

The Flute - a guide to graduate, professional and vintage instruments

Graduate Flutes

"Graduate" is a term used to describe instruments that are a step up from advanced student instruments but not quite professional instruments. They are aimed at players who want a serious instrument but don't want to stretch to the expense of a professional instrument.

Whereas "Advanced Student" instruments are basically the student body and foot-joint fitted with a silver head-joint; graduate instruments are superior instruments. Graduate Flutes are fitted with a mechanism that has been manufactured to a higher tolerance than would be seen on a student Flute. The keys are finished to a higher standard and are a better fit to the screws and rods and this means that there is less "play" on the keys i.e. they do not wobble; with less play in the mechanism the Flute feels more "positive" and the pads can be seated to a higher standard, also there is less noise from the mechanism and the mechanism will last longer before it starts to wear.

Graduate Flutes have, at minimum, a solid silver lip-plate, and usually a solid silver chimney (the very short tube that joins the lip-plate to the head-joint, also sometimes called a riser) this is because silver plate would quickly corrode with the amount of use a graduate Flute gets; also this allows for the embouchure hole to be hand finished which can enhance the sound of the Flute.

Graduate Flutes often have a solid silver head-joint which avoids plating wear, allows for hand finishing of the embouchure hole, and also means the head-joint can be worked to the shape of the design mandrel more accurately (the denser material itself is also said to enrich the tone). Some Graduate flutes even have a solid silver tube (Head-joint, body, and foot-joint) to further enrich the tone.

Buying a graduate flute offers the opportunity to switch to an "open-hole" flute; some players prefer the sound of an open-hole flute and it allows for "half-holing" of some notes (where the player deliberately shades or slides a note). Playing an open hole flute forces the player to locate their fingers more accurately, which can improve technique; because the placement of the finger tips is more critical the player should try open hole flutes with in-line G keys and flutes with off-line G keys to find which is more comfortable for them (split E mechanism is available for either type).

Some manufacturers produce a range of instruments from student, through advanced student, up to graduate or professional level; other manufacturers only produce graduate and professional instruments. There are dozens of models in the "graduate" bracket. If the player is not studying music at a music college then they should start by trying out graduate instruments made by the same manufacturer as the student instrument they already own and then compare those instruments to other graduate models made by other manufacturers. If the player is looking to buy a graduate instrument to study diploma or degree level at a Music College then it is worth checking out which instruments the music college expects the students to be using.

Professional Flutes

These instruments are manufactured to a superb standard. Precious metals, special alloys, select woods, or newly developed composite materials are used in the head-joint and/or body of the instrument. The keys can be made (largely) of solid silver so there is no worry of corrosion of silver plating; handmade Flutes sometimes even incorporate gold or platinum into the Flute.

The mechanism on professional Flutes is made to the highest tolerances possible and the padding is to the highest standard possible often using top grade pads and special pad backings. Commercial Flutes are often hand finished to some extent and some players will go as far as having Flutes hand-made by individual makers.

If a player is used to playing the manufacturer's corresponding graduate model then they should start by trying professional instruments by the same manufacturer and then compare those instruments to other professional models made by other manufacturers. A player considering buying a professional Flute will probably already own a graduate Flute. Provided the graduate Flute is in good condition it is worth experimenting with professional head-joints fitted to their existing Flute because the player may achieve the sound they wish without having to buy a whole new Flute.

Professional Flutes are often available with keys and mechanism in addition to the standard (Western) Boehm key mechanism (note that in some parts of the world the standard Boehm mechanism has an open G# - so the left hand 3rd finger plays G# and the little finger plays G - and also the thumb levers are reversed - so the touch-pieces for the Bb and B are swapped round).

Low B foot-joint: the foot-joint is extended and has an additional touch-piece to play Low B. Also the player can achieve a better top C by depressing the B key only (via a raised spatula key sometimes referred to as the high C facilitator). Note that Haynes even manufactured a flute with a Low Bb but I would have thought this mechanism would be prone to unreliability.

Roller keys: The Low C key on most flutes is a roller key (and so is the Low B key if there is one); but the Low C# and/or the D# touch-pieces can also be fitted with rollers to ease the movement of the little finger.

G/A trill key: This additional trill key is sometimes added to a flute with a split-E mechanism because the addition of the split-E mechanism makes the third octave G/A trill difficult. Two extra small tone holes are positioned on the body; one is to the left of the G# key the other is to the left of the thumb key. The trill touch piece is usually next to the first trill key and when both trill keys are used together an easy G/A trill is achieved.

C# trill mechanism: An extra tone hole is positioned to the left of the thumb key. The covering key is sprung shut and is opened by a lever usually positioned next to the 'Bb lever'. This key allows an easy B/C# trill and Bb/C# trill in the first two octaves (instead of using the index finger and thumb). This key also has the advantage that, on a flute with a split-E mechanism, it can be used in conjunction with the first trill key to give an easy G/A trill in the third octave; because of this it is more common than the G/A trill mechanism.

Kingma system: In addition to the standard open-hole Boehm mechanism (with added C# trill) the Kingma system incorporates six extra keys making it possible to play the complete chromatic quartertone scale and all the chromatic multi-phonics.

Professional flutes sometimes make a feature of the following alternative methods of flute construction.

Seamed tube: The tubing for a flute can be produced by either 'seaming' or 'drawing'. A 'seamed' tube is produced by taking a flat piece of metal, wrapping it onto a cylinder mandrel and then soldering the two edges together along the 'seam'. This was the original method of producing metal bodied flutes and some players feel the seamed tube produces a different sound so some seamed flutes are still made. 'Drawing' a tube is done by taking a flat disk of metal and 'drawing' or 'pulling' the material in to a tube shape using pressure; this has been the common manufacturing process and obviously the tube is much less likely to split.

Soldered or drawn tone-holes: 'Drawn' tone-holes are created by a tool which pulls small tubes out of the main body; these tubes are then trimmed to form the tone-holes (and the metal is usually rolled back on itself to create the tone-hole rims) upon which the key pad sits. Soldered tone-holes are produced from separate tubes of metal and are soldered onto holes cut in the body; the maker may or may not roll back the edge of the tone-hole to create a rim. The advantages of soldered over drawn tone-holes are that the soldered tone-holes don't cause thinning of the body tubing, and the tops of the tone-holes are more likely to remain flat.

Brogger system: There are no additional keys in this mechanism but the mechanism is constructed differently so that the springing is more balanced - particularly on the thumb keys.

Vintage Flutes (standard Boehm system)

There have been many models of Flute intended as student, graduate, or professional instruments that are no longer manufactured. The student models are usually of poor quality; however the graduate and professional models (which were manufactured to higher standards) can still be desirable instruments.

These older models of Flute are sometimes referred to as "Vintage Flutes". The problem with older Flutes is the wear on the mechanism. The mechanism on a Flute is more critical to its operation than on any other woodwind instrument. Not only were older Flutes manufactured to lower tolerances than today but they also have years of wear. A player might find a vintage Flute that produces a lovely tone but the mechanism will not feel as positive as a modern Flute. The player either accepts the limitations of the instrument as it is or has expensive re-building work done (probably by a Flute maker).

Play-testing a Flute before purchase

Before testing a new Flute it is best for the player to ensure their existing Flute is playing well. Commonly players compare a new Flute (which should be in good condition) to their own Flute (which is not); instead of comparing Flutes they are actually comparing the condition of the two Flutes. If the player's Flute is in good condition (i.e. it fully serviced less than a year ago) then they can truly assess the differences between the Flutes.

Ensuring their existing Flute is playing well is even more important when testing head-joints – a player might select a head-joint because it alleviates a problem that would otherwise be solved by having the instrument serviced, what is more, once the instrument is serviced the player might find the head-joint disagreeable.

Manufacturers and Makers

The current manufacturers of graduate and/or professional flutes are: Altus, Azumi, Hammig, Haynes, Iwao, Lyric, Mateki, Miyazawa, Muramatsu, Pearl, Powell, Sankyo, and Yamaha.

The current established individual British makers include: Mike Allen, Robert Bigio, Ewen McDougall, Andrew Oxley, Howel Roberts, Willy Simmons, and Stephen Wessel.

For a short biography on all of the above makes and manufacturers I recommend visiting the Top Wind website.