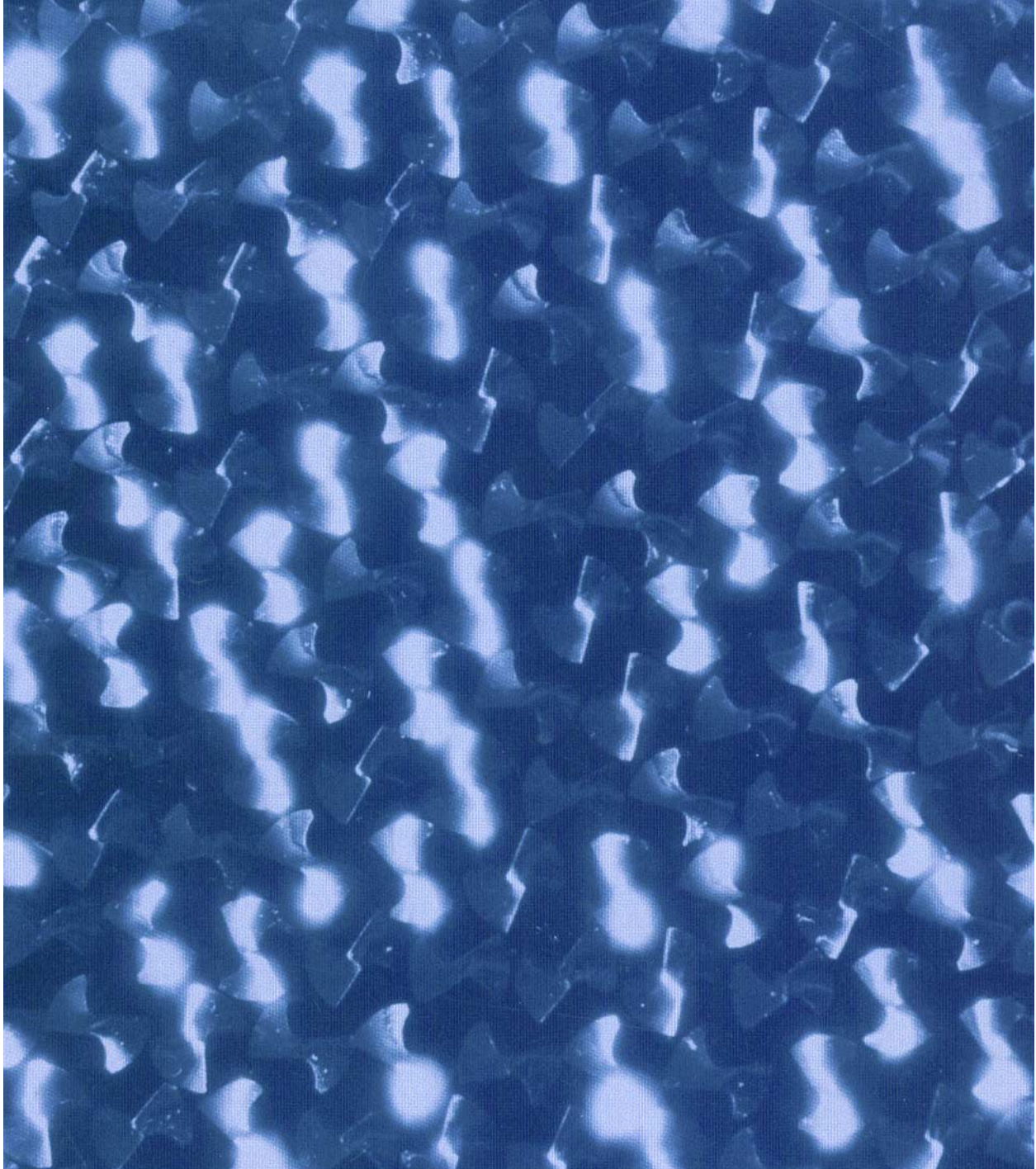


Winslow 100C

High Production Drill Point Grinder



W*inslow*
Engineering Inc.

The 100C

High Production Machine Sharpens a Full Line of Twist Drills Automatically and with Superior Accuracy; too.

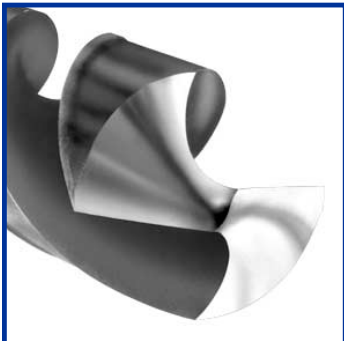
- Sharpens up to 500 units per hour, with concentricity held to within .0005" (.013 mm) TIR. Production rates fluctuate depending upon drill size, finish, sparkout and stock removal.
- Grinds drills from 1/16" to 1-1/2" (1.55 - 38.0 mm) diameter. Point angles from 90° to 140°.
- Versatile machine grinds nine different geometries:
 - Helical
 - Wide Web Helical Racon®
 - Bickford®*
 - Conventional
 - Step Drill
 - Core Drill -3 & 4 fluted
 - Taps - 2, 3 & 4 straight-fluted plug & bottom**Generated in two operations*
- Handles the five basic types of twist drills - jobber, taper shank, screw machine, crankshaft and parabolic. There are no limitations to maximum drill lengths. Special holders are available for stub drills.
- Automatic cycle offers consistent point accuracy. After the brief period it takes to manually insert a drill into the workhead, point generation, stock removal and drill ejection from 3/32" (2.4 mm) thru 1/2" (12.7 mm) are completely automatic. Grinding wheel is automatically dressed after a preselected number of drills have been ground.



The 100C Machine Grinds Conventional And Many Specialized Points

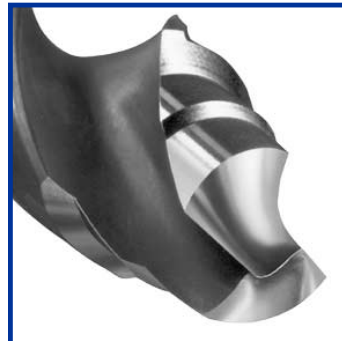
Any original point lasts only until the first regrind, then its performance and life depend largely on the quality of the regrind. Overlooking the value of a top quality point grinding machine can be costly in real dollars and lost productivity.

Also, there is no one drill point that works best for all applications. Not today. New manufacturing methods and computerized machining demand higher productivity in a wider variety of materials. Consequently, the ability to more closely match the drill point to the job is increasingly important for profit improvement.



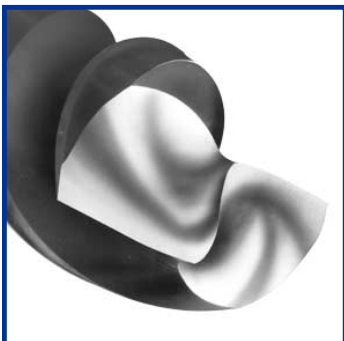
Helical

Exclusive Winslow®-Helical Grind features S-shaped crown chisel. Excellent self-centering. Reduces thrust, increases feed-rates, extends drill life, improves hole quality.



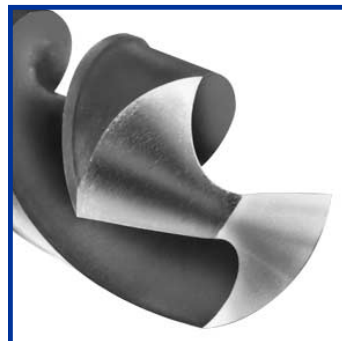
Step Drills

Grind pilot diameter and countersink angle in one operation. Round or relieved pilots.



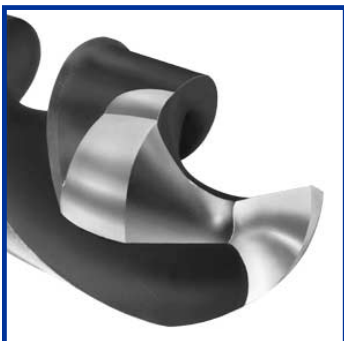
Wide-Web Helical

Grinds helical points on wide-web drills for improved drilling. All the benefits of helical point *plus* eliminates need for splitting or web-thinning.



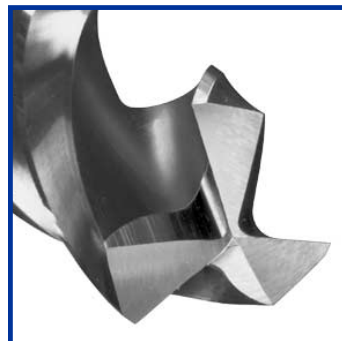
Conventional

Primary grind for the production of split points.



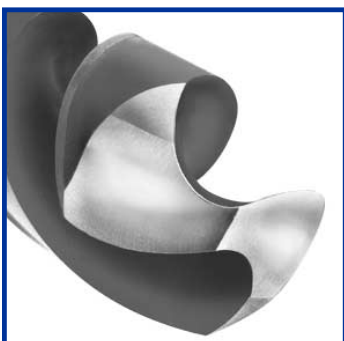
Bickford

Exclusive Winslow-Bickford Point® is self-centering, greatly increases drill life, minimizes burrs at breakthrough, produces excellent hole quality.



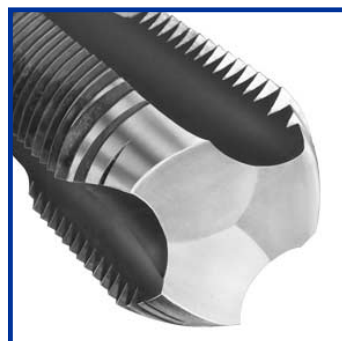
3-Fluted Tools

Regrind point and gash web. Good centering with increased feedrates. Also grind core drills without gashing web.



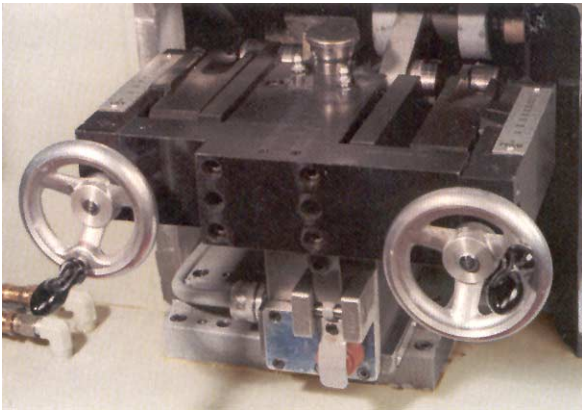
Racon

Exclusive Winslow®-Racon Point features full radiused cutting lip. Greatly extends drill life... minimizes burrs at breakthrough.



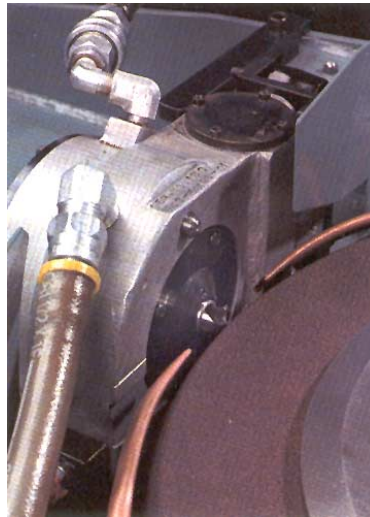
Taps

Sharpens end and lead angle on two, three and four straight-fluted plug and bottom taps.



Variable-rise & Infeed Mechanism Simplifies Changeover

Only one set of cams (2) are used for grinding each point geometry within its complete size range. Previously, up to 40 cam combinations were required. With this new design, a simple handwheel adjustment controls the drill point relief angle.



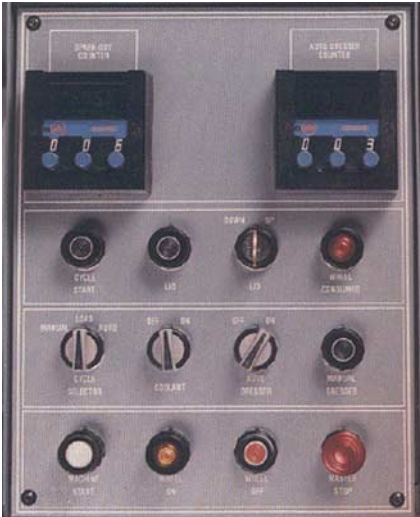
High Speed Grinding Wheel Increases Output

A speed of 1800 RPM results in a high rate of stock removal while minimizing wheel dressings. The 20" (500 mm) diameter grinding wheel is useable to 17" (430 mm) and extends the time between wheel changes.



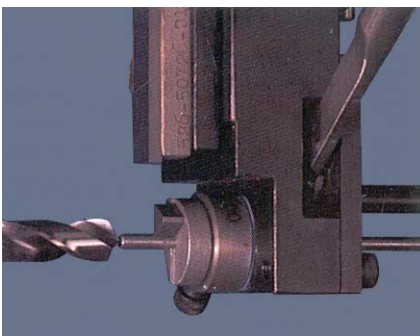
Heavy Duty Wheel Dresser Operates Automatically

Between each dress cycle, the automatic wheel dresser allows from 1 to 999 drill grind cycles. Each dress cycle removes .0005" and operates on a tracer principle. The dresser cam allows plain and geometric curves to be transferred onto the grinding wheel. When the grinding wheel has been worn to 17" (430 mm) diameter, a light on the control station signals a wheel change is necessary.



Control Panel. Simplifies Operation

Automatic spark-out counter controls quality of surface finish. Pacesetter control lets you predict unit production because it paces the operator. Auto Dresser automatically dresses the grinding wheel after a preselected number of drills have been sharpened.



Circular Drill Timer and Ejector Pin (Shown with workhead removed)



Selector Knob

Timing Device Regulates Output

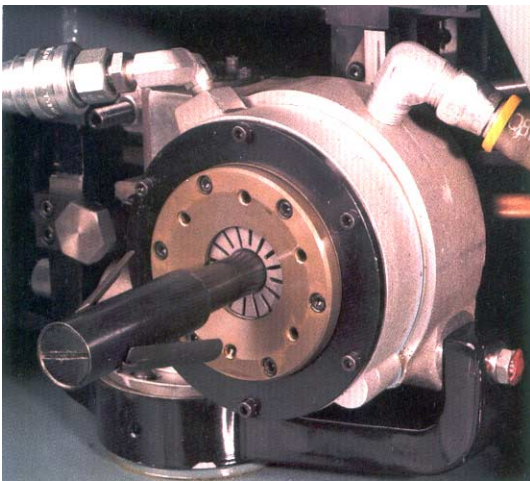
The circular drill timer positions and times each drill when it is inserted into the workhead. Variations in drill length do not influence timing. An ejector pin automatically ejects sharpened drills size 3/32" - 1/2", (2.4 mm - 12.7 mm) from the front of the workhead; the machine is then ready for loading of another drill. Larger diameter drills are manually unloaded. The selector knob and reference scale, allows adjustment of chisel angle.

Three Workheads Handle Work Range

Hydrostatic workheads are designed to hold concentricity throughout the full variety of drill points. Each workhead is completely self-compensating to maintain performance, and is fully pressurized to guarantee long, trouble-free operation.

Workhead Capacities

Workhead Model	Drill Dia. Range	Minimum Length
2C	.0625 - .625" (1.55 - 15.5 mm)	2-3/4" (70 mm)
3C	.3125 - 1.125" (8.0 - 28.5 mm)	4" (100 mm)
4	1.000 - 1.500" (26.0 - 38.5 mm)	5" (125 mm)



Drill Holders Are Available For Grinding Stub Drills

Special holders grip short-bodied drills. Each holder is spring-loaded and incorporates quick-change collets.



Wing-type holders to assist in the grinding of stub drills which are too short to be loaded directly into the Workhead.

Drill Holder Order Information

Model 592-50101-00 Collet Number	.375 Dia. Body Diameter Range	9.525 mm Dia. Body Diameter Range
500-51326-00	.054 - .065"	1.37 - 1.65 mm
500-51327-00	.065 - .076	1.65 - 1.93
500-51328-00	.076 - .087	1.93 - 2.21
500-51329-00	.087 - .098	2.21 - 2.49

Model 592-50102-00 Collet Number	.542 Dia. Body Diameter Range	13.766 mm Dia. Body Diameter Range
500-53439-00	.059 - .067"	1.50 - 1.70 mm
500-53440-00	.067 - .076	1.70 - 1.93
500-53441-00	.076 - .086	1.93 - 2.18
500-53442-00	.086 - .098	2.18 - 2.48
500-53443-00	.098 - .113	2.48 - 2.87
500-53444-00	.113 - .129	2.87 - 3.27
500-53445-00	.129 - .145	3.27 - 3.68
500-53446-00	.145 - .160	3.68 - 4.06
500-53447-00	.160 - .176	4.06 - 4.47
500-53448-00	.176 - .192	4.47 - 4.87
500-53449-00	.192 - .207	4.87 - 5.25
500-53450-00	.207 - .223	5.25 - 5.66
500-53451-00	.223 - .238	5.66 - 6.04
500-53452-00	.238 - .254	6.04 - 6.45
500-53453-00	.254 - .270	6.45 - 6.85
500-53454-00	.270 - .285	6.85 - 7.23
500-53455-00	.285 - .301	7.23 - 7.64
500-53456-00	.301 - .316	7.64 - 8.02

Model 592-50100-00 Collet Number	.687 Dia. Body Diameter Range	17.450 mm Dia. Body Diameter Body
500-53422-00	.238 - .254"	6.04 - 6.45 mm
500-53423-00	.254 - .270	6.45 - 6.85
500-53424-00	.270 - .285	6.85 - 7.23
500-53425-00	.285 - .301	7.23 - 7.64
500-53426-00	.301 - .316	7.64 - 8.02
500-53427-00	.316 - .332	8.02 - 8.43
500-53428-00	.332 - .347	8.43 - 8.80
500-53429-00	.347 - .363	8.80 - 9.21
500-53430-00	.363 - .379	9.21 - 9.62
500-53431-00	.379 - .394	9.62 - 10.00
500-53432-00	.394 - .410	10.00 - 10.40
500-53433-00	.410 - .425	10.40 - 10.79
500-53434-00	.425 - .441	10.79 - 11.19
500-53435-00	.441 - .457	11.19 - 11.60
500-53436-00	.457 - .471	11.60 - 11.95
500-53437-00	.471 - .489	11.95 - 12.41
500-53438-00	.489 - .504	12.41 - 12.79

Winslow Engineering... for Every Drill Grinding Need

Model HC Drill Point Grinder

Extremely versatile, semi-automatic machine from 1/16" (1.55 mm) to 1-1/2" (38.0 mm) at a rate up to 100 per hour. Handles right-hand and left-hand drills, point angles from 60° to 160°. Capable of grinding conventional, Winslow-Helical, Racon®, Bickford Point®, four-facet and split points.



Model 520 Drill Point Splitter

Automatic wheel dressing and infeed cycle permits accurate splitting at a rate up to 350 per hour. Splits drills from 3/32" (2.4 mm) to 1/2" (12.5 mm); web thins drills from 5/16" (8.0 mm) to 3/4" (19.0 mm). Meets or exceeds all NAS 907 specifications.



Model 525 Drill Point Splitter

Automatic chucking and indexing of the drill permits precision splitting at up to a rate up to 400 per hour. Splits drills from 1/16" (1.55 mm) to 1" (25.5 mm); web thins drills from 1/8" (3.2 mm) to 1" (25.5 mm). Meets or exceeds all NAS 907 specifications.



Model 1000CC Automatic High Production

Automatic, hopper-feed machine is designed for drill manufacturers with production rates to 700 drills per hour. Handles jobber drills up to 6" (165 mm) long, from 3/64" (1.2 mm) to 1/2" (13.0 mm) point angles from 90° to 140°. Grinds conventional, Winslow-Helical and wide-web helical points.



Model HR Drill Point Grinder

Automatic cycle sharpens drills from 1/16" (1.55 mm) to 1-1/2" (38.0 mm) at a rate up to 120 per hour. Handles right-hand and left-hand drills, point angles from 60° to 160°. Generates conventional, Winslow-Helical, Racon®, Bickford Point® and split points.



Winslow Engineering Inc.
N7677 Peebles Lane
Fond du Lac, WI 54935

Phone: (920) 921-6404
Fax: (920) 921-6409
www.winsloweng.com

Winslow
Engineering Inc.