

# TRAKLOC® Composite Limiting Heights

with 5/8" Type X Gypsum Board

## TRAKLOC Fixed Length Studs (TLF)

Width (in)	Stud Member (TLF)	Design thickness (in)	Yield strength (ksi)	Spacing (in)	5 PSF			7.5 PSF			10 PSF		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
2-1/2	TRAKLOC 25 (18mil) 250TLF125-18	0.0188	33	12	17'-2"	14'-5"	12'-7"	14'-6" f	12'-8"	11'-0"	12'-7" f	11'-6"	10'-0"
				16	15'-10" f	13'-7"	11'-10"	13'-0"	11'-10"	10'-4"	11'-3" f	10'-9" f	9'-3"
				24	13'-4" f	12'-3"	10'-8"	10'-11" f	10'-8"	9'-1"	9'-5" f	9'-5" f	7'-11"
	TRAKLOC 20EQ (24mil) 250TLF125-24	0.0250	57	12	16'-10"	14'-10"	13'-1"	15'-0"	13'-0"	11'-5"	13'-9"	11'-10"	10'-4"
				16	16'-8"	13'-9"	12'-1"	14'-7"	12'-0"	10'-7"	13'-3"	10'-11"	9'-7"
				24	14'-10"	12'-3"	10'-9"	13'-0"	10'-8"	9'-3"	11'-9"	9'-8"	8'-2"
	TRAKLOC 30mil 250TLF125-30	0.0312	33	12	18'-5"	16'-0"	14'-0"	16'-2"	14'-0"	12'-3"	14'-9"	12'-8"	11'-2"
				16	17'-6"	15'-0"	13'-2"	15'-4"	13'-1"	11'-6"	13'-11"	11'-11"	10'-6"
				24	15'-9"	13'-5"	11'-10"	13'-9"	11'-9"	10'-4"	12'-6"	10'-8"	9'-3"
	TRAKLOC 33mil 250TLF125-33	0.0346	33	12	20'-11"	16'-7"	14'-6"	18'-3"	14'-6"	12'-8"	16'-7"	13'-2"	11'-6"
				16	19'-0"	15'-1"	13'-2"	16'-7"	13'-2"	11'-6"	15'-1"	12'-0"	10'-6"
				24	16'-7"	13'-2"	11'-6"	14'-6"	11'-6"	10'-1"	13'-2"	10'-6"	9'-0"
3-5/8	TRAKLOC 25 (18mil) 362TLF125-18	0.0188	33	12	21'-7"	17'-11"	15'-8"	18'-10" f	15'-8"	13'-8"	16'-4" f	14'-3"	12'-5"
				16	20'-0" f	16'-8"	14'-7"	16'-4" f	14'-7"	12'-8"	14'-1" f	13'-3"	11'-6"
				24	16'-4" f	14'-10"	13'-0"	13'-4" f	13'-0"	11'-2"	11'-6" f	11'-6" f	9'-10"
	TRAKLOC 20EQ (24mil) 362TLF125-24	0.0250	57	12	24'-1"	19'-1"	16'-8"	21'-0"	16'-8"	14'-7"	16'-8"	14'-1"	15'-2"
				16	21'-10"	17'-4"	15'-2"	19'-1"	15'-2"	13'-3"	17'-4"	13'-9"	12'-0"
				24	19'-1"	15'-2"	13'-3"	16'-8"	13'-3"	11'-6"	15'-0" f	12'-0"	10'-4"
	TRAKLOC 30mil 362TLF125-30	0.0312	33	12	24'-7"	20'-2"	17'-10"	21'-6"	17'-8"	15'-7"	19'-6"	16'-0"	14'-2"
				16	22'-8"	18'-8"	16'-6"	19'-10"	16'-4"	14'-5"	18'-0"	14'-10"	13'-1"
				24	20'-1"	16'-7"	14'-7"	17'-7"	14'-6"	12'-9"	16'-0"	13'-2"	11'-7"
	TRAKLOC 33mil 362TLF125-33	0.0346	33	12	25'-5"	20'-2"	17'-7"	22'-2"	17'-7"	15'-4"	20'-2"	16'-0"	14'-0"
				16	23'-9"	18'-10"	16'-6"	20'-9"	16'-6"	14'-5"	18'-10"	15'-0"	13'-1"
				24	21'-4"	16'-11"	14'-10"	18'-8"	14'-10"	12'-11"	16'-11"	13'-5"	11'-8"
4	TRAKLOC 25 (18mil) 400TLF125-18	0.0188	33	12	23'-4"	18'-6"	16'-4"	19'-5" f	16'-2"	14'-3"	16'-10" f	14'-8"	12'-11"
				16	20'-7" f	17'-5"	15'-4"	16'-10" f	15'-3"	13'-5"	14'-7" f	13'-10"	12'-2"
				24	16'-10" f	15'-9"	13'-10"	13'-9" f	13'-9"	12'-1"	11'-11" f	11'-11" f	10'-9"
	TRAKLOC 20EQ (24mil) 400TLF125-24	0.0250	57	12	24'-4"	19'-4"	16'-11"	21'-3"	16'-11"	14'-9"	19'-4"	15'-4"	13'-5"
				16	23'-1"	18'-4"	16'-0"	20'-2"	16'-0"	14'-0"	18'-4"	14'-7"	12'-9"
				24	21'-0"	16'-8"	14'-7"	18'-4"	14'-7"	12'-9"	16'-0" f	13'-3"	11'-6"
	TRAKLOC 30mil 400TLF125-30	0.0312	33	12	26'-3"	20'-11"	18'-4"	23'-0"	18'-5"	16'-3"	20'-10"	16'-10"	14'-11"
				16	24'-3"	19'-11"	17'-5"	21'-2"	17'-5"	15'-3"	19'-3"	15'-10"	13'-11"
				24	21'-6"	17'-8"	15'-7"	18'-9"	15'-5"	13'-7"	17'-1"	14'-0"	12'-4"
	TRAKLOC 33mil 400TLF125-33	0.0346	33	12	27'-7"	22'-9"	19'-11"	24'-1"	19'-10"	17'-6"	21'-10"	18'-1"	15'-11"
				16	25'-0"	20'-8"	18'-2"	21'-10"	18'-1"	15'-11"	19'-10"	16'-5"	14'-5"
				24	21'-10"	18'-1"	15'-11"	19'-1"	15'-9"	13'-11"	17'-4"	14'-4"	12'-8"
6	TRAKLOC 25 (18mil) 600TLF125-18	0.0188	33	12	30'-5" f	25'-3"	22'-5"	24'-10" f	22'-0"	19'-7"	21'-6" f	20'-0"	17'-9"
				16	26'-4" f	23'-4"	20'-9"	21'-6" f	20'-5"	18'-2"	18'-7" f	18'-7" f	16'-6"
				24	21'-6" f	20'-9"	18'-5"	17'-7" f	17'-7" f	16'-1"	15'-2" f	15'-2" f	14'-5"
	TRAKLOC 20EQ (24mil) 600TLF125-24	0.0250	57	12	33'-5"	27'-4"	24'-2"	29'-2"	23'-11"	21'-1"	26'-6"	21'-8"	19'-2"
				16	30'-4"	24'-10"	21'-11"	26'-6"	21'-8"	19'-2"	24'-1"	19'-9"	17'-5"
				24	26'-6"	21'-8"	19'-2"	23'-2"	18'-11"	16'-9"	20'-1" f	17'-3"	15'-2"
	TRAKLOC 30mil 600TLF125-30	0.0312	33	12	35'-5"	28'-1"	24'-6"	30'-11"	24'-6"	21'-5"	28'-1"	22'-4"	19'-6"
				16	33'-3"	26'-4"	23'-0"	29'-0"	23'-0"	20'-1"	26'-4"	20'-11"	18'-3"
				24	29'-11"	23'-9"	20'-9"	25'-10" f	20'-9"	18'-1"	22'-4" f	18'-10"	16'-5"
	TRAKLOC 33mil 600TLF125-33	0.0346	33	12	36'-0"	28'-7"	25'-0"	31'-5"	25'-0"	21'-10"	28'-7"	22'-8"	19'-10"
				16	33'-9"	26'-9"	23'-5"	29'-5"	23'-5"	20'-5"	26'-9" f	21'-3"	18'-7"
				24	30'-3"	24'-0"	21'-0"	25'-11" f	21'-0"	18'-4"	22'-5" f	19'-1"	16'-7"

### NOTES

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2012.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 Stress Increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board complying with ASTM C1396 and from the following manufacturers: American Gypsum, CertainTeed, Georgia Pacific, Continental, National Gypsum or USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S fine thread Drywall bugle head screws spaced as listed below:
  - Screws spaced a maximum of 16 inch on-center to framing members spaced at 12 inch on-center.
  - Screws spaced a maximum of 12 inch on-center to framing members spaced at 16 inch or 24 inch on-center.
  - Screws spaced 16 inch on-center to the top and bottom track.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- The minimum overlap of the TSO (Outer Stud) and TSE (Inner Stud) must be 8 inches and the maximum un-lapped length of the TSE must be 4 inches.
- f Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

For SI Units: 1 inch = 25.4 mm, 1 ft = 0.3048m, 1 psf = 47.88 Pa