

MSC Multiple Seat Connector

The MSC supports the ridge and two valleys for roof construction. Ideal for dormer roof applications.

MATERIAL: Top flange—3 gauge, Stirrups—11 gauge (MSC2 and MSC1.81), 7 gauge (MSC4 and MSC5)

FINISH: Simpson Strong-Tie® gray paint; HDG available. Contact Simpson Strong-Tie.

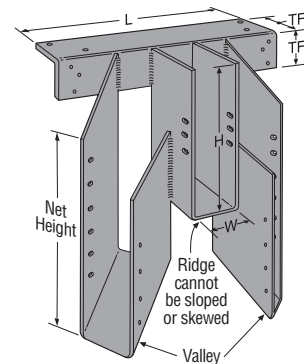
INSTALLATION: • Distribute the total load evenly about the centerline to avoid eccentric loading.

- Fasten all built-up members together as one unit.
- Net height will be calculated based on specified valley member depth and slope by the factory unless noted otherwise.

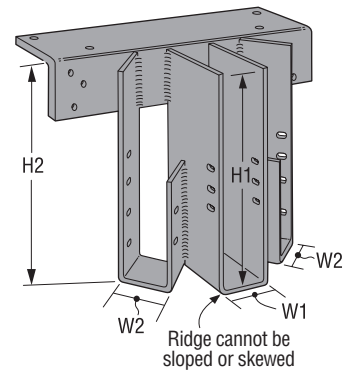
SLOPED AND/OR SKEWED VALLEYS

- The valley stirrups can be sloped to 45° and skewed from 25° to 45°. (*MSC5 skewed 20°-45°.*)
- The total design load of the hanger is split between the ridge (20%) and each valley (40%).
- MSC connectors can be used for two valley connections with no ridge member. Divide the total load by two for each valley load.

CODES: See page 12 for Code Reference Key Chart.



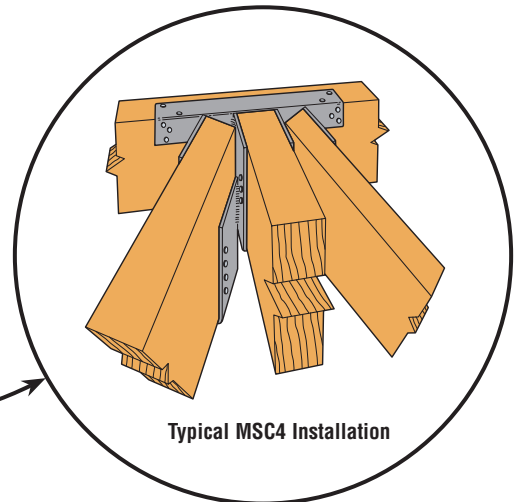
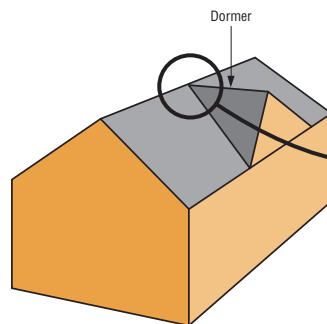
MSC4 with Valley Sloped and Skewed 45°



MSC1.81 with Valley Skewed 45° and Sloped 0°

| Model No. | Dimensions | | | | Fasteners | | Hips | | Allowable Loads DF/SP | | | Code Ref. |
|-----------|------------|---------|-------|----|-----------|------------------------------|-----------|------------|-------------------------------|-------|-------|-----------|
| | W | H (Min) | TF | L | Header | Joist | Max. Skew | Max. Slope | Floor/Snow/Roof (100/115/125) | | | |
| | | | | | | | | | Valley | Ridge | Total | |
| MSC2 | 1 1/16 | 5 1/2 | 2 7/8 | 12 | 10-16d | 18-10dx1 1/2 26-10dx1 1/2 | 45° | 0° | 2535 | 1265 | 6335 | I19, F18 |
| | | | | | | | | 45° | 2010 | 1005 | 5025 | |
| MSC1.81 | 1 13/16 | 5 1/2 | 2 7/8 | 12 | 10-16d | 18-10dx1 1/2 26-10dx1 1/2 | 45° | 0° | 2535 | 1265 | 6335 | |
| | | | | | | | | 45° | 2010 | 1005 | 5025 | |
| MSC4 | 3 9/16 | 7 1/2 | 2 7/8 | 18 | 10-16d | 18-10d 26-10d | 45° | 0° | 3335 | 1665 | 8335 | |
| | | | | | | | | 45° | 3335 | 1665 | 8335 | |
| MSC5 | 5 1/4 | 9 1/2 | 2 7/8 | 26 | 13-16d | 18-16d 26-16d | 45° | 0° | 6450 | 3220 | 16120 | |
| | | | | | | | | 45° | 5340 | 2675 | 13355 | |

1. Valley loads are for each valley.
2. Other valley-ridge load distributions are allowed provided the sum of all three carried members is distributed symmetrically about the center of the hanger and combined do not exceed the total load.
3. MSC4 is also available in 3 1/8" Glulam width.
4. MSC5 is also available in widths up to 5 1/2". W₂ minimum width is 3 1/8".
5. MSC4 is also available in widths down to 1 9/16". Use 10dx1 1/2" nails and MSC2 allowable loads.
6. Refer to technical bulletin T-MSC-WS for the hip valley rafter pitch conversion table (*see page 191 for details*).
7. **NAILS:** 16d = 0.162" dia. x 3 1/2" long, 10d = 0.148" dia. x 3" long, 10dx1 1/2 = 0.148" dia. x 1 1/2" long. See page 16-17 for other nail sizes and information.



Typical MSC4 Installation