

## A beginner's guide to student Piccolos (Mar 2019)

The Piccolo is the smallest member of the flute family. Although Piccolos are classed as a woodwind instrument, they may be made of plastic, resin, metal, wood, or a composite material.

The modern Piccolo is fitted with Boehm key-work so the fingering is the same as a flute (without the two lowest notes). Occasionally you may come across a simple system Piccolo – this looks similar to a modern Piccolo but has a different system of key-work (usually with open holes and from 1 to 6 additional keys) it is the fore-runner of the modern Piccolo and is only really suitable for folk dance music and marching tunes.

The Piccolo is usually taken up by flute players as a second instrument. I recommend that a flute player gets to a least grade 3 on the flute before starting the Piccolo; this is because the player will then be able to play-test Piccolos themselves to some extent and this is essential - only the player can assess which instrument is the easiest for them to play.

### The parts of a Piccolo

- The **head-joint** - this has the **embouchure surface** where the player rests his/her bottom lip and the **embouchure hole** which the player blows into.
- The long tube called the **body** on which are found most of the **keys** - the player's fingers operate these so that various **pads** either cover or uncover the **tone-holes** to make different musical notes.

The metal keys on the Piccolo make up the mechanism of the instrument. The keys are supported between metal pillars on screws or rods. Each key has a wire spring that keeps it held open or held shut. Most of the keys have a key cup in which there is glued a pad to cover the tone hole. The keys also have cork or felt glued on to function as a stop so that each key opens the correct amount.

The pads, corks, and felts on the instrument (and also the adhesives which keep these items in place) deteriorate over time. On older or poorer quality instruments the mechanism itself starts to wear and the keys can become loose or jammed. Piccolos need to be regularly serviced to remain in good playing order – if you are considering buying a second-hand instrument then get it checked over before purchase to make sure it is in reasonable condition.

Although not a part of the instrument, there is one vital accessory – **the case**. A case that holds the instrument snugly will protect the instrument during transport (a poor fitting case will make the instrument vulnerable to damage during transit).

### Variations in design

Student Piccolos vary little in the design of the mechanism so the key-work feels more or less the same under the fingers (with the exception of the Guo 'New Voice' piccolo which has keys made of a composite material rather than metal). However, Piccolos do vary in how easy they are to sound – this is completely subjective and so it is important for the player to play and compare instruments. Different instruments can also vary in tuning to some degree – with lower quality instruments being difficult to play in tune – particularly in the higher registers. Instruments also vary in tone, which is why more expensive Piccolos are made of wood, and have wooden or solid silver head-joints.

The three aspects of a student instrument that vary noticeably are:

**The body:** student instruments may have a plastic, resin, composite, metal, or wooden body.

**The head-joint:** student instruments may have a plastic, resin, composite, metal, or wooden head-joint. Commonly the body and head-joint are made of the same material but metal head-joints can be found on plastic and wooden bodied instruments as well.

**The embouchure surface:** the design of the embouchure surface (where the player rests the lower lip and blows into the instrument) varies considerably. There are two basic types of embouchure surface – firstly the **traditional embouchure** (or **standard embouchure**) which is where the surface around the embouchure hole is a flat curve following the shape of the outside of the instrument, - and secondly the **wave cut embouchure** (or **reform embouchure**) - this is where the head-joint has been carved so that the side of the embouchure hole that is furthest away from the player's mouth is raised and wave shaped (this embouchure is also known as a profiled embouchure, or winged embouchure). The wave cut embouchure is said to help focus the air stream from the player's mouth.

Both these types of embouchure surface might be part of a 'raised plate' so in fact there are four styles of embouchure surface – when the traditional embouchure surface is fitted on a plate it looks exactly like a miniature flute lip plate and so is called a **flute style lip-plate**, when the wave cut embouchure is raised on a plate it is called a **reform lip-plate** (or sometimes '**high wave embouchure**'). Note that a raised plate on a metal head-joint is a distinct plate soldered onto the head-joint whereas a raised plate on a non-metal head-joint is integral to the head-joint – not a separate item that has been attached. The presence of a plate can make swapping from the flute (during performances) easier.

Most of the cheaper student instruments currently available have a metal head-joint with a flute style lip-plate (the traditional embouchure fitted with a plate) e.g. the Yamaha YPC32, but there are two models that have reform lip plates – the Arnolds 'Terra' APC110 and the new Trevor James 5x.

The range of advanced student instruments currently available include three types of embouchure design – examples include: the Pearl 105E piccolo with a wave cut embouchure; the Yamaha YPC62 with a traditional embouchure; and Yamaha YPC62M with a flute style lip-plate (the traditional embouchure fitted with a plate).

None of these embouchure set-ups is considered superior to any other - some players prefer a traditional embouchure, some prefer a flute style lip-plate, some prefer a wave cut embouchure, some prefer the reform lip-plate – it is completely subjective so it is best that the player tries the different types. Head-joints with a wave cut embouchure or a reform lip-plate are more expensive to manufacture and this is reflected in the cost of the instruments.

## **Categories of instruments**

Student Piccolos can be divided into three categories.

**Budget student instruments:** these are models that are often sold on-line or by retailers who do not specialize in woodwind instruments. They are much cheaper than the recognized brands and often cheaper even than second-hand standard student instruments. This is because these new instruments are of poor quality and will have a very limited lifetime, either because they will soon need repair (but many repairers will not work on these cheaper instruments) or they simply do not meet the needs of anyone but the complete beginner. Some budget instruments are of reasonable quality for the price, but there is no 'brand consistency' so it is impossible to recommend any particular make or model.

**Standard Student instruments:** Most teachers prefer the Yamaha YPC32 (Yamaha instruments are well made) but if possible beginners should also try instruments with different embouchure designs to find which one is easiest for them to play.

**Advanced student instruments:** These instruments are significantly better than the standard student instruments – with better tuning and tone, and a better response. Four manufacturers make advanced student instruments that are currently available in the UK: Guo, Pearl, Trevor James, and Yamaha.

**Guo** have an advanced student model in addition to their student model – both models are made of composite materials with a flute style lip-plate (the key work is also made of composite material and these instruments may have to be sent back to the retailer when repairs are required). **Pearl** have two advanced student models: the 'PFP105' which has a composite (Grenaditte) body and head-joint (with a wave cut embouchure); and the more expensive 'PFP165' model with a Grenaditte body but wooden head-joint (also with a wave cut embouchure) - the PFP165 model is fitted with 'Omni pads' which are difficult to source in the UK; the PFP105 model is available with or without Omni pads and I would recommend purchasing the model without Omni pads (or the instrument may need to be sent back to the retailer when repairs are required). **Trevor James** has two advanced student models which are identical except for the different woods they are made from: the 'GR' (Grenadilla wood) and the 'GVR' (Rosewood) both instruments have a Wave cut (Reform) embouchure. All the **Yamaha** advanced student instruments have a wooden body; the 'YPC62' has a wooden head-joint with a traditional embouchure; the 'YPC62R' has a wooden head-joint with a wave cut embouchure (incorrectly referred to as a reform lip-plate in some literature about Yamaha Piccolos); and the 'YPC62M' has a silver-plated metal head-joint with a flute style lip-plate.

### **Play-testing a Piccolo before purchase**

Whatever the ability of the player the most important thing is to warm the instrument up correctly before play-testing it - **do not blow into the instrument** – this will immediately create condensation in the instrument and distort the tuning - instead hold the instrument in your hands for five minutes to warm it up. When you are comparing instruments make sure you warm each one each time before you play it and, when you put the instrument down to try another, make sure it is **resting with its keys uppermost**.

When comparing instruments obviously try the different makes and models available, but also try 2 or 3 instruments of the **same** make and model (this is because sometimes, due to poor quality control at the factory, some brand-new instruments might not be working as well as they should be).

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