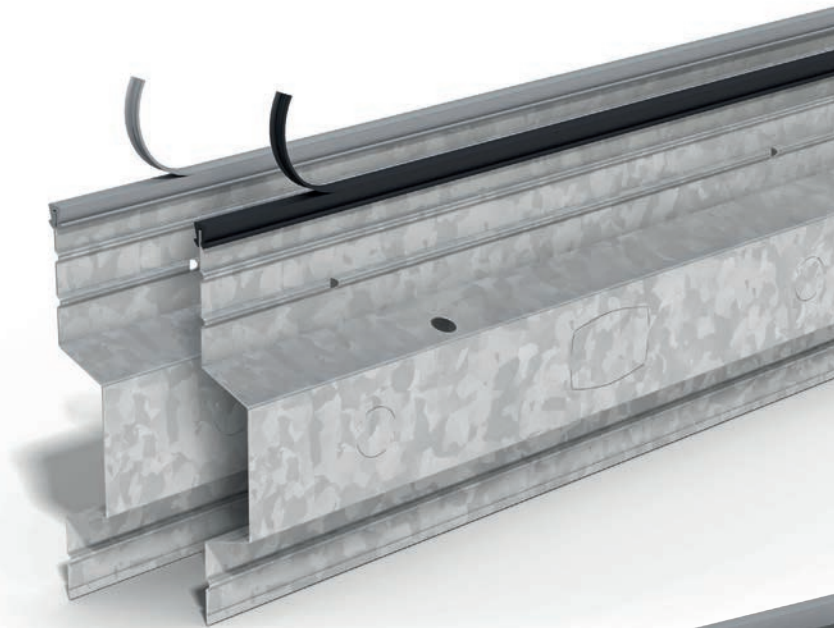
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Connolly Key Joint Capping Range

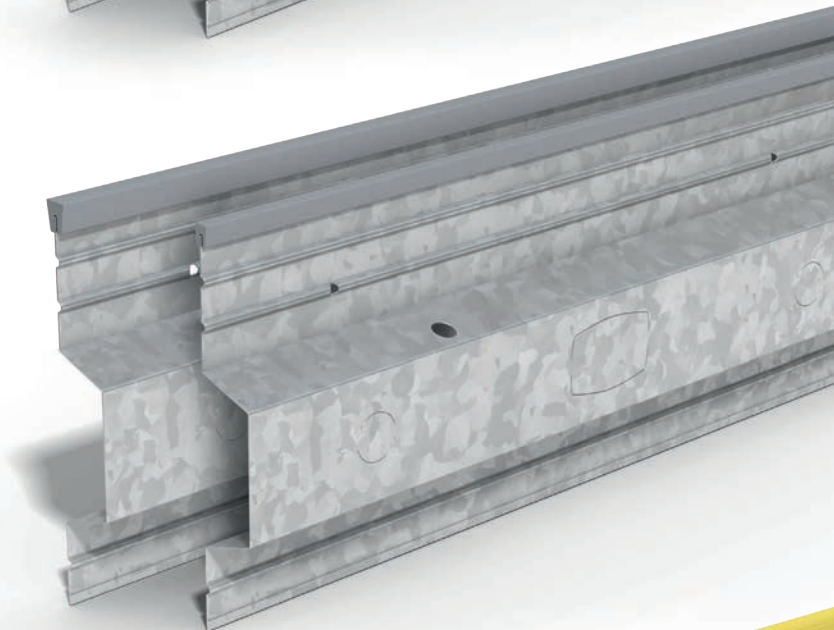
Permanent Capping

Permanent Caps are flexible, UV Stabilised, PVC caps that are installed on the top of the joint profile. They are available in different colours, with and without tear-off strips. The tear-off strips allow for a clean, architectural finish to the joint, without the need for cleaning after the concrete has been finished. These caps are supplied in 24m rolls.



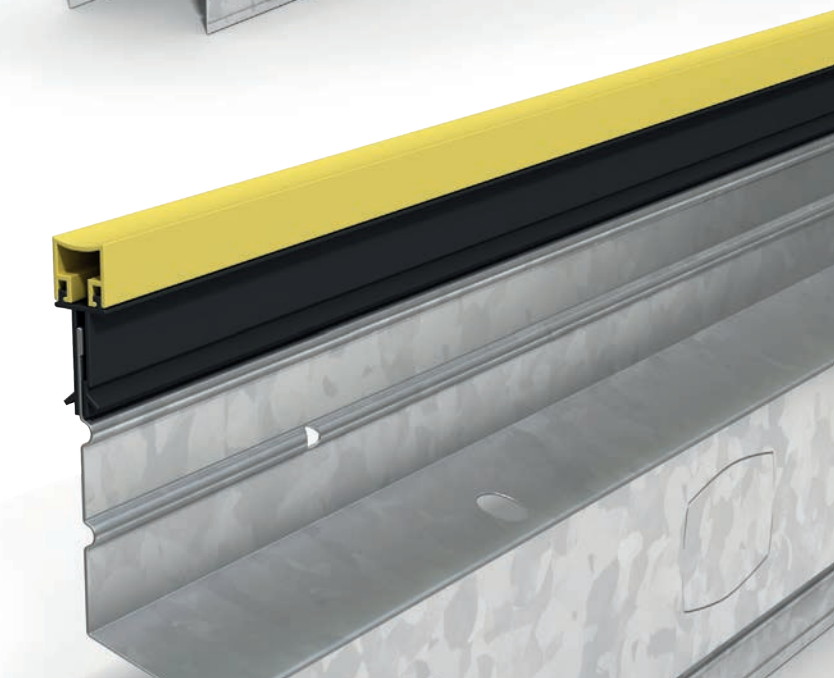
Removable Capping

Removable Caps are flexible PVC, designed to create a void at the top of the joint to allow for the installation of flexible sealant. The removable capping is available in two sizes, with the small capping supplied in a 24m roll, and the large capping in a 6m roll.



Rebate Moulds

Rebate Moulds are UV-stabilised, rigid PVC profiles that are designed to create an exact rebate in the top of the joint for measured use of specialised joint sealants. The rebate moulds are designed to clip onto the profile.



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Connolly Key Joint Capping Range Specifications

Permanent Capping		Permanent Capping with tear-off strip		
Product				
	KJCAPR-BLK	KJCAPR-GREY	KJCAPT-BLACK	KJCAPT-GREY
Properties		Properties		
Description	Permanent Cap Black	Permanent Cap Grey	Permanent Cap Black	Permanent Cap Grey
Material	Flexible UV Stabilised Poly Vinyl Chloride		Flexible UV Stabilised Poly Vinyl Chloride	
Length (m)	24m-roll		24m-roll	
Width (mm)	9		9	
Set down (mm)	3		4	

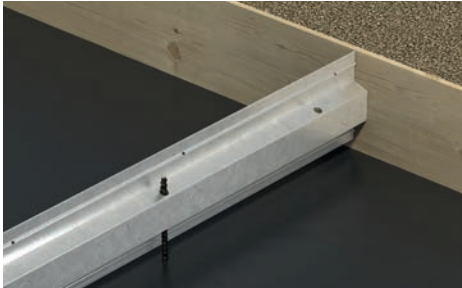
Removable Capping	
Product	 
	KJCAP KJCAPL
Properties	
Description	PVC Removable Cap PVC Removable Cap large
Material	Flexible Poly Vinyl Chloride
Length (m)	24m-roll 8m-roll
Width (mm)	7.5 12
Set down (mm)	3 6

Rebate Moulds	
Product	
	KJRM12x12
Properties	
Description	Rebate Mould 12mm x 12mm
Material	Rigid ASA
Colour	Yellow
Length (m)	3
Rebate Width (mm)	12
Rebate Height (mm)	12
Set down (mm)	14

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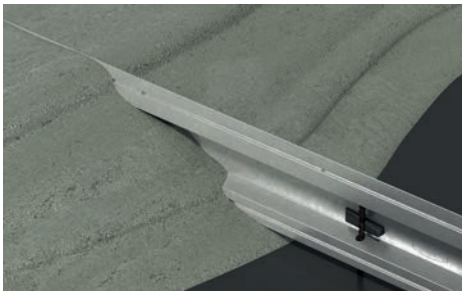
Installation Instructions



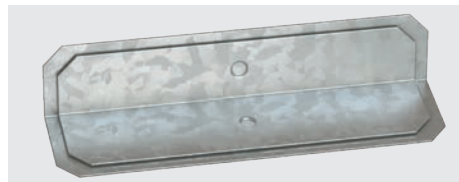
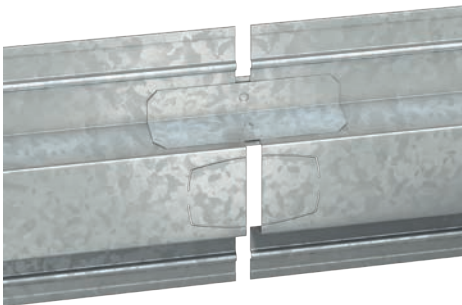
Point key joint in desired location and drive in the supplied pegs. Note that the **longest flange** of the key joint always goes **to the top**.



Adjust the key joint to the correct height and secure by tapping in the supplied wedges. If capping strips are to be used allow the appropriate set down distance and apply capping strip prior to pouring concrete.



Place the reinforcement and pour the concrete over the key joint. Finish concrete surface to the top of the joint (**not above it**). Always pour concrete evenly to both sides of the joint and ensure concrete is compacted into the keyways.



Use KJ Joiner to connect multiple Key Joint Profiles in situations where the joint is longer than the profile length of 3m or 6m.