

Miniature Drill Attachment

#70 through 1/16" (.75 - 1.5 mm)

(DAREX Part # 4400)

Installation and Operating Instructions



DAREX

Tech Sheet 4400 Rev. 0997

Installation

Mount the alignment fixture and magnifier as shown using the screws provided. (See Fig. 1)

Operating Instructions

The easiest way to use this attachment is to first learn the operating procedure of the standard sharpener and chuck. Once you have mastered the sharpening of drills at least 1/8" and up, you will find it much easier to use the miniature drill attachment.

Alignment

Instead of setting the position of the pawls with a drill size lever, they are positioned by squeezing them together with your thumb and forefinger as shown. (See Fig. 2)

After the chuck is inserted into the alignment fixture as far as it will go, squeeze the pawls together so they are touching the drill. Now rotate the chuck until the flutes of the drill are caught by the pawls, as shown (See Fig. 3)

Once the flutes are caught, continue to hold the drill by squeezing the pawls and continue rotating the chuck until the chuck arrow aligns with the chuck band arrow corresponding to the point angle you will be sharpening. Now secure the chuck by depressing the chuck grip lever and turn the chuck closing knob until the drill is tight in the chuck.

On especially small drills it may be helpful to swing the magnifier down to see if the drill is properly located in the pawls.

Sharpening the Drill

1. Only remove as much material as needed - it is very easy to remove too much. With miniature drills you should just barely be able to see and/or hear the grinding operation.
2. When you have finished grinding and before you remove the drill from the chuck, examine the drill under the magnifier. If one lip appears longer than the other, put the chuck back into the sharpening mechanism and remove a little more material from the high lip. This can usually be done without adjusting the feed knob since very little material usually needs to be removed.
3. Before removing the drill from the chuck, examine the drill through the magnifier for proper relief. If the relief is too great, just re-insert it into the sharpening mechanism and grind some more off the end of the drill. By doing this, you work your way back along the twist of the drill which reduces the relief angle. If you do not have enough relief, you probably have removed too much material and must start the alignment and sharpening procedure over.
4. Use a fine wheel of at least 180 grit or finer. (Part No. 4853 Cratex Ultra Fine wheel is available from DAREX).



Figure 1



Figure 2

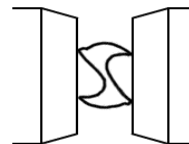


Figure 3

(NOTE: the cutting edges do not contact the pawls as with the standard alignment fixture.)



Figure 4

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