REED MAKING RESOURCES
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Since the dimensions of an English Horn reed are larger than those of an oboe reed, I scrape the reed over a period of several days, letting it dry out completely overnight. This allows the tip opening to relax and gives the entire reed more time to conform to the many changes that occur when scraping a blank into a finished reed. I have found that this method results in a more stable reed that generally takes less time to "break in".

I am frequently asked about the diameter of tube cane I prefer to use. I have had the most consistent success with cane that is 12 -12.5 mm in diameter since I use a shaper tip that many consider to be on the wider side on the spectrum. However, some players prefer a smaller diameter of 11.5 - 12 mm, especially if they use a narrower shaper tip. I suggest that players experiment by making reeds using cane from several diameters to find what works best for them. However, I would advise against trying to make a reed out of tube cane with a diameter smaller than 11.5 mm.

My "new" favorite tool is a reed thickness gauge, or Dial Indicator, which can be purchased from many double reed supply dealers. Though it is a somewhat costly item, I think it is well worth the investment. This tool has made a huge difference in my reedmaking by helping me to accurately monitor the thickness of the hearts and tips of my reeds, thereby making my reeds more consistent. For those who are unfamiliar with this item, the

"tongue" of the tool is inserted between the blades of the reed and the thickness is then displayed on the dial. Using this tool has saved me time by taking much of the "guess work" out of the scraping process which has resulted in more evenly scraped reeds.

THE FOUR DAY METHOD

Since the dimensions of an English Horn reed are larger than those of an oboe reed, I scrape the reed over a period of several days, letting it dry out completely overnight. This allows the tip opening to relax and gives the entire reed more time to conform to the many changes that occur when scraping a blank into a finished reed. I have found that this method results in a more stable reed that generally takes less time to "break in".

Day 1: Shape cane and tie the blank. Measuring from the tip, scrape about 7 - 8 mm of bark back from the tip to relax the opening, but do not clip the reed open.

Day 2: Scrape off the remaining bark back to within about 5 mm from the top of the staple, thin the tip and clip it open. Rough in the spine, make a pencil mark on the cane at 54mm from the bottom of the staple and rough in the tip, but do not finish the tip. The pencil mark signifies the top of the heart. For those who prefer to mark the back of the tip and scrape from that point, make the pencil mark at 52 mm. The reed may crow at this point, but it will likely be a very loud and raucous crow.

Day 3: Continue to blend from top of the heart through the tip and thin the heart. Define the spine, scrape and define the back (or channels), but be carefull to leave side rails in the back to help support the opening. Check the thickness of the various areas of the heart and tip using a dial indicator thickness gauge. Continue to scrape areas that are unbalanced to better balance the reed. Clip the tip to within a millimeter or less to its finished length. The reed should now start to crow fairly well at an octave "C" or, depending on the length and thickness of cane, an octave "B".

Day 4: Continue to refine the heart, tip and back. Check again for unbalanced areas with the dial indicator thickness gauge. Thin the corners of the tip, clip the tip (if necessary) and finish the reed. As a point of reference, the finished length of my reeds is 56 - 57mm. If using silicon or plastic aquarium air tubing on the staple, put it on at this point. Be aware that the reed will crow at a lower pitch once the tubing has been put onto the staple, since the overall length of the reed will have increased. Since any tubing applied to the staple with dampen the vibrations, it may be necessary to scrape a bit more off of the reed.

WIRELESS

PART I: Any discussion of English Horn reeds would be incomplete without addressing the relative merits and/or drawbacks of using wire on the reed.
As is the case for so many aspects of playing the English Horn, the decision to place a wire on the reed or to "go wireless" is a personal preference.

Arguments I have heard for using a wire on an English Horn reed:

1. One has been told to do so by a teacher, colleague or classmate
2. To control the opening of the reed
3. For "stability"
4. To help the reed seal on the sides of the reed, as well as the sides of the tip
5. To keep the blades from "shifting"

Metal is a conductor of vibrations. Examples are flutes and brass instruments. However, when metal is soldered, this process inhibits vibrations. It necessarily follows that metal wire on wood (in this case, cane) would similarly inhibit the vibration of the wood. Typically, the wire is wrapped twice around the reed and twisted to secure it which further dampens the vibrations of the cane.

Any discussion of wire must factor into the equation the type of metal from which the wire is made. Brass, bronze, gold, stainless steel and copper each conduct vibrations differently. The resulting vibrations of the reed will vary based on the composition of the wire. In addition, the thickness, or gauge of the wire must be

considered. The placement of the wire in relation to the string (top of the staple) affects the reed, as does the amount that the wire is tightened.

However, in my experience, placing a wire on an English Horn reed negatively alters the vibration. It muffles the vibration, taking the "lows" out of the tone and compromises the "ring" in the tone of the reed.
Wire on a reed shortens the amount of cane vibrating freely, thus more cane is usually scraped out of the reed; hence the reed usually becomes very unstable and the opening can collapse. Indeed, one of the principal arguments for the use of wire is related to "adding" stability and/or to hold the opening of the reed in place.

WIRELESS - PART II

PART II:

Prior to making a decision with regard to using a wire, there are a number of points one should consider.

I would encourage players to experiment at their own reed desks to determine the results achieved by going “wireless”.

Prior to making a decision as to whether or not to use a wire, there are a number of points one should consider:

1. The gouge needs to be well balanced in terms of the thickness in the middle and on the sides. In addition, the blade needs to be properly sharpened to achieve cane that is smooth on the inside – no ridges or bumps.

2. The gouge needs to work well for the shaper tip. I have found that certain gouges create far to large an opening for wider shapes. And other gouges are not well suited for narrower shapes.

3. The diameter of cane needs to be the correct size to achieve an opening that is not too large. I find that 12 – 12.5 mm is the optimum diameter for my reeds. If the diameter is smaller, the opening of the reed is too large. If the diameter is larger then 12.5, the cane will not gouge properly in my machine. Moreover, the opening will likely be too closed and will not hold up after scraping.

4. The reed needs to be tied at the proper length for the shape. If a reed is tied too short, the result is an opening that is too large. Regardless of how well the reed is scraped, the opening will be problematic.

On countless occasions, I have been asked about the shaper tip I use. For nearly two decades, I have used a Gilbert #1 shape and tie the blanks at 61 mm. The finished length is between 56-57mm.

I also own the Falstaff shape, Adam Shaper Tip Company, and suggest tying the blanks at 60mm. Many players have also

reported success with the Gilbert -1 shape, so that is also an option.

I scrape my reeds in the “American” style, so these comments apply to this type of reed. I have learned that if the reed is properly scraped preserving adequate strength in the spine and side rails, in addition to leaving a sufficient amount of cane in the back, one should not need to use a wire on the reed.

However, since the scrape of a “European” reed is very different, it is possible that a wire may be needed for this style; perhaps not.

ENGLISH HORN SHAPER TIPS

On many occasions, I have been asked about the various English Horn shaper tips currently available. The following is a brief discussion about this very important matter.

Choosing the proper English Horn shaper tip is as critical as choosing the proper oboe shaper tip. There are numerous English Horn shaper tips available for purchase from various dealers throughout the world. As is the case with oboe shapes, choosing the proper English Horn shape is subjective and a matter of personal choice. I recommend that one test a variety of shaper tips by making several reeds on each shape prior to purchasing a shaper tip. As is the case with oboe shapes, a wider shape will generally result in a "richer" tone quality, but can be more difficult to play "up to pitch". Conversely, a narrower shape will generally result in reeds that are "up to pitch", but can lack a rich tone quality.

The question often arises as to what length to tie an English Horn blank. The answer varies depending on what shape is being used. The manufacturers of shaper tips usually list a "suggested tie length", but experiment within a millimeter or so to see what works best for you. Generally speaking, the wider the shape, the longer one should tie the reed. Cane shaped on a wider shape usually works well when tied at 60-61 mm. Thus, the "throat" is at a narrower part of the cane which in turn, will help to keep the reed up to pitch. In addition, the opening of the reed will generally be more relaxed and easier to control - without using wires. When using a narrower shape, it is generally necessary to tie the reed shorter to insure that the reed seals properly. The length of a blank tied on narrower shape is commonly 59 - 60 mm. In the case of a very narrow shape, the blank may need to be tied shorter at 58 - 59 mm. However, this can create other problems controlling the size of the opening - specifically making an opening that is too large and difficult to control.

There are numerous English Horn shaper tips available for purchase from Double Reed shops throughout the world. Information about the specifics of the shaper tips is generally available from the manufacturers and dealers. Some of the more narrow shapes are the Weber, Coelho and Jeanné. Several shapes that could be considered in the medium range are Minsker-Lickman, RDG -1, Brannen and Giocobassi. The Falstaff, Mimi, RDG +1 and Stacy are generally considered to be on the wider end of the spectrum. The above mentioned shaper tips are only a few of the numerous English Horn shapes on the market today, so I advise asking various Double Reed Supply dealers which shaper tips they have in stock, whether they are willing to make "special orders" and details about their trial/return policies.

The Westwind Double Reed company has posted an interesting chart on its website comparing the dimensions of several of the English Horn shaper tips currently available.

THE ADVANTAGES OF USING A DIAL INDICATOR

I have found that using this tool has improved my reeds and saved time.

During the past 18 months, I have become a strong advocate for using a Dial Indicator thickness gauge, or what some call a micrometer, in all stages of my reed making. This piece of equipment can be purchased from many double reed supply dealers. Though it is a somewhat costly item, I think it is well worth the investment. This tool has made a huge difference in my reedmaking by helping me to accurately monitor the thickness of the hearts and tips of my reeds, thereby making my reeds more consistent.

For many years, I have used a standard Mitutoyo dial indicator while gouging cane and it has served me well. But, I was interested to own a dial indicator that would measure the thickness of each blade of my reeds. For those who are unfamiliar with this item, the "tongue" of the tool is inserted between the blades of the reed and the thickness is then displayed on the dial. The tool measures thickness from .01mm - 10mm. This tool is also made by Mitutoyo.

I acknowledge the importance of having a good source of light and a magnifying glass while making reeds. But, using this tool has saved me time by taking much of the "guess work" out of the scraping process which has resulted in more evenly scraped reeds. In this case, more information is a good thing.

CANE SELECTION

There are many opinions as to the ideal diameter for English Horn tube cane.

Any discussion of the "ideal" diameter of tube cane must also take into consideration other factors besides the gouge and shape used. The elevation, humidity and temperature during various seasons and the overall climate are just a few other things to consider. Another factor is the hardness and/or graininess of the cane.

On numerous occasions, I have been asked about the diameter of cane I prefer to use. Since I use a shape that is on the wider end of the spectrum, I prefer tube cane with the diameter of 12 - 12.5 mm. Cane with a larger diameter than 12.5 mm has never gouged well on my machines and the openings of the reeds have been too closed. Conversely, it has been my experience that cane with a smaller diameter than 12 mm has resulted in tip openings that are larger than are comfortable to play. However, if one is using a narrower shape, a diameter less than 12 mm can produce reeds with a tip opening that may not be too large to

control. In any case, I would avoid cane with a diameter less than 11.5 for English Horn reeds. Instead, consider using it for oboe d'amore reeds.

It is important to know the size of the bed of the gouger in order to avoid gouging cane with too large a diameter for the machine. If gouging your own cane, that information should easily determined by measuring the bed. Any gouger manufacturer should be able to give you specifics, as well. However, if one has purchased gouged cane, it can be more difficult to obtain this information. Contact the dealer from whom the cane was purchased and ask specific questions about what gouger was used, the size of the bed and whether the cane was gouged wet or dry.

ENGLISH HORN REEDS - THE BASIC MEASUREMENTS

In response to numerous requests, I have listed below several basic measurements of my English Horn reeds. Of course, each piece of cane is different, so measurements my vary slightly from reed to reed. I have never used wires to control the openings because I believe that a good gouge, mindful scraping and side rails will control the opening and allow the reed to vibrate properly.

English Horn Reed Measurements

Shape	RDG #1
Tied length	61 mm
Finished length	56 – 57 mm
Top of heart/blend	53 - 54 mm
Length of heart	9 - 10 mm
Length of center of tip	3 mm
Length of tip at sides	4 – 5 mm
Length of back	12 – 13 mm

Length of Bark from string 4 – 5 mm

Thickness of heart 52 – 53 mm

(measured halfway between top of heart/blend

and back of heart & halfway between spine & side rails)

Thickness of Blend 50 mm

(between heart & tip)

Reed Photos