

Replacing the Flexshaft Sheath (with Cover on)

To remove and replace the Flexshaft Sheath you will need the following tools:

- #2 Phillips screwdriver (magnetic tip preferred)

Removing the Flexshaft Sheath

1. **Ready the machine** by unplugging it from the power outlet and placing it on a stable work platform. Raise the head up to within .5 inches of the top and move the Y-truck to the center of the machine for best access. Do not raise it all the way up as it will wedge in place.

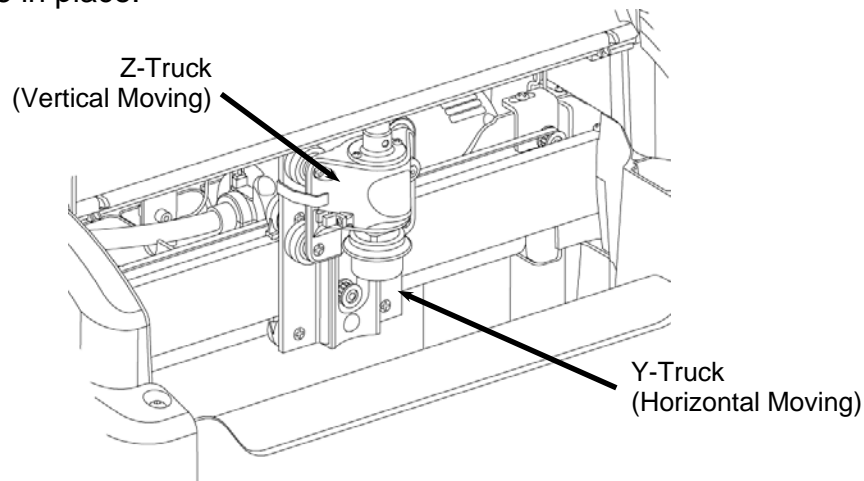


FIGURE 1: VIEW OF THE Z-TRUCK

2. **Ready the flexshaft for removal from the Z-truck:** Move the Z-truck to the very top of its travel (until it reaches the hard stop) so that the flexshaft support tube protrudes from the head cover (See Figure 2).

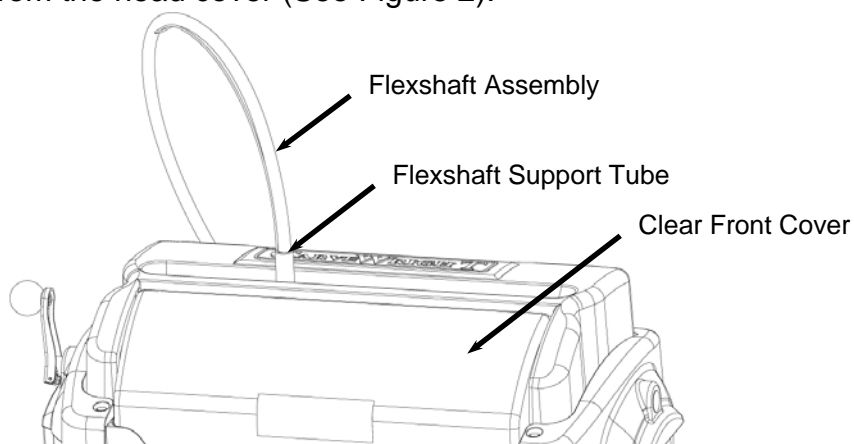


FIGURE 2: EXTERIOR VIEW OF THE FLEXSHAFT AND HEAD COVERS

- Detach the flexshaft from the top of the Z-truck:** The flexshaft assembly is retained by a ball detent located in the flexshaft receptacle (See Figure 3). Firmly grasp the flexshaft support tube while reaching under the clear front cover with your other hand to grab the Z-truck. Pull up firmly on the flexshaft support tube and twist slightly while bracing the Z-truck. **DO NOT PULL ON THE SHEATH.** The flexshaft will pop out of the detent. Grab the exposed end of the flexshaft core and pull it out of the sheath. Place it aside in a clean location.

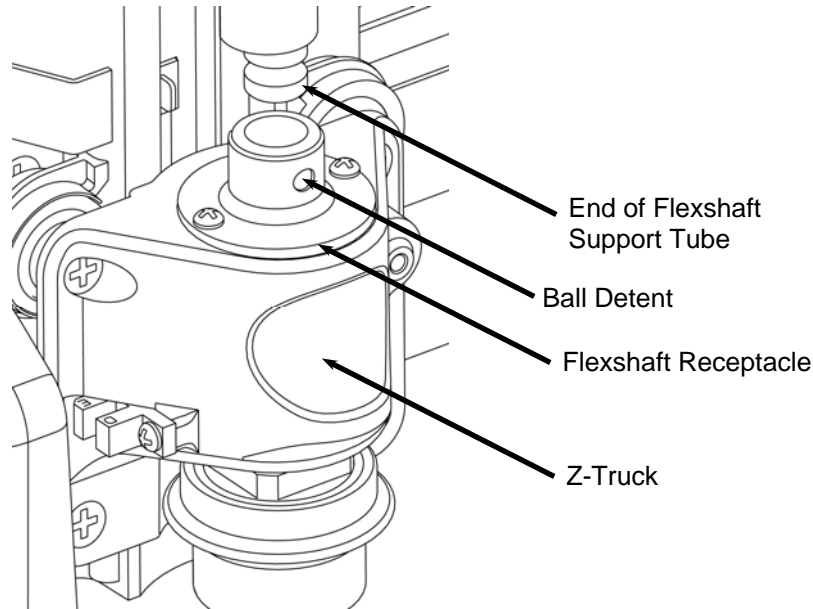


FIGURE 3: VIEW OF THE FLEXSHAFT CONNECTION TO THE Z-TRUCK

- Remove the Flexshaft Retaining Screw:** Lift the front cover and move the Y-truck to the far left side of the machine. Next loosen the flexshaft retaining screw, located on the motor housing, 2 ½ to 3 turns. Completely removing the retaining screw risks dropping the screws into the machine.

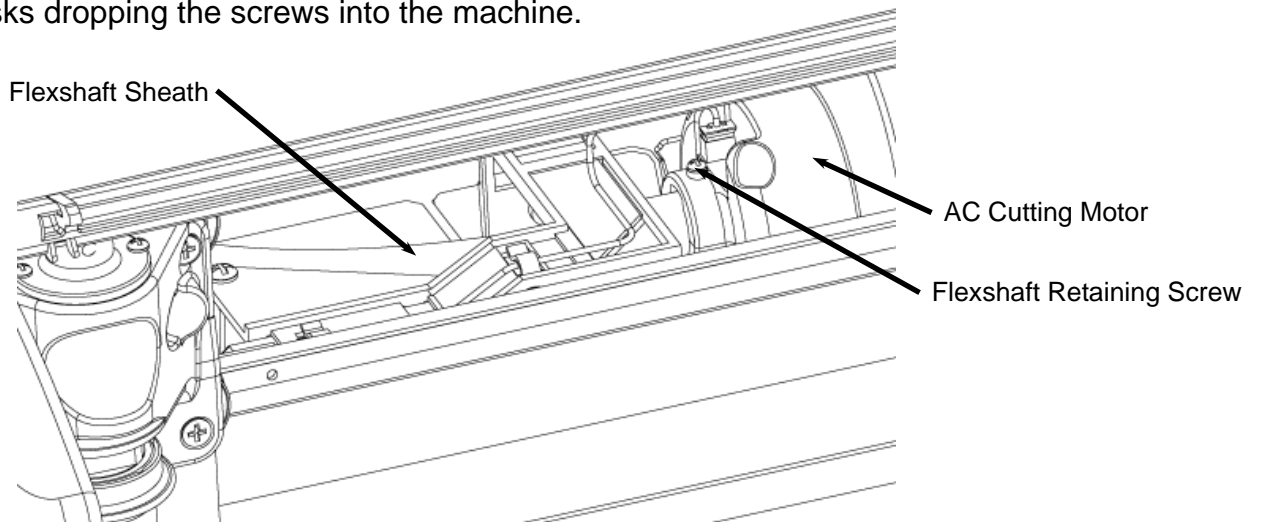


FIGURE 4: VIEW OF THE AC CUT MOTOR AND FLEXSHAFT WITH THE COVER LIFTED

5. **Remove the Flexshaft Assembly from the motor.** From the front of the machine, grab the flexshaft where it exits the back of the machine with your left hand and reach under the head and grab the flexshaft at the point where it enters the AC cut motor with your right hand. Twist in a clockwise direction while pulling it out of the motor. The sheath is retained with a bayonet style connection so the tabs and slots will need to align before it can be removed.

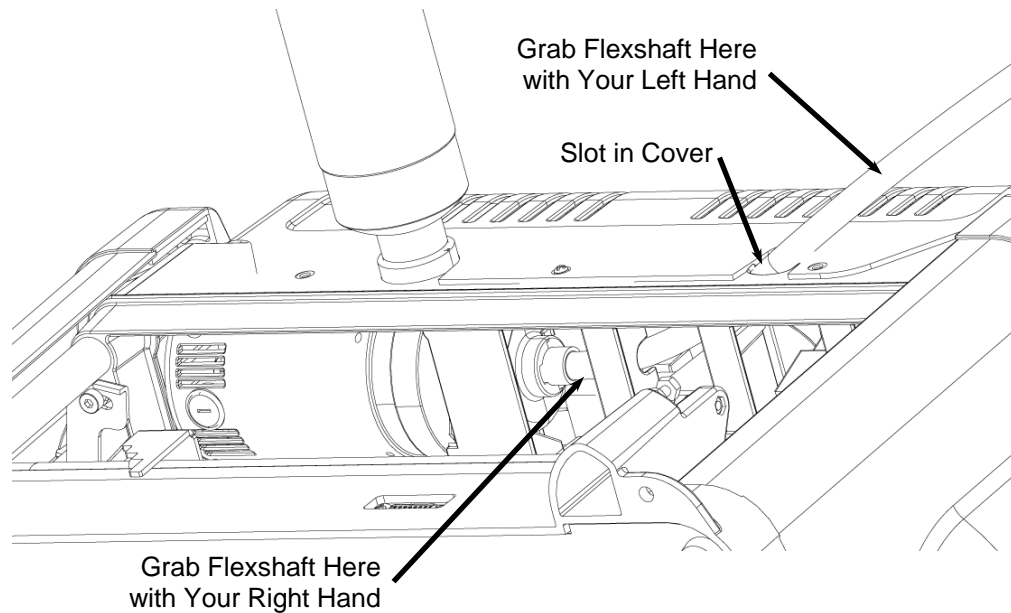


FIGURE 5: REMOVING THE FLEXSHAFT

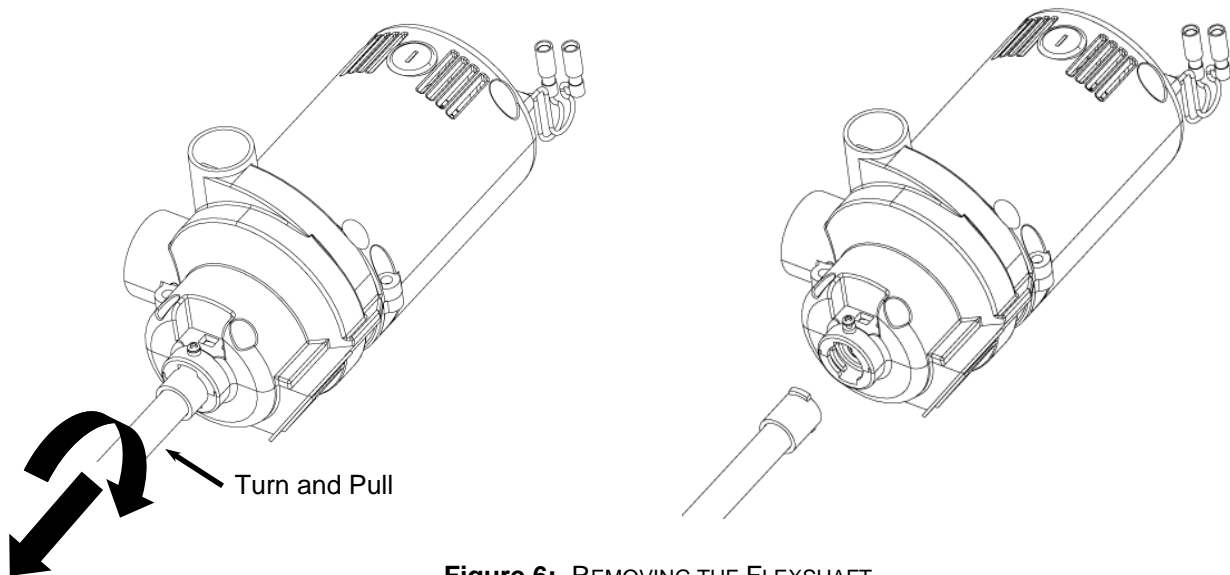


Figure 6: REMOVING THE FLEXSHAFT
(SHOWED OUTSIDE THE MACHINE FOR CLARITY)

6. **Remove the Flexshaft Assembly from the machine.** Pull the flexshaft sheath out of the machine from the back making sure to avoid all cables.

Reassembling the AC Motor

1. **Assemble the Flexshaft Sheath onto the AC motor.** Orient the curved end of the flexshaft assembly toward the front of the machine as shown in Figure 7 and thread the end into the slot in the back cover (See Figure 5). Insert the tabs on the end of the flexshaft sheath assembly into the slots on the AC motor housing. Again make sure that the curved end of the flexshaft is pointed toward the front of the machine before inserting it into the motor. Turn the flexshaft assembly 90 degrees in the counter clockwise direction and tighten the flexshaft retaining screw. **Failure to correctly orient the flexshaft during assembly can cause the core to bind and overheat very rapidly.**

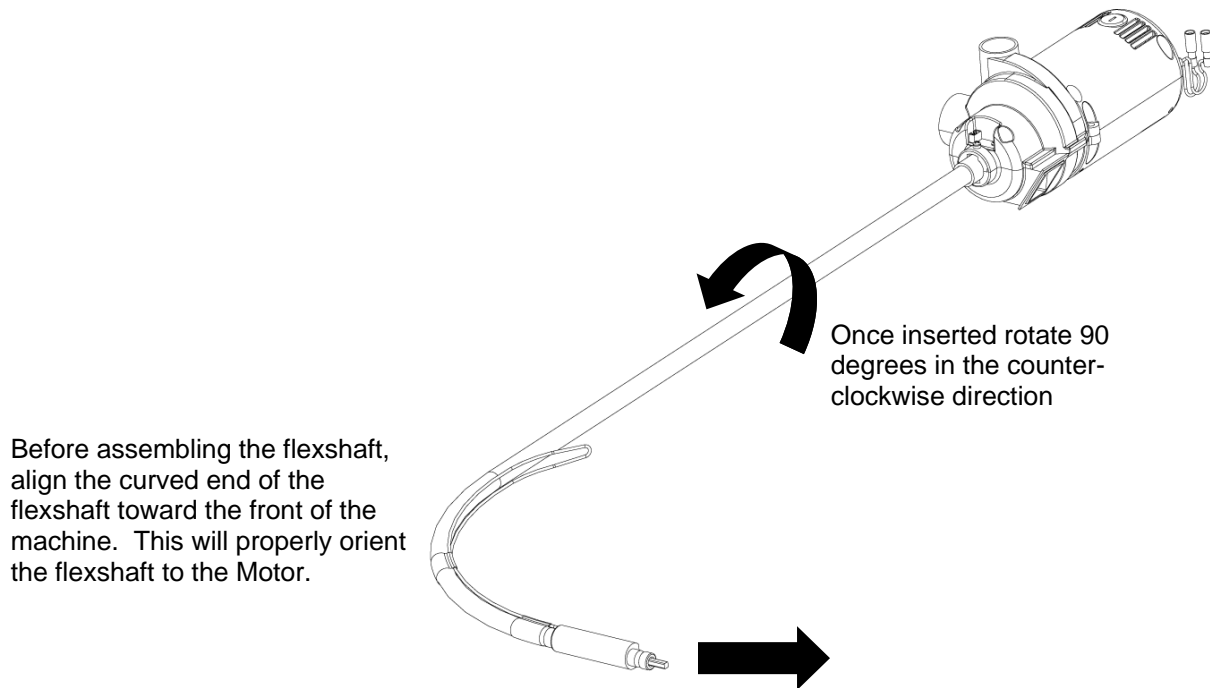


FIGURE 7: INSERTING THE FLEXSHAFT (SHOWED OUTSIDE THE MACHINE)

2. **Prepare the flexshaft assembly for re-insertion into the machine:** Reinsert the flexshaft core. Push the core into the sheath and make sure that it slips into, and engages, the AC cutting motor. It will drop into the receptacle on the motor side about 5/8ths of an inch. Turn the core by hand and feel for resistance of the motor. If the shaft spins without resistance, push the core inward while rotating until it drops into the slot and engages the motor.
3. **Insert the flexshaft into cutting head:** Looking through the slot in the top cover, locate the flexshaft receptacle on the top of the Z-truck. Inside the receptacle there is a square recess that mates with the exposed square end of the flexshaft core. Turn the chuck on the bottom of the cutting head (open the safety cover for access) until the square core end can be inserted into the recess. Press the flex shaft all the way down into its receptacle. A click will be heard and felt as the shaft snaps into place.