

# TER 1912-07 SPAX® PowerLags® Series Structural Wood Fasteners Installation Instructions

## 1 Installation

- 1.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this TER and the applicable building code.
- 1.2 In the event of a conflict between the manufacturer installation instructions and this TER, the more restrictive shall govern.
- 1.3 SPAX® PowerLags® shall be installed using the driver bits specified in TER 1912-07, as applicable.
- 1.4 Fasteners shall not be struck with a hammer during installation.
- 1.5 *Lead Hole Requirements*
  - 1.5.1 Lead holes are not required for #14, 1/4", and 5/16" SPAX® PowerLags®.
  - 1.5.2 Lead holes of 0.172" (4.37 mm) diameter are required for 3/8" SPAX® PowerLags®.
  - 1.5.3 Lead holes of 0.203" (5.16 mm) diameter are required for 1/2" SPAX® PowerLags®.
- 1.6 The fastener head must be installed flush to the surface of the wood side member being connected. The fastener must not be overdriven.
  - 1.6.1 In the event a fastener is overdriven, contact the manufacturer for counsel on steps to take and, if needed, a repair to be made.
- 1.7 Minimum main member penetration is 1 1/2" unless otherwise stated in this TER.
- 1.8 Minimum requirements for fastener spacing, edge distance, and end distance shall be in accordance with Table 1. See Figure 1 for additional details.

**Table 1.** Minimum Spacing, Edge Distance, and End Distance Requirements

| Connection Geometry                                                                                                                                                           | Minimum Spacing/Distance <sup>1,2,3</sup> (in) |      |       |                       |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------|-------|-----------------------|-------|
|                                                                                                                                                                               | #14                                            | 1/4" | 5/16" | 3/8"                  | 1/2"  |
| Edge Distance – Load in any direction                                                                                                                                         | 1/2                                            | 1/2  | 5/8   | 2 1/4                 | 2 3/4 |
| End Distance – Load parallel to grain, towards end                                                                                                                            | 2 5/8                                          | 3    | 3 3/8 | 4 1/2                 | 5 1/2 |
| End Distance – Load parallel to grain, away from end                                                                                                                          | 1 3/4                                          | 2    | 2 1/4 | 1 3/8                 | 1 3/4 |
| End Distance – Load perpendicular to grain                                                                                                                                    | 1 3/4                                          | 2    | 2 1/4 | 1 3/8                 | 1 3/4 |
| Spacing between Fasteners in a Row – Parallel to grain                                                                                                                        | 2 5/8                                          | 3    | 3 3/8 | 2 3/4                 | 3 3/4 |
| Spacing between Fasteners in a Row – Perpendicular to grain                                                                                                                   | 1 3/4                                          | 2    | 2 1/4 | 1 3/8                 | 1 3/4 |
| Spacing between Rows of Fasteners – In-line                                                                                                                                   | 7/8                                            | 1    | 1 1/8 | See NDS Table 12.5.1D |       |
| Spacing between Rows of Fasteners – Staggered                                                                                                                                 | 1/2                                            | 1/2  | 5/8   |                       |       |
| SI: 1 in = 25.4 mm                                                                                                                                                            |                                                |      |       |                       |       |
| 1. Edge distances, end distances, and spacing of fasteners shall be sufficient to prevent splitting of the wood or as shown in this table, whichever is the more restrictive. |                                                |      |       |                       |       |
| 2. Values for "Spacing between Rows of Fasteners – Staggered" apply where the fasteners in adjacent rows are offset by one half of the "Spacing between Fasteners in a Row"   |                                                |      |       |                       |       |
| 3. 3/8" and 1/2" diameter screws require lead holes. See Section 6.5 for lead hole requirements.                                                                              |                                                |      |       |                       |       |

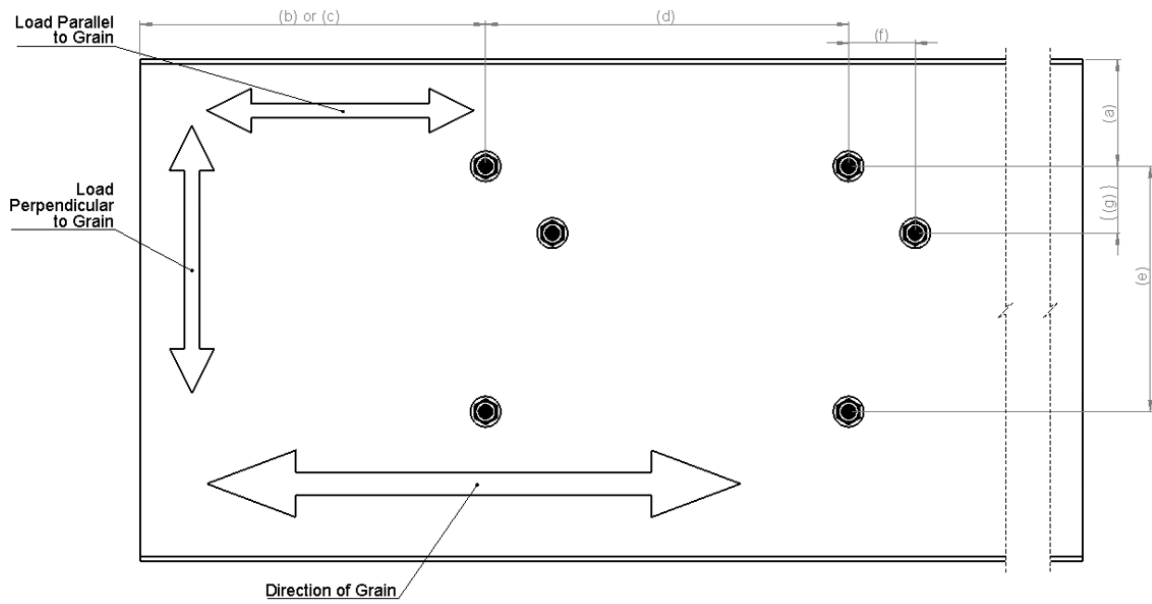


**Figure 1. SPAX® PowerLags® Series Fastener Spacing**