

CS/CMST Coiled Straps

CMSTC provides nail slots for easy installation and coined edges; it can be cut to length. CS are continuous utility straps which can be cut to length on the job site. Packaged in lightweight (about 40 pounds) cartons.

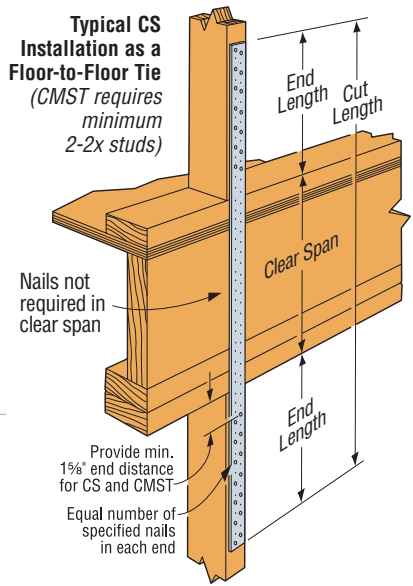
FINISH: Galvanized. Some products available in ZMAX® coating; see Corrosion Information, page 10-11.

INSTALLATION: • Use all specified fasteners. See General Notes.

- Wood shrinkage after strap installation across horizontal wood members may cause strap to buckle outward.
- Refer to the applicable code for minimum nail penetration and minimum wood edge and end distances.
- The table shows the maximum allowable loads and the nails required to obtain them. Fewer nails may be used; reduce the allowable load as shown in footnote #3.
- The cut length of the strap shall be equal to twice the "End Length" noted in the table plus the clear span dimension.
- CMST only—Use every other round hole if the wood tends to split. Use round and triangle holes for comparable MST loads, providing wood does not tend to split.
- For lap splice and alternate nailing information, refer to technical bulletin T-CMST (see page 191 for details).
- CS straps are available in 25' lengths, order CS14-R, CS16-R, CS18-R, CS20-R or CS22-R.

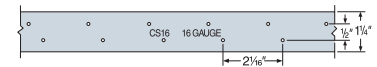
CODES: See page 12 for Code Reference Key Chart.

Typical CS Installation as a Floor-to-Floor Tie
(CMST requires minimum 2-2x studs)

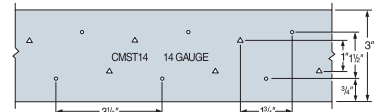


These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

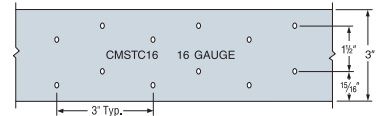
| Model No. | Total L | Ga | DF/SP | | SPF/HF | | Allowable Tension Loads (160) | Code Ref. |
|-----------|---------|----|-----------------|------------|-----------------|------------|-------------------------------|-------------|
| | | | Fasteners | End Length | Fasteners | End Length | | |
| | | | 160 | 160 | 160 | 160 | | |
| CMST12 | 40' | 12 | 74 - 16d | 33" | 84 - 16d | 38" | 9215 | I4, L19, F2 |
| | | | 86 - 10d | 39" | 98 - 10d | 44" | 9215 | |
| CMST14 | 52 1/2' | 14 | 56 - 16d | 26" | 66 - 16d | 30" | 6490 | I4, L19, F2 |
| | | | 66 - 10d | 30" | 76 - 10d | 34" | 6490 | |
| CMSTC16 | 54' | 16 | 50 - 16d sinker | 20" | 58 - 16d sinker | 25" | 4585 | I4, L19, F2 |
| CS14 | 100' | 14 | 26 - 10d | 15" | 30 - 10d | 16" | 2490 | I4, L19, F2 |
| | | | 30 - 8d | 16" | 36 - 8d | 19" | 2490 | |
| CS16 | 150' | 16 | 20-10d | 11" | 22 - 10d | 12" | 1705 | I4, L19, F2 |
| | | | 22 - 8d | 13" | 26 - 8d | 14" | 1705 | |
| CS18 | 200' | 18 | 16 - 10d | 9" | 18 - 10d | 10" | 1370 | I4, L19, F2 |
| | | | 18 - 8d | 11" | 22 - 8d | 12" | 1370 | |
| CS20 | 250' | 20 | 12 - 10d | 6" | 14 - 10d | 8" | 1030 | I4, L19, F2 |
| | | | 14 - 8d | 9" | 16 - 8d | 9" | 1030 | |
| CS22 | 300' | 22 | 10 - 10d | 7" | 12 - 10d | 7" | 845 | I4, L19, F2 |
| | | | 12 - 8d | 6" | 14 - 8d | 8" | 845 | |



CS16 Hole Pattern
(all other CS straps similar)



CMST14 Hole Pattern
(CMST12 similar)



CMSTC16 Hole Pattern

Gauge stamped on part for easy identification

1. Loads include a 60% load duration increase on the fasteners for wind or seismic loading.
2. Use half of the required nails in each member being connected to achieve the listed loads.
3. Calculate the connector value for a reduced number of nails as follows: Allowable Load = $\frac{\text{No. of Nails Used}}{\text{No. of Nails in Table}} \times \text{Table Load}$
 Example: CMSTC16 in DF/SP with 48 nails total.
 (Half of the nails in each member being connected) Allowable Load = $\frac{48 \text{ Nails (Used)}}{56 \text{ Nails (Table)}} \times 4585 \text{ lbs} = 3930 \text{ lbs}$
4. Tension loads apply for uplift when installed vertically.
5. **NAILS:** 16d = 0.162" dia. x 3 1/2" long, 16d Sinker = 0.148" dia. x 3 1/4" long, 10d = 0.148" dia. x 3" long.
 See page 16-17 for other nail sizes and information.

Straps & Ties

TS Twist Straps

Twist straps provide a tension connection between two wood members. An equal number of right and left hand units are supplied in each carton.

MATERIAL: 16 gauge. **FINISH:** Galvanized. See Corrosion Information, page 10-11.

INSTALLATION: • Use all specified fasteners. See General Notes.

- TS should be installed in pairs to reduce eccentricity.

CODES: See page 12 for Code Reference Key Chart.

| Model No. | L | Fasteners (Total) | Allowable Loads (160) | Code Ref. |
|-----------|--------|-------------------|-----------------------|-----------|
| TS9 | 9 | 8-16d | 530 | 170 |
| TS12 | 11 5/8 | 10-16d | 665 | |
| TS18 | 17 3/4 | 14-16d | 930 | |
| TS22 | 21 5/8 | 18-16d | 1215 | |

1. Install half of the fasteners on each end of the strap to achieve full loads.
2. Loads have been increased 60% for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
3. 16d sinkers (0.148" dia. x 3 1/4") may be substituted for the specified 16d commons at 0.84 of the table loads.
4. Loads are for a single TS.
5. **NAILS:** 16d = 0.162" dia. x 3 1/2" long,
 See page 16-17 for other nail sizes and information.

