

Viper Joint

Joint Armouring and Load Transfer for construction joints

Viper Joint Armoured construction joint with 10mm wide steel Joint Edge Protection and Viper Dowel or Diamond Dowel Load Transfer System.

BENEFITS

- Superior electroplated steel joint edge protection reduces maintenance
- Discontinuous dowel load transfer provides better “burst out” performance to continuous systems
- Better floor flatness tolerances are achieved
- Superior load transfer

FEATURES

- Dual joint edge steel armouring with 10mm x 40mm square edge steel
- Load transfer by Viper-Dowel or Diamond Dowel
- Two way movement capability
- Easy installation

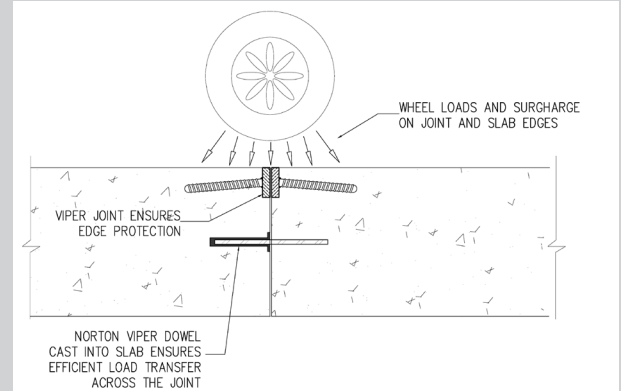
VIPER JOINT SELECTION CRITERIA

Viper Joint D6 (Supplied with Diamond Dowels) to be fixed at 375mm centres. For ground bearing slabs **up to 240mm thick**, **10mm maximum joint opening** and sawn induced joints at approx 4m ctrs.

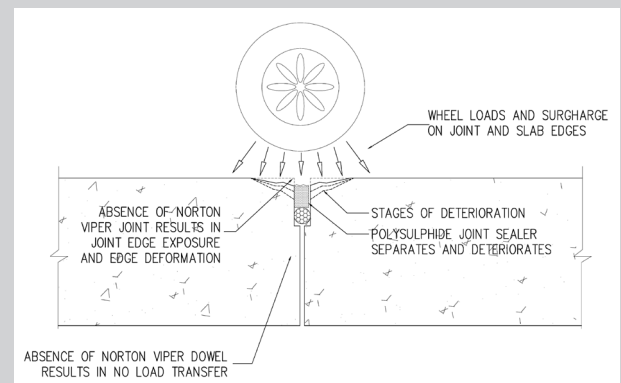
Viper Joint V10-600 (Supplied with Viper Dowels) to be fixed at 600 mm centres. For suspended floor slabs, joint less, steel fibre or bar reinforced **up to 240mm thick and 20mm maximum joint opening**.

Viper Joint V10-430 (Supplied with Viper Dowels) to be fixed at 430mm centres. For slabs **above 240mm thick**.

Note: Viper Joint VD10-600 can also be specified for ground bearing slabs between 150mm and 240mm thick but only if the concrete has been reinforced with minimum of 35kg/m³ of Norfibre steel fibre reinforcement. For extra heavily loaded joints on reinforced suspended slabs additional slab edge reinforcement can be provided with the joint at extra cost or consider steel fibre joint edge reinforcement. Engineers would need to carry out their own joint load transfer calculation and a punching shear check.



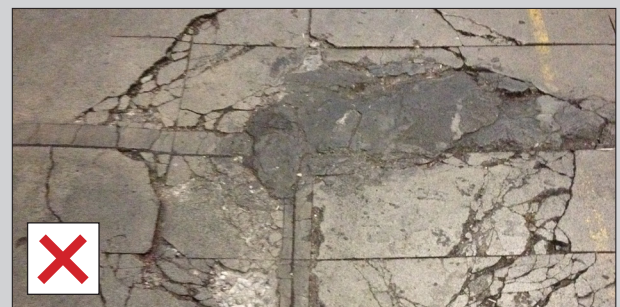
Viper Joint protected edge section



Viper Joint unprotected edge section



Installed Viper Joint



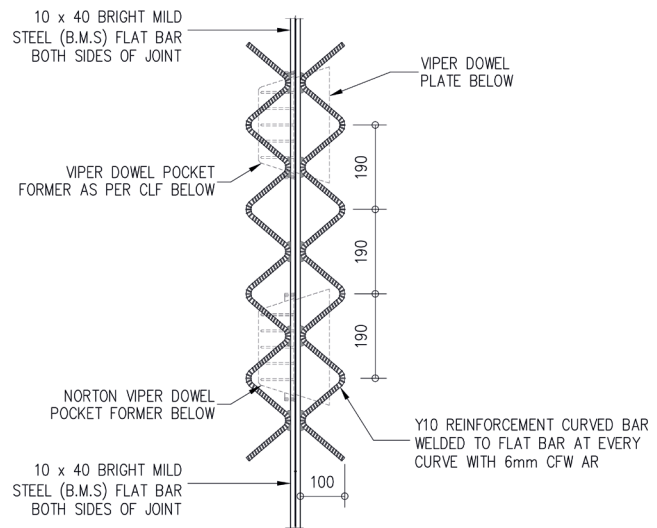
Joint damage without Viper Joint

VIPER JOINT AND JOINT INTERSECTION UNITS

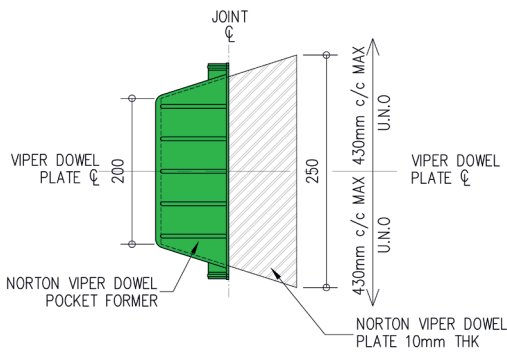
The most vulnerable area of the floors slab is the corner or joint intersection. Viper Joint is the only system that provides precision prefabricated joint intersection units to ensure that this vulnerable area is as well protected as the remainder of the joint.

- Precision prefabricated corner and joint intersection units.
- Connects to lapped lengths of Viper Joint.
- Sections Available: 4-way joint intersections, 3-way T joint intersections, 90° Corners and Dock Leveller corner units.

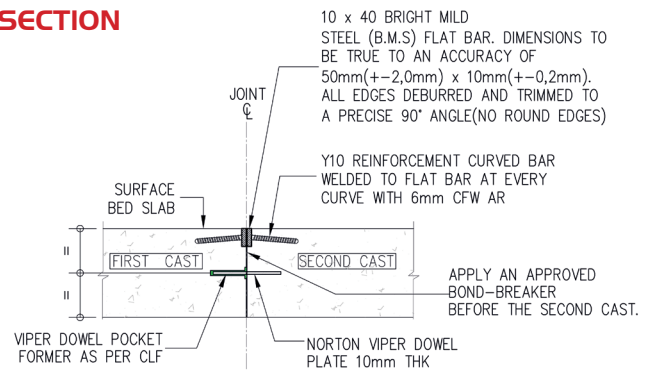
PLAN



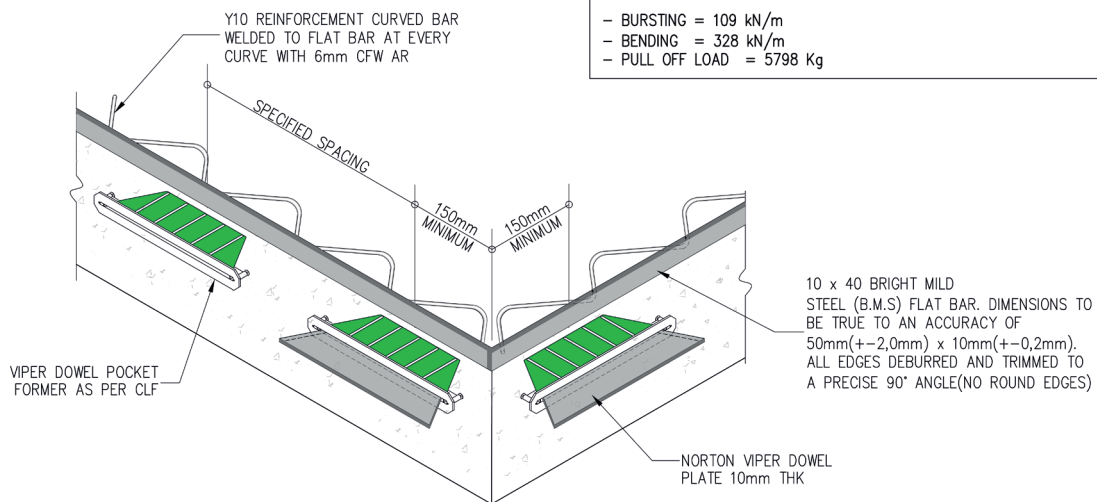
VIPER DOWEL PLATE AND SLEEVE DETAIL



SECTION



PERSPECTIVE VIEW



ULTIMATE LOADS AT FAILURE OF DOWEL OR CONCRETE FOR A 200mm THICK FIBRE REINFORCED SLAB:

- BURSTING = 109 kN/m
- BENDING = 328 kN/m
- PULL OFF LOAD = 5798 Kg