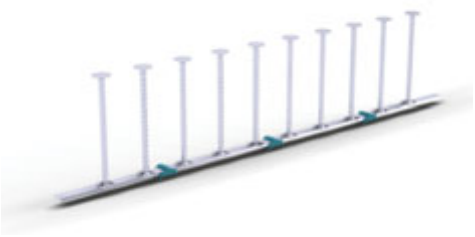
ARMATA

To prevent punching failure of concrete slabs

- Allows for a slim floor
- Eliminates column capitals and drop panels above columns
- Quick and easy installation
- Flexibility in design and delivery
- Improves the ductility of slabs
- Improves bonding conditions in concrete elements thanks to ribs at studs
- Increased resistances of studs enables better optimization and reduction of the total number of studs (up to 14%)
- Design according to ACI 318-14 for static and seismic loading using Peikko Designer®

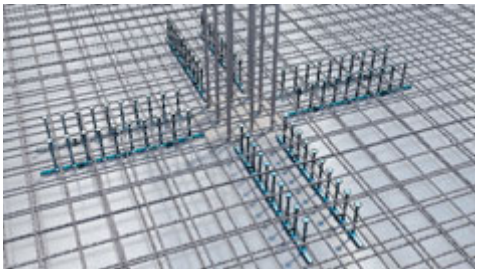
Peikko's ARMATA is primarily used to increase the punching shear resistance of cast-in-place concrete slabs without increasing the slab's thickness. ARMATA can be used in slab-on-grade foundations and in elevated slabs, such as reinforced concrete slabs or post-tensioned slabs. When used in elevated slabs, ARMATA can eliminate the need for drop panels or column caps, thus reducing the costs associated with formwork for concrete. Compared to traditional reinforcement systems, ARMATA has the added benefit of quick installation times, leading to reduced labor costs. Moreover, a thinner slab will lead to a lower floor-to-floor height and thereby a reduced building height or the possibility to have an extra floor within the same building footprint. Besides increasing the resistance of the slab, ARMATA punching reinforcement also increases its ductility.



ARMATA Rail

ARMATA is produced from deformed reinforcement bars. The excellent bonding conditions and mechanical properties of the deformed bars allow for an optimized slab design by reducing the total amount of punching reinforcement when compared to slabs reinforced by stirrups or smooth studs.

ARMATA rails consist of double-headed ribbed studs attached to a steel flat bar. The type, geometry and dimensions of ARMATA rails may be designed and the resistances of the concrete members reinforced by ARMATA rails may be verified using Peikko Designer® in accordance with the requirements of ACI 318-14.



ARMATA Punching Reinforcement