

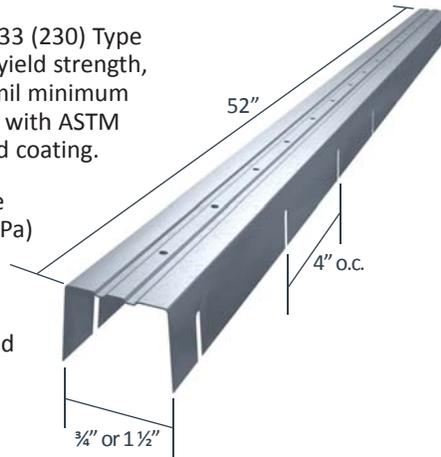
# BridgeBar®

Bridging Channel

### Material Composition

**BB75:** ASTM A1003/A1003M Structural Grade 33 (230) Type H, ST33H (ST230H): 33ksi (230MPa) minimum yield strength, 45ksi (310MPa) minimum tensile strength, 28mil minimum thickness (22 gauge, 0.0295" design thickness) with ASTM A653/A653M G60 (Z180) hot dipped galvanized coating.

**BB150:** ASTM A1003/A1003M Structural Grade 50 (340) Type H, ST50H (ST340H): 50ksi (340MPa) minimum yield strength, 65ksi (450MPa) minimum tensile strength, 33mil minimum thickness (20 gauge, 0.0346" design thickness) with ASTM A653/A653M G90 (Z275) hot dipped galvanized coating.



US Patent #6,701,689

### Material Analysis

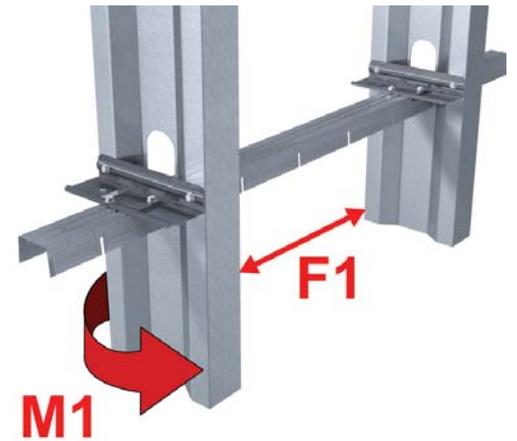
Section	Minimum Thickness (in)	Design Thickness (in)	Yield Strength (ksi)	Effective Section Properties <sup>(1)</sup>						Effective Section Properties and Allowable Loads <sup>(2), (3), (4)</sup>							
				Area	I <sub>x</sub>	S <sub>x</sub>	R <sub>x</sub>	I <sub>y</sub>	R <sub>y</sub>	S <sub>xe</sub>	M <sub>a</sub> (X-axis)	12" o.c.		16" o.c.		24" o.c.	
												A <sub>e</sub>	P <sub>a</sub>	A <sub>e</sub>	P <sub>a</sub>	A <sub>e</sub>	P <sub>a</sub>
(in <sup>2</sup> )	(in <sup>4</sup> )	(in <sup>3</sup> )	(in)	(in <sup>4</sup> )	(in)	(in <sup>3</sup> )	(in-kips (ft-lb))	(in <sup>2</sup> )	(lbs)	(in <sup>2</sup> )	(lbs)	(in <sup>2</sup> )	(lbs)				
BB75	0.0280	0.0295	33	0.031	0.0021	0.006	0.261	0.0002	0.073	0.006	0.11 (9.3)	N/A	N/A	N/A	N/A	N/A	N/A
BB150	0.0329	0.0346	50	0.068	0.0174	0.023	0.506	0.0007	0.104	0.023	0.69 (57.9)	0.079	1,459	0.081	1,172	0.081	566

### Notes:

- Use BridgeClip® for a quick & easy method of securing BridgeBar to stud (when required)
- Resists compressive loads through the plane of the wall
- Use through 3/4" and 1 1/2" stud punchouts.

<sup>1</sup> Gross section properties are calculated based on the minimum dimensions of the cross section.  
<sup>2</sup> Effective section properties and allowable loads for BridgeBar are calculated based on AISI S100-2007 Specification.  
<sup>3</sup> Effective section modulus (S<sub>xe</sub>) is calculated based on the minimum dimensions of the cross section.  
<sup>4</sup> Effective area (A<sub>e</sub>) and allowable axial load (P<sub>a</sub>) are calculated based on the average dimensions of the cross section.

### Load Direction



### Securing Bar to Stud

When loads require attachment of BridgeBar to stud, consider the screw shear allowables below for connection of BridgeClip to stud and BridgeBar.

Section	Design Thickness (in)	Yield Strength (ksi)	Allowable Shear/Screw	
			#8 Screw (lbs)	#10 Screw (lbs)
BB150	0.0346	50	237	255

### Nomenclature

BridgeBar is available in 3/4" and 1 1/2" widths. Designations are BB75 and BB150.

**Example:** Stud with 3/4" knockout  
**Designate:** BB75

### Lap Joint

BridgeBar's 52" length allows for a 4" overlap at joints. Simply fit one end over the other and line up the guide holes for quick & easy placement of screw(s). Joint locations maintain stud spacing as designed through length of the wall system.

### Cross Sections

