

250S125-18

Product Information

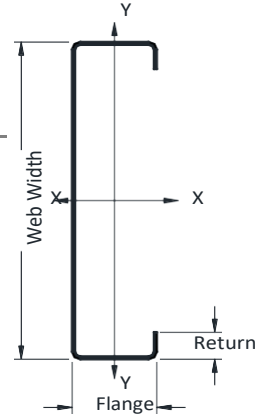
Westud non-structural studs are fabricated from prime mill certified steel with a true galvanized coating. These non-structural studs can be used for walls and ceilings.

Steel Material Properties

18 Mil	Labeled Thickness
0.0188"	Design Thickness
0.0179"	Minimum Thickness
57 ksi	Yield Strength (Fy)
65 ksi	Tensile Strength (Fu)
G40	Galvanize Coating Thickness
No Paint	Color Code (Painted Ends)

Geometric Properties

2-1/2"	Web Width
1-1/4"	Flange Height
3/16"	Return Length



LEED - Possible Points for Certification

Westud materials have a high inherent recycled content and can be used in achieving LEED Certification. Westud's HPD & EPD are available upon request.

- LEED v4 Credit MR: Building Product Disclosure and Optimization - EPD (2 Possible Points)
- LEED v4 Credit MR: Building Product Disclosure and Optimization - Sourcing of Raw Materials (1 Possible Points)
- LEED v4 Credit MR: Building Product Disclosure and Optimization - Material Ingredients (1 Possible Points)

Recycled Content of Steel

- 14.4% Pre-Consumer Scrap Recycled Content
- 19.8% Post-Consumer Scrap Recycled Content
- 34.2% Total Recycled Content

ASTM and AISI Code Standards

- ASTM A653/A653M, A924/A924M, A1003, C645, C754
- AISI S100-12 and AISI S240-15
- IBC 2015 and IBC 2018, as well as CBC 2016 and CBC 2019

Section Properties

Table Notes:

1. The centerline bend radius is based on inside corner radii.
2. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI S100-12 A7.2.
3. Tabulated gross properties are based on the full-unreduced cross section of the studs away from punch-outs.
4. For deflection calculations, use the effective moment of inertia.
5. Allowable moment is the lesser of Mal and Mad. Stud distortional buckling is based on an assumed $K\phi = 0$.

Section	Gross Properties							Effective and Distortional Properties						Torsional Properties					Lu (in)	
	Area (in ²)	Weight (lb/ft)	Ix (in ⁴)	Sx (in ³)	Rx (in)	Iy (in ⁴)	Ry (in)	Ixe (in ⁴)	Sxe (in ³)	Mal (in-k)	Mad (in-k)	Vag (lb)	VaNet (lb)	Jx1000 (in ⁴)	Cw (in ⁶)	Xo (in)	m (in)	Ro (in)		β
250S125-18	0.097	0.33	0.099	0.079	1.014	0.019	0.439	0.089	0.059	1.17	1.03	258	196	0.011	0.023	-0.904	0.543	1.427	0.599	29

Limiting Wall Heights

Table Notes:

1. Allowable composite limiting heights are calculated using ICC-ES AC86-2019.
2. No fasteners are required for attaching the stud to the track.
3. Stud end bearing must be a minimum of 1 inch.
4. Composite limiting heights are based on a single layer of 5/8" type-X gypsum board installed in the vertical orientation to both sides of the wall over full height using minimum No. 6 type S drywall screws spaced a maximum of 12" oc for studs at 24" spacing, and 16" oc for studs at 16" and 12" spacing.

Table Notes:

1. Loads have not been reduced for strength or deflection checks; full lateral load is applied.
2. Limiting heights are based on steel properties only without the contribution of sheathing to strength and stiffness of the assembly. Properly fastened sheathing is still required for members to be considered fully braced.
3. Web crippling check based on 1" end bearing.
4. Studs are assumed to be adequately braced at maximum spacing of Lu to develop full allowable moment.

Table Notes:

1. Loads have not been reduced for strength or deflection checks; full lateral load is applied.
2. Limiting heights are based on studs braced at maximum spacing of 48" oc. Bracing can be placed at greater distances if deflection controls.
3. Web crippling check based on 1" end bearing.

Stud Spacing (in)	Composite Wall Heights (5 psf)			Non-Composite Fully Braced (5 psf)			Non-Composite Braced at 48" O.C. (5 psf)		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12" o.c.	16' 4" f	14' 2"	12' 9"	11' 8"	10' 6"	9' 2"	11' 8" d	9' 3" d	8' 1" d
16" o.c.	14' 2" f	12' 10"	11' 7"	10' 2"	9' 7"	8' 4"	10' 0" f	9' 8" d	8' 7" d
24" o.c.	11' 7" f	11' 3"	10' 2"	8' 3"	8' 3"	7' 4"	8' 2" f	8' 2" f	7' 6" d