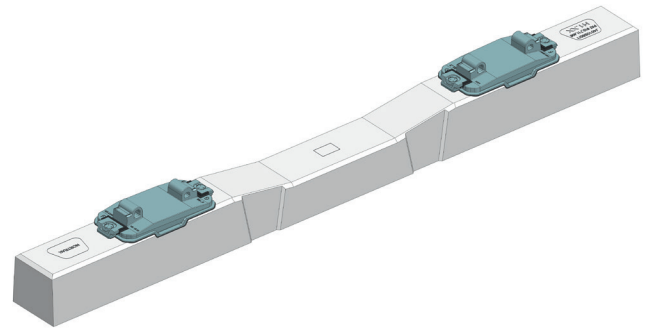




KEYWAY CONCRETE TIE

FEATURES AND BENEFITS

- » Brings together the robust design of concrete cross-ties and innovative fastener systems to achieve a seamless balance of concrete tie performance without the expensive and time-consuming replacement of whole track segments.
- » Similar in size to timber ties and interspersable into wood-tie track at strategic intervals using standard maintenance of way equipment.
- » Adjustable gauge options allow for use with existing track gauge.
- » Reduces the overall track gauge stresses by acting as a concrete gauge rod thereby extending the functional life of the adjacent wood ties.
- » Allows for wood track conversion to a more durable infrastructure system in an incremental and capital efficient manner.
- » Interchangeable fastening system to accommodate different clip types and rail sizes.
- » Many customizable options including for use in areas with track transitions, adjustable and non-adjustable guard rails.



TECHNICAL CONSIDERATIONS

- » Keyway design creates direct mechanical transmission of lateral load to concrete rather than tie hardware.
- » Tie stiffness is adjustable to that of wood, concrete, or anything in between.
- » Independent researchers concluded that the keyway tie maintains equivalent track stiffness to wood-tie track.*
- » Tested to and passed AREMA 30 concrete tie testing specification.
- » Testing at TTC (2019) and MxV (2023)
 - » 100MGT+ completed at TTC
 - » Presently installed at MxV
- » Currently installed on freight, mixed traffic, and metro tracks intermixed with existing wood ties.



*Lima AdO, Dersch MS, Lee J, Edwards JR. Track Modulus Assessment of Engineered Interspersed Concrete Sleepers in Ballasted Track. Applied Sciences. 2021; 11(1): 261. <https://doi.org/10.3390/app11010261>

Thank you very much for your interest. Please contact a Nortrak sales professional if you have any questions or if you need assistance.