

**Expanding Your Solutions** 

#### **Corporate Headquarters**

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# **Manufacturing Facilities**

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## Structural Engineering/Design

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## 400VT150-30 VIPERTRACK

# **Geometric Properties**

4" ViperTrack with 1-1/2" legs is manufactured from standard G40 hot-dipped galvanized steel. G60 and G90 coatings are available through special order, and may require up-charges and extended lead times.

## **Physical Properties**

Model No.	Design Thickness (in)	Minimum Thickness (in)	Yield (ksi)	Coating 3,4	Web Depth (in)	Leg Size (in)	GAP <sup>5</sup> (in)	Load <sup>5</sup> (lb.)	Max Height <sup>5</sup> 5 psf, 16" o.c.	
400VT150-30	0.0312	0.0296	33	G40	4	1-1/2				

#### Notes:

- 1. Uncoated steel thickness. Thickness is for carbon sheet steel
- 2. Minimum thickness represents 95% of the design thickness and is the minimum acceptable thickness.
- 3. Per ASTM C645 & A1003, Table 1.
- 4. G60 and G90 available upon request. Will require extended lead time and upcharge.
- 5. Use Gap, Load and Maximum Height data when member is used as a top deflection track.

#### Color Code (painted on ends): 30 mil: Pink

#### **ASTM & Code Standards:**

- ASTM A653/A653M, A924/A924M, A1003/A1003M, C645, C754, E119
- IBC: 2015, 2018, 2021
- CBC: 2016, 2019, 2022
- AISI: S100, S220

### LEED v4 for Building and Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization Environmental Product Declarations, Options 1 & 2.
- MR Credit: Building Product Disclosure and Optimization Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

## **CEMCO** cold-formed steel framing products contain 30% to 37% recycled steel.

■ Total Recycled Content: 36.9% ■ Post-Consumer: 19.8%

■ Pre-Consumer: 14.4%

CSI Division: 09.22.16 - Non-Structural Metal Framing

# (WEB DEPTH) 1-5/8", 2-1/2", 3-1/2" 3-5/8", 4", 5-1/2" & 6" STEEL DESIGN THICKNESS -(SEE TABLE) 1-1/2", 2", 2-1/2" & 3" -

#### ViperTrack 1.50" Leg

						Gross Properties							Effective Properties			Torsional Properties					
Member	Leg Size (in)	Weight (lb/ft)	Design (in)	Min (in)	Yield (ksi)	Area (in²)	lx (in <sup>4</sup> )	Sx (in³)	Rx (in)	<b>ly</b> (in <sup>4</sup> )	<b>Sy</b> (in³)	Ry (in)	<b>lxd</b> (in <sup>4</sup> )	Sxe (in³)	Ma (in-k)	<b>Xo</b> (in)	<b>Jx10</b> <sup>3</sup> (in <sup>4</sup> )	Cw (in)	Ro (in)	ß	
400VT150-30	1.50	0.7425	0.0312	0.0296	33	0.2184	0.5453	0.2685	1.5802	0.0458	0.1304	0.4580	0.4095	0.2387	2.8797	-0.812	0.0709	0.1354	1.835	1.360	

#### Notes:

- 1. Section properties are in accordance with AISI S100-16/S2-20.
- Cold-work of forming is not included.
- The effective moment of inertia for deflection is calculated based on AISI S100-16/S2-20 procedure 1 for serviceability determination.
- The center line bend radius is greater than 2 times the design thickness or 3/32".
- Web-to-thickness ratio exceeds 200.
- Web-to-thickness ratio exceeds 260.
- 7. Flange-width-to-thickness-ratio exceeds 60, only gross properties will be determined.





