TREE ISLAND INDUSTRIES LTD.

Construction Mesh

Imperial Designation	Metric Designation	Steel Area in²/ lin ft mm²/ lin m²	Weight lbs/100sq ft² kg/ m²	Standard Size mesh sheets, roll*	Standard Size mesh sheets, roll*
6 x 6 - 10/10 W1.4 / W1.4	152 x 152 - MW 9.1 / MW 9.1	.029 60.6	20 .98	7' x 20' 7'6" x 20'	5' x 100', 5' x 150' 7' x 200', 7'6" x 200'
6 x 6 - 8/8 W2.1 / W2.1	152 x 152 - MW 13.3 / MW 13.3	.041 87.3	30 1.47	7'6" x 20'	5' x 200' 7'6" x 200'
6 x 6 - 6/6 W2.9 / W2.9	152 x 152 - MW 18.7 / MW 18.7	.058 122.6	41 1.99	7'6" x 20'	5' x 200', 6' x 200' 7'6" x 200
6 x 6 - 4/4 W4.0 / W4.0	152 x 152 - MW 25.7 / MW 25.7	.080 168.3	56 2.73	7'6" x 20'	
6 x 6 - 2/2 W5.4 / W5.4	152 x 152 - MW 34.9 / MW 34.9	.108 229.1	76 3.72	7'6" x 20' 8' x 20'	
6 x 6 - 0/0 W7.4 / W7.4	152 x 152 - MW 47.6 / MW 47.6	.148 312.3	104 5.07	7'6" x 20'	
4 x 4 - 10/10 W1.4 / W1.4	102 x 102 - MW 9.1 / MW 9.1	.043 91.0	30 1.46	7' x 20'	
4 x 4 - 8/8 W2.1 / W2.1	102 x 102 - MW 13.3 / MW 13.3	.062 131.2	43 2.11	7' x 20'	
4 x 4 - 6/6 W2.9 / W2.9	102 x 102 - MW 18.7 / MW 18.7	.087 183.9	61 2.96	7' x 20'	7' x 20'
4 x 4 - 4/4 W4.0 / W4.0	102 x 102 - MW 25.7 / MW 25.7	.119 252.5	83 4.06	7' x 20'	
12 x 12 – 6/6 W2.9 / W2.9	305 x 305 - MW 18.7 / MW 18.7	.029 61.4	20 .98	8' x 20'	
12 x 12 – 2/2 W5.4 / W5.4	305 x 305 - MW 34.9 / MW 34.9	.054 114.3	37 1.80	8' x 20'	
12 x 12 - W8 / W8	305 x 305 - MW 51.6 / MW 51.6	.080 169.2	54 2.65	8' x 20'	
Roll = 6' x 200' • 6' x 100'					

WIRE MESH SPECIFICATIONS

1. Specifications Covering WWR

Canadian Standards	U.S. Specifications	Title
CSA G30.3	ASTM A 82	Steel Wire, Plain, for Concrete Reinforcement
CSA G30.5	ASTM A 185	Welded Steel Wire Fabric, Plain, for Concrete Reinforcement
CSA G30.14	ASTM A 496	Deformed Steel Wire for Concrete Reinforcement
CSA G30.15	ASTM A 497	Welded Deformed Steel Wire Fabric for Concrete Reinforcement

2. Industry method of designation style

example: 4 x 6 D8/ W4.....Imperial

(cross wires) wire spacing — wire size

102 x 152

MD 51.6 / MW 25.8.....Metric

(long wire) wire spacing — wire size

PRODUCTS

Construction Mesh	Sheets and rolls, bright or galvanized
Pipe mesh rolls	2" C/C or 3" C/C wire spacing 3' to 11'6" W Up to D14 (10.7 mm) wire
Structural mesh sheets	Variable Spacing 4' to 10' W x 8' to 40' L in sheets Up to D20 (12.8 mm) wire and Curved & Straight shear ladders with 2 or 3 principal wires 4" to 31" W x 19'8" L D2 to D20 (4mm to 12.8mm) wire
Cage machine wire	W2.5 to W8 (4.5 mm to 8.1 mm D2.5 to D16 (4.5 mm to 11.5 mm) 3500 lb strapped coils Straight & cut lengths
Mine mesh	In sheets and rolls, *flush cut* all four sides Bright or galvanized

Welded Wire Reinforcement

IMPERIAL UNITS
METRIC UNITS

AREA in² PER LINEAR FOOT / AREA - mm² PER LINEAR METRE

WIRE SIZE*	NOMINAL DIAM.	NOMINAL AREA	NOMINAL MASS	CENTRE TO CENTRE SPACING (in) CENTRE TO CENTRE SPACING (mm)						
	Inches mm	**in²** mm²	**Lb/ Ft** Kg/ m	**2 in** 51mm	**3 in** 76mm	**4 in** 102mm	**6 in** 152mm	**8 in** 203mm	**10 in** 254mm	**12 in** 305mm
W20 MW129	**0.505** 12.83	**0.200** 129	**0.680** 1.01	**1.20** 2540	**0.80** 1693	**0.60** 1270	**0.40** 847	**0.30** 635	**0.24** 508	**0.20** 423
W18 MW116	**0.479** 12.17	**0.180** 116	**0.612** 0.911	**1.08** 2286	**0.72** 1524	**0.54** 1143	**0.36** 762	**0.27** 572	**0.216** 457	**0.18** 381
W16 MW103	**0.451** 11.46	**0.160** 103	**0.544** 0.809	**0.96** 2032	**0.64** 1355	**0.48** 1016	**0.32** 677	**0.24** 508	**0.192** 406	**0.16** 339
W15.5 MW100	**0.445** 11.3 (10M)	**0.156** 100	**0.528** 0.785	**0.93** 1960	**0.62** 1316	**0.465** 980	**0.31** 658	**0.233** 490	**0.186** 394	**0.155** 328
W14 MW90.3	**0.422** 10.72	**0.140** 90	**0.476** 0.708	**0.84** 1778	**0.56** 1185	**0.42** 889	**0.28** 593	**0.21** 445	**0.168** 356	**0.14** 296
W12 MW77.4	**0.391** 9.93	**0.120** 77	**0.408** 0.607	**0.72** 1524	**0.48** 1016	**0.36** 762	**0.24** 508	**0.18** 381	**0.144** 305	**0.12** 254
W11 MW71.0	**0.374** 9.5	**0.110** 71	**0.374** 0.556	**0.66** 1397	**0.44** 931	**0.33** 699	**0.22** 466	**0.165** 349	**0.132** 279	**0.11** 233
W10.5 MW67.9	**0.366** 9.3	**0.105** 68	**0.357** 0.531	**0.63** 1334	**0.42** 889	**0.315** 667	**0.21** 445	**0.157** 332	**0.126** 267	**0.105** 222
W10 MW64.5	**0.357** 9.07	**0.100** 65	**0.340** 0.506	**0.60** 1270	**0.40** 847	**0.30** 635	**0.20** 423	**0.15** 318	**0.12** 254	**0.10** 212
W9.5 MW61.3	**0.348** 8.84	**0.095** 61	**0.323** 0.481	**0.57** 1207	**0.38** 804	**0.285** 603	**0.19** 402	**0.142** 301	**0.114** 241	**0.095** 201
W9 MW58.1	**0.338** 8.59	**0.090** 158	**0.306** 0.456	**0.54** 1143	**0.36** 762	**0.27** 572	**0.18** 381	**0.135** 286	**0.108** 229	**0.09** 191
W8.5 MW54.9	**0.329** 8.36	**0.085** 55	**0.289** 0.43	**0.51** 1080	**0.34** 720	**0.255** 540	**0.17** 360	**0.127** 269	**0.102** 216	**85** 180
W8 MW51.6	**0.319** 8.1	**0.080** 52	**0.272** 0.405	**0.48** 1016	**0.32** 677	**0.24** 508	**0.16** 339	**0.12** 254	**0.096** 203	**0.08** 169
W7.5 MW48.4	**0.309** 7.85	**0.075** 48	**0.255** 0.379	**0.45** 953	**0.30** 635	**0.225** 476	**0.15** 318	**0.112** 237	**0.09** 191	**0.075** 159
W7 MW45.2	**0.299** 7.6	**0.070** 45	**0.238** 0.354	**0.42** 889	**0.28** 593	**0.21** 445	**0.14** 296	**0.105** 222	**0.084** 178	**0.07** 148
W6.5 MW42.1	**0.288** 7.32	**0.065** 42	**0.221** 0.329	**0.39** 826	**0.26** 550	**0.195** 413	**0.13** 275	**0.097** 205	**0.078** 165	**0.065** 138
W6 MW38.7	**0.276** 7.01	**0.060** 39	**0.204** 0.304	**0.36** 762	**0.24** 508	**0.18** 381	**0.12** 254	**0.09** 191	**0.072** 152	**0.06** 127
W5.5 MW35.5	**0.265** 6.73	**0.055** 36	**0.187** 0.278	**0.33** 699	**0.22** 466	**0.165** 349	**0.11** 233	**0.082** 174	**0.066** 140	**0.055** 116
W5 MW32.3	**0.252** 6.4	**0.050** 32	**0.170** 0.253	**0.30** 635	**0.20** 423	**0.15** 318	**0.10** 212	**0.075** 159	**0.06** 127	**0.05** 106
W4.5 MW28.9	**0.239** 6.07	**0.045** 29	**0.153** 0.228	**0.27** 572	**0.18** 381	**0.135** 286	**0.09** 191	**0.067** 142	**0.054** 114	**0.045** 95.3
W4 (4ga) MW25.8	**0.226** 5.74	**0.040** 26	**0.136** 0.202	**0.24** 508	**0.16** 339	**0.12** 254	**0.08** 169	**0.06** 127	**0.048** 102	**0.04** 84.7
W3.5 MW22.6	**0.211** 5.36	**0.035** 23	**0.119** 0.177	**0.21** 445	**0.14** 296	**0.105** 222	**0.07** 148	**0.052** 110	**0.042** 88.9	**0.035** 74.1
W3 MW19.2	**0.195** 4.95	**0.030** 19	**0.102** 0.152	**0.18** 381	**0.12** 254	**0.09** 191	**0.06** 127	**0.045** 95.3	**0.036** 76.2	**0.03** 63.5
W2.9(6ga) MW18.7	**0.192** 4.88	**0.029** 19	**0.098** 0.147	**0.174** 368	**0.116** 245	**0.087** 184	**0.058** 123	**0.043** 91	**0.035** 74.1	**0.029** 61.4
W2.5 (7ga) MW16.0	**0.178** 4.52	**0.025** 16	**0.085** 0.126	**0.15** 317	**0.10** 212	**0.075** 159	**0.05** 106	**0.037** 78.3	**0.03** 63.5	**0.025** 52.9
W2.1 (8ga) MW13.3	**0.162** 4.1	**0.021** 13	**0.070** 0.104	**0.124** 261	**0.082** 175	**0.062** 130	**0.041** 88	**0.031** 65.6	**0.025** 52.4	**0.021** 43.6
W1.7 (9ga) MW11.1	**0.148** 3.8	**0.017** 11	**0.059** 0.073	**0.104** 220	**0.069** 146	**0.052** 110	**0.035** 74.1	**0.026** 55	**0.021** 44.5	**0.017** 36

***Wire size:** Imperial wire sizes are designated by their sectional area in hundredths of a square inch Ex. . For W8, Area = 0.08 in²
Metric wire sizes are designated by their sectional area in mm² Ex. For MW51.6, Area =51.6mm²

<W> denotes smooth wire ex.: W18
<D> denotes deformed wire ex.: D18
<M> denotes metric ex.: MW18 or MD18

Minimum Mechanical Properties for WWR

Type of WWR	Minimum Tensile Strength	Minimum Yield Strength FY	Minimum Weld Shear Strength
Smooth Wire Mesh	515 Mpa (75000 psi)	450 Mpa (65000 psi)	240 Mpa (35000 psi)
Deformed Wire Mesh	550 Mpa (75000 psi)	450 Mpa (65000 psi)	240 Mpa (35000 psi)

Conversion Factors:

1in = 25.4mm
1ft =0.3048m
1in² = 645.2mm²
1in²/ft = 2116.7mm²m
1lb/100ft² = 0.0488kg/m²
1lb=0.4536kg
1000psi=6.895Mpa
(Diam. In)² x 2.673=weight lbs/ft.
A=0.7854 d²
(Area inches)² x 3.4=weight lbs/ft.