Wood Dowel 8x30mm Laser Sorted

Part Number: 04-5621-L

Multi-Grooved Plain Wooden Dowel 8 x 30

8 x 30 mm. Laser Sorted.

Diameter	8 mm
Finish	Plain
Length	30 mm

Product Description

Wooden dowels are used to create strong joints in various woodworking and assembly applications. Made from the highest quality birch and beech hardwoods, and laser-sorted for accurate and precise sizes. Choose from among our stocked imperial and metric sizes, and pre-glued and unfinished multi-groove dowels, or ask us about pricing on sizes that fit your project.

Product Advantages

- Multi-grooved dowels provide superior bonding strength
- Laser-sorted for accurate sizing and dimensions
- Pre-glued versions available for easy application

Important Information

Plain Dowel Pin Tolerances
Diameter: ±0.007in
Length: ±1/32in
Moisture: 6%-8%

Pre-Glued Dowel Pin Tolerances
Diameter: ±.007in
Length: ±1/32in
Moisture: 6%-8%

Plain & Pre-Glued Dowel Pin FAQ

How do you determine what size dowel to use?
The length of the dowel is generally determined by how much dowel can be inserted into the shortest member of the two piece joint. Twice this length is a common rule of thumb for determining dowel length. For example, if your shortest member is 1" thick and you know your safest drilling depth is 3/4", then a 1-1/2" dowel should be used. A 1-1/2" length equates to two times the 3/4" thickness. The longer the dowel, the greater the holding strength.

A similar procedure can be used to determine a proper diameter for the dowel. Generally, the diameter of the dowel should be no greater than half the thickness of the stock. For example, if the side panel is 1" thick, then you want to use a maximum 1/2" dowel.

Incorrect hole depth or diameter create improper dowel joints by trapping glue or water at the bottom of the hole which is not properly distributed around the dowel.

How deep should a dowel pin be inserted to be most effective?
The longer the dowel, the greater the strength. The ideal joint has the dowel hole match the length of the dowel on both ends allowing the dowel to be inserted to the bottom of the hole. To avoid "blowout" on side panels, a small void of 2mm or 5/64", is often left as insurance to collect excess glue or water in addition to allowing for variations in dowel length. This 2mm gap is left on the thinnest of the two panels. Keep in mind that any voids left in the joint will only weaken its strength. Trapped glue or water may also bleed through and discolor surfaces.

What would cause dowels to be loose in the holes?
Dowels are loose for one of two reasons. Either the dowels are too small or the holes are too large. An 8mm bit does not guarantee an 8mm hole. Does the bit turn true? Has it been sharpened? Are they in tolerance? Additionally, an 8mm bit drilled into particleboard, MDF, plywood or solid wood will give you four different finished hole sizes. Some will be bigger and some smaller. Dowel pins should also be checked with a well calibrated micrometer. Dowel pin diameter tolerance should be +/- .005".

What are the main factors influencing a dowel's strength?
Dowels made from only hardwoods are critical, particularly when high shear stress is present. Dowels should not have any loose fibers or rough surfaces which would diminish the ability of the adhesive to bond the dowel joint. Dowel pin moisture content should be between 6% to 8%. High moisture content can create an oversized dowel which may cause panel splitting. Dowel shrinkage may ultimately result as the dowel dries to lower moisture levels creating dowel or glue-line fractures. Low moisture content will often result in an undersized dowel which diminishes the ability of the adhesive to bond the joint. Dowel diameter tolerance should be held within +/- .005" which accounts for the machining process and moisture fluctuations.