




Medium Felt Wheel, 6" x 1/2"

   **Safety:** Always wear safety glasses when working with a grinder. Make sure the felt wheel is turning **away** from the tool's edge (Figure 1). Because dressing and using a felt wheel creates dust, wearing a dust mask is recommended.

Mounting the Wheel

Felt wheels can be mounted on a work arbor or 6" bench grinder with a maximum 3600 rpm. The felt wheel must turn **away** from the tool being sharpened to prevent catching a tool edge and causing damage to the tool or injury to the operator.

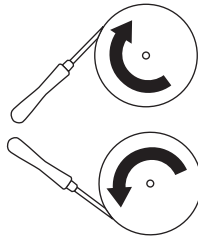


Figure 1

The wheel housing on most 6" bench grinders can be turned 180° to expose the felt wheel that is turning away from you. Mount the felt wheel to the arbor using the two large-diameter flanges provided with the grinder.

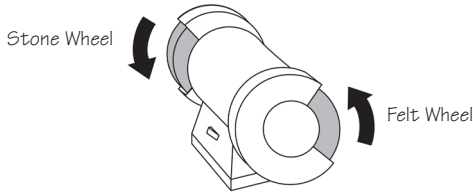


Figure 2

Charging the Wheel with Compound

The first few chargings of a new wheel are difficult; honing compound does not adhere well to the clean felt. Here are a few tips to make charging easier.

While the wheel is stationary, hold the compound firmly against it. Start up the wheel. Before it gains enough speed to throw off the freshly applied compound, shut the grinder off, allowing the wheel to slow down. Repeat this procedure until the wheel is charged.

Another method involves an initial application of mineral oil to the wheel while it is spinning. Apply the oil lightly with a cloth. (It is a good idea to stand aside when turning on the grinder, as some excess oil or compound might fly off.) After the oil is applied, hold the compound against the spinning wheel until the wheel is charged. It is not necessary to stop and start the grinder with this method.

Your choice of charging method will be determined by the relative dryness of the compound you intend to use. After the first few chargings, the wheel will develop a smooth surface of old compound. Resist the temptation to remove it. The build-up will make it easier to charge the wheel.

Truing and Dressing the Wheel

Slight eccentricity, surface irregularities or deformation of the wheel will cause vibration, making accurate honing difficult. You may have to true your felt wheel (so that it runs concentric to the shaft) when you first install it, or when you reinstall it. You may also wish to dress your wheel (remove any surface irregularities) from time to time. Mount a sanding drum fitted with a 60x sleeve in an electric hand drill. With both the wheel and the drill spinning, bring the sanding drum against the wheel. Make light passes with the sanding drum perpendicular to the wheel's face and sides until the wheel is no longer eccentric or is restored to its desired condition. You may wish to use a piece of bar stock, or other square-edged steel item, to remove any build-up of honing compound prior to re-dressing the wheel (as the compound will clog the sanding drum). Check the arbor nuts on both sides of the grinder; the braking action of truing/dressing the wheel might loosen them.

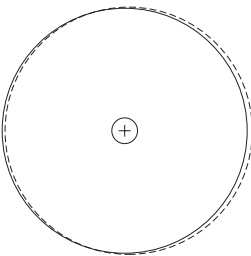


Figure 3: Truing a wheel to run concentric to the shaft.

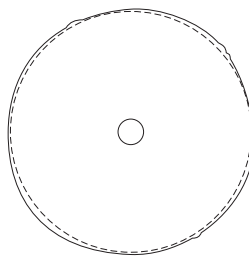


Figure 4: Dressing a wheel to remove any irregularities.

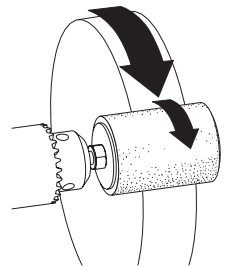


Figure 5: Using a sanding drum.