

Uses

Glulam is a structural product used for headers, beams, girders, columns, and for heavy trusses. It is often used where the structure of a building is left exposed as an architectural feature.

Glulam can be manufactured to an almost limitless variety of straight and curved configurations (see Figure 3.6 opposite). It offers the architect artistic freedom without sacrificing structural requirements.

Manufacture

The special grade of lumber used for glulam, lamstock, is received and stored at the laminating plant under controlled conditions (see Figure 3.7 below).

Prior to glulam fabrication, all lumber is visually graded for strength properties and mechanically evaluated to determine the modulus of elasticity (E). These two assessments of strength and stiffness are used to determine where a given piece will be situated in a beam or column.

For example, high strength pieces are placed in the outermost laminations of a beam where the bending stresses are the greatest. This blending of strength characteristics is known as grade combination and ensures consistent performance of the finished product.

Once graded, the individual pieces of lamstock are end joined into full length laminations of constant grade and each endjoint is proof tested. Then, the laminated lengths are arranged according to the required grade combination for the product being manufactured.

Figure 3.7
Manufacture of
Glulam

