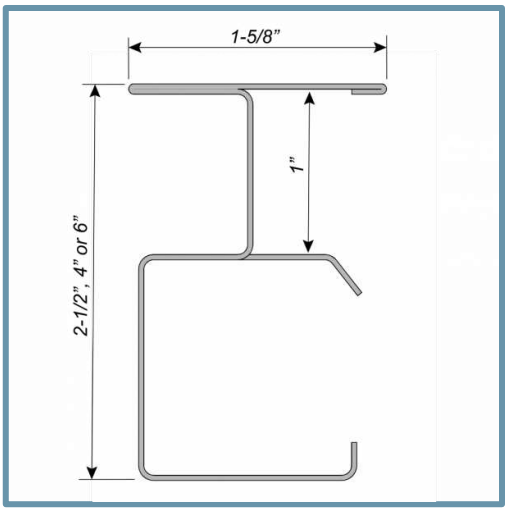
4", 22mils (25ga) ClarkDietrich Shaftwall System

ClarkDietrich C-T Cavity Shaftwall System

ClarkDietrich C-T Cavity Shaftwall Studs are high-performance members engineered to maintain shaftwall integrity. C-T Studs are designed for use with 1" thick gypsum 24" wide liner panels. Gypsum liner panels are inserted into the "T" portion of the stud and are friction fit. The system is finished with fire rated gypsum board to complete and achieve the designated fire rating.

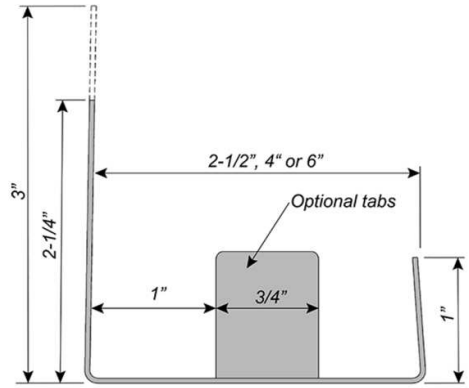
ClarkDietrich J-Track is used at the floor and ceiling in shaftwall assemblies. C-T studs and gypsum shaftliner panels are friction fit between the top and bottom J-Track. J-Tracks have unequal legs. The longer leg (available in 2-1/4" and 3") is installed on the shaft side providing a backstop for easy installation of the liner panel. Three-inch leg track is typically used as jamb struts around closure details, including duct and door openings, abutments and intersections.



Product Data & Ordering Information:

Product Code	Description	Minimum Thickness	Design Thickness	J-Track w/ 2-1/4" leg	J-Track w/ 3" leg
400CT-22	4" C-T Stud	0.0219"	0.0231"	400JR-22	400JR3-22

All material is produced with a coating of G40EQ (G40/G60 available)
J-Tracks are available with optional "tabs" for ease of C-T Stud spacing.



J-Track

CT Stud Gross Structural Properties:

Product Code	Description	Weight (lb/ft)	Area (in^2)	Ix (in^4)	Sx (in^3)	Steel Fy (ksi)	Pcs/Skid
400CT-22	4" C-T Stud	0.622	0.199	0.480	0.209	33	160

Calculated properties are based on AISI S100.

Limiting Heights - Design Pressure:

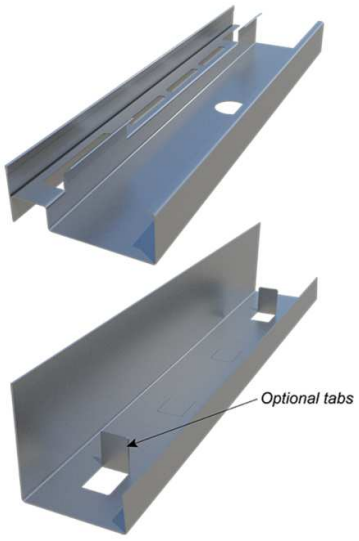
Deflection	5 psf	7.5 psf	10 psf	15 psf
L/120	21'-8"	16'-6"*	12'-5"*	8'-3" *
L/240	16'-0"	13'-7"	12'-1"	8'-3" *
L/360	13'-7"	11'-6"	10'-4"	8'-3" *

*Reduced for End Reaction capacity
**Reduces for Flexural Strength Capacity

1. The values in this table are based on testing per ICC-ES AC 86 and ASTM E72 and represent the limiting height capacity for strength using a 1.5 Safety Factor.
2. Limiting Height values shown, were assessed from the lowest Flexural Stength value of Gypsum tested.

See heights & installation notes in ICC-ES Evaluation report ESR-5050 or on www.clarkdietrich.com/shaftwall.

Common UL Designs: U417, U428, U429, U497, U498, V455 and V473



Code Approvals & Performance Standards

- AISI S100-16 (2020) w/S2-20 North American Specification for the Design of Cold-Formed Steel Structural Members
- AISI S220-20 North American Standard for Cold-Formed Steel Framing - Nonstructural Members
  - (Compliant to ASTM C645 , but IBC replaced with AISI S220 in IBC 2015)
  - Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
  - Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
  - Section C Installation - (Referencing ASTM C754)
- ICC-ES ESR-5050 Shaftwall Systems
- Intertek SPEC ID 26661 Shaftwall and Stairwall Wall Assemblies
- SDS For ASTM A1003 Steel Framing Products For Interior Framing, Exterior Framing and Clips/Accessories