

**TRAKLOC® Composite Limiting Heights**  
with 5/8" Type X Gypsum Board

TRAKLOC Deflection Studs (TLD)

Width (in)	Stud Member (TLD)	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) 250TLD125-18	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'-2" s	10'-9"	9'-3"
				24	13'-4" f	12'-3"	10'-8"	9'-11" s	9'-11" s	9'-1"	—	—	—
	TRAKLOC 20EQ (24mil) 250TLD125-24	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 250TLD125-30	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 250TLD125-33	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) 362TLD125-18	0.0188	33	12	21'-7"	17'-11"	15'-8"	15'-10" s	15'-8" s	13'-8"	11'-10" s	11'-10" s	11'-10" s
				16	17'-9" s	16'-8"	14'-7"	11'-10" s	11'-10" s	11'-10" s	8'-11" s	8'-11" s	8'-11" s
				24	11'-10" s	11'-10" s	11'-10" s	7'-11" s	7'-11" s	7'-11" s	—	—	—
	TRAKLOC 20EQ (24mil) 362TLD125-24	0.0250	57	12	24'-1"	19'-1"	16'-8"	21'-0"	16'-8"	13'-7"	19'-1"	15'-2"	13'-3"
				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"	14'-11" f	12'-0"	10'-4"
	TRAKLOC 30mil 362TLD125-30	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 362TLD125-33	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) 400TLD125-18	0.0188	33	12	23'-4" f	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"	12'-9" s	12'-9" s	12'-2"
				24	16'-10" f	15'-9"	13'-10"	11'-4" s	11'-4" s	11'-4" s	8'-6" s	8'-6" s	8'-6" s
	TRAKLOC 20EQ (24mil) 400TLD125-24	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 400TLD125-30	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 400TLD125-33	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) 600TLD125-18	0.0188	33	12	20'-8" s	20'-8" s	20'-8" s	13'-10" s	13'-10" s	13'-10" s	—	—	—
				16	15'-6" s	15'-6" s	15'-6" s	—	—	—	—	—	—
				24	—	—	—	—	—	—	—	—	—
	TRAKLOC 20EQ (24mil) 600TLD125-24	0.0250	57	12	33'-5"	27'-4"	24'-2"	29'-2"	23'-11"	21'-1"	24'-2" s	21'-8"	19'-2"
				16	30'-4"	24'-10"	21'-11"	24'-2" s	21'-8"	19'-2"	18'-1" s	18'-1" s	17'-5" s
				24	24'-2" s	21'-8"	19'-2"	16'-1" s	16'-1" s	16'-1" s	12'-1" s	12'-1" s	12'-1" s
	TRAKLOC 30mil 600TLD125-30	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"	23'-7" s	20'-9"	18'-1"	17'-8" s	17'-8" s	16'-5"
	TRAKLOC 33mil 600TLD125-33	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"	21'-3"	18'-7"
				24	30'-3"	24'-0"	21'-0"	24'-8" s	21'-0"	18'-4"	18'-6" s	18'-6" s	16'-7"

**NOTES**

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

- 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 bottom track only.
- 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.