



# CITCO Standard Dressing Tools

Economical dressing tool systems



## Proven stock solution

Extended wheel life and improved production

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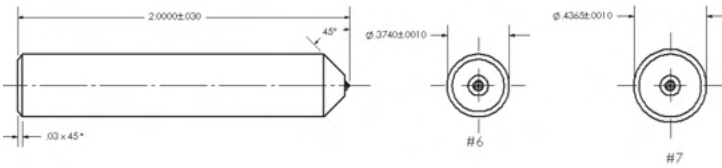
# CITCO Standard Single Point Diamond Dressers

“The CITCO standard dressing tool system is supported by Fives’ leading customer service and application support experts”



Tool type	Diamond size	Shank diameter
CS2	1/4 carat	6 = 3/8" 7 = 7/16"
CS3	1/3 carat	
CS4	1/2 carat	
CS5	3/4 carat	
CS6	1 carat	

\* all shank lengths are 2"

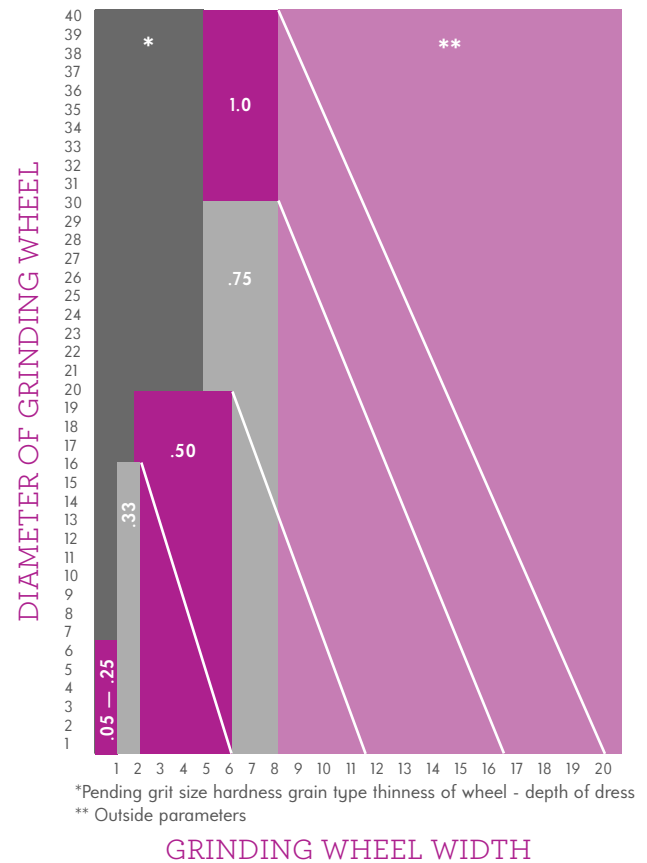


Dimensions shown for 2" shank length and diameter styles 6 and 7



## CITCO STOCK DRESSING SYSTEM WHEEL TYPE APPLICATIONS:

- Aluminum oxide
- Ceramic
- Hybrid
- Resin
- Vitrified



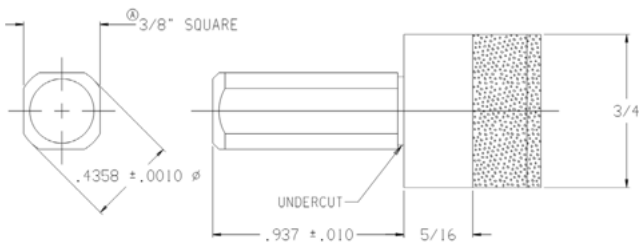
# CITCO Standard Grit Diamond Dressers

## CITCO GRIT DRESSING SYSTEM:

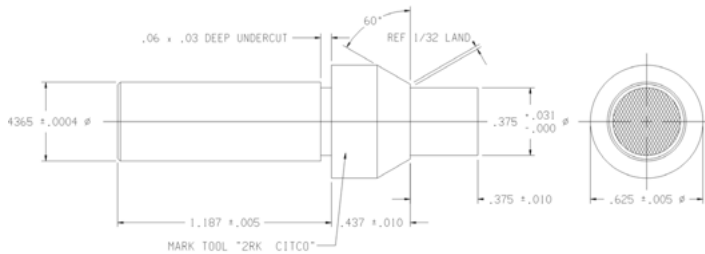
- Suitable for truing cylindrical and standard surface abrasive grinding wheels
- Incorporates the CITCO Tools proprietary diamond disbursement method, guaranteeing consistent dressing performance
- Most suitable for aluminum oxide ceramic and resin bonded abrasive grinding wheel types

Tool type	Total diamond weight	Shank length & diameter	Grinding wheel diameter
1AC	2.75 carats	0.937" x 0.4358" (15° angle head)	< 20"
1A	2.75 carats	0.937" x 0.4358"	< 20"
2AE	1.75 carats	0.750" x 0.4358" (15° angle head)	14" - 20"
2AD	1.75 carats	0.750" x 0.4358"	14" - 20"
2RK	1.75 carats	1.187" x 0.4365"	< 18"

“The CITCO standard grit diamond dressing system features a 1/2” usable depth that is a totally consumable grit slug”



1A shown above featuring a straight head



2RK shown above

## CITCO STOCK DRESSING SYSTEM WHEEL TYPE APPLICATIONS:

- Aluminum oxide
- Ceramic
- Hybrid
- Resin
- Vitrified



The CITCO standard grit dressing system is an economical dressing solution serving centerless, double disc and cylindrical grinding applications. This disposable, non-re-settable dressing system is in stock, ready for quick delivery and backed by Fives’ expert customer service team.

# Gardner TruGARD™ Double Disc Dressing System

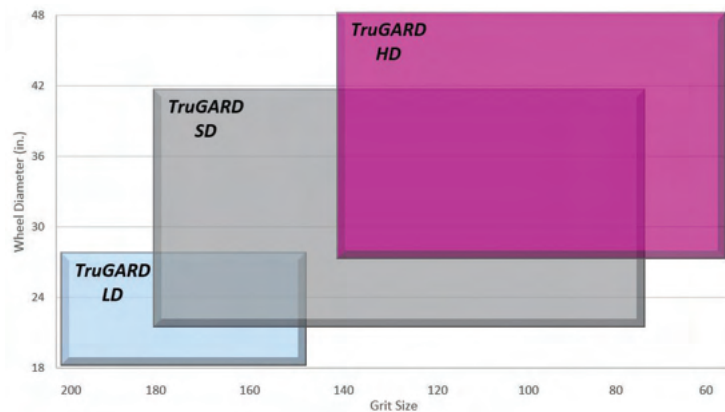
“With over 190 years of combined experience in double disc grinding and dressing, Fives has developed the TruGARD™ diamond dressing tool offering, which provides the best option for reducing tool costs and extending wheel life”

## TruGARD™ ADVANTAGES:

- TruGARD dressing tools provide more consistent diamond contact in the work zone
- Consistent diamond contact allows for smaller depth of dress, providing up to a 30% increase in wheel life
- TruGARD dressing tools provide a more open wheel condition resulting in an increase of parts-per-dress
- TruGARD dressing tool diamonds are more stable and consistent when compared to natural diamond

Fives supplies custom engineered dressing tools that are expertly designed to fit each customer's unique requirements paired with application support and full range of services

## APPLICATION RANGE BY TOOL



## AVAILABLE TOOL STYLES:

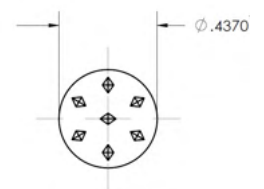
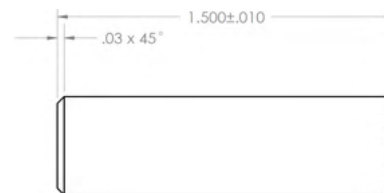
**TruGARD HD**  
Heavy duty dresser  
15 XL points



**TruGARD SD**  
Standard duty dresser  
7 XL points



**TruGARD LD**  
Light duty dresser  
7 standard points



\* TruGARD SD dimensions

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# Custom Engineered Dressing Tool Solutions

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“Fives offers a variety of dressing tool solutions to virtually fit any grinding application”

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## DRESSING TOOL TYPES:

- STRAIGHT DRESSING:  
Wheel dressing where the diamond section is completely flush wheel face, usually performed with a grit tool
- STEP DRESSING:  
Form dressing with one or two diameters or shoulders, usually conducted on face angled wheels
- RADIUS DRESSING:  
Conducted on wheel faces to form a specific convex or concave radius
- CONTOUR DRESSING:  
Wheel face dressing that achieves a special form required on the part



## A FULL RANGE OF DRESSING SOLUTIONS:

- Turnable
- Single point - natural & formed
- CVD & Peerless diamond
- Rotary wheel & cup
- Grit & form
- Multi & layered points
- Shaped chisel



## CITCO DRESSING TOOL ADVANTAGES:

- Boosts productivity through faster truing and dressing
- Extends wheel life with less stock removal per dressing cycle
- Broader application capabilities for heavier operations
- Diamond grit tools eliminate downtime for turning, resetting or other service
- Consistent performance throughout the life of the tool
- Various sizes available for each applications
- Backed by Fives' leading customer service & support
- Made in the U.S.A. with Fives' best-in-class manufacturing processes

## AVAILABLE SERVICES:

- Relap
- Reset
- Recycle used or scrap diamonds

# Single Point Dressing Tool User Guide

## KEY POINTERS FOR TROUBLESHOOTING:

Problems	General causes	Recommended solutions
CHATTER	<ul style="list-style-type: none"> <li>— Tool not secure</li> <li>— Diamond cross feed too slow</li> <li>— Wheel loaded up</li> <li>— Diamond infeed too fast</li> <li>— Worn diamond(s)</li> </ul>	<ul style="list-style-type: none"> <li>— Re-mount or check holder</li> <li>— Use faster cross feed</li> <li>— Dress more often</li> <li>— Slow infeed rate</li> <li>— Rotate tool or replace it</li> </ul>
BURN	<ul style="list-style-type: none"> <li>— Tool cross feed too slow</li> <li>— Poor coolant</li> <li>— Wheel is closed</li> <li>— Diamond too flat</li> </ul>	<ul style="list-style-type: none"> <li>— Increase cross feed rate</li> <li>— Increase coolant flow</li> <li>— Rotate or replace tool</li> <li>— Reduce size or use a grit tool</li> </ul>
INACCURACY IN PARTS	<ul style="list-style-type: none"> <li>— Cam worn</li> <li>— Poor mounting</li> <li>— Worn tool</li> <li>— Tool too tight</li> </ul>	<ul style="list-style-type: none"> <li>— Replace template</li> <li>— Check mounting or alignment</li> <li>— Check movement locations</li> </ul>
WHEEL LOADING / WHEEL DOESN'T DRESS AFTER CUT	<ul style="list-style-type: none"> <li>— Dress to infrequently</li> <li>— Infeed too tight</li> <li>— Wheel face is closed</li> </ul>	<ul style="list-style-type: none"> <li>— Dress more often</li> <li>— Dress at proper infeed rate</li> </ul>
WHEEL ACTS TOO SOFT AFTER DRESS	<ul style="list-style-type: none"> <li>— Overdressing</li> </ul>	<ul style="list-style-type: none"> <li>— Reduce infeed rate or increase cross feed</li> </ul>
SHORT DIAMOND LIFE	<ul style="list-style-type: none"> <li>— Vibration</li> <li>— Lack of coolant</li> <li>— Infeed cycle</li> <li>— Poor mounting</li> <li>— Dressing depth too excessive</li> </ul>	<ul style="list-style-type: none"> <li>— Remove shock from diamond</li> <li>— Clean Coolant lines</li> <li>— Reduce infeed</li> <li>— Secure tool properly in holder</li> <li>— Reduce dressing depth</li> </ul>
DIAMOND BREAKAGE	<ul style="list-style-type: none"> <li>— Storage</li> <li>— Pressure</li> <li>— Temperature</li> </ul>	<ul style="list-style-type: none"> <li>— Protect tools from shock</li> <li>— Reduce heavy infeed</li> <li>— Control temperature changes</li> </ul>

## KEY POINTERS FOR CITCO DIAMOND DRESSING TOOL MAINTENANCE:

- Minimize extension (overhang) from clamping point, or set screw, to avoid vibration. Vibration can cause the points to chip, the stone to fracture internally or shatter completely.
- Always incline at a 10° - 15° angle, pointed in the direction of the wheel rotation.
- Always tighten dressing tool firmly to avoid unnecessary vibration. Occasionally, the size of the tool holder itself should be checked for an oversize condition that 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.
- Begin to dress at the high point on the wheel. Failure to do this can cause an excessive depth of cut that can destroy the stone through heat buildup and irregular pressures.
- Dress at regular short intervals. Longer intervals between dresses can cause more downtime, thus 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.

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