



TREE ISLAND STEEL



WELDED WIRE REINFORCEMENT



Your Assurance of Quality, Value and Service

Tree Island Steel is an international supplier of premium wire products for a global range of applications. Established in 1964, Tree Island Steel has grown to become one of North America's leading producers of wire and fabricated wire products.

We have solidified our position as a market leader through innovative engineering and customized products developed at our state-of-the-art manufacturing facilities. Our four facilities – in Richmond, BC; Calgary, AB; Etiwanda, CA; and San Bernardino, CA – are some of the most technologically advanced mills on the continent and we take pride in our ability to help you find cost-effective concrete reinforcing solutions for your project.

Tree Island Steel leads the industry in environmental stewardship and is committed to embracing sustainability in all aspects of our operations. Our products are suitable for use in LEED structures, and Tree Island Steel's quality management system complies with ISO 9001 standards.

You can count on us for quality.

You can count on us for value.

You can count on us for service.



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WHY USE WELDED WIRE REINFORCEMENT (WWR)?

Welded wire reinforcement is an efficient and economical replacement for rebar as reinforcement in concrete construction. Welded wire reinforcement can be used for:

- Slab on grade
- Floor and wall systems
- Topping slabs
- Tilt-up construction wall systems
- Architectural precast wall panels
- Mechanically stabilized earth (MSE) reinforcement
- Shear walls
- Retaining walls

The use of welded wire reinforcement saves time and installation costs compared to standard rebar concrete reinforcement. Wires are welded into a sheet eliminating the time needed for tying rebar, and ensuring that the wires will not move when concrete is placed.

All Tree Island Steel's welded wire reinforcement is manufactured to strict industry standards and complies with ASTM A1064 / A1064M. Galvanized coating options meet ASTM A641 / A641M standards.

INDUSTRY METHOD OF DESIGNATING WIRE & WWR STYLE:

Wire Size:
Imperial wire sizes are designated by their cross-sectional area in hundredths of a square inch.
E.g.: for W8, Area = 0.08 in²
Metric wire sizes are designated by their cross-sectional area in mm².
E.g.: for MW51.6, Area = 51.6 mm².
“W” denotes plain wire e.g.: W18.
“D” denotes deformed wire e.g.: D18
“M” denotes metric e.g.: MW116 or MD116

WWR Description:

Example: 6" x 12" - W12 / W5
152 mm x 305 mm - MW78 / MW32

STANDARD WELDED WIRE REINFORCEMENT (WWR)

Standard WWR is available with wire sizes of W1.4 (MW9.2) up to W4.0 (MW25.7) with standardized spacing of 4" (102 mm) and 6" (152 mm) for both longitudinal and transverse wires. Standard WWR is typically used for residential and light duty concrete reinforcement, and concrete crack control applications.

The table below shows a list of common WWR configurations. Standard WWR is typically available in sheets and rolls, in bright or galvanized finishes. Standard sheet sizes are 8'x20' or 7'x20'.

STANDARD WELDED WIRE REINFORCEMENT SIZES				
*Gauge	IMPERIAL		METRIC	
	Wire Spacing (in)	Wire Size	Wire Spacing (mm)	Wire Size
10/10	6" x 6"	W1.4 / W1.4	152 x 152	MW9.2 / MW9.2
8/8	6" x 6"	W2.1 / W2.1	152 x 152	MW13.3 / MW13.3
6/6	6" x 6"	W2.9 / W2.9	152 x 152	MW18.7 / MW18.7
4/4	6" x 6"	W4.0 / W4.0	152 x 152	MW25.7 / MW25.7
10/10	4" x 4"	W1.4 / W1.4	102 x 102	MW9.2 / MW9.2
8/8	4" x 4"	W2.1 / W2.1	102 x 102	MW13.3 / MW13.3
6/6	4" x 4"	W2.9 / W2.9	102 x 102	MW18.7 / MW18.7
4/4	4" x 4"	W4.0 / W4.0	102 x 102	MW25.7 / MW25.7

ENGINEERED WELDED WIRE REINFORCEMENT (WWR)

Tree Island Steel produces engineered welded wire reinforcement (WWR) in sheets and rolls for the precast and cast-in-place concrete construction industries. Traditionally, concrete has been reinforced with individual pieces of steel bars, which must be manually tied together. Engineered WWR offers a more efficient and economical option compared to traditional methods.

Our customized engineered reinforcing solutions save installation time by eliminating the need to tie rebar lengths. Wires can be welded in various sizes and spacings to meet the exact specifications for the project, and will hold all wires in the exact specified positions. Lap splicing is another important design consideration when placing engineered WWR. The ACI 318 guide is a comprehensive specification, which details the use of efficient lap splices which can reduce overall steel costs in a project.

Applications for engineered WWR include precast wall panels, bridge girders, utility vaults, box culverts, stadium bleachers, median barriers and steel decking. We are able to bend customized sheets for many applications.

Tree Island Steel engineered WWR can be produced within the specifications shown below:

WELDED WIRE REINFORCEMENT SPECIFICATIONS				
Sheet Detail	IMPERIAL		METRIC	
	Minimum	Maximum	Minimum	Maximum
Sheet Width	2'	12'	610 mm	3,658 mm
Sheet Length	5'	42'	1,524 mm	12,800 mm
Wire Size	W/D 2.9	W/D 31.0	MW/D 19	MW/D 198
Wire Spacing	min. 2" – steplessly adjustable		min. 51mm – steplessly adjustable	
Yield Strength (F _y)	70,000 psi	80,000 psi	485 MPa	550 MPa
Tensile Strength	80,000 psi	n/a	550 MPa	n/a
Weld Shear Strength	35,000 psi	n/a	241 MPa	n/a

Tree Island Steel structural WWR complies with ASTM A1064 / A1064M standards and must be designed according to ACI 318 Building Code Requirements for Structural Concrete.



Bent Sheet

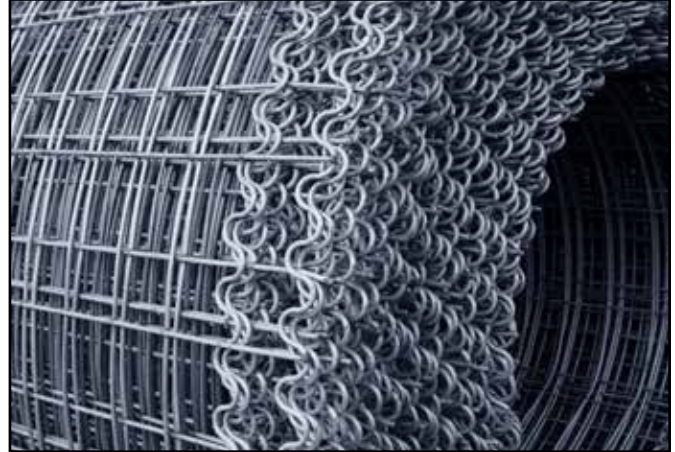
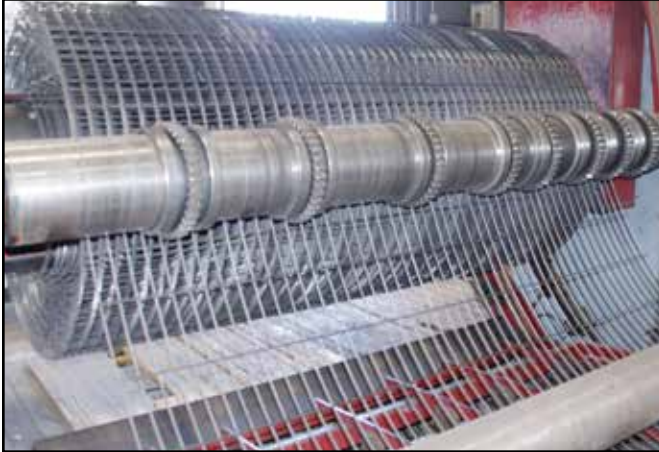


Finished Box Culvert

PIPE MESH & FLEXICAGE

Tree Island Steel pipe mesh and flexicage welded mesh products are available for all standard concrete pipe formats. Flexicage allows the formation of the bell to be flared to your exact dimensions. Pipe mesh is available in rolls or custom designed sheets that meet the strict tolerances for reinforcement placement in concrete pipe.

All mesh meets ASTM A1064 / A1064M standards for weld shear strength.



MINE MESH & EARTH REINFORCEMENT

Tree Island Steel's state-of-the-art manufacturing process is capable of producing welded sheets that are super flush-cut on all four sides. Our mesh is designed for the rigorous standards and safety requirements of the mining industry and are ideal for use in gabion cages.

Available in bright or galvanized finishes. Galvanized coating options meet ASTM A641 / A641M standards. All mine mesh and earth reinforcement exceed ASTM A1064 / A1064M standards resulting in enhanced weld shear strength.



SUPER FLUSH-CUT EDGES ON ALL FOUR SIDES



CONCRETE WIRE

Tree Island Steel's concrete reinforcing wire is a premium wire for precast and cast-in-place applications, available with plain or deformed wire surface profiles. Concrete wire is available on wire carriers or in strapped coils with maximum package weights of 6,000 lbs.

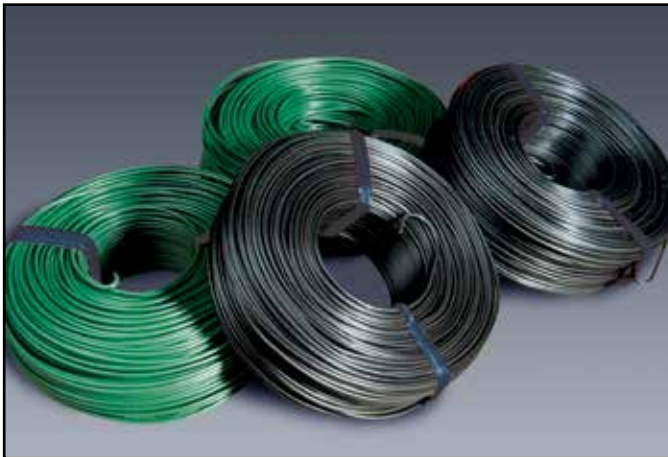
Made from low carbon steel that meets ASTM A1064 / A1064M standards. Plain or deformed wire.



REBAR TIE WIRE

Tree Island Steel rebar tie wire is a high-ductility annealed wire for use in the construction industry, with uniform sized coils to fit standard tie wire reels. The annealing process produces a strong, flexible wire to facilitate quick tying.

Available black annealed or poly coated in 15, 16 and 16.5 gauge.



US-MADE BLACK ANNEALED REBAR TIE WIRE

Tree Island Steel US-made rebar tie wire is a fully annealed wire for use in the construction industry and is uniformly coiled and packaged to fit standard tie wire reels. Tree Island Steel's annealing process produces a strong, flexible wire to facilitate quick tying.

Fits all standard reel dispensers. Available in 15, 16 and 16.5 gauge.



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