

CITCO Tools guide for single point diamond dressers



Extended tool life & diamond tip maintenance

- Custom engineered for a more cost effective solution
- Extended tool life for a better return-on-investment
- Diamond reset capabilities for maximum tool consumption
- Maximizes part quality & reduces grinding costs
- Made in the U.S.A. with Fives' best-in-class manufacturing processes

“Extend the tool life of diamond dressers through a few simple tips and rules to protect and maintain the point on the diamond”

KEY POINTERS FOR CITCO DIAMOND DRESSING TOOL MAINTENANCE

- Minimize extension (overhang) from clamping point or set screw to avoid vibration. Reminder, even though diamond is the hardest substance known, it is a brittle single crystal structure. Vibration can cause the points to chip, the stone to fracture internally or to shatter completely.
- Always incline at a 10° - 15° angle, pointed in the direction of the wheel rotation. Figure 2.
- Always tighten dressing tool firmly to avoid unnecessary vibration. Occasionally the size of the tool holder itself should be checked for an oversize condition which will prevent proper tightening in the fixture.
- Always use coolant where possible. Turn it on before starting to dress, NEVER during. Turning on the coolant while the tool is in contact with the wheel could cause the diamond to shatter. It is better to finish the dress dry and correct it on the next pass than during the grinding process.
- Feed into the grinding wheel at 0.001” or less per pass.
- On turnables, stop as soon as you feel the head start to move/index, this will generally be at a 7° angle.
- Recommended traverse rates in inches per minute.

Wheel grit	Wheel diameter		
	8-12 inches	16-20 inches	24-30 inches
46-60	12.5	7.0	4.5
60-100	8.0	4.5	3.0
100-150	4.7	2.5	1.7

- Begin to dress at the high point on the wheel. Not doing this can cause an excessive depth of cut which can destroy the stone through heat buildup and irregular pressures.
- Dress at regular short intervals. Longer intervals between dresses can cause more downtime by increasing the amount of material needed to be removed from the wheel.
- Reset the diamond when the flat exceeds 0.040” across. Excessive use can create heat fractures that extend down to these points thereby, the potential to reset points is lost. Quality diamonds have 1 to 4 resettable points hidden in the matrix. The stone can be turned (reset) to use these points if wear on the original point is not excessive. Figure 3.

Figure 1. The ratio b:a should not exceed 2:1

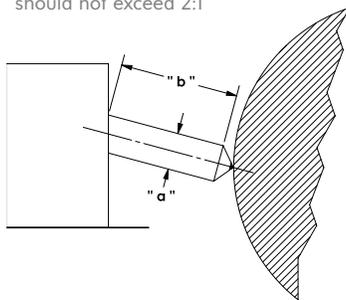


Figure 2.

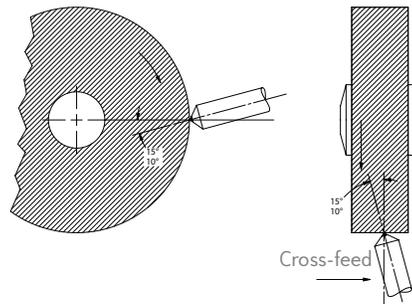


Figure 3.

