

Holdowns for CFS Construction

Structural Connectors

TDS series

The **TD8S**, **TD10S**, and **TD15S** are high capacity holdowns which are designed for attachment to cold formed steel (CFS) framing members. Holdowns are secured at the base by attachment to an anchor bolt.

Materials: See chart **Finish:** USP primer

Installation:

- Use #10 self-tapping screws to attach the back or strap portion of the holdown to a steel stud. Install nut to secure the base of holdown to foundation with anchor bolt of specified diameter.
- A design professional shall specify the type, length, and embedment depth of the anchor bolt.
- Install anchor bolt nut to base of holdown until finger tight, then tighten an additional 1/3 to 1/2 turns with a wrench.





Typical TD10S installation

| | | St | eel | Dimensions (in) | | | Fastener Schedule | | | CFS Member | | ASD | | LRFD | | Nominal | П | |
|-----------|---------|------|-------|-----------------|-------------|---------|-----------------------------|-----------------------------|------|---------------------|-------|-----------------|-------------------------------------|-----------------|--------------------------------------|------------------------------|-------|-----|
| USP | | Thic | kness | Di | IIICIISIOII | s (III) | Anchor Bolt ² | Stud Screws ⁴ | | Stud ^{1,3} | | Tension Load | Deflection at ASD Load ⁵ | Tension Load | Deflection at LRFD Load ⁵ | Tension Load ⁶ | Ctn | |
| Stock No. | Ref No. | Body | Base | W | L | CL | Dia. (in) | Qty | Туре | Plies | Mills | Gr | (lbs) | (in) | (lbs) | (in) | (lbs) | Qty |
| Ĭ | | | | | | | | | | 2 | 33 | 33 | 8250 | 0.074 | 13200 | 0.164 | 22325 | |
| TD8S | S/HD8S | 10 | 3/8 | 2-1/2 | 13-7/8 | 1-5/8 | 7/8 | 24 | #10 | 2 | 43 | 33 | 10115 | 0.109 | 16350 | 0.242 | 27650 |] 1 |
| | | | | | | | | | | 2 | 54 | 50 | 10900 | 0.091 | 17435 | 0.205 | 29485 | |
| | | | | | | | | | | 2 | 33 | 33 | 8690 | 0.071 | 13900 | 0.159 | 24575 | |
| TD10S | S/HD10S | 10 | 3/8 | 2-1/2 | 16-1/8 | 1-5/8 | 7/8 | 30 | #10 | 2 | 43 | 33 | 9310 | 0.076 | 14900 | 0.195 | 26335 | 1 |
| | | | | | | | | | | 2 | 54 | 50 | 9985 | 0.058 | 15975 | 0.146 | 28235 | |
| TD15S | S/HD15S | 7 | 1/2 | 2-5/8 | 21-1/2 | 1-11/16 | 1 | 48 | #10 | 2 | 33 | 33 | 11780 | 0.075 | 18845 | 0.146 | 33410 | 1 |
| | | | | | | | | | | 2 | 43 | 33 | 13770 | 0.100 | 22035 | 0.192 | 39065 | |
| | | | | | | | | | | 2 | 54 | 50 | 15920 | 0.096 | 25475 | 0.144 | 45160 | |

- 1) Back-to-back stud members are required.
- 2) The designer must specify anchor bolt type, length, and embedment.
- 3) Designer shall verify the adequacy of the steel studs to transfer the required load.
- 4) #10 designates ASTM C1513 compliant self-tapping screws that are 0.190" dia. with a minimum 0.340" diameter head and must fully penetrate all CFS steel members.
- 5) Holdown deflection at ASD and LRFD static test load includes fastener slip, holdown deflection, and anchor bolt elongation.
- 6) The nominal tension load is based on the average of the ultimate tested values.