



IN SLAB

TERAJOINT

PREFABRICATED LEAVE IN PLACE JOINT SYSTEM

Terajoint is the industry standard in the range of prefabricated heavy duty movement joint systems, suitable for all large area construction methods for ground bearing and pile supported concrete floors. The cold drawn steel rails provide extremely durable protection to the slab aris', making it ideal for floors in a heavy duty traffic environment. The system ensures reliable load transfer in formed free movement joints with openings of up to 20mm wide, and suitable for slab depths from 100mm upwards. (Available in Plain Steel or Hot Dip Galvanized finish, which means that the Terajoint system offers a solution for all operational environments.)



KEY FEATURES / BENEFITS

- Prefabricated leave-in-place free movement joint system with a variety of integral load transfer mechanisms to suit all floor loadings.
- Heavy duty performance with 40mm x 10mm cold drawn steel for extreme armouring of joint arises.
- Suitable for the high flatness category floor and super flat floor construction.
- Fast track installation with a selection of fixing methods and accessories.

The aris armouring is provided by 10x40mm cold drawn steel profiles, which are connected together by yieldable plastic bolts. The profiles are anchored into the slab by means of a number of 10x100mm welded shear connectors, clamped between the two steel profiles is a steel divider plates, which has the load transfer system positioned and attached to it. TERAJOINT are installed into position on the sub base using the supplied fixing pegs, and shimmed to the correct height, before the slab is cast. Once the concrete is placed, the shrinkage forces generated by drying concrete slabs, during the cure process, shears the plastic bolts connecting the two steel profiles together, which cause the joint to open. TERAJOINT permits the minor free slab movements, caused by drying shrinkage and thermal variations in both longitudinal and perpendicular directions of slab plane as required.



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TERAJOINT transfers vertical loads between adjacent slabs, and minimise vertical displacement of the slabs. The load transfer system is accomplished by utilising high strength steel CANZAC Speed Plate dowels, moving within rigid plastic release sleeves. TERAJOINT can be supplied with various types of dowel systems, for contraction free movement joints. The limiting factor of load transfer in most cases, is the punching shear resistance of the concrete. It is recommended that no more than 50% of the applied load should be transferred by the load transfer system, the slab itself should be designed to carry the rest of the load.

Selecting and Specifying

Below are some considerations to be made when deciding which TERAJOINT is right for your project.

Following these guidelines for specifying TERAJOINT, will ensure that all required information is present and make identifying and supplying TERAJOINT easier. Slab depth is generally dictated by the floor slab design. The slab depth is critical when calculating load transfer requirements.

Selecting the suitable dowel system can be dependent on the load transfer requirements. The correct dowel type and centres can be identified with the following information:

- Expected maximum design loads (kN)
- Expected concrete strength (Mpa)
 - Expected slab thickness (mm)
- Expected modulus of subgrade reaction (Kpa)



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INSTALLATION INSTRUCTIONS

Step 1 - Sub-base level

The sub-base must be made as accurate and level as possible to the requirements on the slab drawing. The tolerance of the level has to be taken into account when ordering joints. Typically the Joint height will be 5mm less than the slab depth.

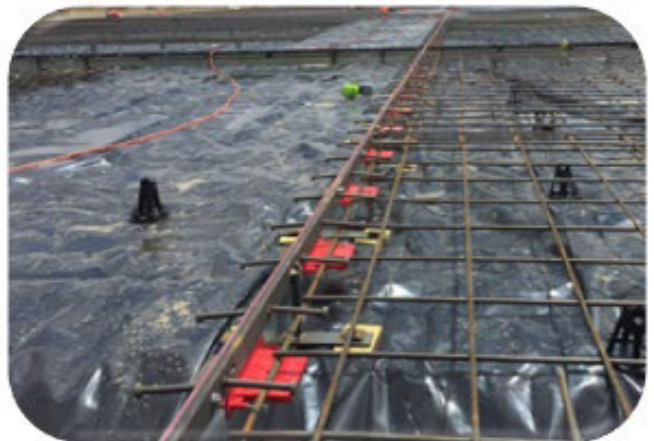
Step 2 - Joint Location

The required layout, position and height of the joints will be specified on the floor slab drawing which must be followed closely. String lines are placed to identify the position of joints according to the slab layout dimensioned drawings.

Step 3 - Joint Installation

You can install this system 2 ways, set the legs in concrete the day before the pour or use shims under the legs when pouring the same day.

Lay Terajoint out along string line with the plastic sleeves all on the same side. Subsequent joints are aligned, fixed at the overlap using dowel bushes, plastic bolts and nuts, adjusted and fixed in the same manner. The final joint in any run will usually require being cut to length. The gap between the column/wall and the last joint in series is measured taking account of suitable isolation material. The final joint is cut to length and installed in the same manner as previous joints.





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TERAJOINT INSTALLATION INSTRUCTIONS

Each 3 metre length will have one 10x16mm slot for connecting the next 3 metre length. Please make sure you use the nylon bolts, steel provided. These will be attached to one end of each set (do not use steel bolts!). The joints should be fixed so that the ends of adjacent top strips are not touching but have a clearance gap of between 1mm and 2mm to allow for longitudinal movement.

Using a dumpy level, set the top of the Terajoint off to FF (finish floor) level. The best way to achieve this is to start from one end, set level from end-middle-end of the 3 metre length. The joint should be set vertical using a spirit level which can be placed across the top edges.

You have set Terajoint to a gridline and to FF (finish floor) and are now ready to pour.

IMPORTANT! Please ensure that your concrete should finish at the top (FF) of the Armour Joint, not below and not above.

Please refer to the appended details for pegged foot, and intersection saw cut details.





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INSTALLATION INSTRUCTIONS

Step 4 - Pouring Concrete

Once rails are correctly positioned pouring of concrete can commence. Concrete should be poured to the level of the rails with particular attention to consolidation around the dowels and sleeves. All plate type dowels require close attention to filing around the dowels to eliminate the possibility of air entrapment. This should be done with a suitable vibrating poker. Both sides of joints can be poured at the same time if so required.

STEP 1



STEP 2



STEP 3



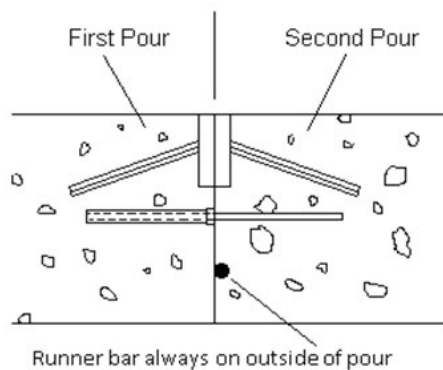
STEP 4



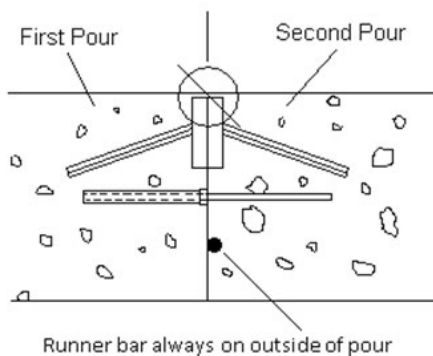


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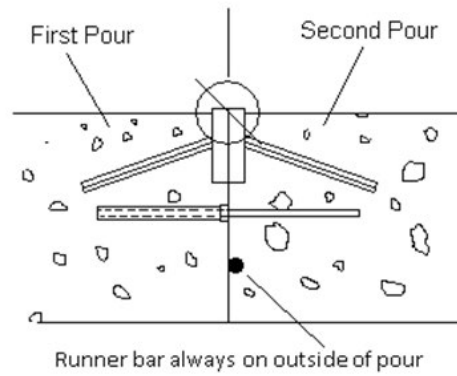
TERAJOINT PLACING & FINISHING



THIS WAY



NOT BELOW



NOT ABOVE

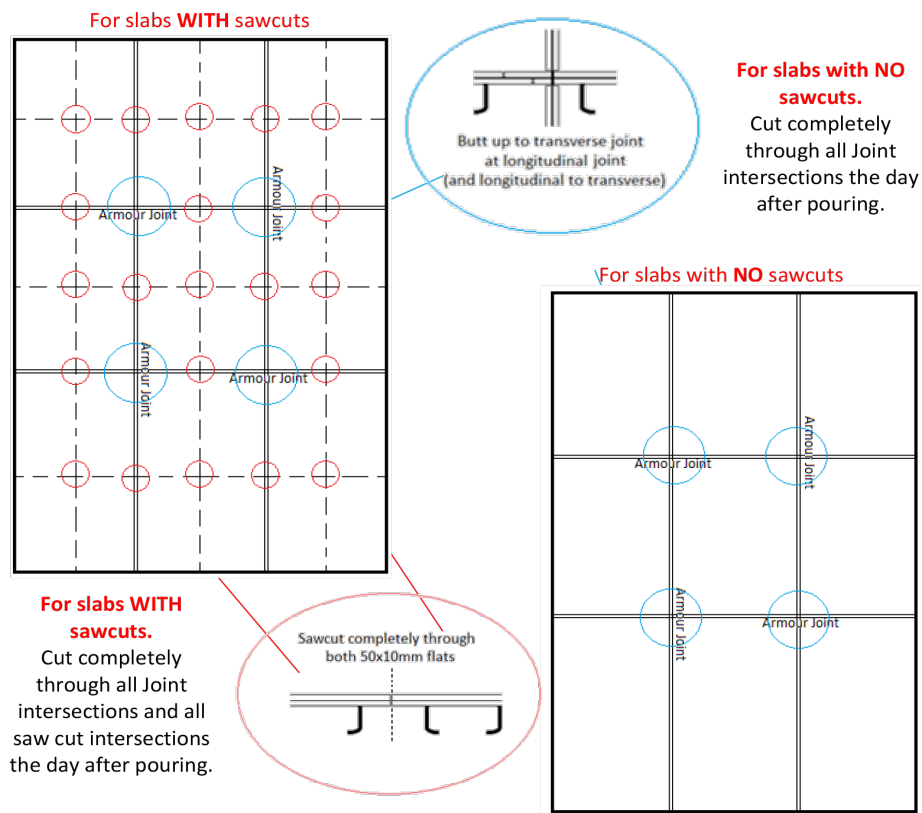
- Ensure any leftover concrete slurry is removed from the top of the joint.
- Ensure all saw cuts cut right through the steel joint system.
- Ensure all intersections of the joint are not continuous through the junction.
- Ensure steel joint is set at FFL (finished floor level).



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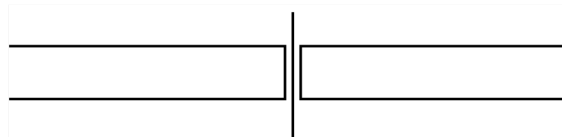
INTERSECTIONS & SAW CUT DETAIL



Ensure Joint is cut through at all intersections

(Above: Intersections circled in red

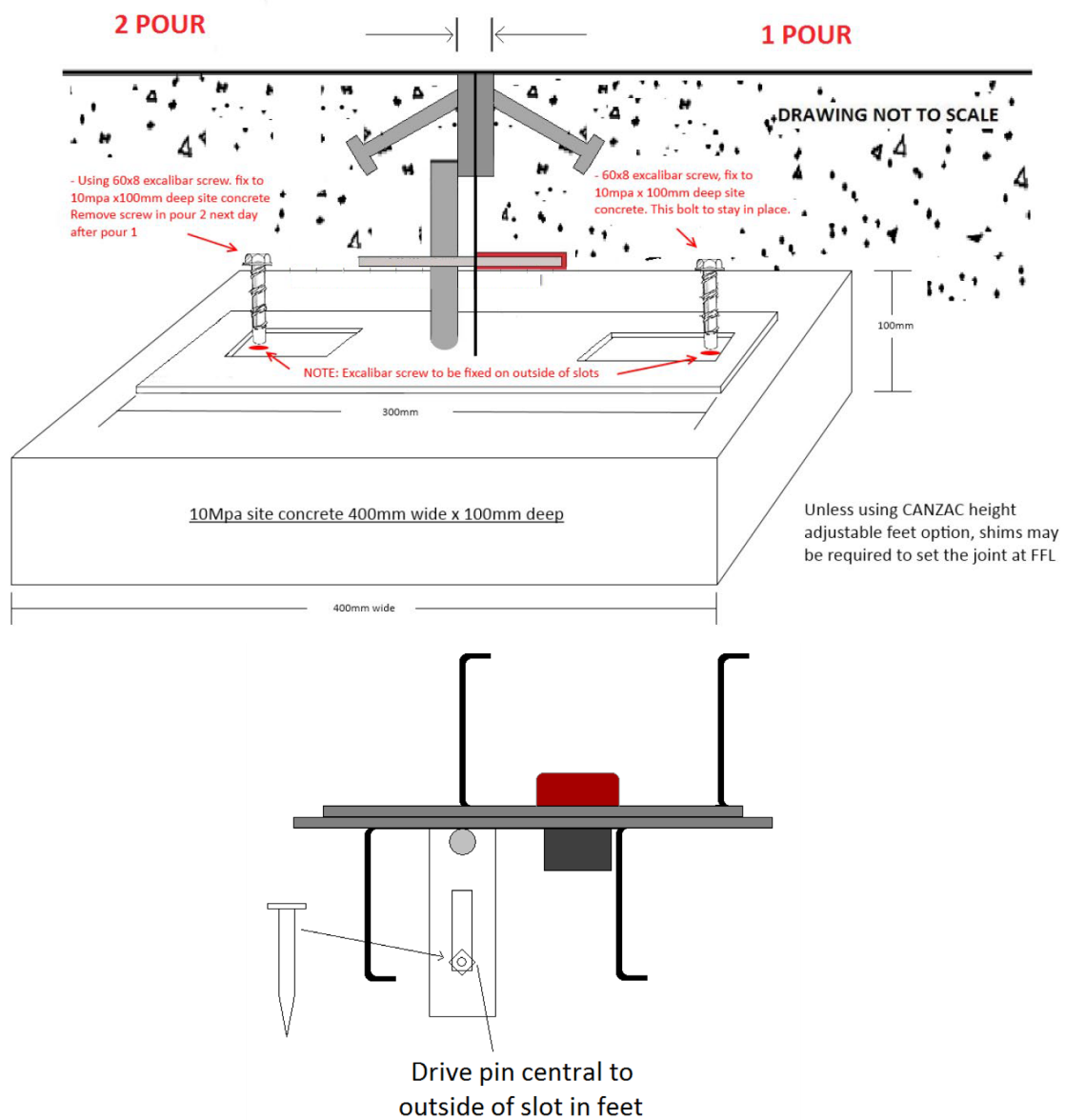
Below: plan view of cut joint)





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TERAJOINT INTERSECTIONS & SAW CUT DETAIL





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TERAJOINT TECHNICAL ADVICE

If you require assistance please contact **CANZAC** Technical Support and we can supply our design load transfer program to easily identify the correct dowels and centres for your project.

Environment - for internal floors we would suggest the basic steel plain Terajoint version. When corrosion resistance is required, Terajoint HDG (Hot Dipped Galvanised) version is recommended, and for more aggressive external environment for high hygienic requirement, Terajoint in Stainless Steel is recommended.

35mm+ designed joint opening. If there is a design requirement for wider joint openings, **CANZAC** Technical Support can offer a suitable solution from its extensive flooring product range that will better meet your requirements in this situation.

Terajoint CAD Drawings - To simplify the specifying process, **CANZAC** has on request (or from our website) a set of CAD details for Terajoint. These files can be used when specifying Terajoint in a project and are available in several commonly used formats. For more information and product details please visit www.canzac.com or call **CANZAC** Technical support on 0800 422 692.

Alternatively **CANZAC** is a Masterspec product partner. Complete Terajoint specifications can be added to your project along with other products and systems.

You can find us using Masterspec Portal ID 3181CC