

Single Point Tools

Our Norton line of single point tools is used in straight and simple form dressing applications. It includes: resettable and non-resettable products, tools for all abrasive types (conventional and advanced ceramic grains) and the technology-leading Norton "Indexable" tool design.

WHEEL FORMS DRESSED BY THESE TOOLS



STRAIGHT



TAPERED



CONVEX



SPECcheck

SELECTION GUIDE

Stock Tools for Ceramic Abrasive Wheels

SG/Ceramic Engineered for use on ceramic (SG, NQ, Targa, etc.) wheels but may also provide significant benefits when used on conventional abrasive products. These tools are furnished with top quality specially selected diamonds.

BCSG/Ceramic Economical alternative to an "SG" tool. Best choice when a disposable tool is preferred.

Stock Tools for Conventional Abrasive Wheels

NS Engineered for use on conventional abrasives. These high quality, value-priced tools can be used for a variety of dressing applications.

BC Economical alternative to an "NS" tool. Best choice when a disposable tool is preferred.

SELECTING THE CORRECT SINGLE POINT TOOL:

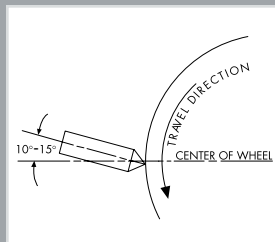
- Identify the wheel abrasive type: aluminum oxide, silicon carbide, or ceramic
- Determine the wheel diameter – to select the optimum carat weight
- Determine the tool holder size – to select appropriate shank diameter

EXAMPLES OF SINGLE POINT TOOL SELECTION

Conventional Wheel Spec:	32A46-IVBE 7" x 1/2" x 1-1/4" Customer's machine has a 7/16" tool holder
Tool Selections:	Resettable: NS2M7 or NSUD2 (Indexable) Non-Resettable: BC2M7 or BCUD2 (Indexable)
Ceramic Wheel Spec:	5SG60-JVS or 5NQ60-IVS 10" x 1" x 3" Customer's machine has a 3/8" tool holder
Tool Selections:	Resettable: SG3M6 Non-Resettable: BCSG3M6

TECHtip

- Rigidly mount single point tools at a 10° - 15° angle to the wheel centerline with a line drawn through the center of the wheel, pointing in the direction of wheel travel.
- Point of contact should be slightly below centerline of wheel as shown.
- Use coolant whenever possible.
- Normal infeed is .001" per pass.
- Lead selections range from .002" - .010" per wheel revolution.
- Rotate the tool 1/4 turn periodically to maintain a sharp point.



To optimize applications using ceramic abrasives and/or tools, normal dressing parameters must change. Reduce infeed by 25%. Significant reductions in the amount of infeed and frequency of dress will result in substantially lower cost per part ground.

SINGLE POINT DRESS TRAVERSE RATE

Select a Lead Value based on desired Surface Finish and run the formula below.

FINISH	LEAD VALUE (PER WHEEL REVOLUTIONS)
For Coarse Finish (approx. 64 RMS)	.008" to .010"
For Medium Finish (approx. 32 RMS)	.005" to .009"
For Fine Finish (approx. 16 RMS)	.002" to .004"

LEAD VALUE X WHEEL SPEED (RPM) = TRAVERSE RATE IN INCHES/MINUTE

- Slower traverse rates result in a closed wheel face and lower surface finish readings on the workpiece.
- Faster traverse rates result in an open wheel face that produces greater stock removal and a rougher workpiece finish.



It is the user's responsibility to refer to and comply with ANSI B7.1

Single Point Tools CONTINUED



Single Point Tools for Truing/Dressing Conventional Abrasives CONVENTIONAL SINGLE POINT TOOLS

FEATURES	BENEFITS
■ Consistent diamond structure and shape	■ Repeatable dressing performance
■ Well defined, sharp diamond point	■ Durable; maximum cost effectiveness for dressing conventional abrasives
■ Steeper 60 degree included angle head design	■ Greater machine and part clearance produce forms with tighter tolerances

RESETTABLE NS (NORTON STANDARD) SINGLE POINT TOOLS

FEATURES AND BENEFITS

- High quality diamonds, value priced
- Selection of the correct tool and a proactive resetting program will result in the lowest dressing cost per part

NON-RESETTABLE BC SINGLE POINT TOOLS

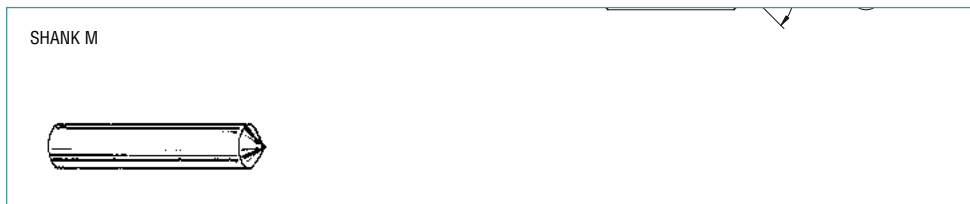
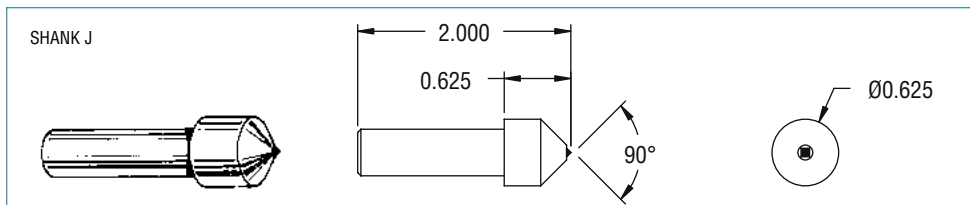
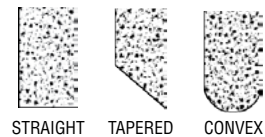
FEATURES AND BENEFITS

- The best selection when a resetting program is not feasible or low initial cost is the primary purchasing consideration

WHEEL DIAMETER	TOOL CARAT WEIGHT	TOOL DIAMETER	BETTER		GOOD	
			PRODUCT NO.	2 SETTABLE PTS (1 RESET) PART NO.	PRODUCT NO.	NON RESETTABLE PART NO.
Stock Single Point Tools for Truing/Dressing Conventional Abrasives						
Internal Wheel	1/5 (.20)	3/8" / 7/16"			BC1M6 / BC1M7	66260195021 / 66260195022
Up to 7"	1/4 (.25)	3/8" / 7/16"	NS2M6 / NS2M7	66260195116 / 66260195117	BC2M6 / BC2M7	66260195000 / 66260195001
8" to 10"	1/3 (.33)	3/8" / 7/16"	NS3M6 / NS3M7	66260195121 / 66260195122	BC3M6 / BC3M7	66260195002 / 66260195003
11" to 14"	1/2 (.50)	3/8" / 7/16"	NS5M6 / NS5M7	66260195126 / 66260195127	BC5M6 / BC5M7	66260195004 / 66260195005
15" to 20"	3/4 (.75)	7/16" / 7/16"	NS7M7 / NS7J7	66260195132 / 66260195130	BC7M6 / BC7M7	66260195006 / 66260195007
21" +	1 (1.00)	3/8" / 7/16" / 7/16"	NS10M6 / NS10M7 / NS10J7 *	66260195136 / 66260195137 / 66260195135	BC10M6 / BC10M7	66260195008 / 66260195009

* J-SHANK TOOLS ARE AVAILABLE IN 7/16" DIAMETER WITH 5/8" HEAD
STANDARD PACKAGE = ONE TOOL

WHEEL FORMS DRESSED BY THESE TOOLS



Refer to our Diamond and cBN Superabrasive Standard Product Catalog #8068 sections on www.nortonindustrial.com or your Norton representative for more in-depth information on all Norton superabrasive stock and made-to-order products.