

ARROW ASSEMBLY

Gold Tip arrows are extremely user friendly and you will find vanes and inserts adhere very easily when the proper adhesives and care are taken. Soap and water is the only thing needed to clean the shafts to prep them and only if oil from handling them has gotten in the area to be fletched. Use a Q-tip and water to clean the dust from the point end before inserting the arrows.

STEP 1: CUTTING YOUR SHAFTS

Cut shafts to length. It is recommended that you cut your shafts at least one and one half inches in front of the arrow rest. Arrows that are cut too short can come off the arrow rest and cause personal injury and damage to equipment. **Tip from the Pros:** Cut shafts equally from both ends. This will typically make shafts with wider straightness tolerances straighter as straightness problems in the different grades of shafts usually lie on the ends of the shaft. Doing this with lower grade arrows will result in much straighter finished arrows.

STEP 2: ARROW ASSEMBLY

We recommend using our Tip Grip adhesives for most fletching and all inserts and target points and bushings. **Tip from the Pros:** When using pin bushings try inserting the bushing into the shaft using a piece of a thin plastic bag or Teflon tape forming a thin plastic sleeve between the bushing and the inside of the shaft. This will hold the bushing firmly in place when shooting and allow you to

easily replace it if damaged or bent. (see figure 1 for example). This will also allow you to easily adjust your point weight using our weight system adjustment wrench and weight screw combos. (see figure 2 for example). Gold Tip recommends the use of Vanetec V-Max Vanes for superior durability, memory and adhesion. They will glue on in 3 seconds and give your arrows superior flight and broadhead control along with dramatically increasing the life span of the fletching. Due to their stiff nature they have all the desirable characteristics for a vane including superior memory, superior adhesion, and super stiffness for quieter flight, flatter trajectory and better broadhead control.

STEP 3: GLUE IN INSERTS OR TARGET POINTS

Using Tip Grip adhesive put three lines of glue down the insert or point lengthwise and turn the insert/point while seating it. (see figure 3 for example). This gives the proper glue dispersal and ensures a bond that will never break loose. Any deviation from this step may result in damaged shafts and inserts or points coming lose. After a short setup period, your arrows are ready to shoot.

FIGURE 1

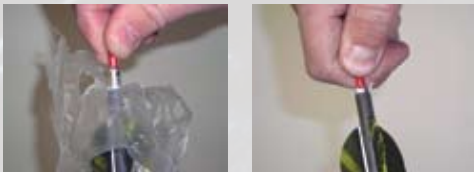


FIGURE 2



FIGURE 3



BOW TUNING

There are many methods of tuning bows that will work. Gold Tip recommends paper tuning your bows shot with a release aid and bare shaft tuning bows that are shot with a finger release. When using a compound with a release it is highly recommended to use a string loop on your bowstring. It will prevent nock pinch resulting in damaged nocks and will also help prevent the arrow coming off the string when the nock becomes pinched between the release and the nock set. **Warning:** Use of a release without a loop can cause the arrow to fall off the string while being drawn due to string pinch. This can cause injury to the shooter by shooting the arrow either partially on the string or completely off.

TUNING A RELEASE SHOT BOW

PAPER TUNING:

Shoot arrows through a suspended piece of paper at approximately 4 to 6 feet, and observe the tear that

results. Below are the adjustments that need to be made to achieve the optimal "perfect bullet hole". Make sure you make adjustments in the up and down flight before you make the adjustments in the left and right flight. This ensures you are not getting a false reading due to vane contact. **Tip from the Pros:** Try spraying your vanes with a powder, such as foot powder, to determine if there is any vane contact with the rest. Vane contact can often cause erratic arrow flight and inaccurate tear readings.

Tip from the Pros: When paper tuning a very consistent release and anchor point is critical. Try shooting your arrow two to three times making sure that the tear is consistent before adjusting. Paper tuning can be very time consuming, but once your bow is tuned you will get much tighter groups and have perfect arrow flight.



This diagram depicts a perfect tear or bullet hole. This means that your arrow is perfectly tuned to your bow and you are achieving perfect arrow flight.

HIGH TEAR



POSSIBLE CORRECTIONS:

- Move nock point down
- Move rest up
- Decrease launcher stiffness
- Shorten arrow length if possible

LOW TEAR



POSSIBLE CORRECTIONS:

- Raise nocking point
- Stiffen launcher stiffness

LEFT TEAR



POSSIBLE CORRECTIONS:

- Move rest/center shot away from riser(right handed bow)
- Move cable guard away from string (increase load on cable guard)
- Adjust wheel lean

RIGHT TEAR



POSSIBLE CORRECTIONS:

- Move rest/center shot towards riser (right handed bow)
- Move cable guard towards arrow (decrease load on cable guard)
- Adjust wheel lean
- Use stiffer arrow
- Decrease bow weight

BROADHEAD TUNING

BARE SHAFT TUNING:

Gold Tip recommends bare shaft tuning for all bows shot with a finger release as the arrow needs to be more specifically spined to paradox properly to achieve good clearance, forgiveness and accuracy. To shoot the test, fletch two arrows and leave two un-fletched. Start shooting at 10-15 yards and then move back as you start to fine tune your setup. Listed below are illustrations showing how an improperly tuned setup will react and what adjustments to make to achieve perfect flight characteristics.



This diagram depicts optimal tuning for the bare shaft tuning method. Bare shafts and fletched arrows should have very similar impact points.

STIFF ARROW

POSSIBLE CORRECTIONS:

- Use a longer shaft
- Use a weaker spined shaft
- Add weight to the insert using the weight system or by adding a heavier weight point
- Decrease cushion plunger tension or rest side tension
- Add poundage to limbs 1/8 turn at a time



WEAK ARROW

POSSIBLE CORRECTIONS:

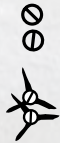
- Cut shafts shorter 1/8" at a time
- Use a stiffer spined arrow
- Decrease point weight
- Decrease poundage 1/8 turn at a time
- Add weight to the rear of the shaft with wraps, fletching or Gold Tip's weight system adapter
- Increase plunger tension



LOW NOCK POINT

POSSIBLE CORRECTIONS:

- Move nocking point up
- Move arrow rest down



HIGH NOCK POINT

POSSIBLE CORRECTIONS:

- Move nocking point down
- Move arrow rest up



THINGS TO CONSIDER:

- The larger the blade surface area, the more steering ability the broadhead will have. Therefore, larger cutting diameters are harder to tune and may require more fletching and slower speeds.
- Mechanical broadheads still need to be aligned to spin true.

STEP 1: TUNE THE BOW

If you want broadheads to fly like field points as much as possible, you must be able to tune your bow to shoot perfect bullet holes through paper at 5 ft, 15ft and 30 ft. Broadheads will react exactly opposite of a paper tear. For example: A high tear will result in a broadhead that impacts lower than a field point because the broadhead blades are steering the arrow in the direction the point is forced.

STEP 2: BROADHEAD ALIGNMENT

There is a tolerance between all broadhead manufacturers broadhead shanks and the inside diameter of the insert itself. The best way to illustrate this is to wiggle the broadhead right before you tighten it down. You will notice a little play there and depending on where the center of the point ends up when it is firmly tightened, will result in either a broadhead that wobbles or spins true. To correct the problem and make all of your broadheads spin true, follow the steps below.

1. Use a spinner like the Pine Ridge Arrow Inspector and a box to put the point up against. You will be able to see if it is spinning true or wobbling. (see figure 1).



FIGURE 1

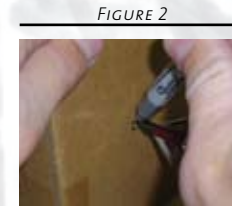


FIGURE 2

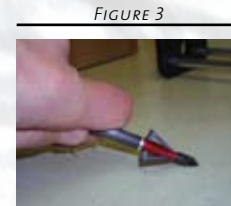


FIGURE 3

If it is wobbling you will see a circular motion created by the tip of the broadhead as it is rolled on the spinner. If the broadhead is properly aligned the point will stay stationary as the broadhead spins.

2. Rotate the arrow to the high side of the circle and mark the top of the broadhead with a marker. (see figure 2).
3. Rotate the arrow 180 degrees opposite of the mark and press the tip of the broadhead on the counter top. (see figure 3). What you are trying to do is push the broadhead around slightly in the insert until the tip is dead center in relationship to the center of the shaft. The reason you mark the broadhead is to see if you have applied too much pressure or not enough. With a little practice you will be able to align the broadhead to the arrow in less than a minute. **Note:** Every time the broadhead is taken off the shaft it must be realigned. You may need to realign the broadhead during practice also, as impact can affect broadhead alignment.
4. If you are paper tuned and your broadheads are aligned properly and still experiencing problems with grouping, then you need to consider creating more drag on the rear of the shaft with a fletching change. Consider feather fletching, a four fletch configuration with 2.5" or 3" vanes or small vanes (2.3") in a 6-fletch pattern.