

Marino\WARE® Product Submittal Data

PRODUCT NAME: 400JR200-54

05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 400RJ16

PROPERTIES:

A. Web (in)	4.00"	Yield Strength Fy (KSI)	50
B. Flange (in)	2"	Tensile Strength Fu (KSI)	65
C. Lip (in)	0.75	Design Thickness (in)	0.0566
Mils	54	Minimum Thickness (in)	0.0538
Available Finish	G60, G90	Gauge	16

SECTION PROPERTIES

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	1.610
Cross Sectional Area: A (in ²)	0.426
Moment of Inertia: Ix (in ⁴)	1.310
Section Modulus: Sx (in ³)	0.657
Radius of Gyration: Rx (in)	1.760
Gross Moment of Inertia: Iy (in ⁴)	0.242
Gross Radius of Gyration: Ry (in)	0.754

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	1.310
Section Modulus: Sxe (in ³)	0.633
Allowable Bending Moment: Ma (in-k)	18.90
Allowable Shear Force: Va (K)	2.600

TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.455
Torsional Warping Constant: Cw (in ⁶)	1.250
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.730

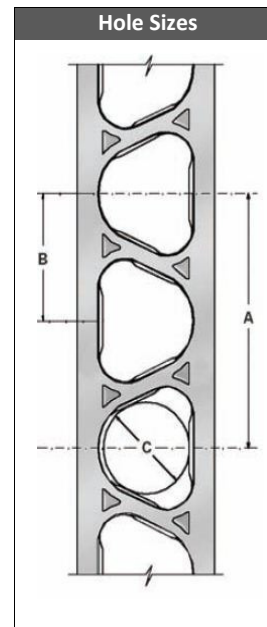
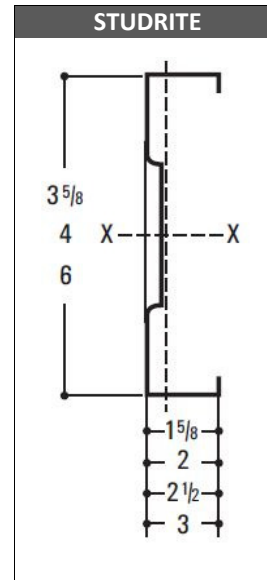
CODES & STANDARDS

- Framing meets ASTM A 1003, A 653, & C 955
- Galvanized steel sheet meets ASTM A 924

GREEN INFO LEED® v3

Available LEED® points in the following categories:

- MR Credit 2 - Construction Waste Management (1-2 points)
- MR Credit 4 - Recycled Content (1-2 points)
- MR Credit 5 - Regional Materials (1-2 points)
- Total Recycled Content: 34.9%
- Post Consumer Content: 24.3%
- Pre Consumer (Post Industrial) Content: 9.4%



Section	A (in)	B (in)	C
3-5/8"	7.0	3.5	1-3/4
4"	7.0	3.5	1-3/4
6"	8.1	4.0	2-7/8



For more information, please contact Marino\WARE Technical Services at 866-545-1545.

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Marino\WARE® Product Submittal Data

Limiting Wall Heights (FT) 4"

Section Identification	Spacing (in.) o.c.	5 psf			10 psf			20 psf			25 psf			30 psf		
		L/120	L/240	L/360	L/120	L/240	L/360	L/240	L/360	L/600	L/240	L/360	L/600	L/240	L/360	L/600
400JR162-33	12	26.3	20.8	18.2	20.8	16.5	14.5	14.8	12.9	10.9	13.2	12.0	10.1	12.0	11.3	9.5
400JR162-33	16	23.9	18.9	16.5	18.1	15.0	13.1	12.8	11.7	9.9	11.4	10.9	9.2	9.8	9.8	8.6
400JR162-33	24	20.8	16.5	14.5	14.8	13.1	11.5	9.8	9.8	8.6	7.8	7.8	7.8	6.5	6.5	6.5
400JR162-43	12	28.6	22.7	19.8	22.7	18.0	15.7	16.1	14.1	11.9	14.9	13.0	11.0	14.0	12.3	10.4
400JR162-43	16	26.0	20.6	18.0	20.6	16.4	14.3	14.6	12.8	10.8	13.3	11.9	10.0	12.1	11.2	9.4
400JR162-43	24	22.7	18.0	15.7	17.1	14.3	12.5	12.1	11.2	9.4	10.8	10.4	8.7	9.7	9.7	8.2
400JR162-54	12	30.6	24.3	21.2	24.3	19.3	16.8	17.2	15.1	12.7	16.0	14.0	11.8	15.1	13.2	11.1
400JR162-54	16	27.8	22.1	19.3	22.1	17.5	15.3	15.7	13.7	11.5	14.5	12.7	10.7	13.4	12.0	10.1
400JR162-54	24	24.3	19.3	16.8	19.0	15.3	13.4	13.4	12.0	10.1	12.0	11.1	9.4	11.0	10.4	8.8
400JR162-68*	12	32.7	26.0	22.7	26.0	20.6	18.0	18.4	16.1	13.6	17.1	15.0	12.6	16.1	14.1	11.9
400JR162-68*	16	29.8	23.6	20.6	23.6	18.7	16.4	16.8	14.6	12.3	15.6	13.6	11.5	14.6	12.8	10.8
400JR162-68*	24	26.0	20.6	18.0	20.6	16.4	14.3	14.6	12.8	10.8	13.6	11.9	10.0	12.8	11.2	9.4
400JR162-97*	12	36.1	28.7	25.0	28.7	22.8	19.9	20.3	17.8	15.0	18.9	16.5	13.9	17.8	15.5	13.1
400JR162-97*	16	32.8	26.0	22.8	26.0	20.7	18.1	18.5	16.1	13.6	17.2	15.0	12.6	16.1	14.1	11.9
400JR162-97*	24	28.7	22.8	19.9	22.8	18.1	15.8	16.1	14.1	11.9	15.0	13.1	11.0	14.1	12.3	10.4
400JR200-33	12	27.6	21.9	19.2	21.7	17.4	15.2	15.4	13.6	11.5	13.7	12.6	10.6	12.5	11.9	10.0
400JR200-33	16	25.1	19.9	17.4	18.8	15.8	13.8	13.3	12.3	10.4	11.7	11.5	9.7	9.8	9.8	9.1
400JR200-33	24	21.7	17.4	15.2	15.4	13.8	12.1	9.8	9.8	9.1	7.8	7.8	7.8	6.5	6.5	6.5
400JR200-43	12	30.3	24.1	21.0	24.1	19.1	16.7	17.1	14.9	12.6	15.9	13.9	11.7	14.9	13.0	11.0
400JR200-43	16	27.6	21.9	19.1	21.9	17.4	15.2	15.5	13.6	11.4	14.2	12.6	10.6	13.0	11.8	10.0
400JR200-43	24	24.1	19.1	16.7	18.3	15.2	13.3	13.0	11.8	10.0	11.6	11.0	9.3	9.7	9.7	8.7
400JR200-54	12	32.5	25.8	22.6	25.8	20.5	17.9	18.3	16.0	13.5	17.0	14.9	12.5	16.0	14.0	11.8
400JR200-54	16	29.6	23.5	20.5	23.5	18.6	16.3	16.6	14.5	12.3	15.4	13.5	11.4	14.5	12.7	10.7
400JR200-54	24	25.8	20.5	17.9	20.5	16.3	14.2	14.5	12.7	10.7	13.1	11.8	9.9	12.0	11.1	9.4
400JR200-68*	12	34.8	27.7	24.2	27.7	22.0	19.2	19.6	17.1	14.5	18.2	15.9	13.4	17.1	15.0	12.6
400JR200-68*	16	31.7	25.1	22.0	25.1	19.9	17.4	17.8	15.6	13.1	16.5	14.5	12.2	15.6	13.6	11.5
400JR200-68*	24	27.7	22.0	19.2	22.0	17.4	15.2	15.6	13.6	11.5	14.5	12.6	10.7	13.6	11.9	10.0
400JR200-97*	12	38.5	30.6	26.7	30.6	24.3	21.2	21.7	19.0	16.0	20.1	17.6	14.8	19.0	16.6	14.0
400JR200-97*	16	35.0	27.8	24.3	27.8	22.1	19.3	19.7	17.2	14.5	18.3	16.0	13.5	17.2	15.0	12.7
400JR200-97*	24	30.6	24.3	21.2	24.3	19.3	16.8	17.2	15.0	12.7	16.0	14.0	11.8	15.0	13.1	11.1
400JR250-33	12	28.7	22.8	19.9	22.5	18.1	15.8	15.9	14.1	11.9	14.2	13.1	11.0	13.0	12.3	10.4
400JR250-33	16	26.1	20.7	18.1	19.5	16.4	14.3	13.8	12.8	10.8	11.7	11.7	10.0	9.8	9.8	9.4
400JR250-33	24	22.5	18.1	15.8	15.9	14.3	12.5	9.8	9.8	9.4	7.8	7.8	7.8	6.5	6.5	6.5
400JR250-43	12	31.8	25.2	22.0	25.2	20.0	17.5	17.9	15.6	13.2	16.6	14.5	12.2	15.6	13.7	11.5
400JR250-43	16	28.9	22.9	20.0	22.9	18.2	15.9	16.3	14.2	12.0	14.8	13.2	11.1	13.5	12.4	10.5
400JR250-43	24	25.2	20.0	17.5	19.1	15.9	13.9	13.5	12.4	10.5	11.6	11.5	9.7	9.7	9.7	9.1
400JR250-54	12	34.3	27.2	23.7	27.2	21.6	18.9	19.3	16.9	14.2	17.9	15.6	13.2	16.9	14.7	12.4
400JR250-54	16	31.1	24.7	21.6	24.7	19.6	17.1	17.5	15.3	12.9	16.3	14.2	12.0	15.3	13.4	11.3
400JR250-54	24	27.2	21.6	18.9	21.6	17.1	15.0	15.3	13.4	11.3	13.9	12.4	10.5	12.7	11.7	9.9
400JR250-68*	12	36.7	29.1	25.5	29.1	23.1	20.2	20.7	18.1	15.2	19.2	16.8	14.1	18.1	15.8	13.3
400JR250-68*	16	33.4	26.5	23.1	26.5	21.0	18.4	18.8	16.4	13.8	17.4	15.2	12.9	16.4	14.3	12.1
400JR250-68*	24	29.1	23.1	20.2	23.1	18.4	16.0	16.4	14.3	12.1	15.2	13.3	11.2	14.3	12.5	10.6
400JR250-97*	12	40.7	32.3	28.2	32.3	25.6	22.4	22.9	20.0	16.9	21.3	18.6	15.7	20.0	17.5	14.8
400JR250-97*	16	37.0	29.3	25.6	29.3	23.3	20.3	20.8	18.2	15.3	19.3	16.9	14.2	18.2	15.9	13.4
400JR250-97*	24	32.3	25.6	22.4	25.6	20.3	17.8	18.2	15.9	13.4	16.9	14.8	12.4	15.9	13.9	11.7
400JR300-33	12	29.6	23.5	20.5	23.0	18.6	16.3	16.3	14.5	12.3	14.6	13.5	11.4	13.0	12.7	10.7
400JR300-33	16	26.8	21.3	18.6	19.9	16.9	14.8	14.1	13.2	11.1	11.7	11.7	10.3	9.8	9.8	9.7
400JR300-33	24	23.0	18.6	16.3	16.3	14.8	12.9	9.8	9.8	9.7	7.8	7.8	7.8	6.5	6.5	6.5
400JR300-43	12	32.9	26.1	22.8	26.1	20.7	18.1	18.5	16.2	13.6	17.2	15.0	12.7	16.1	14.1	11.9
400JR300-43	16	29.9	23.7	20.7	23.7	18.8	16.4	16.8	14.7	12.4	15.3	13.6	11.5	13.9	12.8	10.8
400JR300-43	24	26.1	20.7	18.1	19.7	16.4	14.4	13.9	12.8	10.8	11.6	11.6	10.0	9.7	9.7	9.5
400JR300-54	12	35.8	28.4	24.8	28.4	22.6	19.7	20.2	17.6	14.9	18.7	16.4	13.8	17.6	15.4	13.0
400JR300-54	16	32.5	25.8	22.6	25.8	20.5	17.9	18.3	16.0	13.5	17.0	14.9	12.5	15.9	14.0	11.8
400JR300-54	24	28.4	22.6	19.7	22.4	17.9	15.6	15.9	14.0	11.8	14.2	13.0	10.9	13.0	12.2	10.3
400JR300-68*	12	38.1	30.2	26.4	30.2	24.0	21.0	21.4	18.7	15.8	19.9	17.4	14.7	18.7	16.4	13.8
400JR300-68*	16	34.6	27.5	24.0	27.5	21.8	19.0	19.5	17.0	14.4	18.1	15.8	13.3	17.0	14.9	12.5
400JR300-68*	24	30.2	24.0	21.0	24.0	19.0	16.6	17.0	14.9	12.5	15.8	13.8	11.6	14.9	13.0	11.0
400JR300-97*	12	42.6	33.8	29.6	33.8	26.9	23.5	24.0	21.0	17.7	22.3	19.5	16.4	21.0	18.3	15.5
400JR300-97*	16	38.7	30.7	26.9	30.7	24.4	21.3	21.8	19.1	16.1	20.3	17.7	14.9	19.1	16.6	14.0
400JR300-97*	24	33.8	26.9	23.5	26.9	21.3	18.6	19.1	16.6	14.0	17.7	15.5	13.0	16.6	14.5	12.3

Notes:

1. Lateral loads multiplies by 0.70 for deflection determination except for 5 & 10 psf.
2. Check end reaction for web crippling.
3. Limiting heights based on continuous support of each flange over the full height of the stud.
4. Heights based on steel properties only.