Create your own timber frame dovetail assemblies!
The Arunda® System
Arunda® is a system for manually making dovetailed wood-to-wood joints to assemble timber frame structures.
All you need is a pair of Arunda® jigs (one for the tenon and the other for the mortise), a powerful router fitted with the special Arunda® cutter, and some accessories.
There are several models available but only one size will be selected to fit your most commonly used timber widths. Keep in mind: The bigger the joint, the greater and better its resistance!
The jig models
Class “B” with fixed 90° fences
The Advantages
Speed. 8 to 18 mortise/tenon joints per hour.
Ease of use. Push-down dovetail assembly is very fast and easy. No need to pull apart the load-bearing beams to insert tenons.
Precision. Double-cone self-tightening joints.
Flexibility. Perpendicular or angled joints on floor joists or rafters (roof systems).
Versatility. Usable on a wide range of timber widths from 40 to 300 mm (1 3/4” to 12”), for new construction as well as for restoration work.
Time-saving. Identical router bit setting to cut both mortise and tenon.
Quality. A fine all-timber roof frame assembly.
Strength. Workloads of up to 2’100 kg (4’620 lbs) per joint.
Mobility. Just as easy to use in the workshop as on the job site.
Economy. A low-cost replacement for metal connectors. You buy Arunda only once.

Timber widths and working loads tables

Timber widths (mm/inches)

<table>
<thead>
<tr>
<th>Timber width</th>
<th>Timber height</th>
<th>Timber section</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-140 mm</td>
<td>90-330 mm</td>
<td>80x90-140x330 mm</td>
</tr>
<tr>
<td>120-200 mm</td>
<td>90-380 mm</td>
<td>120x90-200x380 mm</td>
</tr>
<tr>
<td>150-300 mm</td>
<td>90-400 mm</td>
<td>150x90-300x400 mm</td>
</tr>
</tbody>
</table>

Tenon on timber width:

<table>
<thead>
<tr>
<th>Timber width</th>
<th>Timber height</th>
<th>Timber section</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-100 mm</td>
<td>90-330 mm</td>
<td>45x90-100x330 mm</td>
</tr>
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<td>100-200 mm</td>
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Tenon on timber height:

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Working loads (kg/lbs) per joint

<table>
<thead>
<tr>
<th>Timber width</th>
<th>Working load (kg)</th>
<th>Working load (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-100 mm</td>
<td>240-760 kg</td>
<td>528-1’672 lbs</td>
</tr>
<tr>
<td>100-200 mm</td>
<td>330-990 kg</td>
<td>726-2’178 lbs</td>
</tr>
<tr>
<td>150-300 mm</td>
<td>500-1’650 kg</td>
<td>1’100-3’630 lbs</td>
</tr>
</tbody>
</table>

Metal connector

<table>
<thead>
<tr>
<th>Timber width</th>
<th>Metal connector</th>
<th>Arunda®</th>
</tr>
</thead>
<tbody>
<tr>
<td>45-100 mm</td>
<td>560-2’100 kg</td>
<td>1’232-4’620 lbs</td>
</tr>
<tr>
<td>100-200 mm</td>
<td>500-1’650 kg</td>
<td>1’100-3’630 lbs</td>
</tr>
<tr>
<td>150-300 mm</td>
<td>330-990 kg</td>
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Comparison between assemblies using metal connectors and the Arunda® System

<table>
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<tr>
<th>Assemblies</th>
<th>Metal connector</th>
<th>Arunda®</th>
</tr>
</thead>
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<tr>
<td>Metal connector</td>
<td>560-2’100 kg</td>
<td>1’232-4’620 lbs</td>
</tr>
<tr>
<td>Arunda®</td>
<td>450-950 kg</td>
<td>1’000-2’100 lbs</td>
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For all current right-angled (or skewed) joints
For current or special joints, skewed or right-angled (90°)
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Timber widths and working loads tables

Timber widths (mm/"")

Optimal

Min./Max.

Working loads (kg/lbs)

Chose your jig according to your current timber widths. This way, you will get joints with optimal resistance.

Comparison between assemblies using metal connectors and the Arunda® System

Wiring method

Soldering the wire

Press fitting the metal connector by pressing in using the pusher

Screwing (no need for screw)

Number of connectors per board

Cost of metal connector (CHF/€)

Cost of metal connector per board (in CHF/€)

Total cost per joint (excluding write-off of material and machines)

Speed (4 joints/Assembly)

Conventional joints

Arunda® joints

www.arunda.ch*
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