

**Ineffective Teeth:**

Ineffective teeth are teeth, for example, over wane, knot holes, loose or decayed knots, pitch pockets, unsound wood, holes and joint gaps or teeth that have been flattened before or during the pressing, or that have a tooth embedment gap of 1/16" or greater. Teeth located within the 1/2" end and 1/4" edge distances of the lumber are considered to be ineffective when the design is based upon the net area method.

**Partially Effective Teeth:**

Teeth in the area where the tooth embedment gap is greater than 1/32" but less than 1/16" shall be considered 60% effective.

When a metal connector plate is installed in the connection area of lumber which contains tooth holes from a previously installed plate and where the wood is otherwise undamaged, metal connector plate teeth shall be considered 50% effective.

**Minimum Effective Teeth:**

The truss design software provides for the input of an allowance for ineffective teeth. This allowance is input as a percentage and limits the JSI. As an example, input of an Ineffective Teeth Allowance of 10% will limit the JSI to 0.90. The average number of effective teeth for both sides of the joint in any member shall never be less than (100 - the Ineffective Teeth Allowance) % of the total number of teeth specified on the shop drawing. When averaging the effective teeth on both sides, no one side shall have less than 85% of the specified effective teeth required.

**Joint Stress Index:**

The Joint Stress Index (JSI) is the ratio of the calculated force in a member to the lateral resisting force of the teeth in that member. Example: If a member has a design force of 900 pounds in it and the teeth of the connector plate can resist 1000 pounds, the JSI = 0.90

**Metal Effectiveness:**

The sum of the length or width of metal across each side of a joint (shear or tension) shall never be less than 95% of that specified on the Truss Shop Drawing.