



MacInnes Tool

PRO-SCORE™ CARBIDE GLASS CUTTING WHEELS

YOU WILL NOTICE THE DIFFERENCE

Small, subtle differences in the characteristics of the glass cutting wheel and in the pressure ultimately applied to the glass surface can have a substantial effect in the success of the score, the quality of the cut edge, and minimizing your scrap rate. Selecting the best wheel geometry is only part of the success formula; only consistency of all the critical dimensions score after score, wheel after wheel will allow you to optimize your process.

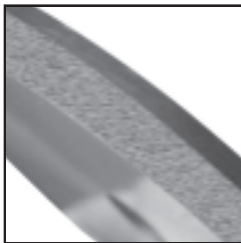
MacInnes Pro-Score™ wheels perform with consistency because:

- ◆ There is a unique marriage of tungsten carbide grade and a tightly controlled tip finish at the cutting edge
- ◆ All dimensions are held within extremely tight tolerances
- ◆ Each and every wheel is mounted and test cut to insure reproducible performance

MATERIAL AND CUTTING SURFACE FINISHES

MacInnes Tool Corporation uses a specially formulated ultra fine-grain tungsten carbide exclusively for both glass cutting wheels and axles. Harder and much more wear resistant than steel, this proprietary grade has been sintered under high pressure to maximize transverse rupture strength (resistance to fracture) and to retain its edge longer than conventional carbide. Pro-Score™ wheels can be resharpened without sacrificing quality of the score.

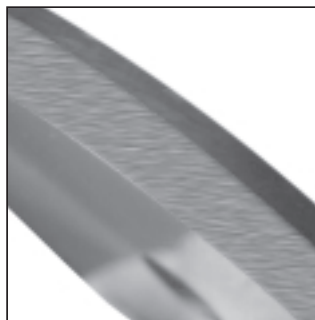
Pro-Score™ carbide wheels are offered in three surface finishes suitable for a range of glass formulations and cutting conditions.



COARSE (180 GRIND)



should be considered for irregular surfaces or work-piece geometries such as lamp tubes. Ease of application is improved but at the sacrifice of resistance to wear.



REGULAR (220 GRIND)



is the first choice for the vast majority of applications offering a good blend of traction and durability.



POLISHED

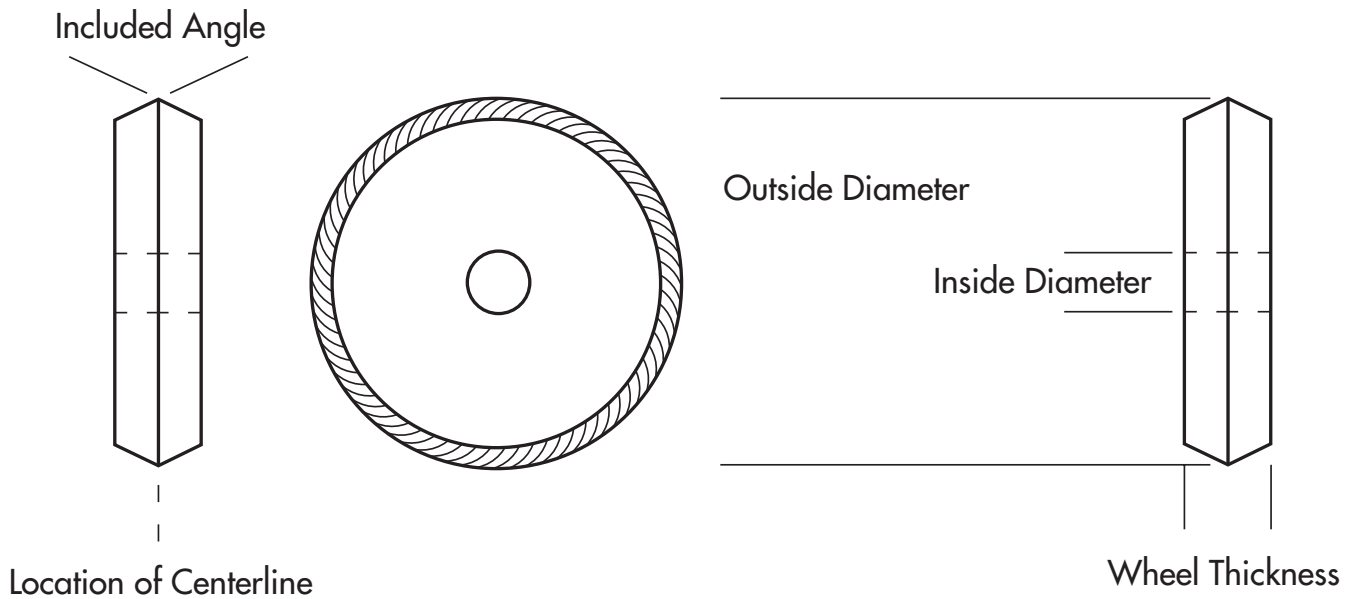


should be considered to achieve the highest quality and strongest edges for mirror glass, solar (heat absorbing) glasses, coated and various specialty glasses.

MACINNES TOOL CORPORATION

WHEEL SPECIFICATIONS

Pro-Score™ carbide wheels are manufactured to very close tolerances.



STANDARD WHEEL DIMENSIONS AND TOLERANCES

Nominal Wheel Diameter

(Reference Size)

125

532

732

380

500

Actual Dimensions

Outside Diameter

.125-.130"

.165-.168"

.225-.228"

.380-.385"

.500-.505"

3.18-3.30mm

4.19-4.27mm

5.72-5.79mm

9.65-9.78mm

12.70-12.83mm

Inside Diameter

.055-.057"

.055-.057"

.055-.057"*

.093-.095"

.093-.095"

1.40-1.45mm

1.40-1.45mm

1.40-1.45mm

2.36-2.41mm

2.36-2.41mm

* Note - The 7/32" wheel is available with an .093-.095" I.D. as a special order.

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POPULAR STOCKED WHEEL SIZES

(and we'll stock the special angles you require as well)

Wheel Angles	Standard Nominal Diameters ¹					Applications ²			Common Uses
	125	532	732	380	500	Hand Scoring	Conventional Machine Scoring	Pressure or Vent Machine Scoring	
105° (#1)	n/a		X						Thin and Hard Glasses
115° (#2)	n/a		X						
125° (#3)			X			.0625	.0938		
134° (#4)		X	X			↓			Single Thickness
138° (#5)		X	X			.3125			
140°			X						
144°	X		X						
145° (#6)		X	X					.0938	Double Thickness
148°		X	X						
150°	X	X	X						
153°			X						
154° (#7)	X	X	X				.5000		
158° (#8)			X						
160° (#9)		X	X	X	X			.5000	
162° (#10)		X							

¹ Please refer to wheel specifications for actual diameters and other dimensions and tolerances.

² Please refer to our brochure "Technical Guide for Glass Cutting" for recommendations and useful suggestions.

COMMON TO ALL WHEEL SIZES

Range of Included Angles Available ————— 90° - 163°
 Tolerance of Specific Angle Ordered ————— ± 30 minutes
 Wheel Thickness ————— .042-.043" 1.07-1.09mm
 Location of Centerline ————— ±.0005" ±.01mm

Inspections for dimensional conformance are made at each step in the manufacture of the wheel assuring our customers of consistent quality from wheel to wheel, shipment to shipment.

Since the included angle is so critical in demanding high volume glass production or fabrication, technicians at MacInnes Tool continuously check the angle using state of the art microscopy and video inspection techniques to make sure the angle is accurate and centered on the wheel. In addition, each and every wheel is painstakingly mounted and used to actually test cut glass. You are assured of getting a quality wheel that cuts smoothly, straight and without "skips."



MACINNES TOOL CORPORATION

**A STOCKING
PHILOSOPHY
THAT MEETS
YOUR
NEEDS**

There is an optimum combination of wheel angle, wheel size and surface finish for every piece of equipment, every application. MacInnes technicians will work with you to determine what works best in your equipment. We do not subscribe to the theory that "one size fits all" or that five degree angle increments are adequate. Over the fifty years we have been in the business of manufacturing tools for cutting glass, the geometries in the table on the preceding page have proven to be the most popular. We stock each of these items to support our general customer base and, in addition:

We routinely stock ANY angle in this range to meet the individual needs of customers without any additional charge.

ADDITIONAL INFORMATION AND SERVICES

- ◆ Price sheets, Terms and Conditions
- ◆ Our technical brochure "Technical Guide for Glass Cutting"
- ◆ Be sure to inquire about
 - Resharpener Services and Spare Parts
 - Macto™ Quick Change Mounts
 - Custom Mount Designs

**To order or for more information simply call or fax
MacInnes Tool's Customer Service Department.**

We will need to know:

- ◆ Quantity
- ◆ Included Angle (degrees or angle number)
- ◆ Wheel Diameter (Nominal Size or actual outside diameter, and inside diameter)
- ◆ Surface Finish (Regular Grind, Coarse Grind, or Polished)

MacInnes Tool Corporation

1700 Hudson Avenue, Rochester, New York 14617

(585) 467-1920 ◆ FAX (585) 467-7807 ◆ www.macto.com