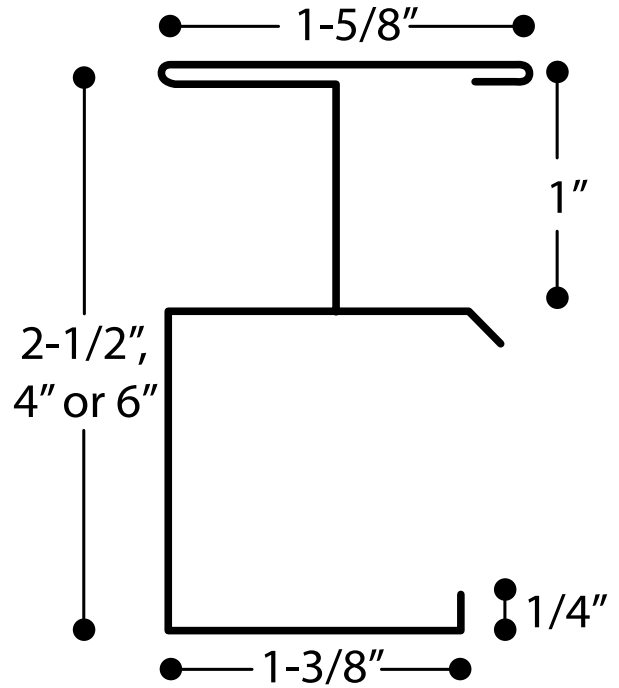


BUILDSTRONG

SHAFTWALL SYSTEMS: CT STUD

Shaftwall Systems are used to aid in the construction of elevator shafts, mechanical shafts, stairwells, air return shafts and horizontal membranes. The system is designed to use with 1" gypsum board. Telling's shaftwall is available in 2 1/2", 4", or 6" sizes. Shaftwall is available in 18, 33 and 40 mil thicknesses.



CT Stud Product Offering

| Section | Web (in) | Min Base Steel Thickness (in) | Design Thickness (in) | Fy Yield Stress (ksi) |
|---------|------------------|-------------------------------|-----------------------|-----------------------|
| CT-18 | 2.5", 4.0", 6.0" | 0.0179 | 0.0188 | 33 |
| CT-33 | 2.5", 4.0", 6.0" | 0.0329 | 0.0346 | 33 |
| CT-40 | 2.5", 4.0", 6.0" | 0.0380 | 0.0400 | 33 |

CT Stud Section Properties

| Section | Min Thickness (in) | Design Thickness (in) | Fy (ksi) | Weight (lb/ft) | Area (in ²) | Ixx (in ⁴) | Sx(C) (in ³) | Sx(T) (in ³) |
|----------|--------------------|-----------------------|----------|----------------|-------------------------|------------------------|--------------------------|--------------------------|
| 250CT-18 | 0.0179" | 0.0188" | 33 | 0.47 | 0.118 | 0.132 | 0.095 | 0.118 |
| 400CT-18 | 0.0179" | 0.0188" | 33 | 0.58 | 0.015 | 0.374 | 0.171 | 0.207 |
| 600CT-18 | 0.0179" | 0.0188" | 33 | 0.72 | 0.181 | 0.957 | 0.299 | 0.347 |
| 250CT-33 | 0.0329" | 0.0346" | 33 | 0.82 | 0.218 | 0.242 | 0.175 | 0.217 |
| 400CT-33 | 0.0329" | 0.0346" | 33 | 1.02 | 0.267 | 0.687 | 0.341 | 0.380 |
| 600CT-33 | 0.0329" | 0.0346" | 33 | 1.26 | 0.333 | 1.759 | 0.543 | 0.637 |
| 250CT-40 | 0.0380" | 0.0400" | 33 | 0.99 | 0.291 | 0.273 | 0.253 | 0.192 |
| 400CT-40 | 0.0380" | 0.0400" | 33 | 1.19 | 0.351 | 0.811 | 0.476 | 0.353 |
| 600CT-40 | 0.0380" | 0.0400" | 33 | 1.47 | 0.431 | 2.142 | 0.827 | 0.628 |

CT Stud & J Track Limiting Wall Heights

Limiting Wall Heights for CT Studs & J Track Shaftwall 1-Hour Fire Rated Assemblies

| Section | Design Thickness (in) | 5 psf | | | | 7.5 psf | | | | 10 psf | | | |
|----------|-----------------------|---------|---------|---------|--------|---------|---------|--------|--------|--------|-------|-------|-------|
| | | L/120 | L/180 | L/240 | L/360 | L/120 | L/180 | L/240 | L/360 | L/120 | L/180 | L/240 | L/360 |
| 250CT-18 | 0.0188" | 11'7"f | 11'- 4" | 10'- 6" | 9'- 0" | 9'- 5"f | 9'5"f | 8'11" | | 8'2"f | 8'2"f | 7'10" | |
| 400CT-18 | 0.0188" | 14'6"f | 14'6"f | 13- 9 | 12- 1 | 11-10 f | 11-10 f | 11-10f | 10-5 | 9-3s | 9-3s | 9-3s | 9-3s |
| 600CT-18 | 0.0188" | 16'11"f | 16- 11f | 16- 11f | 16- 3 | 13-10 f | 13-10 f | 13-10f | 13-10f | 12-0f | 12-0f | 12-0f | 12-0f |
| 250CT-33 | 0.0346" | 15'9" | 13- 9 | 12- 6 | 10- 11 | 13- 9 | 12-0 | 10-11 | 9-6 | 12-6 | 10-11 | | 8-7 |
| 400CT-33 | 0.0346" | 21'7" | 18- 10 | 17- 2 | 15- 0 | 18-9F | 16-6 | 15-0 | 13-1 | 16-2f | 15-0 | 13-7 | 11-10 |
| 600CT-33 | 0.0346" | 27'10"f | 25- 3 | 22- 11 | 20- 1 | 22-9f | 22-1 | 20-1 | 17-6 | 19-5f | 19-5f | 18-3 | 15-11 |
| 250CT-40 | 0.0400" | 16'11" | 14- 9 | 13- 5 | 11- 9 | 14-9 | 12-11 | 11-9 | 10-2 | 13-5 | 11-9 | 10-7 | 9-2 |
| 400CT-40 | 0.0400" | 23'4" | 20- 4 | 18- 6 | 16- 2 | 20-4 | 17-9 | 16-2 | 14-1 | 18-6 | 16-2 | 14-8 | 12-10 |
| 600CT-40 | 0.0400" | 30'11" | 27- 1 | 24- 8 | 21- 7 | 27-1 | 23-9 | 21-7 | 18-11 | 24-7f | 21-7 | 19-8 | 17-3 |

NOTES:

- Allowable composite limiting heights are calculated using ICC-ES-AC86-2012
- "f" indicates flexural stress controls the allowable wall height
- "s" indicates the end reaction controls the allowable wall height
- Wall Construction was: Type X 5/8" thick Gypsum board, & #6 screws
- Stud Spacing was 24" on center
- 600CT-33 and 600CT-40 assemblies require a 6 in screw spacing for the gypsum board along the top & bottom track.



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1-866-372-6384

For more information, please contact Telling Industries
Technical Services at 1-866-372-6384.

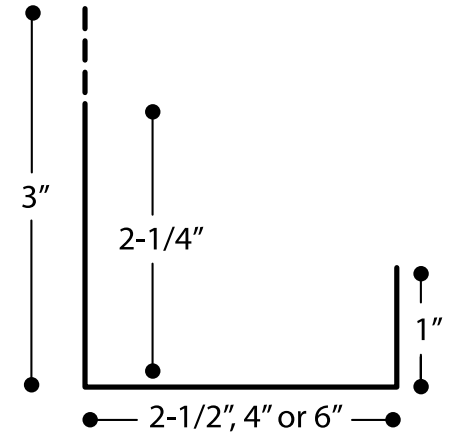


SHAFTWALL SYSTEMS: J TRACK & JL CORNER

SHAFTWALL SYSTEM: J TRACK

J Track Product Offering

| Section | Web (in) | Flange (in) | Min Thickness (in) | Design Thickness (in) | Fy (ksi) |
|---------|------------------|--------------|--------------------|-----------------------|----------|
| JT-18 | 2.5", 4.0", 6.0" | 2.25" & 3.0" | 0.0179 | 0.0188 | 33 |
| JT-33 | 2.5", 4.0", 6.0" | 2.25" & 3.0" | 0.0329 | 0.0346 | 33 |



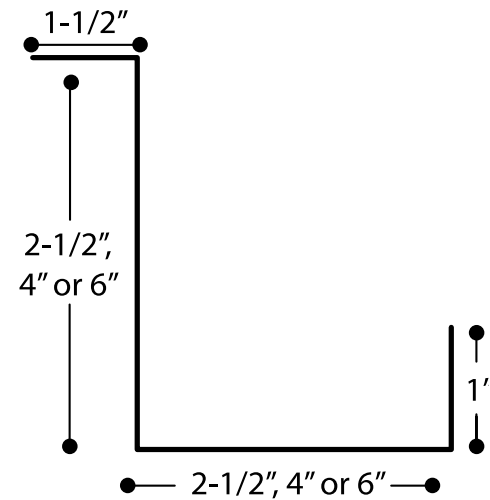
J Track Sectional Properties

| Section | Min Thickness (in) | Design Thickness (in) | Fy Yield Stress (ksi) | Weight (lb/ft) | Area (in ²) | Ixx (in ⁴) | Rx (in) | Iyy (in ⁴) | Ry (in) |
|-------------|--------------------|-----------------------|-----------------------|----------------|-------------------------|------------------------|---------|------------------------|---------|
| 250JT225-18 | 0.0179 | 0.0188" | 33 | 0.3681 | 0.1082 | 0.1193 | 1.05 | 0.0471 | 0.6601 |
| 400JT225-18 | 0.0179 | 0.0188" | 33 | 0.464 | 0.1364 | 0.3404 | 1.5799 | 0.0532 | 0.6247 |
| 600JT225-18 | 0.0179 | 0.0188" | 33 | 0.592 | 0.174 | 0.878 | 2.2466 | 0.0583 | 0.5787 |
| 250JT300-18 | 0.0179 | 0.0188" | 33 | 0.4161 | 0.1223 | 0.1322 | 1.0399 | 0.1025 | 0.9155 |
| 400JT300-18 | 0.0179 | 0.0188" | 33 | 0.512 | 0.1505 | 0.3772 | 1.5834 | 0.1158 | 0.8774 |
| 600JT300-18 | 0.0179 | 0.0188" | 33 | 0.64 | 0.1881 | 0.9689 | 2.2697 | 0.1274 | 0.823 |
| 250JT225-33 | 0.0329 | 0.0346" | 33 | 0.6765 | 0.1988 | 0.22 | 1.052 | 0.086 | 0.6575 |
| 400JT225-33 | 0.0329 | 0.0346" | 33 | 0.8531 | 0.2507 | 0.6269 | 1.5813 | 0.097 | 0.622 |
| 600JT225-33 | 0.0329 | 0.0346" | 33 | 1.0886 | 0.3199 | 1.6159 | 2.2474 | 0.1061 | 0.576 |
| 250JT300-33 | 0.0329 | 0.0346" | 33 | 0.7648 | 0.2248 | 0.244 | 1.0419 | 0.1874 | 0.9131 |
| 400JT300-33 | 0.0329 | 0.0346" | 33 | 0.9414 | 0.2767 | 0.695 | 1.5849 | 0.2117 | 0.8748 |
| 600JT300-33 | 0.0329 | 0.0346" | 33 | 1.1769 | 0.3459 | 1.7835 | 2.2708 | 0.2328 | 0.8204 |

SHAFTWALL SYSTEM: JL CORNER

J-L Corner Product Offering

| Section | Web (in) | Flange (in) | Min Base Steel Thickness (in) | Design Thickness (in) | Fy Yield Stress (ksi) | Notes |
|---------|------------------|------------------|-------------------------------|-----------------------|-----------------------|----------------|
| JL-18 | 2.5", 4.0", 6.0" | 2.5", 4.0", 6.0" | 0.0179" | 0.0188" | 33 | 12' max length |
| JL-33 | 2.5", 4.0", 6.0" | 2.5", 4.0", 6.0" | 0.0329" | 0.0346" | 33 | 12' max length |
| JL-40 | 2.5", 4.0", 6.0" | 2.5", 4.0", 6.0" | 0.0400" | 0.0380" | 33 | 12' max length |



Recommendations

- Use a fastening plate to secure the J track whenever fasteners are closer than 4" to the edge. Setting the plate at the time of concrete construction will avoid spalling by mechanical fasteners.
- Cut C-T studs 3/4" less than the height of the opening.
- Cut 1" shaftliner panel 3/4" less than the height of the opening.
- In structural steel-frame construction, install J track sections before applying spray-on fireproofing.
- Items to be anchored to the wall (cabinets, sinks, handrails, etc.) should be fastened to the C-T or to plates secured behind or between layers of 1/2" Type C gypsum board.
- Joint compounds should be applied at ambient temperatures above 50°F (10°C) with adequate ventilation.
- Use Type S screws for 25-gauge steel framing. Use Type S-12 screws for 20-gauge (or heavier) steel framing.
- It is important that the job structural engineer approves the type, size and maximum spacing of track fasteners to meet the design load requirements.

