

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