RAILWAY SYSTEMS
by voestalpine

CONCRETE TURNOUT TIE

Description

All Nortrak concrete ties are produced using a state of the art manufacturing system. Advantages include:

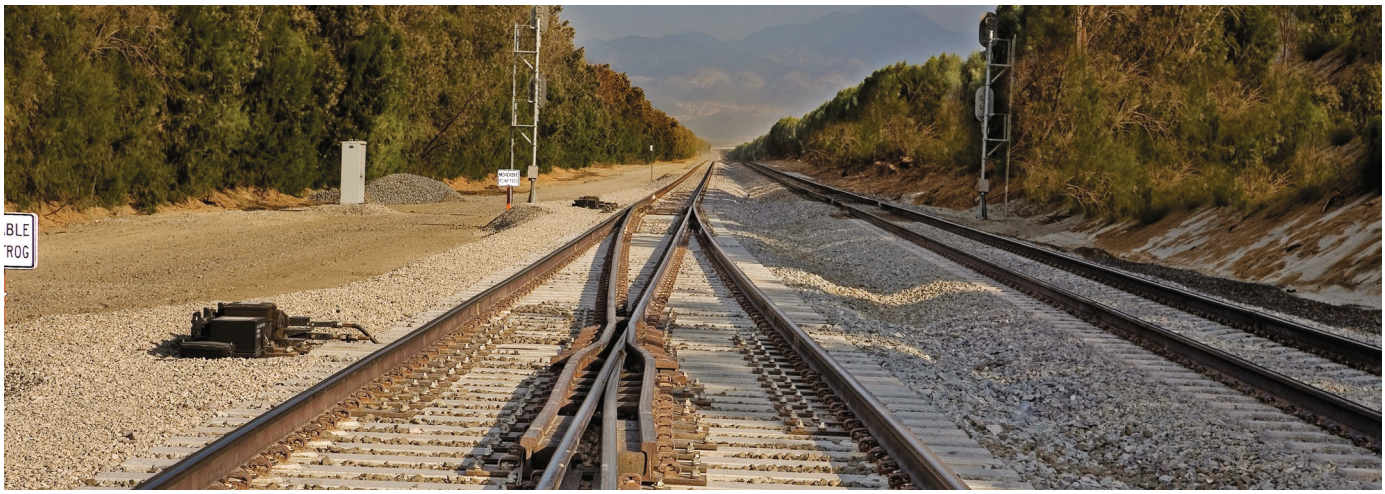
- Reduced maintenance, excellent gauge holding and consistency
- Longer component lifespan, greater lateral and vertical strength
- Wider tie spacing provides better access for switch gear and tamping
- Can be engineered for specific applications, speed, and traffic
- Can be engineered and produced for a wide variety of special trackwork and fastening components
- No creosote handling and no predrilling
- No warped, twisted, or split ties
- No plate cutting or spike kill issues and less labor to install versus wood

Technical Characteristics

- **Concrete:** 10,000 PSI compressive strength. ASR, DEF, and Freeze/Thaw durable
- **Water to Cement Ratio:** 0.30 Maximum
- **Prestress Wire:** ASTM A881, 5.32 mm diameter, low relaxation, 9000 lbf breaking strength, ASTM A416 3/8" 7-wire strand also available
- **Aggregate:** Fractured face, hard, non-reactive coarse aggregate and natural, non-reactive, clean concrete sand
- **Tie Lengths:** As required, between 8'3" to 25'
- **Elastic Fastening Systems:** Any
- **Plate Inserts/Fasteners:** PIM 7/8" with VAPE, UNC threads or "pop-up" shoulders
- **Third Rail Inserts:** As required

TECHNICAL CHARACTERISTICS

	Heavy Haul Design	Light Rail Design
Cross Section	10-3/8” depth x 11” base	8” depth x 10-5/8” base
Weight Per Lineal Foot	120 lbs	85 lbs
Recommended Tie Spacing	24” center to center	28” – 30” center to center
Positive Bending Moment	390 in-kips minimum	200 in-kips minimum
Negative Bending Moment	300 in-kips minimum	170 in-kips minimum



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ONE STEP AHEAD.