



C-Channel / Stud Brochure Galvanized

Information

Members

The members represented in this publication are typically produced in G60, grade 50 cold formed steel. G90 is available upon request but may require longer lead times.

Documentation

This document is subject to change without notice. Please contact B&M Metals to make sure that you have the latest edition of this document.

Service Holes

Service holes in studs can be punched upon request. In the event that spacing for the service holes is not specified, they will be punched on 3 foot centers. Please contact B&M Metals for custom hole spacing or more details.

Steel Members Disclaimer

Use with product tables, details, and preliminary estimating only

1. Scope / Intended Use

- Reference use only. This brochure is a general product reference for preliminary review, estimating, and coordination. It is not a sealed design package.
- Engineer verification required. All spans, reactions, member adequacy, deflection, stability, bracing, connections, anchorage, and foundation requirements shall be verified by a licensed Professional Engineer in the project jurisdiction.
- Project-specific conditions govern. Final member selection depends on actual loads, unbraced length, end conditions, diaphragm action, serviceability limits, and governing code requirements.

2. Design / Fabrication

- Codes and standards. Verify design using the governing code and applicable standards, including current editions of AISC 360, ASCE/SEI 7, and MBMA references where applicable.
- Material and availability. Dimensions, grades, coatings, lengths, hole patterns, finishes, tolerances, and availability may vary by mill, supplier, and production schedule. Specifications are subject to change without notice.
- Fabrication and field changes. Shop drawings, weld procedures, bolt selection, detailing, substitutions, and field modifications must be reviewed and approved by the Engineer of Record before use.

3. Liability / Revision Control

- No warranty of fitness for design. Listed members and properties are provided without guarantee that they satisfy a specific building, loading case, or code condition.
- Tolerance / liability limitation. Sweep, camber, twist, finish variation, and minor dimensional variation may occur within accepted manufacturing tolerances.
- Confirm latest revision. Verify the latest brochure revision and current project criteria before ordering, engineering, or installation. Contact B&M Metals for updated data or project-specific support.

Suggested Reference Standards

- AISC 360-22 - Structural steel design
- ASCE/SEI 7-22 - Design loads
- MBMA Metal Building Systems Manual - 2024
- Applicable ASTM material specs per project documents

Other Notes

- Member weights and section properties are nominal unless noted otherwise.
- Connection details shown elsewhere are conceptual unless sealed by the Engineer of Record.
- Do not scale drawings. Use written dimensions only.
- Contact B&M Metals for updated data, custom members, or project support.

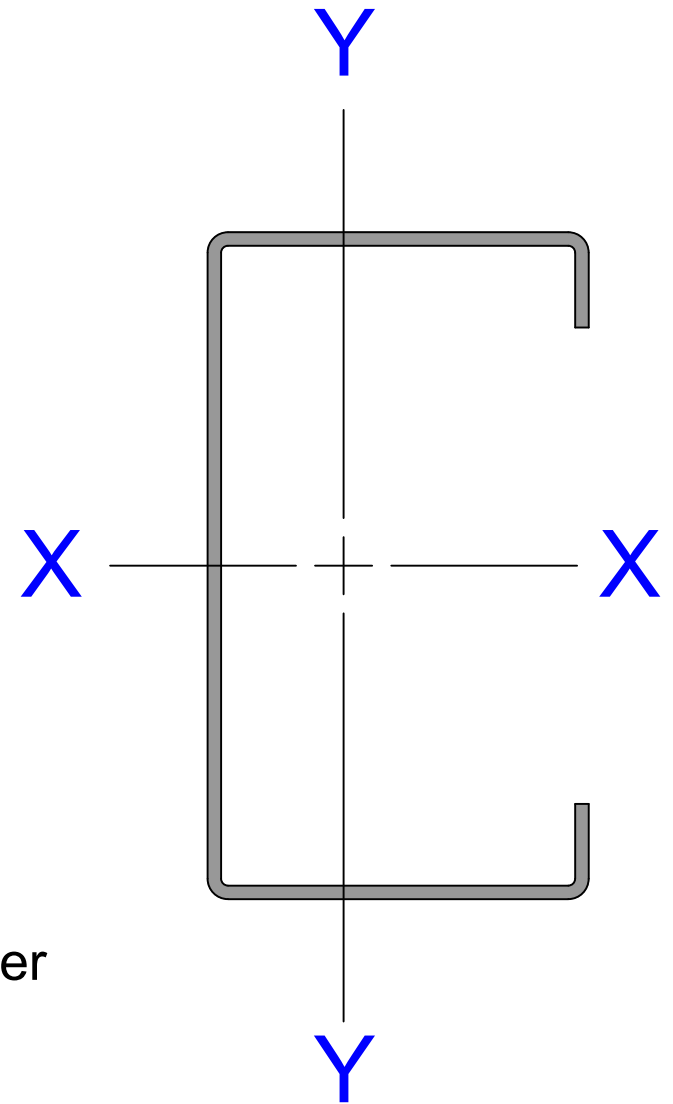
Quick Reference

Gross Properties

- I Moment of inertia of cross section about X,Y
- S Section modulus about X,Y
- r Radius of gyration of cross section about X,Y

Effective Properties

- J Torsional Constant
- C_w Warping Constant
- X_o Shear Center Location
- R_o Polar Radius of Gyration about the shear center
- β Monosymmetry Constant



Steel Members Documentation

Hole Punching



6195 Hwy 52 East
Murrayville GA, 30564
www.BMMetals.com
Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name:	DepthSFlange
Depth:	2.5" - 14"
Flange:	1.5" - 4"
Lip:	.5" - .75"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43

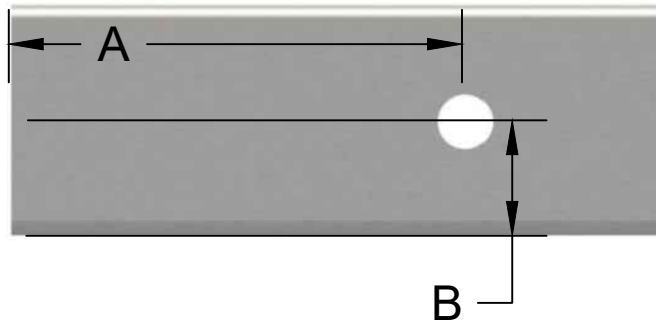
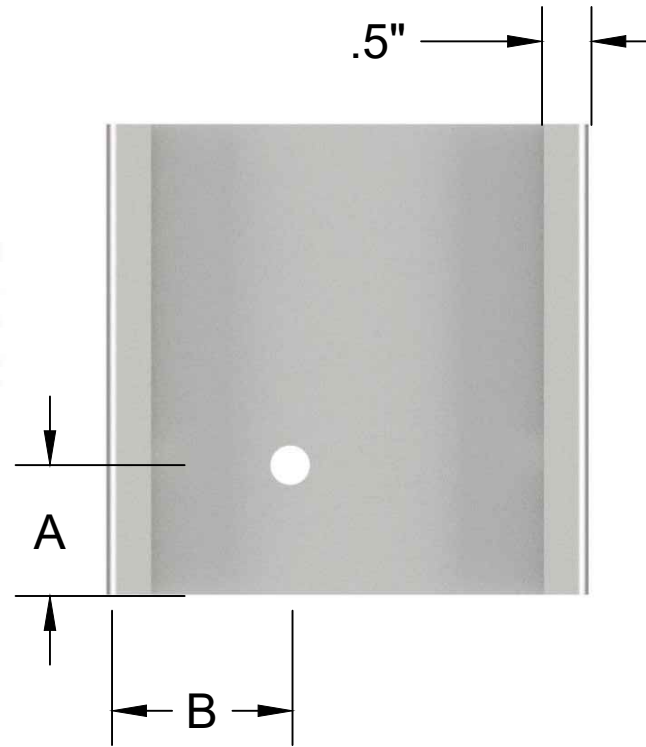
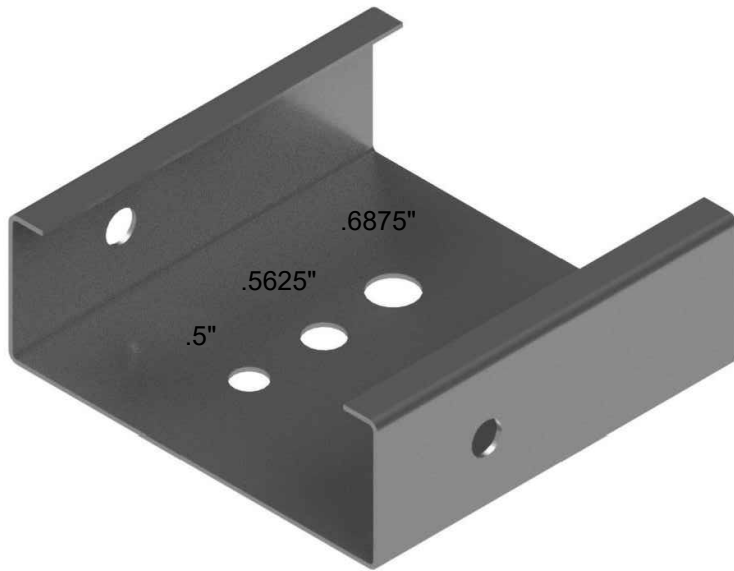
Depth in Inches: 1050 = 10.50"
Member Key: L
Flange Height: 162 = 1.625"
Mill Thickness: 43

Member Key

- S = Stud (C Shaped)
- L = Lintel (L Shaped)
- T = Track (U Shaped)
- W = I-Beam (I Shaped)
- E = Eave Strut (C Shaped)
- D = Double Eave Strut
- A = Angle (2 Legs, 1 Angle)
- F = Hat (Top Hat Shaped)
- B = Box (Rectangle Shaped)
- Fl = Strap/Flat (Flat Shaped)
- Z = Zee (Z Shaped)

Mill - Gauge | Bend Radius

25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325



* A - Specify Dimension
* B - Specify Dimension

Steel Members Documentation

Custom Studs and Track



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Member specs and limits

Name:	DepthSFlange
Depth:	2.5" - 14"
Flange:	1.5" - 4"
Lip:	.5" - .75"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown

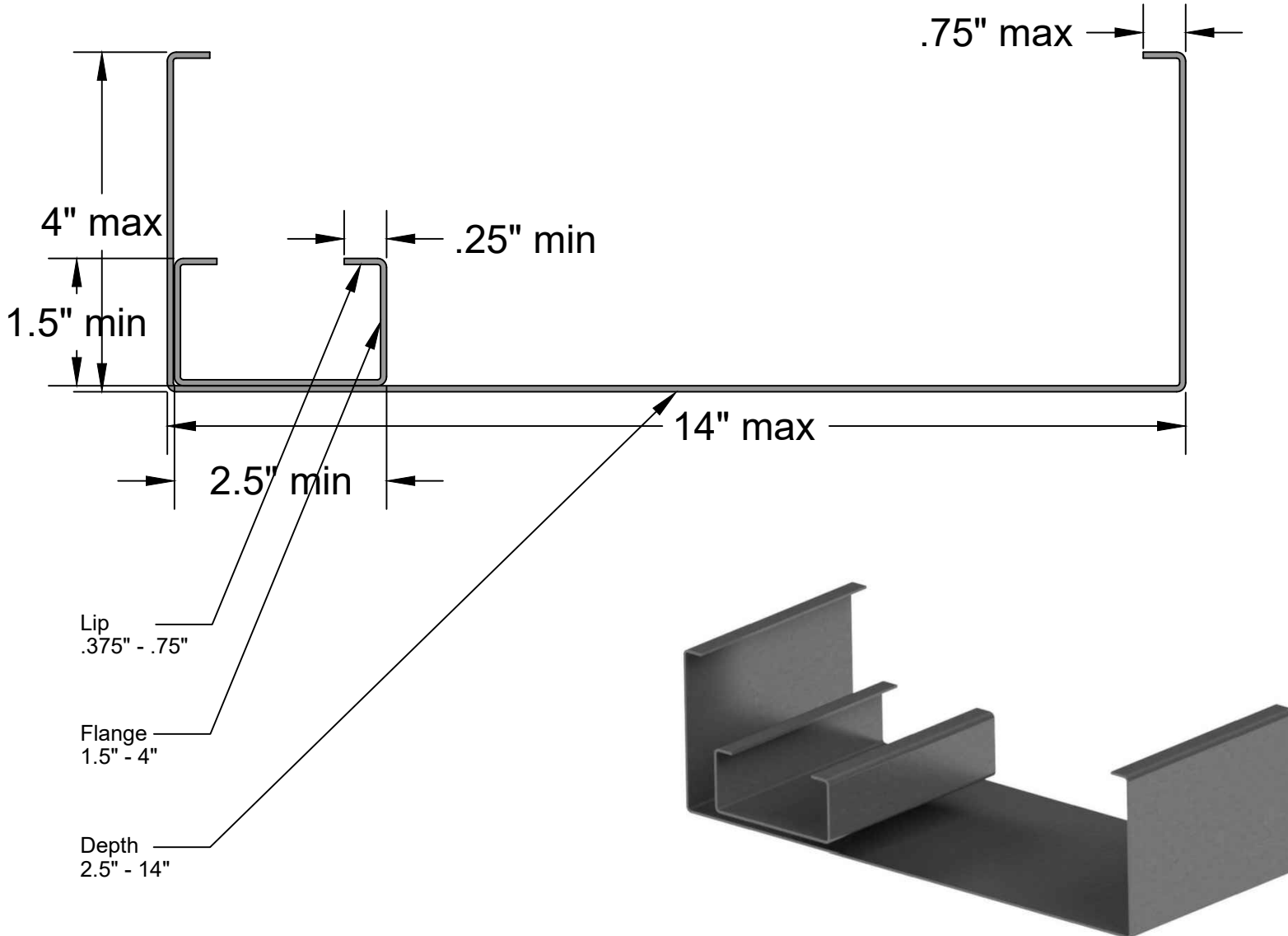
1050L162 - 43

Depth in Inches 1050 = 10.50"	Member Key L	Flange Height 162 = 1.625"	Mill Thickness 43
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Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
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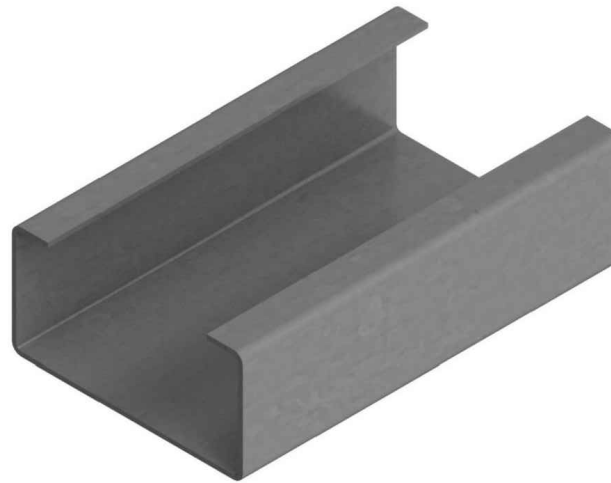
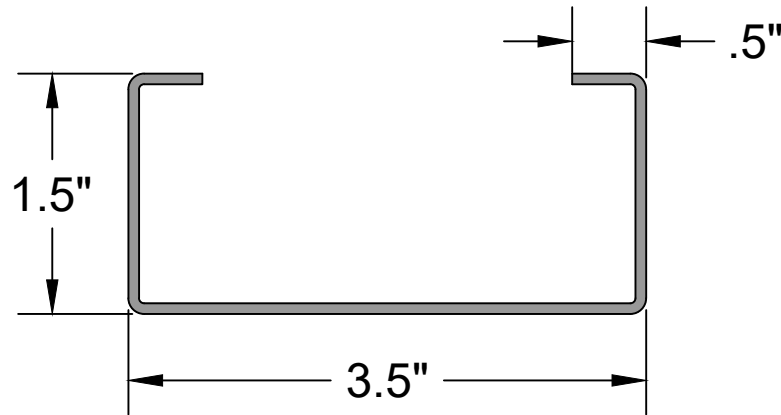
*Dimension changes in 1/16" increments

* All members shown in 14 gauge to show detail

CUSTOM_C_CHANNEL

Steel Members Documentation

3 1/2" x 1 1/2" Stud

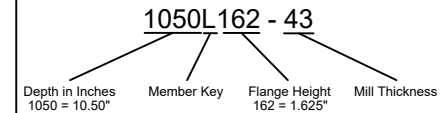


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Member specs and limits

Name:	350S150
Depth:	3.5"
Flange:	1.5"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown



Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
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Mill - Gauge Bend Radius

25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
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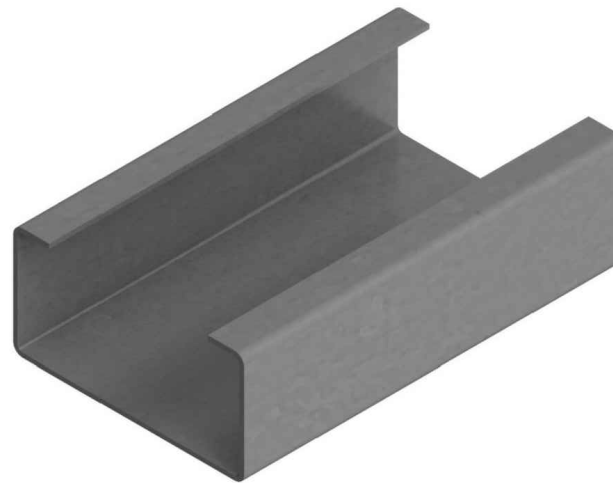
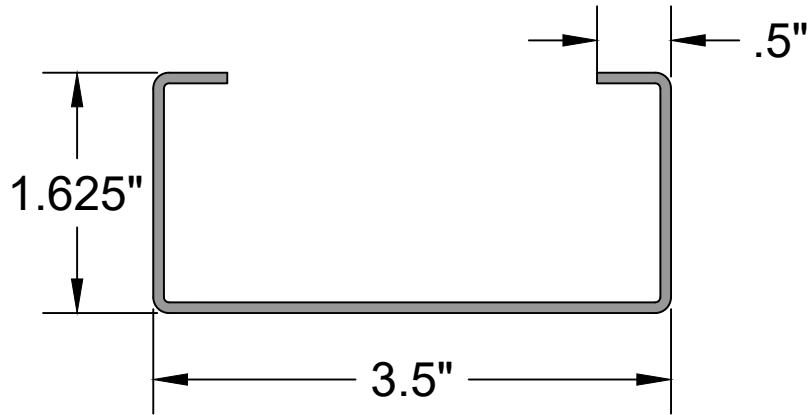
Member Name	Gross Properties (x)					Gross Properties (y)						Torsional Properties				
	G	ksi	Area	Weight	Width	Ix	Sx	rx	Iy	Sy	ry	J	Cw	Xo	Ro	β
350S150-25	24	50	0.147	0.502	6.41	0.204	0.116	1.176	0.019	0.017	0.362	0.00003	0.069	0.733	1.432	0.738
350S150-30	22	50	0.191	0.651	6.38	0.263	0.150	1.172	0.025	0.021	0.359	0.00006	0.088	0.728	1.425	0.739
350S150-33	20	50	0.241	0.821	6.35	0.329	0.188	1.167	0.030	0.026	0.354	0.00012	0.110	0.722	1.417	0.741
350S150-43	18	50	0.303	1.030	6.31	0.408	0.233	1.161	0.037	0.031	0.349	0.00023	0.135	0.714	1.407	0.742
350S150-54	16	50	0.358	1.217	6.27	0.478	0.273	1.156	0.042	0.036	0.344	0.00039	0.157	0.707	1.398	0.744
350S150-68	14	50	0.447	1.522	6.21	0.588	0.336	1.147	0.050	0.042	0.336	0.00077	0.191	0.696	1.383	0.747
350S150-97	12	50	0.604	2.057	6.10	0.772	0.441	1.130	0.062	0.051	0.320	0.00197	0.245	0.676	1.356	0.751

350S150

*All calculations based on unpunched stud
** Full Sectional properties available upon request

Steel Members Documentation

3 1/2" x 1 5/8" Stud

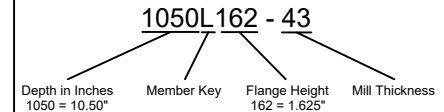


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Member specs and limits

Name:	350S162
Depth:	3.5"
Flange:	1.625"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown



Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member	Gauge	Fy (ksi)	Area (in ²)	Weight (lbs/ft)	Gross Properties					Effective Properties			Coil
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	M _d (ft-lb)	M _{da} (ft-lb)	Flat Width
362S162-25	24	50	.14126	.6367	.3710	.21203	1.4113	.0721	.9364	.35057	417.68	367.54	7.5139"
362S162-30	22	50	.26109	.7628	.4188	.23936	1.4071	.0812	.6189	.41889	548.34	472.48	7.4758"
362S162-33	20	50	.25780	.8826	.5084	.29051	1.4043	.0982	.6171	.50840	638.56	573.59	7.4507"
362S162-43	18	50	.33413	1.137	.6546	.37405	1.3997	.1254	.6126	.65459	841.36	816.45	7.4086"
362S162-54	16	50	.41484	1.412	.8047	.45982	1.3927	.1525	.6063	.80468	1215.7	1167.3	7.3923"
362S162-68	14	50	.51479	1.752	.9851	.56293	1.3834	.1840	.5978	.98513	1574.6	1571.3	7.2201"
362S162-97	12	50	.71130	2.421	1.322	.75558	1.3634	.2392	.5799	1.3223	2230.3	2230.3	6.9941"
											Nominal	7.45"	

*All calculations based on unpunched stud

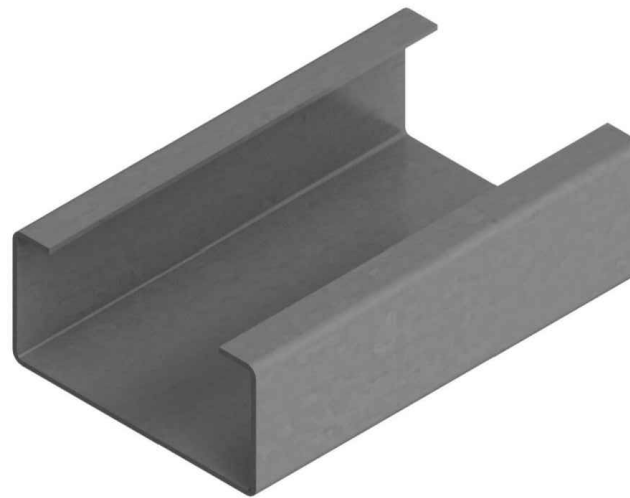
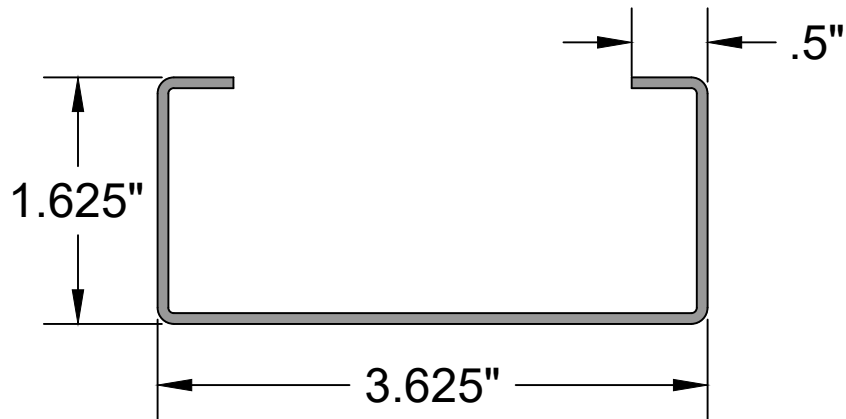
** Full Sectional properties available upon request

350S162

Mill - Gauge	Bend Radius
25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

Steel Members Documentation

3 5/8" x 1 5/8" Stud

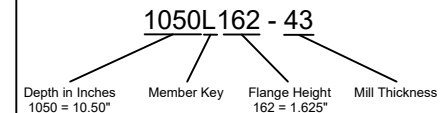


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Member specs and limits

Name:	362S162
Depth:	3.625"
Flange:	1.625"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown



Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
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- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member	Gauge	Fy (ksi)	Area (in ²)	Weight (lbs/ft)	Gross Properties					Effective Properties			Coil
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	M _d (ft-lb)	M _{da} (ft-lb)	Flat Width
362S162-25	24	50	.1902	.6473	.1902	.2219	1.4541	.0730	.6195	.3807	432.60	381.67	7.6389"
362S162-30	22	50	.2278	.7751	.4803	.2650	1.4521	.0868	.6175	.4668	574.84	490.91	7.6008"
362S162-33	20	50	.2873	.9774	.6026	.3325	1.4484	.1083	.6139	.6026	735.73	676.10	7.5757"
362S162-43	18	50	.3609	1.228	.7525	.4152	1.4439	.1341	.6095	.7525	959.36	921.54	7.5336"
362S162-54	16	50	.4248	1.445	.8784	.4846	1.4380	.1551	.6042	.8784	1175.7	1142.9	7.4543"
362S162-68	14	50	.5286	1.799	1.078	.5948	1.4282	.1873	.5953	1.078	1484.1	1484.1	7.3451"
362S162-97	12	50	.7095	2.414	1.413	.7799	1.4115	.2387	.5800	1.413	1945.8	1945.8	7.1191"
										Nominal		7.45"	

*All calculations based on unpunched stud

** Full Sectional properties available upon request

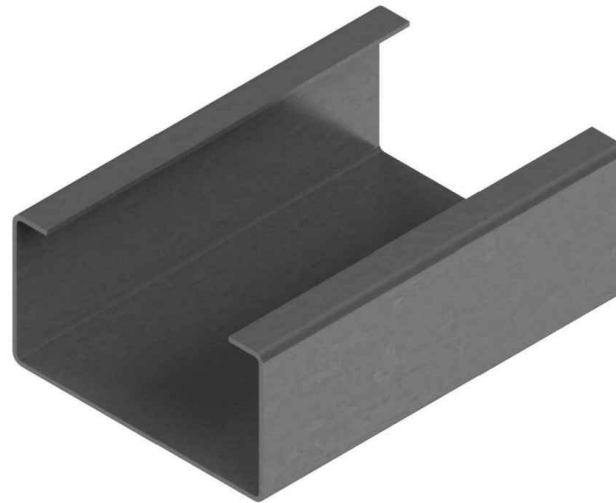
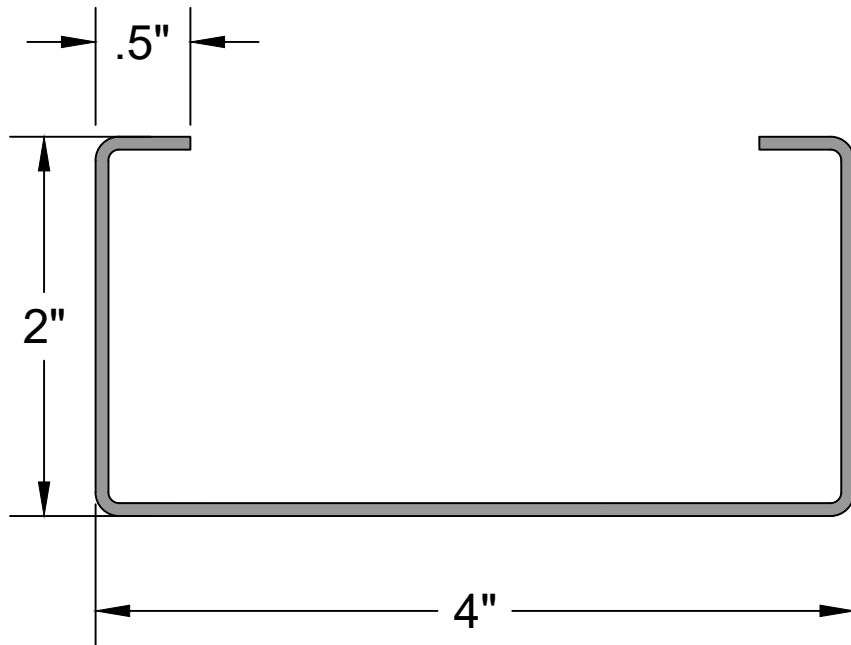
362S162

Mill - Gauge Bend Radius

25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
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68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

Steel Members Documentation

4" x 2" Stud



6195 Hwy 52 East
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Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name: 400S200
Depth: 4"
Flange: 2"
Lip: .5"
Lengths: 6' - 60'
Gauges: 24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43

Depth in Inches: 1050 = 10.50"
Member Key: L
Flange Height: 162 = 1.625"
Mill Thickness: 43

Member Key

S = Stud (C Shaped)
L = Lintel (L Shaped)
T = Track (U Shaped)
W = I-Beam (I Shaped)
E = Eave Strut (C Shaped)
D = Double Eave Strut
A = Angle (2 Legs, 1 Angle)
F = Hat (Top Hat Shaped)
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Fl = Strap/Flat (Flat Shaped)
Z = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						I _x	S _x	r _x	I _y	S _y	r _y	J	C _w	X _o	R _o	β
400S200-54	16	50	0.500	1.702	8.77	1.026	0.513	1.432	0.212	0.156	0.651	0.00054	0.476	1.211	1.985	0.628
400S200-68	14	50	0.627	2.135	8.71	1.276	0.638	1.426	0.262	0.192	0.646	0.00108	0.584	1.199	1.972	0.630
400S200-97	12	50	0.852	2.899	8.60	1.705	0.853	1.415	0.347	0.253	0.639	0.00278	0.761	1.177	1.948	0.635

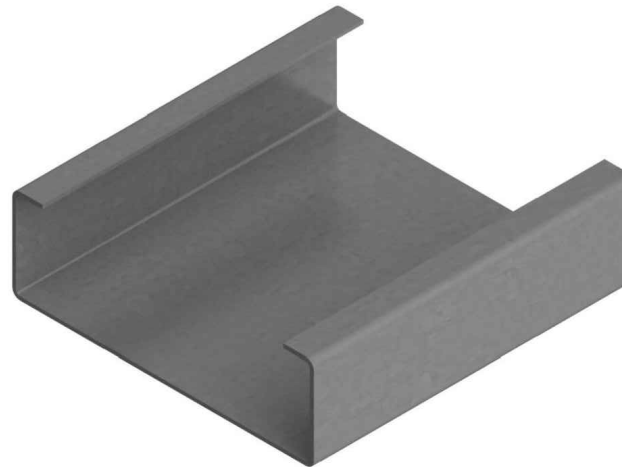
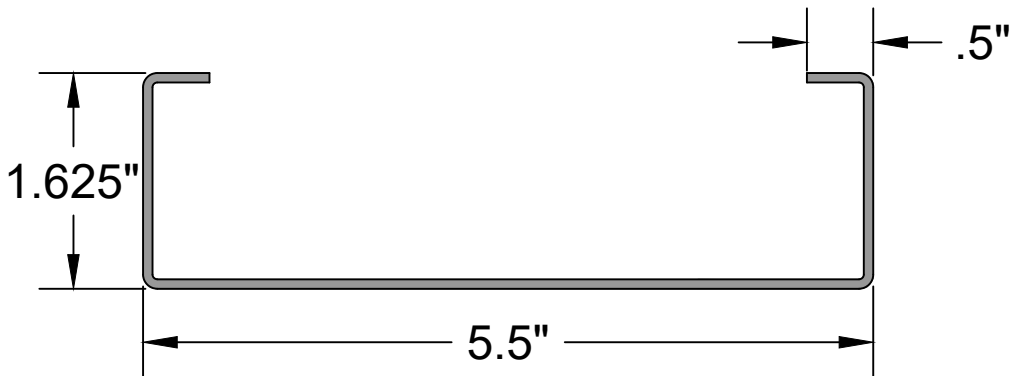
Mill - Gauge	Bend Radius
25 mill = 24 gauge	.0764
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33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request

400S200

Steel Members Documentation

5 1/2" x 1 5/8" Stud

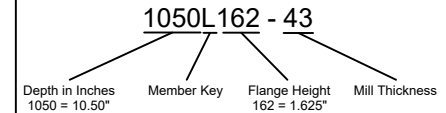


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Member specs and limits

Name:	550S162
Depth:	5.5"
Flange:	1.625"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown



Member Key

- S = Stud (C Shaped)
- L = Lintel (L Shaped)
- T = Track (U Shaped)
- W = I-Beam (I Shaped)
- E = Eave Strut (C Shaped)
- D = Double Eave Strut
- A = Angle (2 Legs, 1 Angle)
- F = Hat (Top Hat Shaped)
- B = Box (Rectangle Shaped)
- FI = Strap/Flat (Flat Shaped)
- Z = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member	Gauge	F _y (ksi)	Area (in ²)	Weight (lbs/ft)	Gross Properties					Effective Properties			Coil
					I _x (in ⁴)	S _x (in ³)	R _x (in)	I _y (in ⁴)	R _y (in)	I _x (in ⁴)	M _d (ft-lb)	M _{da} (ft-lb)	Flat Width
550S162-25	24	50	.2371	.8068	1.0620	.3862	2.1164	.0833	.5928	1.0182	656.29	591.74	9.5139"
550S162-30	22	50	.2840	.9665	1.2695	.4616	2.1142	.0991	.5908	1.2502	898.96	766.36	9.4758"
550S162-33	20	50	.3585	1.2199	1.5961	.5804	2.1100	.1236	.5871	1.5961	1235.6	1067.0	9.4507"
550S162-43	18	50	.4509	1.534	1.9980	.7265	2.1049	.1531	.5826	1.9980	1689.5	1473.2	9.4086"
550S162-54	16	50	.5317	1.809	2.3397	.8508	2.0978	.1771	.5772	2.3397	2065.1	1849.6	9.3293"
550S162-68	14	50	.6636	2.2581	2.8871	1.049	2.0858	.2141	.5680	2.8871	2619.4	2496.4	9.2201"
550S162-97	12	50	.8951	3.046	3.8204	1.389	2.0659	.2731	.5523	3.8204	3466.2	3466.2	8.9941"
											Nominal	9.5"	

*All calculations based on unpunched stud

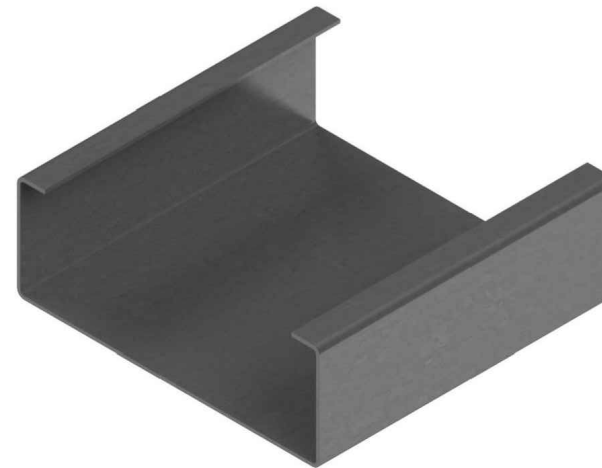
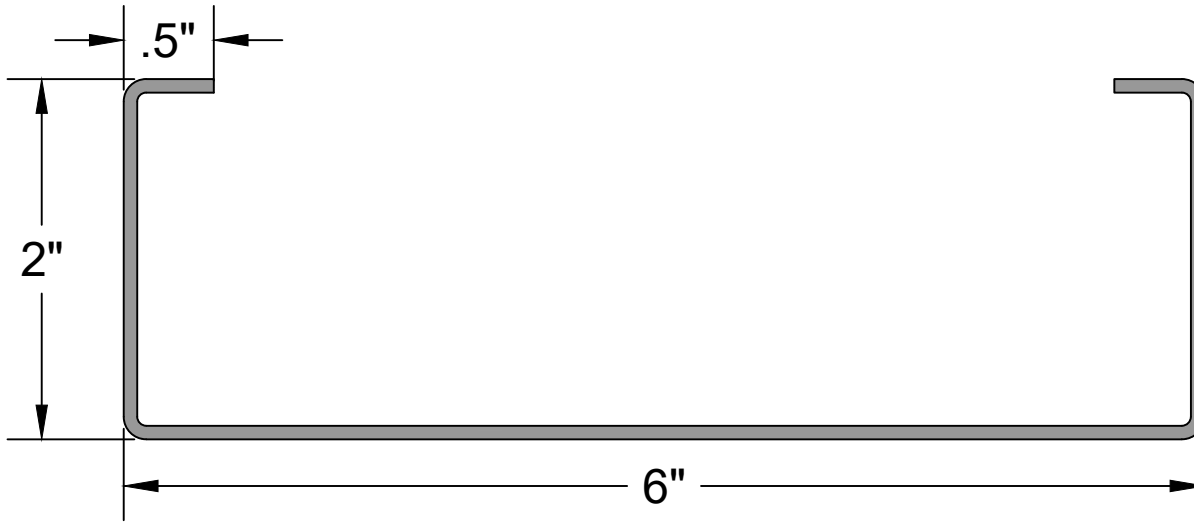
** Full Sectional properties available upon request

550S162

Mill - Gauge	Bend Radius
25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

Steel Members Documentation

6" x 2" Stud



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Member specs and limits

Name:	600S200
Depth:	6"
Flange:	2"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43			
Depth in Inches 1050 = 10.50"	Member Key	Flange Height 162 = 1.625"	Mill Thickness 43

Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						I _x	S _x	r _x	I _y	S _y	r _y	J	C _w	X _o	R _o	β
600S200-54	16	50	1.050	3.573	10.60	3.951	1.317	1.940	0.410	0.275	0.625	0.00343	1.996	1.162	2.346	0.755
600S200-68	14	50	0.771	2.625	10.71	2.944	0.981	1.954	0.309	0.209	0.633	0.00133	1.524	1.183	2.370	0.751
600S200-97	12	50	1.050	3.573	10.60	3.951	1.317	1.940	0.410	0.275	0.625	0.00343	1.996	1.162	2.346	0.755

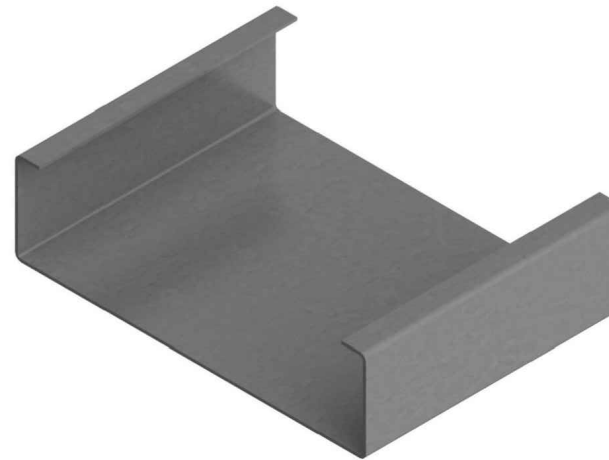
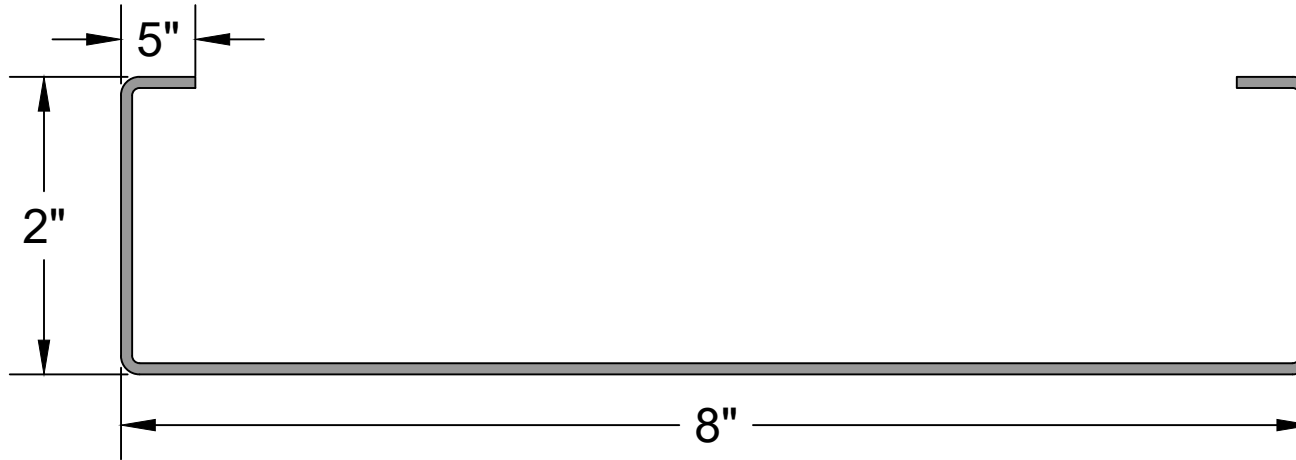
Mill - Gauge	Bend Radius
25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

600S200

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request

Steel Members Documentation

8" x 2" Stud



6195 Hwy 52 East
Murrayville GA, 30564
www.BMMetals.com
Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name: 800S200
Depth: 8"
Flange: 2"
Lip: .5"
Lengths: 6' - 60'
Gauges: 24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43

Depth in Inches: 1050 = 10.50"
Member Key: L
Flange Height: 162 = 1.625"
Mill Thickness: 43

Member Key

S = Stud (C Shaped)
L = Lintel (L Shaped)
T = Track (U Shaped)
W = I-Beam (I Shaped)
E = Eave Strut (C Shaped)
D = Double Eave Strut
A = Angle (2 Legs, 1 Angle)
F = Hat (Top Hat Shaped)
B = Box (Rectangle Shaped)
Fl = Strap/Flat (Flat Shaped)
Z = Zee (Z Shaped)

Mill - Gauge Bend Radius

25 mill = 24 gauge .0764
30 mill = 22 gauge .0796
33 mill = 20 gauge .0764
43 mill = 18 gauge .0712
54 mill = 16 gauge .0849
68 mill = 14 gauge .1069
97 mill = 12 gauge .1325

* All members shown in 14 gauge to show detail

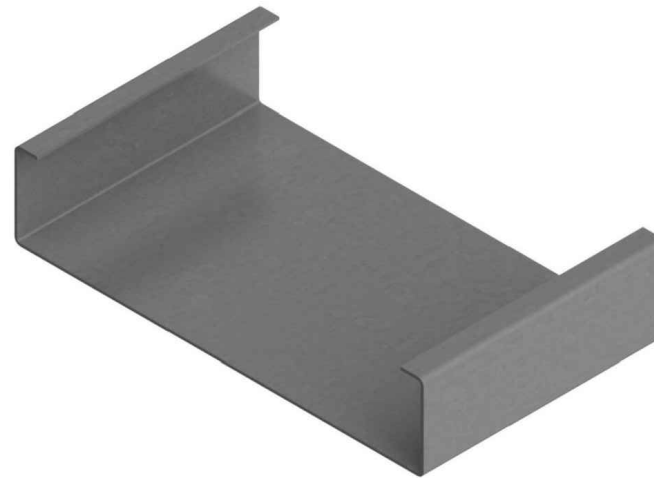
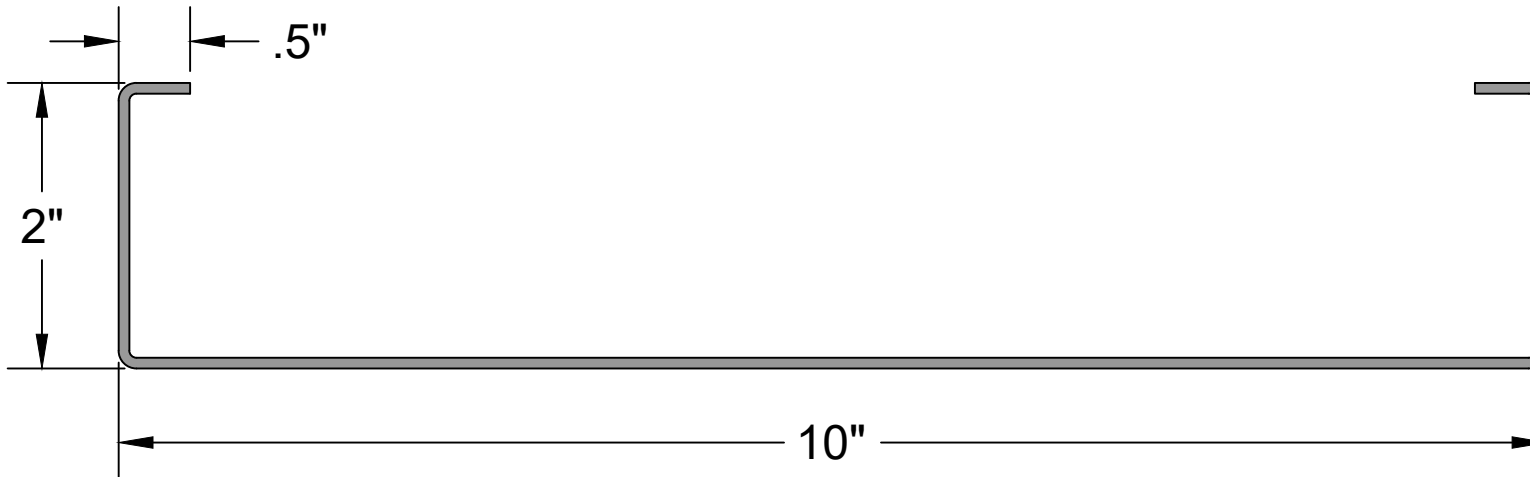
Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						lx	Sx	rx	ly	Sy	ry	J	Cw	Xo	Ro	β
800S200-54	16	50	0.728	2.478	12.77	4.250	1.062	2.416	0.276	0.177	0.616	0.00079	2.435	1.186	2.761	0.815
800S200-68	14	50	0.915	3.115	12.71	5.302	1.326	2.407	0.342	0.219	0.611	0.00158	3.000	1.175	2.747	0.817
800S200-97	12	50	1.248	4.246	12.60	7.129	1.782	2.390	0.453	0.288	0.602	0.00408	3.941	1.154	2.722	0.820

800S200

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request

Steel Members Documentation

10" x 2" Stud



6195 Hwy 52 East
Murrayville GA, 30564
www.BMMetals.com
Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name:	1000S200
Depth:	10"
Flange:	2"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43			
Depth in Inches 1050 = 10.50"	Member Key	Flange Height 162 = 1.625"	Mill Thickness

Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

Mill - Gauge Bend Radius

25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

* All members shown in 14 gauge to show detail

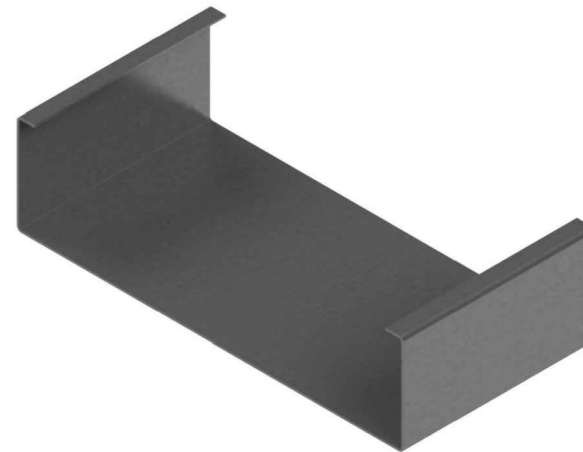
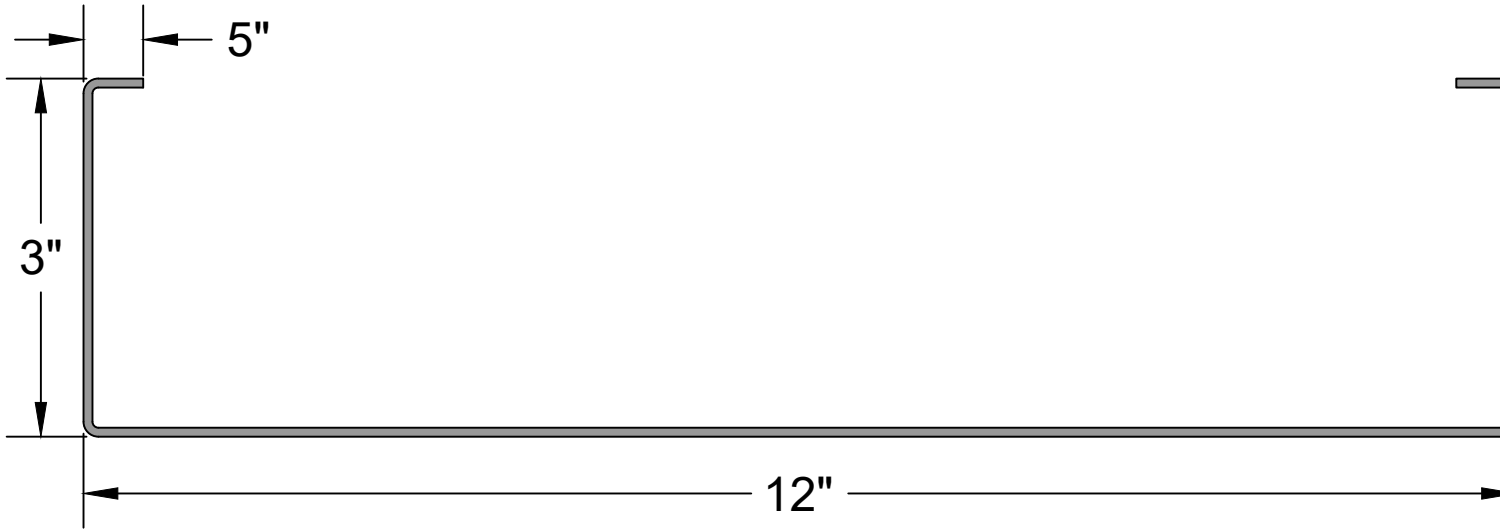
Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						lx	Sx	rx	ly	Sy	ry	J	Cw	Xo	Ro	β
1000S200-54	16	50	0.842	2.866	14.77	6.687	1.337	2.818	0.295	0.183	0.592	0.00091	4.101	1.181	3.113	0.856
1000S200-68	14	50	1.059	3.605	14.71	8.349	1.670	2.807	0.366	0.225	0.587	0.00183	5.055	1.170	3.098	0.857
1000S200-97	12	50	1.446	4.920	14.60	11.24	2.247	2.788	0.484	0.296	0.578	0.00472	6.651	1.150	3.071	0.860

1000S200

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request

Steel Members Documentation

12" x 3" Stud



6195 Hwy 52 East
Murrayville GA, 30564
www.BMMetals.com
Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name:	1200S300
Depth:	12"
Flange:	3"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown

1050L162 - 43			
Depth in Inches 1050 = 10.50"	Member Key	Flange Height 162 = 1.625"	Mill Thickness

Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						lx	Sx	rx	ly	Sy	ry	J	Cw	Xo	Ro	β
1200S300-54	16	50	1.070	3.641	18.77	13.74	2.290	3.584	0.802	0.336	0.866	0.0012	19.09	1.692	4.056	0.826
1200S300-68	14	50	1.347	4.585	18.71	17.21	2.868	3.574	0.997	0.416	0.860	0.0023	23.71	1.680	4.042	0.827
1200S300-97	12	50	1.842	6.268	18.60	23.29	3.881	3.556	1.332	0.554	0.851	0.0060	31.64	1.660	4.015	0.829

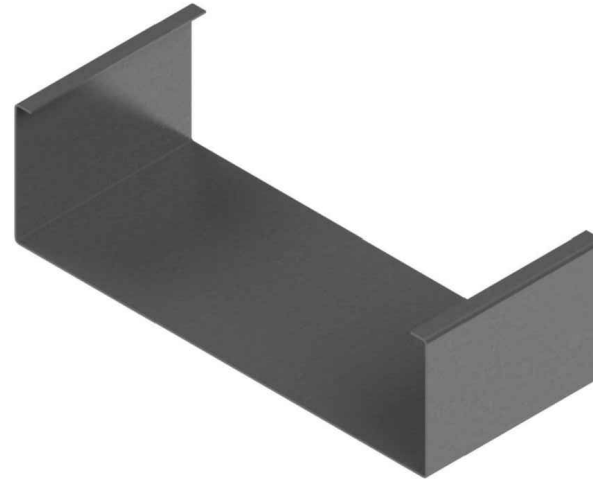
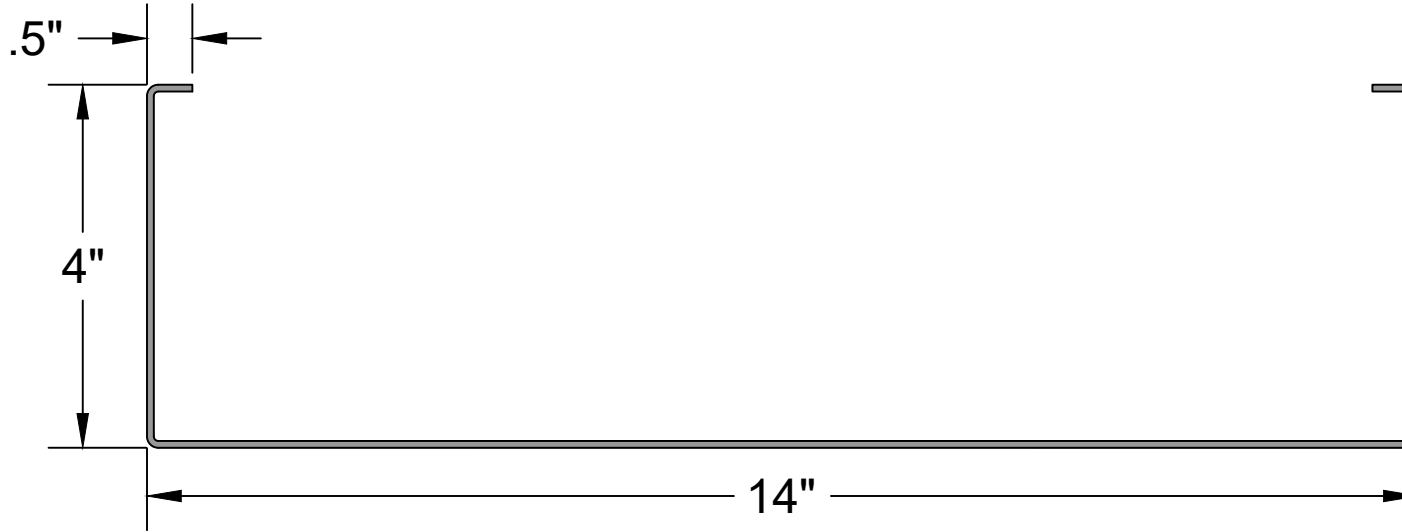
Mill - Gauge	Bend Radius
25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

1200S300

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request

Steel Members Documentation

14" x 4" Stud

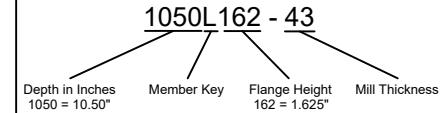


6195 Hwy 52 East
Murrayville GA, 30564
www.BMMetals.com
Office: (706) 864-6068
Fax: (706) 864-2147

Member specs and limits

Name:	1400S400
Depth:	14"
Flange:	4"
Lip:	.5"
Lengths:	6' - 60'
Gauges:	24,22,20,18,16,14,12

Name Breakdown



Member Key

- S** = Stud (C Shaped)
- L** = Lintel (L Shaped)
- T** = Track (U Shaped)
- W** = I-Beam (I Shaped)
- E** = Eave Strut (C Shaped)
- D** = Double Eave Strut
- A** = Angle (2 Legs, 1 Angle)
- F** = Hat (Top Hat Shaped)
- B** = Box (Rectangle Shaped)
- Fl** = Strap/Flat (Flat Shaped)
- Z** = Zee (Z Shaped)

* All members shown in 14 gauge to show detail

Member Name	G	ksi	Area	Weight	Width	Gross Properties (x)			Gross Properties (y)			Torsional Properties				
						lx	Sx	rx	ly	Sy	ry	J	Cw	Xo	Ro	β
1400S400-54	16	50	1.298	4.417	22.77	24.30	3.471	4.326	1.663	0.528	1.132	0.0014	59.79	2.197	4.982	0.806
1400S400-68	14	50	1.635	5.565	22.71	30.48	4.354	4.317	2.074	0.657	1.126	0.0028	74.57	2.185	4.968	0.806
1400S400-97	12	50	2.238	7.616	22.60	41.38	5.911	4.300	2.786	0.879	1.116	0.0073	100.2	2.165	4.942	0.808

Mill - Gauge Bend Radius

25 mill = 24 gauge	.0764
30 mill = 22 gauge	.0796
33 mill = 20 gauge	.0764
43 mill = 18 gauge	.0712
54 mill = 16 gauge	.0849
68 mill = 14 gauge	.1069
97 mill = 12 gauge	.1325

1400S400

*All calculations should be verified by licensed Engineer
** Full Sectional properties available upon request