



Production

It is probably easy to understand why we cannot let anybody visit our workshop in Klagenfurt, Austria. However we still want to share with you some of the processes used in the manufacture of an Arcus bow.

First we cut a large number of very fine layers of carbon fibre. These are then impregnated with synthetic resin, wrapped round a steel rod and fitted snugly into the lower part of the mould. We use plenty of precisely cut small carbon fibre pieces for the head which are also then fitted into the mould. All this must be made with greatest care and precision, because the smallest mistake will render the stick useless.

With the upper half in place, the mould is then closed and the stick is hardened under the application of heat and pressure for several hours. After cooling down the stick is taken out of the mould and the fins are cut off. This raw stick now has its basic shape, including the camber. It is now examined closely for surface quality, strength and resonance and is classified for one of the four gradings.

After this, the stick is ground as many small spots in the surface must be smoothed out. A hard rubber insert is used to close the end of the hollow stick. The long hole is cut into this, the bore for the screw is drilled and the two brass bearings are inserted. After cutting the head, the tip plate is glued on and both are then finished smoothly. The high demands on the finish quality and the extreme

hardness of the carbon require not only an enormous amount of work by hand but also cause plenty of wear on our tools.

The tip plate is then polished to a perfect shine. The brand name and the serial number are engraved and laid out with silver or gold leaf. The wrapping for the stick is carefully applied by slowly revolving the stick, which ensures a durable tight fit and an even look. The thumb leather is cut to exact dimension and chamfered with extremely sharp knives and glued into place.

We use only the finest available hair for our bows. Each hank is individually sorted and bundled. To ensure a perfectly secure fit, which won't allow hairs to lose tension under playing, a multiple knot is made at both ends with silver wire or thread. We cut wedges from relatively soft wood to hold the hair in the chambers of the tip and frog. Because only very regular and smooth hair will produce a good sound, a comb is the most important tool used here to make sure that the hairs don't cross.

The smallest difference in the placement of the carbon fibres, tolerances in the minimal wall thickness of the sticks and the unavoidable differences in the fusion process lead to unique characteristics in sound and feel of every bow. The individual careful crafting of the sticks contributes to correcting any slight deficiencies and to emphasise the strong points of each one. As a result every Arcus bow is a unique item with its distinguished look and unique characteristics.

