



TechSouth Power Point Tungsten Grinder Operating instructions & Parts List



Warning! Please Read All Of These Cautions Prior To Use

- Any use of this product, other than those described in the instruction book, could lead to injury.
 - When grinding, cutting, or flattening, an ANSI approved dust mask should be used.
 - Any ANSI approved safety glasses should always be used when grinding, cutting and/or flattening tungsten.
 - Gloves should always be worn when grinding, cutting and/or flattening tungsten.
 - Dispose of the tungsten dust on a regular basis at an approved location.
 - The grinder is for grinding tungsten only. (Other objects will tend to gum up the diamond wheel.)
 - Do not plug into an electrical outlet if the cord is worn or frayed.
 - Never use the grinder where water is present - electrical shock could result.
 - Do not attempt to unscrew or adjust the head when in operation.
 - Remove power plug from outlet when changing the diamond wheel or cleaning the grinder.
 - Use only Power Point authorized parts and diamond wheels.
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Introduction

The instruction and parts list are intended to give the operator the necessary guidelines for continued use and care for your Power Point Tungsten Grinder. There are certain steps that are necessary to ensure that you do not damage the grinder so you get the maximum life from the diamond wheel.

This is an electrical product so care must be taken when grinding to ensure complete safety.

Operating Instructions

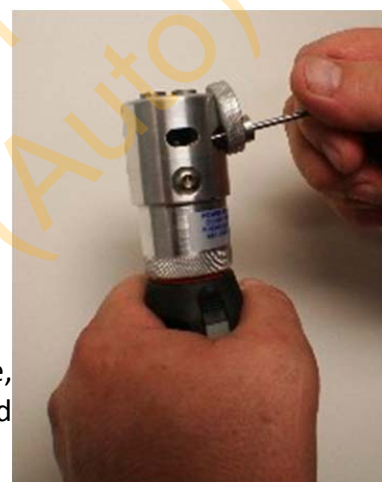
When you receive the grinder, check to be sure there is no damage to the motor or electrical lead. The diamond wheel is designed for tungsten only, any other materials tend to clog or gum up the wheel, thereby, reducing grinding effectiveness and contaminating the tungsten. Prior to grinding, check the collets to ensure that the proper one is installed for the diameter of tungsten that is being ground. There are two collets stored in the top of the head for different diameters.

Grinding The Angle

Your grinder is set with the 3/32 collet preset to grind on the outermost diameter of the wheel. Insert the tungsten into the correct collet located on the collet disc.

Spin the tungsten one revolution with light pressure. Release the tungsten and re-grip it to spin it for another revolution. Continue the grinding procedure until a point is applied to the tip of the tungsten. Let the diamond wheel do the grinding. Do not apply too much pressure because you will create excessive heat on the wheel and reduce its life.

Remember, it is best to spin one revolution with slight pressure, release, grip again, and spin with slight pressure. This allows the wheel to cool and extends the life of the diamond wheel.



When the wheel is worn to the point it will not grind anymore, loosen the disc screw (007) and rotate the collet disc (008) to shift the tungsten to another part of the diamond wheel with fresh diamond. This is accomplished by viewing the location through the slot in the side of the lower housing. When the location has been set, tighten the collet disc screw to lock the collet disc in place. When the top surface of the wheel has been used, the upper housing can be removed and the diamond wheel flips over for complete usage of the wheel.

To flip the wheel, *Make sure the unit is unplugged* front the outlet flip the back tab on the motor to lock the rotation. Unscrew the two lower housing screws (004) and lift the upper housing off of the lower housing. Remove the screw from the center of the diamond wheel and turn the wheel over (wheel replacement is done with this procedure, also) and tighten the screw back to the mandrel, replace the upper housing, be sure to flip the black tab on the motor back to original position so the motor will rotate.

When you change the diameter of the tungsten hat is being ground, insert the correct collet; (different diameters are located in the top housing), into the collet disc and place the one being changed into the upper housing for storage.

It is recommended that any tungsten that has been contaminated be cut prior to grinding to eliminate the risk of contaminating the wheel.

Cutting The Tungsten

The grinder is equipped with a slot for cutting the tungsten to length or for removing the contaminated end. To cut the tungsten, place it in the slot so the desired portion of the tungsten to be cut (cut line) lines up with the edge of the diamond wheel. Gently, press and rotate the tungsten to cut it. If you want to extend the cutting edge life, score a groove approximately one-half the thickness of the tungsten and snap the tungsten into two pieces. This should not produce any splintering and will extend the cutting edge life.



Flattening The Tungsten

When a flat is required, either for orbital welding or to make the tungsten square after cutting, the head is equipped with four holes in the top housing to put a flat on the tip of the tungsten.

The flat is accomplished by inserting the tungsten into the correct hole in the top of the upper housing, press lightly and rotate to generate the flat surface.



Adjustable Collet Instructions

The adjustable collet allows a variety of angles for various TIG welding situations.

The angle is adjusted by loosening set screw (023) which will allow the brass collet holder to pivot for different tip angles. You will need to set the collet holder and grind a piece of tungsten to determine the angle you desire. If the desired angle is not correct, repeat the procedure until you achieve the proper angle.

If you like a long point, you may have to loosen the collet disc screw (007) and lower the collet disc (022) so the point of entry of the tungsten is closer to the diamond wheel. The lower the disc the longer the point, and conversely, the higher the disc, the shorter the angle.

The longer angle points will require the tungsten to set on the outermost diameter of the wheel - because the longer point requires more contact with the grinding surface.

To move the collet to another part of the wheel, when wear occurs, loosen set screw (023) and turn the brass screw (021) to advance the collet towards the center of the wheel. (you will have to reset your angle when you relocate to a new part of the wheel.)

