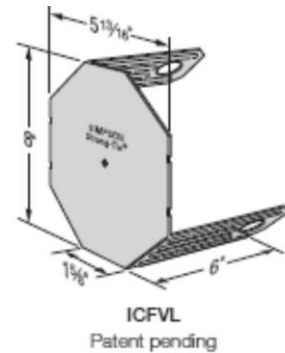


ICF CONNECTORS (Adapted from Simpson ICF Connector document)

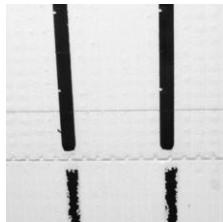
The ICF Ledger Connector System is engineered to solve the challenges of mounting wood or steel ledgers to walls built with insulated concrete forms (ICF).

The ICFVL is a 14-gauge galvanized steel connector designed to provide both vertical and lateral in-plane resistance. The embedded legs are embossed for additional stiffness and the holes allow for concrete to flow through and around the connector. The exposed flange on the face of the ICF provides a structural surface for mounting either a wood or steel ledger.



ICFVL INSTALLATION:

STEP 1: Snap a line for the bottom of the ledger and mark the on-center spacing



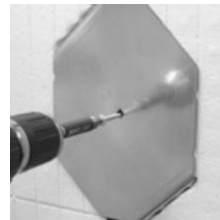
STEP 2: Use the ICFVL to mark the kerf locations in the ICF



STEP 3: Cut the kerfs as marked

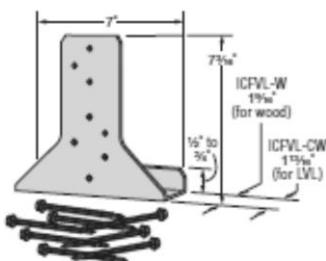


STEP 4: Insert the ICFVL flush to the face of the ICF



STEP 5: Use a screw through diamond hole in face of ICFVL and into web to hold in place during

concrete pour (*remove prior to ledger installation*).



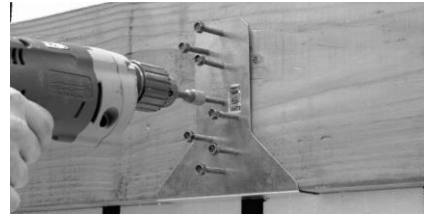
ICFVL-W and ICFVL-CW

Attachment of wood ledgers is easily accomplished by the use of ICFVL-W, or ICFVL-CW connectors. They are designed similarly, the difference is that ICFVL-W are made for lumber dimensions (fits 1-1/2" material) where ICFVL-CW are made for LVL dimensions (fits 1-1/4" material).

ICFVL-CW or W INSTALLATION:

STEP 1: Slip the appropriate ledger connector underneath the wood ledger.

STEP 2: Install the eight ICF-D3.25 screws partially into the ledger. For denser wood species such as LVL and other EWP products, predrilling may be necessary. Predrill ONLY the wood ledger with 5/32" drill bit.



STEP 3: Position the bottom of the ledger level to the chalk line and drive the screws through the wood and into the ICFVL.

STEP 4: All screws should be located at least 1/2" from the edge of the ICFVL.

Note: Do NOT splice at the ICFVL-W or ICFVL-CW location. However, connectors should be no more than 12" from the end of the ledger.



Notes from Simpson Strong-Tie®:

- i. For denser wood species (specific gravity ≥ 0.50) such as LVL and other EWP products, predrilling may be necessary. Predrill the wood ledger only with 5/32" drill bit.
 - ii. These products are not intended for use with preservative-treated lumber.
 - iii. Do not splice ledger at ICFVL location.
 - iv. No load duration increase is allowed.
 - v. Minimum concrete compressive strength ($f'c$) is 2,500 psi.
 - vi. Use the unity equation when applying vertical and lateral loads simultaneously.
- Design Download/Allowable Download + Design Lateral Load/Allowable Lateral Load ≤ 1.0 .

Warning: Industry studies show that hardened fasteners can experience performance problems in wet environments. Accordingly, use this product in dry, interior applications only.

Uniform Loads		ICFVL Spacing for SPF Wood Ledger (in.)									
Dead Load (psf)	Live Load (psf)	Joist Span (ft.)									
		10	12	14	16	18	20	22	24	26	28
10	40	48	48	48	48	48	47	42	39	36	33
15	40	48	48	48	48	48	47	42	38	35	30
20	40	48	48	48	48	48	43	39	35	30	28
10	60	48	48	48	42	37	33	30	28	26	24
20	60	48	48	42	36	32	29	26	24	22	21
30	60	48	43	37	32	29	26	24	22	20	18
40	60	47	39	33	29	26	23	21	19	18	17
10	100	42	35	30	26	24	21	19	18	16	15
20	100	39	32	28	24	22	19	18	16	15	14

*Chart above indicates example of spacing for ICFVL hangers. Confirm with Simpson Strong Tie updated engineering for construction