

















# **ROOF FRAME DOVETAIL**

# Make your roof-frame dovetail assemblies

## The Arunda system

**Arunda** is a Swiss made system that allows joiners to manually produce roof-frame assemblies using dovetail joints (eagle tail).

The system uses one pair of jigs (one for the tail and one for the pin), a heavy-duty router, a special dovetail bit and a few accessories.

The jigs come in 5 models. The choice of a model is determined by the dimensions of the timber usually used.

#### Manufacturing process

Using a simple rule, you determine the height of the assembly (e.g. 150 mm). You set the jig stops to the figure corresponding to that depth. Then, with lever clamps, you fix the male jig to the head of beam that will form the male part (tail / tenon) and the female jig to the beam that will form the female part (pins / mortise).

With the bit in the router, you mill the male and female dovetails. You remove the jigs and your joint is ready to assemble! Easy and beautiful!

The **Arunda** system allows you to produce a variety of assemblies in an autonomous way, either in your workshop or on site: straight or angled connections, hip or valley rafters, skewed or offset joist, etc.

The **Arunda** system was developed in Switzerland by wood building professionals and tool manufacturers. It has been granted an international patent and was designed for a simple and efficient use!

With Arunda, wood-on-wood dovetail connections become ornamental!











# **ARUNDA**







№ 60

for timber to be tenoned: Width:  $60\text{-80} \text{ mm} (\rightarrow 100 \text{ mm})$   $2.36".3.14" (\rightarrow 3.93")$  Height:  $90\text{-}260 \text{ mm} / 3.54"-10.23"}$ 

80 - 120 mm (→ 140 mm) 3.14 - 4.72" (→ 5.51")



№ 80

for timber to be tenoned: Width: 80-120 mm (→ 140 mm) 3.14"-4.72" (→ 5.51") Height: 90-260 mm / 3.54"-10.23" 100 - 140 mm (→ 160 mm) 3.93 - 5.51" (→ 6.29")



№ 100

for timber to be tenoned: Width: 100-140 mm ( $\rightarrow$  160 mm) 3.93"-5.51"( $\rightarrow$  6.29") Height: 90-260 mm / 3.54"-10.23"

120 - 160 mm (→ 180 mm) 4.72 - 6.29" (→ 7.08")



№ 120

for timber to be tenoned: Width: 120-160 mm (→ 180 mm) 4.72"-6.29" (→ 7.08") Height: 90-260 mm/3.54"-10.23"



№ 160+

for timber to be tenoned: Width: 160-300 mm 6.29"-11.81" Height: 90-420 mm / 3.54"-16.53"

### Other tools of the Arunda system

- (2 Mafell Router LO 65 Ec (2600 W)
- 3 Arunda special bit
- 4 Set of replacement blades for Arunda bit
- 5 Arunda guide ring for Mafell LO 65 Ec

- 6 Arunda positioning gauge for bit
- (7) Arunda lever clamp
- 8 Expansion plate for Mafell LO 65 Ec

## Your advantages

#### SPEED

Forming the joint is fast: between 8 and 18 male/female pairs per hour (according to the size and type of joint).

#### EASE

The beams get easily assembled by the top. They do not need to be spaced or supported.

#### **PRECISION**

The joint is self-locking: the parts bed together perfectly.

#### **FREEDOM**

Male dovetails can be cut on beams from **60 to 300** mm wide (2.36 to 11.81") and **up to 420** mm high (16.53"), with working loads up to 1700 kg (3'747 lb) per connection!

#### **VERSATILITY**

One single model of jig enables you to work on very variable timber sections. Arunda provides the solution to the problem of stocking metal connectors and their availability in various sizes.

#### TIME SAVING

The male and female dovetails are produced without changing the position of the bit throughout the run.

#### OUALITY

The roof frame returns to its full glory with wood-on-wood assembly.

#### **RESISTANCE**

Dovetail connections allow working loads that are 2 to 4 times higher than what can be achieved with a classical tenon/mortise joint.

#### **MOBILITY**

The jigs can be used both in the workshop and on the building or restoration site.

#### **ECONOMY**

Arunda advantageously replaces metal connectors, which are very expensive and take a long time to fit. The investment is one-off and the acquired equipment remains constantly available for assemblies of various sizes.